

# 2017-2018 Reports of the Officers, Trustees, Councils, Committees and Task Forces

71st Annual Session May 25-27, 2018 Honolulu, Hawaii

## 2017-2018 Reports of the Officers, Trustees, Boards, Councils, Committees and Task Forces of the American Academy of Pediatric Dentistry

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# President 2017-2018

It has been an honor to represent the American Academy of Pediatric Dentistry. The major focus remains safety and sedation. I want to thank the Board of Trustees and Executive Committee for their tremendous efforts on behalf of our members this year. I also want to recognize and thank the AAPD staff for their continuous contributions which make our American Academy of Pediatric Dentistry a fabulous home for our members. We are in a great position for years to come.



James D. Nickman AAPD President

Since last May, I have traveled to the following:

- Board of Trustees Orientation and Spokesperson Training
- Annual Session Site Visit I feel we have some fabulous venues for our members to enjoy while at the annual session in Hawaii.
- ExCom Meeting in July.
- Scientific Planning Meeting Review of programming for the 2018 (Hawaii) and 2019 (Chicago) meetings.
- CODA/Dental Specialty Group Meeting Focus at DSG on specialty recognition process and issues from ADA and specialty Organizations.
- Attended the IAPD Meeting in Santiago, Chile and presented during the Global Leaders Forum. Participated also in the IAPD governance meeting.
- Attended the Ad Interim ExCom and BOT Meeting in Chicago.
- Attended the American Association of Dental Boards meeting in Atlanta and made presentation on the AAP/AAPD Sedation Guidelines.
- Attended the ADA Meeting in Atlanta and participated as an alternate delegate in the ADA HOD. Significant issue was the creation of the Commission on Dental Specialty recognition.
- Attended the DTA Meeting in Jacksonville, Florida.
- Attended the Greater New York Dental Meeting and gave a state of the academy presentation. Also worked with Erika Hoeft and Weber Shandwick on the media tour with Reuters, Family Circle and other print/electronic media.
- Attended the Workforce Study meeting in Chicago.
- Attended the Winter Planning meeting in Naples, Florida.
- Visited with the residents and faculty at University of Texas Health Science Center – San Antonio.
- Participated in the Weber-Shandwick Media remotes (TV and radio) from Chicago.
- Attended and gave a "State of the Academy" at the Southwest Society of Pediatric Dentistry meeting.
- Attended the AAO/AAPD Joint Symposium in Scottsdale, Arizona.
- Attended and gave greetings at the Paul Walker Memorial.
- Attended AAPD Advocacy Conference in Washington, DC.

#### President's Report, 2017-2018

- Attended the ADEA meeting in Kissimmee, Florida.
- Will attend the AAPD Safety Committee meeting in Chicago.
- Will attend and speak at the Indiana Association of Pediatric Dentistry Meeting.
- Will attend the AAPD Annual Session.

I have also fielded numerous interview requests regarding pediatric oral health, sedation, silver diamine fluoride and behavior management.

Please feel free to contact me if you would like to discuss in detail.

# President-Elect 2017-2018



Joseph B. Castellano AAPD President-Elect

#### Meetings attended:

- AAPD Board Orientation, June 15, 2017 in Chicago
- AAPD Media training, June 16-17, 2017 in Chicago
- Executive Committee Meeting 6-8 July, Kauai, Hawaii
- Canadian Academy of Pediatric Dentistry Annual Meeting Sept 13-17
   Winnipeg, Manitoba
- AAPD Ad-Interim Board Meeting Oct. 12-15, Chicago, III.
- ADA Meeting, October 19-21, 2017 Atlanta, Georgia
- AAPD Winter Planning Meeting, Jan 10-14 Naples, Florida
- DSG/CODA, Meetings Feb. 1-2 Chicago, Illinois
- AAPD/AAO Joint Symposium, Feb. 8-11 Scottsdale, Az.
- AAPD Public Policy Advocacy Days, Mar. 3-6 Washington, DC
- ADEA Annual Meeting, Mar. 17-19 Kissimmee, Florida

#### Meetings scheduled to attend:

- ASEA Meeting, April 8-10, Chicago, Illinois
- ABPD Board Meeting, April 19-21 Santa Barbara, California
- Texas Academy of Pediatric Dentistry Annual Meeting, May 3-5, San Antonio, Texas
- AAPD Annual Session, May 20-28 Honolulu, Hawaii

#### 2018-2019 Council and Committee Appointments

The 2018-2019 council and committee appointments have been made. Minus any last-minute changes, they are ready for BOT approval at the AAPD Annual Session in Hawaii. Thank you to all those who have agreed to serve the AAPD next year!

#### Committees

#### **Awards Committee**

The Awards Committee met in person at the January Winter Planning Meeting to review and discuss all the nominees for the various awards. The committee unanimously selected the award recipients whom will be announced at the AAPD Annual Session in Hawaii.

#### **Strategic Planning Committee**

The Strategic Planning Committee met in January at the Winter Planning Meeting. One of the main goals for the year was to get all the council and committee charges realigned with the AAPD's new Strategic Plan. The Council and Committee chairs along with their members, have realigned their respective charges to be in congruence with the new strategic plan. The new charges will be presented to the New Board of Trustees for approval at the AAPD Annual Session in Hawaii.

President-Elect's Report, 2017-2018

It has been a privilege to serve as the President-Elect this past year. A special thank you to Dr. Jim Nickman for his great year of leadership as President, and his guidance through my transition. I look forward to humbly serving the AAPD, and each of you, next year as President.

# Vice President 2017-2018

#### Meetings attended:

2017 Summer AAPD Executive Committee Meeting
2017 American Board of Pediatric Dentistry Oral Examination
AAPD Ad-Interim Meeting
American Dental Association Annual Meeting
2018 AAPD Winter Board Meeting
2018 AAPD Executive Committee Meeting during AAO/AAPD Course

2018 AAPD Executive Committee Meeting during AAPD Advocacy Conference



Kevin J. Donly AAPD Vice President

#### Committee

#### **Budget and Finance**

As the vice-president of the AAPD I have attended the meetings noted above, representing AAPD. I am also the Chair of the Credentials and Ethics Committee, Constitution and Bylaws Committee and the Council on Annual Session, including being a liaison to the Local Arrangements Committee and Scientific Program Committee. Please see the individual committee reports for updates.

# Secretary-Treasurer 2017-2018

### Meetings attended

May 28: Annual Session Board of Trustees Meeting

June 14-17: Media Training meeting and Board Orientation

July 6-8: Executive Committee Retreat

October 12 Ad Interim AAPD Budget and Finance Committee Meeting

October 12-14: AAPD Ad Interim Board Meeting

October 18-22: American Dental Association Annual Meeting

January 11-14: Winter Board Planning Meeting

February 8-10: AAO/AAPD Joint Meeting March 4: AAPD Budget and Finance Meeting



Jessica Y. Lee AAPD Secretary Treasurer

#### **Committee**

#### **Budget and Finance**

The budget was approved at the October 12 Board of Trustees meeting.

The budget for the next fiscal year was approved by the Budget and Finance Committee and will be presented to the AAPD Board of Trustees at the Annual meeting in May.

# Deven V. Shroff Trustee Northeastern District 2016-2019



#### **Trustee Responsibilities**

It's hard to believe that two-thirds of my term as the District Trustee is drawing to a close. This annual session will usher in a change on our District Leadership. Dr. Angela Stout will begin her term as the President of our NE District. Dr. George Cisneros has done an admirable job as the President. Our young district has benefitted from his vision and leadership. Our Virtual District (vNED) transitioned from a concept to a reality and continues to thrive. It has become a wonderful way to engage our members while utilizing our greatest resource, the numerous training programs within our district. I wish to thank Dr. Cisneros for his hard work and tireless efforts in helping us become an organized entity. We simply could not have done this without his leadership!

It gives me great pleasure to introduce our incoming President, Dr. Angela Stout. She wears multiple leadership hats; Executive Committee Member of the PA Academy of Pediatric Dentistry and HSHC Board member. I have no doubt that our district will continue to thrive under her leadership.

Our Webinars to date:

Nov 7, 2016: "Silver Diamine Fluoride: What is its place in Oral Healthcare" Presented by: Dr. Cheen Loo, BS, MPH, PhD, DMD Link: https://youtu.be/ykHql0QA2aQ

Feb 8, 2017: "Effective Caries Counseling in Practice: Possible? If so, How?" Presented by: Steven Chussid, DDS and Burton Edelstein, DDS, MPH Link: http://www.webmeeting-express.com/se/Rd/AC.aspx?1455043013

March 20, 2017: 'The Hall Technique Has a Place in Pediatric Dentistry", Presented by: Paul S. Casamassimo, DDS, MS
Link: http://www.webmeeting-express.com/se/Rd/AC.aspx?1482399640

May 17, 2017: "Caries Risk Assessment: Personalized Medicine and Pediatric Dentistry" Presented by: Christopher V. Hughes, DMD, PhD Link:

http://eventcenter.commpartners.com/se/Meetings/Playback.aspx?meeting.id=4225 24

Sept 21, 2017: "The Evidence of ECC Interventions"

Presented by: Norman Tinanoff, DDS, MS

Link: http://www.webmeeting-express.com/se/Rd/AC.aspx?1482399640

The main issues that I am hearing from membership and leadership within the states:

- 1. Emergency Kit medications becoming increasingly difficult to purchase from vendors. Vendors are beginning to sell them only in multi-packs. Most practices seems to be moving to purchasing of ready-made kits with shipment of medications as they expire.
- 2. Sedation and Capnography regulations at the state level; i.e. OMS guidelines not consistent with AAPD Guidelines and some states are looking at adopting the OMS guidelines as requirements. Maryland & Pennsylvania are looking into more strict guidelines. Monitoring what happens in California with Sedation requirements and what will be required training for peripheral office staff.
- 3. ACA uncertainty and its potential impact to the practitioners and patients
- 4. State Fluoride varnish programs allowing MD office to apply fluoride varnish to at-risk patients. Happening in Maryland. Could be beneficial if the Physicians are trained properly and are willing to make timely referrals for high risk patients. This has not always the case.
- 5. Insurance Audits and how insurance reimbursements are trending downward, while costs are trending upward. Have not heard anything more or new on this front recently. Hearing less about RAC audits and more about routine MA audits.
- 6. Mid-level provider legislations is always an on-going issue. Passed Legislation in Vermont (2016); held off in Maryland (2017) but seems to come up annually.

I continue to engage State and District Leadership to the best of my abilities, to establish better two-way communication, with the hope of hearing about potential issues before they become real problems.

Other Trustee obligations:

- AAPD Budget and Finance Committee
- AAPD Strategic Planning Committee
- AAPD PAC Committee
- AAPD Committee on Interprofessional Relations
- AAPD Pediatric Dental Resident Committee
- AAPD Winter Board Meeting

I look forward to working with our new District Leadership as we grow and evolve.

# J.C. Shirley Trustee Southeastern District 2017-2020



#### **Trustee Responsibilities**

As the Board Liaison to the Council on Membership and Membership Services, New Pediatric Dentist Committee, and the Committee on Communication, I have been in communication with council and committee chairs concerning progress on their charges. At the 2018 Winter Planning Session, charges were revised for the upcoming year.

The New Pediatric Dentist Committee will become the **Early Career Pediatric Dentist Committee**. One concern of the committee has been getting more early career pediatric dentists involved in AAPD committees and councils, to better understand the assignment process and to make sure that we have a fair and transparent process. At the AAPD Board of Trustees meeting at Winter Planning session, I presented these concerns and several suggestions from this committee. APPD Board of Trustees agreed to assign this to the Leadership Development Committee. A new charge for the Early Career Pediatric Dentist Committee for next year is to work in conjunction with the Leadership Development Committee to revise the process of getting involved in AAPD councils and committees as well the district and state level.

More information can be found in the individual council and committee reports submitted for this meeting.

I have attended the following meetings this past year:
AAPD Ad Interim Meeting, Chicago, IL
American Dental Association Annual Session, Atlanta, GA
AAPD Winter Planning Meeting
Alabama Academy of Pediatric Dentistry, Birmingham
SSPD Strategic Planning Meeting, Atlanta
Univ of Tenn Pediatric Dent Alumni Meeting, Memphis
AAPD Public Policy Advocacy Conference, DC
Hinman Dental Meeting, Atlanta

October 12-14,2017 October 19-23, 2017 January 12-14, 2018 February 2, 2018 February 9-10 February 23-25, 2018 March 3-7, 2018 March 22-24, 2018

I plan to attend the following meetings in the future:
AAPD Annual Session, Honolulu
North Carolina Academy of Pediatric Dentistry, Chapel Hill
American Board of Pediatric Dentistry, Oral Clinical Exam
Florida Academy of Pediatric Dentistry
AAPD Ad Interim Board Meeting, Chicago, IL

May 22-28, 2017 Oct 12, 2018 Oct 14-18, 2018 Oct 2018 September 27-30, 2018

#### **District Activities**

Southeastern Society of Pediatric Dentistry (SSPD) January 2018 Continuing Education meeting in Atlanta was held the same weekend as this AAPD Winter planning session. The meeting had strong attendance for the CE course. SSPD also held their Executive Committee, Board of Trustees, and Annual Business meetings during that weekend. Reza Ardalan become the SSPD President and started his term at this meeting.

I participated in the SSPD Strategic Planning Meeting in Atlanta on February 9-10, 2018. Paul Amundsen from AAPD was facilitator and leader for this very productive and energetic session. This allowed the executive committee and other participants to set priorities and strategy for the future for SSPD

#### **State Reports**

#### Alabama

Alabama Academy of Pediatric Dentistry held its annual meeting in Birmingham on Feb 2, 2018.

Legislative / Regulatory: The Department of Public Health, Dental Division, is writing legislation requiring cities that want to stop fluoridating their water supply give 90 days' notice to the Alabama Department of Environmental Management (ADEM).

Medicaid: Dental Medicaid avoided the regional care organization managed care structure in 2013. On July 27, 2018 the Medicaid Agency posted a Request for Proposal (RFP) on the Agency Website, requesting proposals from companies interested in administration of Dental Medicaid. Alabama Dental Association (ALDA) Dental Medicaid Advisory Committee worked through the Legislative Session and with the Governor of Alabama, Kay Ivy, to keep Dental Medicaid in its present Fee-for-Service structure for 2 years. The committee submitted cost-savings recommendations and a few program changes that were accepted by the governor in lieu of accepting any RFPs and moving to a managed care program.

ALDA will be supporting legislation that will require insurance companies to disclose when they sell their list of providers to other networks. This will provide dentists with the choice of staying with the current insurance company or moving to the new network. ALDA supports the creation of a better drug monitoring program for the state to aid with the current Opioid Crisis.

#### Florida

Legislative / Regulatory: Of concern is a bill introducing a dental therapist: Rep. Danny Perez (R-Miami) filed House Bill 683 to add a new licensed dental provider to Florida's dental workforce. This legislation would authorize dental therapists to perform irreversible procedures under the general supervision of a dentist in public health access settings. The most vulnerable citizens of Florida would be subject to treatment from an individual lesser trained than a dentist, should this legislation pass the Legislature. The FAPD and FDA are strongly against this bill.

In other news, our group met with representatives from the offices of Florida Senators Marco Rubio and Bill Nelson, as well as several other FL congressional offices, to advocate for Title VII funding for pediatric dental faculty loan repayment as well as continued inclusion of pediatric dental care as a core component of the Affordable Care Act.

FAPD was represented at a Specialty Forum meeting in Tampa. Leaders of all specialties expressed their desire to have representation on the Board of Dentistry - most specialties have not had one of their members on the BOD for decades. Leaders expressed their disappointment with the current BOD in terms of dysfunction and lack of communication. The specialties were encouraged to submit applications for a seat on the BOD. Currently, we have a few of our own members who have submitted applications.

Medicaid: The FAPD and Florida chapter of the American Academy of Pediatrics successfully won a lawsuit against the state to increase the benefits that Medicaid provides back in 2016. The settlement agreement provides for the Agency for Health Care Administration ("AHCA") and other state agencies to make substantial improvements in the access of children on Medicaid to medical and dental care throughout the state. This is designed to raise Florida to at least national norms over several years. We are currently looking at the data to see if these norms are being met as the FAPD feels dentistry was afterthought, and the settlement came about because the Pediatric Society was satisfied with the offer after more than 10 years of fighting with the state.

#### Georgia

Legislative / Regulatory: Last year, then legislative year in Georgia resulting in several changes

- Medicaid providers received a 10% fee increase of 20 specific preventative and restorative codes. This was the first fee increase since 2002 and is projected to cost the state close to 6 million dollars.
- An additional \$100,000 was added in the FY2018 budget for the Rural Dentist Student Loan Repayment Program which will support four additional dentists to participate in the program.
- A bill allowing general supervision for hygienists passed. Georgia licensed dentist now have the option of allowing their dental hygienists to practice under general supervision in private dental offices and safety net programs.
- An Opioid Prescriber bill passed requiring all Georgia healthcare providers with a DEA number to enroll in the Georgia Drug Monitoring Program.

Dr. David Bradberry, a pediatric dentist from Marietta will be installed as President of the Georgia Dental Association at the July 2018 GDA Annual Meeting.

#### Kentucky

No report received.

#### Mississippi

MAPD will hold a meeting on April 27, 2018. Plans are ongoing for chapter re-organization, revision of organization's bylaws, and plan for future meetings.

#### **North Carolina**

Medicaid: Several senior members of NCAPD met with Depart of Health & Human Services Deputy Secretary for Medical Assistance (Dave Richard) and Medicaid Dental Program Director (Dr. Mark Casey) to discuss the crises developing regarding access to dental care by children due to low rate. Following that meeting, a task force was created to address the erosion of rates and its impact on recruiting and maintaining dental providers in the program. This extensive white paper was completed Jan 2017 and widely distributed. Three meetings with state officials have occurred without resolution of issues.

#### Other:

- Issue with general dentists in private practice advertising as Pediatric Dentists.
- Discussion of a PAC Formation in our state
- NCAPD plans to fund 2 residents to attend AAPD lobby date (one from each dental school) and report back to NCAPD
- Members and Residents participate in White Coat Day. Pediatricians, Dentists go to Raleigh to meet with legislatures to promote awareness of Children Health Care needs.
- Line item of our budget to create "swag" (coffee cups, pins etc, memo pads designed with Rx theme to write personal notes) to use at White Coat Day in Raleigh.
- Creation of another member award in addition to Oral Health Care Services award

NCPD will hold its annual meeting on October 12, 201r in Chapel Hill in conjunction with a CE course.

#### South Carolina

Legislative / Regulatory : Regs passed for the statute established regarding office standards for sedation. Permits are being issued and inspections are being done. A new CE requirement passed that 2 CE hrs in a 2 year period must be directly related to Infection control.

Medicaid: Our group is always fighting for Medicaid fee increases. We saw a slight raise (to 50% of the UCR) for preventive and oral surgery codes in July 2017. We are anticipating an increase to restorative codes this year.

#### Tennessee

No report received.

#### Virginia

On April 14, 2018, VSPD will hold its Annual CE course in conjunction with the VCU School of Dentistry Legacy Day.

#### West Virginia

No report received

#### **Puerto Rico**

No report received

# Jessica Meeske Trustee North Central District 2016-2019



It has been a pleasure serving as the NC trustee and visiting so many state chapters. Our chapters and members are very active in their states working on advocacy for children, oral health, and many other issues.

#### **Trustee Activities**

On September 14<sup>th</sup>, I joined the **Minnesota State Chapter** to hear for an evening meeting. It was well attended. The program director, Jeff Karp, spoke about new initiatives in the department. I was also pleased to meet their leadership team and Rick Baylan, one of our members that teaches the long-standing EFDA course at University of MN. Since Nebraska recently passed an EFDA law, it was interesting to hear how their program is done. The following day, I attended the Feigal lecture. This is their main CE for the year. Juan Yepes did an outstanding job with pediatric oral medicine and pathology.

On September 22<sup>nd</sup>, I keynoted at the **Indiana Society of Pediatric Dentistry** and attended their leadership dinner the night before. Indiana pediatric dentists have been going through Medicaid audits, so speaking about my experience with audits was timely. The meeting was well organized and attended by their members.

On September 29<sup>th</sup>, I gave an all-day CE, "Update on Pediatric Dentistry" to Nebraska general generalists at the fall **Nebraska Dental Association Meeting**. AAPD policies and general dentistry membership benefits are woven throughout the presentation.

On October 6<sup>th</sup>, I keynoted for the **Montana Dental Association** along with Jane Gillette and Kevin Rencher. The topic was, "Tips to Being Successful with Medicaid and Medicaid Audits." It was simulcast through their telehealth network for dentists throughout the state. About 75 dentists were in attendance. Several pediatric dentists discussed openly some of the harsh audits happening with new pediatric dentists. Many of these were clerical errors only that the state wanted the dentist to refund the money.

October 13-14 was the fall AAPD Board meeting in Chicago.

On October 15<sup>th</sup>, I spoke lectured and met with Iowa residents at the **University of Iowa** and discussed issues in private practice, Medicaid, and the importance of being involved in organized dentistry. In addition, I visited with Tad Mabry, pediatric dentistry faculty and lead for expanded function dental assistant's course to see if Nebraska dental assistants could participate or he might work with University of Nebraska to help them establish a

course. (LB18 passed in NE allowing assistants and hygienists to perform expanded functions, but no in state courses have been developed as of yet.)

On November 8<sup>th</sup>, I gave an **ADA webinar on Medicaid Compliance in Your Dental Practice**. It had about 400 participants including several members of the Medicaid and Medicaid contractor community.

On January 11-13, I attended the **AAPD Board meetings** in Naples, FL. Unfortunately, a blizzard in Nebraska caused a travel delay. As most in our district are aware, our own Jim Nickman (MN) is lead the meetings and has done an outstanding job during his tenure.

On January 18-20, I attended my first **ADA CAAP** (Council on Advocacy for Access and Prevention) along with fellow AAPD leaders Tim Fagan, Paul Casamassimo, and Scott Cashion. Part of my role on the council is serving on the Medicaid subcommittee (MCPC) which is definitely having an opportunity to hear what's happening all over the country.

On March 23<sup>rd</sup>, I keynoted for the **South Dakota Dental Association** regarding Success Tips for Seeing Patients with Medicaid. There was about 40 in attendance and another 30-40 participating online using the Zoom platform.

#### **District activities**

October 27th, we had our district meeting in Chicago at AAPD HQ. Attendees were present person and via electronic meeting, thanks to Margaret's help setting this up. Scott Litch presented on "What's New with the ACA?" Upcoming district meetings will be on Saturday at annual session in Hawaii. It's typically in the early afternoon, so all state and district leaders, as well as members interested in district and national activities should plan to attend. We keep it to an hour. New district leaders include President: Chad Hoge (ND), VP: David Avenetti (IL), and Sec/Treas: Elyse Sarvas (MN).

The fall district meeting will be held in conjunction with the AAPD fall board meetings, PPA meetings, and state chapter president-elect meetings. These meeting will be Sept 27-29 in Chicago. Our district meeting will be the evening of the 27th. Charlie Czerepak is finding a place. Nick Rogers and John Fales of Kansas will be discussing how Kansas is heading to a dental therapist/hygienist model.

#### **State/Provincial Reports**

#### Illinois

Legislation being proposed that amends the School Code. Provides that all children in kindergarten and the second, sixth, and **ninth grades** (rather than all children in kindergarten and the second and sixth grades) of any public, private, or parochial school shall have a dental examination.

Prevention of Tobacco Use by Persons under 21 Years of Age and Sale and Distribution of Tobacco Products Act. Raises the age for whom tobacco products, electronic cigarettes, and alternative nicotine products may be sold to and possessed by from at least 18 years of age to at least 21 years of age.

 Makes it a Class A misdemeanor for a person who is under 21 years of age (formerly 18) in obtaining any tobacco product or use false or forged defaced identification card

- Effective January 1, 2018, each prescriber possessing an Illinois Controlled Substance License must register with the Prescription Monitoring Program (PMP).
- Pediatric Dentists CL II,III,IV,V
- Dental Sedation Permit A- Conscious Sedation

Prescription Monitoring Program Authorized Designee—Amends the Illinois Controlled Substances Act allowing licensed prescribers or pharmacists who have registered to access the Prescription Monitoring Program to authorize a licensed or non-licensed designee employed in that licensed prescriber's office or licensed pharmacist's pharmacy and who has received training in the federal Health Insurance Portability and Accountability Act to consult the Prescription Monitoring Program on their behalf.

**Adult Medicaid Reform**—adding adult preventive services and targeted dental services are reimbursed at the rates they're provided to persons under the age of 18 under the medical assistance program.

#### Indiana

Held their state meeting September 21-22 in Indianapolis. Speakers included two psychologists and Dr. Meeske on Medicaid audits.

#### Iowa

The Iowa chapter will have a CE and chapter meeting on Friday April 6th. Clarice Law from UCLA will be the main speaker. Iowa pediatric dentists are dealing with the Iowa Board of Dentistry proposing a rules change that would in effect take out any language about specialists and advertising. This stems from the lawsuit in Texas and adding new specialties. The Board was advised by our attorney general to remove specialty language and then the "problem" would be solved. The specialists of course are not happy about this and even most of the general dentists think it is a mistake. The Board will vote on this next Friday as well and we are not optimistic that they will vote in our favor. Scott Litch has drafted two letters to our Board on behalf of the IAPD and AAPD.

#### Michigan

Jason Golnick (jgolnick@comcast.net) will be taking over as president. The dental therapist bill which passed the senate is in the house policy committee and is still a "hot topic" heading into the lame duck session in the state legislature. Lots of discussion regarding opioid prescribing and likely changes occurring with regards to amount of opioids that can be prescribed and mandatory CE course in future. MDA session in Lansing in April with Catherine Flaitz presenting. Mission of Mercy event schedule June 1-2 in Grand Rapids. Discussion on recognized dental specialties in state due to changes at ADA level increasing.

#### Minnesota

In Minnesota, the Dental Medicaid Program has multiple contractors which makes it difficult for dentists. They rank 50th in the nation for pediatric dental reimbursement and 48th for adult. As a result, CMS has put stipulations on the state to increase fees. They have started a campaign to the public, "It's hard to smile when you're in last place." Approximately, 80% of their dentists are contracted with at least one managed care plan. The Governor has proposed a 54% increase in his budget to dental fees.

#### Nebraska

MCNA is the new Medicaid contractor in Nebraska. Fees remained the same. New provider manual is more clear and updated, but they put in several limitations that have been

confusing compared to the former state run plan. Three pediatric dentists Dr. Meeske, Dr. Portwood, and Dr. Lehn have been working with MCNA as reviewers, advisors, or liaisons to pediatric dentists and the state dental association. The first Dental Advisory Group was held March 30th in Lincoln where two of the five reps are NE pediatric dentists. State officers include Matt Schieber (president), Bryan Skar (VP), Connor Christiansen (Treasurer), and Hannah Greene (Secretary). The spring meeting will be in Omaha in conjunction with the NDA meeting on April 27th.

#### North Dakota

Preparing to assist the state dental association to defeat the dental therapy bill which they expect to return in 2018. New state officers include President: Mikala Hoge, VP: Travis Giese, Sec/Treas: Chad Hoge. North Dakota is such a small state, I am grateful for the number of pediatric dentists that continuously take on the leadership roles and do the work of their state chapter.

#### Ohio

The spring meeting was held in Cleveland, Ohio, on March 2nd. Dr. Amr Moursi and Dr. Rhea Haugseth were the featured speakers. HB 184 (Ohio Dental Care Optimization Act of 2017): Passed unanimously out of House committee. This bill would authorize teledentistry, increase unsupervised preventive services for hygienists and auxiliaries, and increase funding for scholarship and loan repayment programs for dentists planning to practice in underserved area. It is now in Senate HHS and Medicaid committee as of this month. SB87 Health Insurance-Dental Fees: This is an anti-non-covered services bill. It would prohibit a health insurer from establishing a fee schedule for dental providers for services that are not covered by any contract or participating provider agreement. It is currently in first hearings in the Senate Insurance and Financial Institutions Committee. SB98 Dental Therapy Licensing Requirements: This bill would establish licensing requirements for dental therapists. It is currently in committee in the Senate HHS/M.

#### Ontario

Ontario Society of Paediatric Dentists
President – Sonia Chung
Vice-President – Vino Khanna
Secretary/Treasurer – Edina Heder
Past-President – Aisha Romain

At its November 9, 2017, meeting, nominations for secretary were accepted. Dr. Azy Fini and Dr. Jennifer Hibberd are the candidates. Email will be sent to the members about the proposed secretary and voting will take place at the next meeting.

Dr. Andrews gave an update on the fee guide.

Our speaker was Dr. C. Swayze, who gave us an RCDSO update on infection control.

Our next meeting with be April 26, 2018.

#### South Dakota

In March, several members attended the SDDA symposium, Successful Tips to Seeing Medicaid either in person in Sioux Falls or online. There was not much in SD this session that would affect pedo practice. There was a bill passed that requires insurance companies to cover anesthesia services at ASC's (not just hospitals) and for medically compromised

patients. The bill was initiated by the oral surgeons as many are doing higher risk patients with IV in the office because insurance is denying GA.

#### Wisconsin

The Wisconsin Dental Association has worked hard to introduce EFDA legislation in this session, however, it was recently announced that while it passed our State Assembly (House) unanimously on a voice vote, the State Senate will not be introducing it on the floor for a vote, so it will 'die' this session. The problem is that dental therapist legislation has been recently introduced with similar cosponsors to our EFDA bill, and both are expected to fail to get a vote. -WDA has also championed a bill to prohibit insurance network rental without disclosure to dentist, but this also will die before the end of our legislative session (any day now) after passing unanimously in the Assembly but failing to get a vote in the Senate.

There is also a bill that is awaiting the Governor's signature any day now to standardize how children in foster care obtain dental care with consenting rights now given to foster parents for all operative work and nitrous oxide anxiolysis. Legal guardians/biological parents will still have to give consent for non-emergent restraint, sedation and general anesthesia. Colleen Greene gave testimony on this bill at the state Capitol, as a pediatric dentist and foster parent.

WI is seeking data on the outcomes of our 2015-2017 state budget Medicaid pilot program to increase reimbursements in four counties so as to boost provider enrollment and patient utilization. We were told at Legislative Day in January 2018 that data on enrollment increases might be available by August 2018. There is a push in the current state budget to allow any surplus funding not spent within the 4-county pilot program to be expanded to additional counties.

#### Ontario

No report received.

#### Manitoba

No report received.

# Bruce H. Weiner Trustee Southwestern District 2015-2018



#### **Meetings Attended**

This past year I have represented the Southwestern District at the following meetings:

- TDA/TAPD Meeting, San Antonio, TX May, 2017
- AAPD Annual Session, Washington, DC May, 2017
- SWSPD Summer Meeting, Steamboat Springs, CO July, 2017
- AAPD Ad-Interim Board Meeting, Chicago, IL October, 2017
- AAPD CE Council Meeting, Chicago, IL November, 2017
- AAPD Winter Planning Meeting, Naples, FL January, 2018
- SWSPD Winter Meeting, Big Sky, MT January/February, 2018
- AAO/AAPD Joint Meeting, Scottsdale, AZ February, 2018
- AAPD Public Policy Advocacy Conference/Budget & Finance Meeting, Washington, DC March, 2018
- TDA/TAPD Meeting, San Antonio, TX May 2018
- AAPD Annual Session, Honolulu, HI May, 2018

#### **Trustee Responsibilities**

Board Liaison, Council on Continuing Education

The Council on Continuing Education met in Washington, DC, last May at the Annual Session and welcomed Cody Mast as its new chair. The council's charges were reviewed to verify that they were aligned with the AAPD Strategic Plan. The CE Council met again in November at which time the discussion revolved around the concept of creating value for the millennial. A tailored approach toward practice management offerings for this demographic was discussed with an eye toward creating discussion groups with experts in the area of financial planning, finding associateships, practice planning, corporate employment and retirement and estate planning.

Our course calendar for 2018 and 2019 was reviewed. A Dental Assistant Sedation Course was offered in October in conjunction with a course entitled, Safe and Effective Sedation of the Pediatric Dental Patient. These courses are always well-attended so we will provide these programs for our members this coming October as well. Another sedation course was provided in March, followed by a simulation course. A Comprehensive Review of Pediatric Dentistry course was offered this past January. It will also be provided in September along with an Oral Clinical Examination Review. The AAO/AAPD Joint Winter Conference was held in Scottsdale in February and was remarkably well attended by both specialties. Looking ahead to 2019, the potential for a joint international symposium with the AAE was discussed. A program on Oral Systemic Health is also being explored.

A series of podcasts entitled Pedo Teeth Talk have been developed as an alternative to the series of webinars which didn't receive the attention the council had anticipated. The

podcasts, on the other hand, have done quite well and have averaged about 500 downloads/month. Jessica Lee and Ron Hsu discussed pulpal regeneration following dental trauma and Joel Berg and Jeremy Horst discussed the role of SDF in arresting dental caries. A practice management program was offered in November featuring AAPD past-president Robert Delarosa with Joel Berg serving as moderator. Rick Chaet delivered a program on resin infiltration and the use of ICON in the dental office and Jed Best most recently spoke about dental materials, curing lights and every day practice guidelines when using these materials. All of our podcasts are currently available on the AAPD website.

The council is in the process of developing a curriculum and a faculty for a board preparation course for candidates taking the ABPD Qualifying Examination. This will most likely be on the calendar in 2019.

The Speaker's Bureau Committee, under the leadership of Charlie Bertot met in Washington, DC, at the Annual Session and followed up this meeting with a series of conference calls. The committee members have been hard at work reviewing the completed applications from those members who have thus far asked to be included in this distinguished group of recommended speakers. The committee members have shared reviews of these applications electronically.

Board Liaison, Council on Continuing Education, Journal Based Continuing Education Committee

The Journal-Based Continuing Education Committee, under the leadership of Homa Amini, provides our members 18 CE credits/year at a minimal cost. This past year we have had nearly 400 participants with a revenue of \$33,000. The committee has developed and presented a streamlined means of participation using an electronic format to facilitate the process.

Board Liaison, Council on Clinical Affairs, Committee on Sedation and Anesthesia The Committee on Sedation and Anesthesia, under the leadership of John Liu, assists individual members, state units and district organizations in providing input and expertise to state licensing boards drafting or modifying sedation or general anesthesia legislation or regulation. It is important that such regulations and statutes preserve patient safety, be based upon sound scientific and clinical principles, and do not impose unnecessary or false barriers to the delivery of care.

The AAPD approved funding to gather data on pediatric dental sedation and has identified six test sites to pilot this data collection. They are working with the Dartmouth Bioinformatics Center which currently maintains the Pediatric Sedation Research Consortium database. The plan is to pilot the program at the six centers and ultimately expand it to include all academic pediatric dental training programs.

The committee is reviewing the American Society of Anesthesiologists (ASA) article, *Practice Guidelines for Moderate Procedural Sedation and Analgesia 2018*, and is working on aligning these guidelines with those of the AAP/AAPD.

#### Trustee, Budget and Finance Committee

The Budget and Finance Committee met last October in Chicago and again in Washington, DC, in March. Committee members are updated monthly on the Academy's financial status. Our financial outlook continues to look bright thanks to the strength in numbers from our 10,000+ members and timely payment of dues by these members. Our audit has, once

again, rated our organization with its highest possible status. Our portfolio has performed well and is structured to protect assets. There are a number of positive signs for the future which include increased dues collection and strong registration numbers for the 2018 Annual Session.

#### **District Activities**

The Southwestern Society of Pediatric Dentistry held its general membership meeting in July in Steamboat Springs, CO, as part of its Summer meeting which featured two outstanding speakers, Sue Khammar and Cathy Flaitz. Their respective topics were, *Sensory Processing Disorder in Pediatric Dentistry* and *A Mixed Bag of Common Oral Lesions in Tots and Teens: Diagnostic Tips and Treatment Approaches* 

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New officers were installed:
David Ciesla – President
Ryan Roberts – President-Elect
Mary Fuselier – Vice-President
Mitchell Glass – Secretary-Treasurer
Janell Plocheck – Immediate Past-President

Continuing education programs were discussed to include the ever-popular SWSPD Winter Ski Meeting which was held in January/February, in Big Sky, MT. Featured speakers were Don Barden, Mark Moeller, Gerald Samson, Jed Best, Saroush Zaghi, and AAPD President Jim Nickman. President-Elect Ryan Roberts chaired the meeting which was an overwhelming success. The SWSPD convened its Winter Board Meeting in Big Sky. Items discussed were scheduling the 2019 Winter Ski Meeting in Whistler/Blackcomb, BC, rather than Keystone, CO, as had been previously planned. The SWSPD is moving forward with plans to update its current website and a new SWSPD logo has been designed and approved by the board. The district's next board meeting will be held in Austin, TX, in conjunction with the AAPD sedation course. Another joint meeting with the SSPD is in the planning stages for 2019.

The district boasts a strong membership which includes 1031 Active members, 152 Affiliate members, 2 Allied members, 4 Associate members, 11 Pre-Doc Student members, 104 Post-Doc Student members, 90 Life members and 152 Retired members.

The financial status of the organization is sound thanks largely to dues collection in excess of \$100,000.

At the request of the AAPD District Trustee, the SWSPD board of directors voted to approve funding which would allow one pediatric dental resident in each of the district's accredited training programs to attend the annual Public Policy Advocacy meeting in Washington, DC. There are currently 7 accredited pediatric dental training programs in our district. The SWSPD will allot up to \$1,000 per accredited program which should allow that program to send one resident to Washington, DC, each year that PPAC is offered. This amount should adequately cover airfare and two nights hotel expenses. Residents who receive this "scholarship" will be asked to either provide an oral presentation to the board regarding their experience or write an article for the district newsletter.

Most recently the SWSPD president and the district trustee have been working together to facilitate a more meaningful caucus at this year's annual session. PPAs from each of our components have been invited to serve on a panel so that those in attendance can gain

from the experiences of others and thereby strengthen their effectiveness in their respective states.

Our district's incoming trustee, Dr. John Fales, will work with the current trustee and the SWSPD president, Davis Ciesla, to help effect a smooth transition into his position.

#### **State Unit Reports**

#### Arkansas

David Ciesla reports that the Arkansas Society of Pediatric Dentists has a membership of 53 pediatric dentists. Jason Havard is the component president and Jeff Rhodes is the unit's public policy advocate. They meet every May at the state dental association meeting and every other year for a PALS renewal course. Dr. Rhodes attended the Public Policy Advocacy Conference in Washington, DC, in March.

The state is dealing with a significant transition to a privately-owned managed care model in their Medicaid program which started in January. MCNA and Delta Dental were awarded the contracts. There are signs of change on the horizon with regards to the revision of sedation laws in the state but nothing concrete has yet been established.

#### Colorado

Colorado Academy of Pediatric Dentistry president Sarah Villasenor reports that in a contentious budget environment this year they were able to lobby for a 2% Medicaid rate increase. Many of the procedures now have fees around 65% of UCR. The new Medicaid policy around Caries Risk-Assessment and SDF should be completed this year. Non-covered Services Legislation, SB 190, was signed into law. It prohibits insurers from dictating fees for services they don't cover. This is a new law which took nearly 10 years to happen. Providers who do not accept Medicaid may now collect co-payments from patients who have dual coverage provided they sign a waiver permitting this distribution of funds. Development of the Virtual Dental Home Model continues to progress and has quieted efforts to add Mid-Level providers.

CoAPD has a membership of 155 pediatric dentists. Membership dues are \$125 per year which is collected for the state by the AAPD. Bianca Hoffman is the chapter secretary and Lisa Carlson-Marks serves as treasurer.

The organization is working on a caries-risk assessment model so that Medicaid can adjust coverage of services for children with high caries-risk to more accurately reflect AAPD guidelines. Public Policy Advocate, Jeff Kahl, has been working with Paul Casamassimo to develop a new caries-risk definition. Recent concerns include frequency of radiographs, fluoride, and exams as coverage does not correspond with AAPD recommendations for treatment of patients with such high caries-risk issues. Access to care continues to be a concern, as many pediatric dentists do not accept Medicaid due to poor reimbursement rates and frequently changing coverage of services. Most of the pediatric dentists practice in Denver and Colorado Springs which leaves only a few providers on the western slope and in rural areas.

Current legislative issues in Colorado involve a recent revision of state board rules regarding anesthesia permits for treating pediatric dental patients, rules for advertising dental specialties, and the addition of continuing education requirements for dentists and dental hygienists.

CoAPD is working on passing a bill which would mandate dental screening as part of a school admission physical.

PPA, Jeff Kahl, represented the state at the PPA Conference in March in Washington, DC, along with four residents from Children's Hospital Colorado.

The component meets quarterly and offers a day-long CE course annually at the Rocky Mountain Dental Convention. This year the CoAPD will host a CE program on pediatric dentistry at the annual meeting of the Colorado Dental Association in Crested Butte this June. Dual-trained specialist, Clarice Law, will speak on behavior guidance and guidance of the developing dentition.

#### Kansas

Kansas Association of Pediatric Dentists president John Fales reports that their organization has been providing support to the Kansas Dental Association as both organizations look for solutions to the problems associated with access to care for the underserved in the state. In the past year Governor Brownback cut Medicaid reimbursement rates by 4%. This cutback caused a ripple effect throughout the state resulting in many providers leaving the program. Fortunately, after November elections, the legislative makeup changed and legislation was enacted to restore the cuts to previous levels. KAPD remains hopeful that providers will return to the program so that access to care will improve for the children of Kansas.

For the eighth consecutive year legislation was proposed to create non-dentist care providers in the state and, as in previous years, KAPD members have provided key testimony in legislative hearings and lobbied state legislators to present other solutions to manage access to care issues in the state. Those in favor of non-dentist provider legislation have not abandoned their efforts in the 2018 legislative session and KAPD continues to work diligently in opposition to this ongoing issue.

John Fales and Nick Rogers represented the state at the Public Advocacy Conference in Washington, DC, in March.

#### Louisiana

Erin Maturin, president of the Louisiana Academy of Pediatric Dentistry, reports on the behalf of the 78 pediatric dentists in the state. Claudia Cavallino is secretary, Pamela Shaw is treasurer, Anna Moreau is past-president and Suzanne Fournier is the state's Public Policy Advocate. LAPD offers an annual Clifton Dummett Memorial lecture in the fall which is typically well-attended.

There is a group of pediatric dentists working with MCNA, DHH, and the Louisiana Dental Association to create an independent claims review process by which a practitioner can dispute a denied claim and, in doing so, have a non-MCNA dentist rule on the matter. There is an initiative to increase Medicaid reimbursement rates. Regarding state board issues, the most significant item affecting pediatric dentistry is sedation rules and regulations. This ongoing issue is being monitored through the LSBDE. Future changes are most likely forthcoming.

Claudia Cavallino, along with four LSU pediatric dental residents, represented Louisiana at the Public Policy Advocacy Conference in Washington, DC.

#### Missouri

The Missouri Academy of Pediatric Dentistry (MoAPD) is a highly organized component composed of 68 pediatric dentists. Secretary-Treasurer, Craig Hollander reports the slate of officers for 2018 as Greg Stine, President, Louis Polina, Vice-President, Megan Lenahan, St. Louis representative, and Dahlia Michael, Mid-Missouri representative. Mark Fernandez is the SWSPD representative and Lori Henderson is the Public Policy Advocate. The state's annual meeting will be held in September this year and will feature a pulmonologist who will discuss pediatric sleep apnea.

MoAPD has asked the state dental director to work with the dental board on dental truck legislation.

Missouri passed a law stipulating that communities must provide at least 90 days notice before fluoride levels are changed.

MoAPD co-sponsored the Points of Light project which establishes a network of pediatric and general dentists who will see children under the age of three and will interact with pediatricians, family practitioners and OB/GYNs to inform their patients on the importance of the age one dental visit. Delta Dental of Missouri has been working with MoAPD to encourage them to adopt a similar program for their subscribers.

There are telehealth/teledentistry issues being investigated by the state to ascertain if practitioners can get reimbursed for this model of care.

Lori Henderson and Aaron Bumann represented MoAPD at the Public Policy Advocacy Conference in Washington, DC, in March. Accompanying them was a resident from the pediatric dental program at St. Louis University.

#### New Mexico

Joy Trigo is our primary contact for the New Mexico Academy of Pediatric Dentistry which has a modest membership of 26 pediatric dentists and is struggling to maintain the viability of its chapter. The SWSPD, on the recommendation of the district trustee, approved funding to help Dr. Trigo attend the Chapter Leadership Orientation and PPA Refresher Course which will be held in Chicago in September. Kris Hendricks is the Public Policy Advocate. Dr. Trigo reported last year that there has been reduced reimbursement for all procedures done under general anesthesia. Dr. Laurie Gormley presented a program delineating just what pediatric dentists must do to provide care to their patients and why these procedures must be done in a hospital setting under G/A. This resulted in only a small reduction in Medicaid reimbursements.

#### Oklahoma

Jon Lindbloom serves as president and Ashley Orynich serves as public policy advocate for the rather loosely organized Oklahoma Association of Pediatric Dentists. Dr. Orynich reports that the major issues in the state concern declining Medicaid reimbursement rates and subsequent low enrollment by pediatric dentists in the state's Medicaid program. CHIP does not include dental coverage. The state is moving toward managed care and the Oklahoma Dental Association is requesting that there be a "carve-out" dental plan.

#### Texas

The Texas Academy of Pediatric Dentistry (TAPD) represents the largest component in the Southwestern District with over 600 members. The organization's President, Christian

Cabello, assumed office last May along with Vice-President Kelly Gonzales and Secretary-Treasurer, Refugio (Tres) Gonzalez. Immediate Past-President is Howard Hunt and long-standing Public Policy Advocate is Bill Steinhauer. TAPD hosts one general membership meeting per year and three Board of Directors meetings along with two 2-day CE events and an annual legislative lobby day.

The Texas State Board of Dental Examiners Sunset Bill (SB 313) was signed into law last May. The number of Board members was reduced from 15 members to 11. The revised makeup of this board will consist of six dentists, three hygienists and two public members. Jason Zimmerman had represented our specialty on the state board of dental examiners but his term recently expired and he was not re-appointed. For the first time in many years Texas does not have a pediatric dentist on the state board Other features of SB 313 state that dental assistants will be required to be certified in order to take radiographs. The Board must create rules for the minimum standards for administration of anesthesia, qualifications to obtain each level of anesthesia permit, qualifications to administer anesthesia to a pediatric or high-risk patient, minimum emergency preparedness standards and requirements for the administration of anesthesia. The Board must create an anesthesia jurisprudence exam. Level 4 anesthesia permit holders are required to use capnography during the administration of anesthesia. Level 2-4 anesthesia permit holders will be subject to inspection within a year of their permit being issued. The Advisory Committee on Dental Anesthesia has been established to analyze and report on data and associated trends concerning anesthesia-related deaths or undesirable outcomes. This committee will report to the Board annually. The X-ray and nitrous oxide monitoring certificates are being combined into one certificate that will be valid for two years. The coronal polishing and pit and fissure sealant certificates are being abolished.

State Medicaid issues include a proposed fee reimbursement reduction which was tabled thanks to strong input from TAPD members. Issues involving prior authorization for general anesthesia approval are being studied. TAPD continues to work with the state dental board to improve safety for our pediatric dental patients.

Texas was well-represented at the AAPD Public Policy Advocacy Conference in Washington, DC, in March. The district trustee and Jason Zimmerman led a large delegation consisting of President-Elect Joe Castellano, Vice-President Kevin Donley and Past-President Phil Hunke along with faculty members Dan Burch, Maria Jose Cervantes Mendez, Amy Herbert and thirteen pediatric dental residents from all three Texas dental schools.

The Texas Academy of Pediatric Dentistry is proud to have two of its members, President-Elect Joe Castellano and Vice-President Kevin Donly, serving on the AAPD Executive Board.

As my three-year term comes to a close I'd like to thank all of the members of the Southwestern District for providing me the honor and privilege to serve as your trustee.

# John L. Gibbons Trustee Western District 2015-2018



I feel honored to be the Western District Trustee and have the opportunity to work with so many quality leaders at the state, district and national level. I am so impressed with the leaders that guide our Academy and am humbled to be able to serve with them.

I participated in the following activities during my second year:

- AAPD Annual Meeting BOT Meetings (Washington DC May 23,27,28)
- Idaho State Academy of Pediatric Dentistry Annual Meeting (Sun Valley June 23)
- California Society of Pediatric Dentistry (CSPD) Board of Directors Meeting (Oakland July 15)
- Washington State Academy of Pediatric Dentistry (WSAPD) Board Meeting (Seattle Aug 10)
- WSAPD Annual Meeting (Seattle Oct 7)
- AAPD Ad Interim BOT Meeting (Chicago Oct 13-14)
- CSPD BOD Meeting (Los Angeles Oct 21)
- CCA/CSA Workshop (Chicago Nov 3-4)
- AAPD/HSHC Leadership Institute V (Chicago Dec 7-10)
- AAPD Strategic Planning Committee (Naples, Florida Jan 11)
- AAPD Winter BOT Meeting (Naples, Florida Jan 12-14)
- CSPD BOD Meeting (Oakland Jan 20)
- Nevada Annual Meeting (Las Vegas Jan 27)
- WSAPD Board Meeting (Seattle Feb 1)
- PPA Conference (Washington DC Mar 4-7)
- WSPD Spring Meeting (Seattle April 14)
- CSPD BOD Meeting (San Francisco April 21-22)
- AAPD Annual Meeting (Hawaii May 22-27)

#### **Trustee Responsibilities**

Board Liaison, Council of Clinical Affairs

Chair: Edward L. Rick

Board Liaison: John L. Gibbons

Staff Liaisons: John S. Rutkauskas, Mary E. Essling, Laurel Graham

Please refer to the CCA report for the documents reviewed for the 2017–2018 cycle.

Trustee, Credentials and Ethics Committee

Member conduct that is brought forward is reviewed by the Committee and appropriate responses are made.

Trustee, Strategic Planning Committee

The Strategic Planning Committee met at the Winter BOT meeting to further implement our new strategic plan.

Trustee, Policy and Procedure Committee

At this time the Policy and Procedure Committee is working on the following revisions of the AAPD Administrative Policy and Procedure Manual:

- 1) Clarify district trustee reporting requirements
- 2) Clarify development of background and intent statements for Best Practices
- 3) Technical clean-up regarding refunds for continuing education courses
- 4) No term limits for CBDP Chair and members
- 5) Technical correction of Sec 8.P.17
- 6) Operationalize of SIGs
- 7) Technical Correction of Sec 9.C
- 8) Operationalize the Safety Committee

#### **District Activities**

The Western Society of Pediatric Dentistry (WSPD) held its Fall Meeting November 4 in Seattle. It was attended by State Trustees from most of the Western District. The fall meeting is their annual all day planning meeting. Each State Trustee submits a report at that meeting of the activities taking place in their state. Those state reports are below. A draft of a new WSPD initiative to develop leadership in their district is appended to this report.

#### **State/Provincial Unit Reports**

The following are the updated state reports that I have received.

#### Alaska

WSPD Representative(s): Christine Roalofs; email croalofs@gmail.com

AAPD Component Information

Name: Alaska Pediatric Dental Society

Officer Rotation: indefinite

<u>Officers</u>

President-Christine Roalofs Vice President-Caitlin Barnes

Secretary-Jessy Blanco Treasurer-Heidi Ostby

Immediate Past President-Michelle Slezewski

AAPD Liaison-Christine Roalofs

PPA-Jessy Blanco

Number of pediatric dentists

Province/State Member Pediatric Dentists: 21

Sadly, we lost 2 members this summer. One unexpectedly died in his sleep and one was diagnosed with stomach cancer and died a month later. In a small group that hit us hard.

Province/State unit and related activities, i.e. C.E offerings, meetings

Nothing recent

Who is collecting your dues?

The AAPD collects our dues.

<u>Dues structure and collections</u>

Active Member: \$50

Faculty: Associate: Affiliate:

Active Member First Year: free Post and Pre-doctoral Student: free

Retired: N/A Unit Board Update

#### Province/State Board Issues

The Alaska Dental Board has changed sedation rules to require more training and licensing. At this time Pediatric Dentists will be grand-fathered into the moderate sedation category. The age 13 and under has been addressed and more operator restrictions have been revealed. The final regulations are in the works.

#### Legislative issues

Overall the Alaskan economy has gone soft. Oil prices are down and companies have laid off workers. The Anchorage School district had decreased enrollment for the first time in many, many years. They capped the Permanent Fund payments to residents and the Legislature is deep into a third special session to discuss the budget. Talk of income tax implementation is stronger than ever.

#### State Medicaid

Medicaid abruptly stopped paying for SDF. They also decreased the benefit dollars for adults.

#### Advocacy

PPA Name

Jessy Blanco, Juneau

Access to care issues

Same geographical issues

Other Issues

Nothing new or exciting. Same old issues of advertising, corporate moving in, and over treatment.

#### Alberta

WSPD Representative(s): Sarah Hulland; email: shulland@telus.net

AAPD Component Information

Name: Alberta Academy of Pediatric Dentistry

Officer Rotation:

**Officers** 

President-Robert Barsky

President-Elect-TBD

Vice President-

Secretary-Sandy Schwann

Treasurer-Sandy Schwann

Immediate Past President- Aimee Castro

AAPD/WSPD Liaison-Sarah Hulland

Membership Contact-Sarah Hulland

Number of pediatric dentists

Province/State Member Pediatric Dentists: 38

Province/State unit and related activities, i.e. C.E offerings, meetings

Annual meeting occurs in October/November

<u>Dues structure and collections</u> AbAPD Dues Structure: \$250

Active Member: 38 Faculty: 2 full time Associate: None Affiliate: None

Active Member First Year: Note a separate category

Post and Pre-doctoral Student: None Retired: Not a separate category

Unit Board Update

#### Province/State Board Issues

Alberta is in the process of radically changing the entire sedation guidelines from minimal sedation to general anesthesia. In addition, the management and regulation of dental facilities and non-hospital surgical facilities are being reviewed. The new document is currently at the Alberta Dental Association and College Board level with an anticipated release to the dentists of Alberta in November. The use of deep sedation and general anesthesia is mandated as being a dual operator model. The moderate and minimal sedation categories have significantly greater restrictions on who is eligible to provide them and the monitoring requirements to be followed. The new document will be released as standards not guidelines.

#### Legislative issues

- 1) Changes in sedation protocols from guidelines to standards.
- 2) There continue to be issues with access to care for low income Albertans but this is at the discussion stages still.

#### State Medicaid

None

#### <u>Advocacy</u>

#### Access to care issues

- 1) With the changing sedation guidelines that access to care has been further compromised as the Alberta government mandated and immediate moratorium on the provision of deep and general anesthesia by a single operator, effective October 2016. The change from guidelines to standards will inevitably result in fewer clinicians providing sedation care in their practices and it is likely that more children will undergo general anesthesia as an alternative care model.
- 2) Need to encourage charitable work/volunteerism by dentists and dental specialists for the underprivileged families. Our mobile charitable bus service has double in request over the past 2 years. Unfortunately, this service is all charitably paid for as the government continues to refrain from assisting.
- 3) Loss of the Calgary community service for poorer families due to lack of volunteerism from the local dental community. This situation has not been rectified.
- 4) Failure of the current socialist provincial government to increase the budget for provision of care for low income children. Concurrent to this is the threat by the government that they are going to cap fees and restrict provision of care further. This is being under the challenge that dentists are only focused on the financial win of care. The government is presently in the process of limiting and controlling the fees for medical doctors. It would be consistent with their governed model to follow this with the dental and allied health services groups.
- 5) The continuing recession in Alberta is putting more pressure on families and the social system to enable access to dental care. We continue to have a 1:10 unemployment.

6) Increased expectations by the Federal government for care access for our First Nations communities without an associated increase in funds to provide this care. This model is also under review with an anticipated guideline to be presented in late winter 2017.

#### Other Issues -

Increased number of pediatric dentists to the province is changing the awareness of the public to the availability of specialized care for their children

#### Arizona

WSPD Representative(s): Bobby Yang, kidstoothfixr@yahoo.com

Ernest Nehrer, enehrer@gmail.com

AAPD Component Information

Name: Arizona Academy of Pediatric Dentistry

Officer Rotation

**Officers** 

President-Tina Ptacek, tinaptacek@gmail.com

President-Elect//Secretary-Ernie Nehrer, enehrer@gmail.com

Treasurer-Ernie Nehrer

Immediate Past President-Sophie Baird

AAPD Liaison-Tina Ptacek

Membership Contact-Ernie Nehrer

Number of pediatric dentists

Province/State Member Pediatric Dentists: 99 (as of September 30th, 2017)

Province/State unit and related activities, i.e. C.E offerings, meetings

Who is collecting your dues?

Secretary/Treasurer - Ernie Nehrer

Dues structure and collections

Dues Structure:

Active Member - \$100 for regular membership, \$500 for premiere membership

Active Member First Year: \$0, pay for their own meals and drinks

Post and Pre-doctoral Student: \$0, pay for their own meals and drinks

Unit Board Update

#### Province/State Board Issues

- 1. Sunrise Application (dental therapist legislation): The AAPD has been very helpful in providing information to help oppose the dental therapist legislation in Arizona. Dr. Powley, President of the Arizona Dental Association, used the information to present at a debate at a Republican woman's meeting on the dental therapist. The sunrise application will be presented to the health committee late November/early December.
- 2. Arizona Oral Health Day will be February 8th, 2018.

#### Legislative issues

The Expanded Functions Dental/Hygienists legislation two years ago and the first class to train them will be starting in January at Midwestern. The Rio Salado program is still trying to figure things out. The courses at Midwestern Dental School will be about \$4200 for about a 5 month program. The courses are on Saturdays.

#### State Medicaid

We will be trying to pass additional coverage for pregnant woman again this session. The legislation failed last year.

#### <u>Advocacy</u>

PPA Name

Jessica Robertson, ohsudent@yahoo.com

Access to care issues

Other Issues

#### British Columbia

WSPD Representative(s): Geoff Grant; email: geoff.grant@telus.net

AAPD Component Information

Name: British Columbia Society of Pediatric Dentists

Officer Rotation: 1 year term

<u>Officers</u>

President: Brad Scheideman Email: bradford13@gmail.com Vice President: Ella Choi Email: choi.ella@gmail.com

Treasurer/Secretary: Janice Duong
Immediate Past President: Carter Ng
AAPD Liaison: Felicity Hardwick
Membership Contact: Janice Duong

Email: Janice.kt.duong@gmail.com
Email: carterng@hotmail.com
Email: felicity\_hardwick@telus.net
Email: Janice.kt.duong@gmail.com

Number of pediatric dentists

Province/State Member Pediatric Dentists: 49 active members
Province/State unit and related activities, i.e. C.E offerings, meetings

There is nothing new to report and no recent provincial meetings or continuing education

offerings.

Who is collecting your dues?

BCSPD Treasurer/Secretary: Janice Duong

Dues structure and collections

Dues Structure: Included and collected with the BCSPD annual dues

Active Members: All 49 members pay dues this includes

4 UBC Faculty (2 full time and 2 part time)

1 Retired member

Graduate Students/Residents: 11 (do not pay dues)

Unit Board Update

#### Provincial/State Board Issues

An amendment was made and implemented to the sedation guidelines/standards in British Columbia. As of June 2017, all providers of moderate sedation must use either capnography or an audible blue tooth precordial stethoscope, in addition to pulse oximetry while providing treatment.

#### Legislative issues

No current issues to report

#### State/Province Medicaid

The yearly allowable coverage for children covered by the British Columbia provincial "Healthy Kids" program (dental coverage for children from low income families) has increased from \$1400/year to \$2000/year with some coverage for different modalities of in office sedation.

#### Access to care issues

There continues to be long waitlists for patients requiring treatment under General Anesthesia at BC Children's Hospital who are not candidates for treatment in private surgical centres.

#### California

WSPD Representatives Email

Ora Lowe lowedds@gmail.com

Dennis Nutter <u>dennispaulnutter@yahoo.com</u>
David Okawachi <u>dokawachi@sbcglobal.net</u>
Jacob Lee <u>leeway9@hotmail.com</u>
Jonathan Lee <u>jelee74@earthlink.net</u>

AAPD Component Information

Name: California Society of Pediatric Dentistry (CSPD)

Officer Rotation:

**Officers** 

President-Jacob Lee

President-Elect-Jonathon Lee Vice President-Suzy Tavana Secretary-Nancy Hsieh

Treasurer-Don Schmitt

Immediate Past President-David Okawachi

AAPD Liaison-Ora Lowe

Membership Contact-Andy Soderstrom (Executive Director); email asoderstrom@cspd.org

Number of pediatric dentists

Province/State Member Pediatric Dentists: as of October 31, 2017: 944

**Dues structure and collections** 

Member Type	Dues Rate	Total
Active	\$310	623
Active First Year	\$155	36
Affiliate	\$155	44
Allied Professional	\$155	2
Associate	\$155	20
Faculty	\$155	24
Active Life Member	\$155	21
Life Member Retired	\$0	56
Honorary	\$0	1
Postdoctoral Student	\$0	107
Predoctoral Student	\$0	5
Retired	\$77.50	5
		944

Update: 10/21/2017: BOD passed a motion to change the Dues structure for recent grads.

Active First Year: \$0 Active Second Year: 50% Active Third Year: Full Dues

(This is in line with the AAPD Dues structure)

No application fee for the new grads during the first year.

Province/State unit and related activities, i.e. C.E offerings, meetings

Annual Meetings with Business meeting and Mid-Year Meetings:

- March 15-19, 2017: CSPD/WSPD Annual meeting, Green Valley Ranch, Las Vegas
- April 21, 2018: Mid-Year Meeting, Hyatt Regency, San Francisco, CA
- October 10-14, 2018 CSPD/WSPD Annual meeting, Hilton, Torrey Pines, San Diego

• April 26-28, 2019: Mid-Year Meeting, Disney's Grand Californian Hotel, Anaheim, CA Who is collecting your dues?

American Academy of Pediatric Dentistry

Unit Board Update

Province/State Board Issues

Legislative issues

The following is from Dr. Paul Reggiardo's report to the CSPD leadership regarding legislative issues as of October 21, 2017

SB501 (Glazer): Dentistry: Anesthesia and Sedation

**Summary:** The bill revises sedation definitions and the requirements for the administration of all levels of sedation in the dental setting. Requires at least three people present when deep sedation/general anesthesia is provided to a patient under 7 years of age, with one person solely dedicated to monitoring the patient.

Current Text: Amended 5/01/17

**Location:** ASM Appropriations Committee

Status: Held in the ASM Appropriations Suspense File (May be heard in the next

session)

**CSPD: SUPPORT IF AMENDED** 

**Comment:** The bill most closely mirrors AAPD Guidelines regarding all levels and all aspects of dental sedation. CSPD is seeking amendments which would establish a single standard for all patients under 13 years of age (instead of a less stringent requirement for 7 – 13 years of age) under moderate sedation, establish personnel requirements for moderate sedation consistent with AAPD guidelines, and remove the prohibition that minimal sedation be limited to the administration of a single drug in addition to local anesthesia and a mix of oxygen and nitrous oxide. These three changes (and others in subsequent modifications) would bring the bill closer to AAPD guidelines and allow a SUPPORT position.

\*\*\*\*\*

#### AB224 (Thurmond): Pediatric Dental Sedation

**Summary:** This bill would establish new definitions and revised permitting structure for the administration of deep sedation/general anesthesia, moderate sedation, and minimal sedation for patients under 13 years of age and require an analysis of outcomes and complications related to dental sedation.

Current Text: Amended 5/30/17

Location: SEN Business, Professions and Economic Development Committee

Status: Testimony taken and bill removed from consideration by the author. May

be reconsidered next session.

**CSPD: Watch** 

**Comment:** A provision to require a separate anesthesia provider for children seven years of age or younger from that of the operating dentist included in earlier renderings of the bill is absent from this version. The author proposed in hearing that the dedicated anesthesia monitor for patients under 7 years of age be a dentist holding a general anesthesia permit, an physician anesthesiologist, a clinical nurse specialist with pediatric critical care or recovery room experience, a registered nurse anesthetist, or a nurse practitioner with pediatric critical care or recovery room experience. That provision was not accepted by the Committee.

\*\*\*\*\*

(Daly): Dental Waterlines

**Summary:** The bill directs the Dental Board of California to adopt final regulations by 12/31/18 to require that water or other irrigates used for procedures that expose the dental pulp to be sterile or contain recognized disinfecting or antibacterial properties.

Current Text: Amended 6/12/17

Status: Approved by the Governor; Chaptered into Law 10/2/17

**CSPD: SUPPORT** 

**Comment:** The bill arises out of the cases of mycobacterium abscesses contracted at a dental clinic in Anaheim last year. An earlier provision that would have authorized the Board to "proactively" inspect the premises of a licensed dentist in the absence of a complaint has been removed.

State Medicaid

<u>Advocacy</u>

**PPA Name** 

Paul Reggiardo; reggiardo@prodigy.net

Access to care issues

Other Issues

#### Hawaii

WSPD Representative(s): Lynn Fujimoto; email fujimoto.lynn00@gmail.com

AAPD Component Information

Name: Hawaii Academy of Pediatric Dentistry

Officer Rotation:

Officers

President-Lynn Fujimoto

President-Elect-Vice President-

Secretary-Paul Seo

Treasurer-Michelle Kobayashi Immediate Past President-

AAPD Liaison-Lynn Fujimoto

Membership Contact-Lynn Fujimoto

Number of pediatric dentists

Province/State Member Pediatric Dentists: 40

Province/State unit and related activities, i.e. C.E offerings, meetings

January 2017 – Dr. John Frachella spoke on silver diamine fluoride to the HAPD. The Hawaii Dental Association was able to obtain him for the 2018 Hawaii Dental Association annual session in January 2018.

Who is collecting your dues?

AAPD

Dues structure and collections

Dues Structure: AAPD, WSPD (\$40), HAPD (\$100)

Active Member: 36

Active Member First Year: 2

Post and Pre-doctoral Student: 10 NYU Langone Pediatric dental residents

Retired: 1

Unit Board Update

### Province/State Board Issues

**HB 374** requires the state auditor's office to study whether Hawaii dental assistants should be regulated, such as requiring certification. HDA representatives recently met with the auditor's office; a report should be released near the end of August or beginning of September. Upon the Governor's signature, it is now Act 084 (July 7).

**HB 563** allows dental hygienists to work under "general" (rather than "direct") supervision of a dentist in certain situations. This bill will allow dental hygienists to perform non-irreversible procedures on a dentist's patient of record pursuant to a treatment, provided that the hygienist may not perform intra-oral block anesthesia unless under direct supervision. Upon the Governor's signature, it is now Act 083 (July 7).

The Hawaii Dental Assn. may be including coronal polishing in the sunset review of dental assisting. There was much discussion last year centering around who can apply fluoride. Dental hygienists wanted to make sure that assistants were not able to apply fluoride. <u>State Medicaid</u>

The Hawaii Dental Assn. has been trying to legislate for adult Medicaid benefits but has been defeated the last two years.

### <u>Advocacy</u>

One NYU Langone pediatric dental resident may be attending the PPA meeting in March 2018.

**PPA Name** 

Lynn Fujimoto

Legislative issues

Access to care issues

The University of Hawaii School of Nursing has obtained a five year grant to establish a program for an Expanded Duty Pediatric Dental Hygienist. This would be a post graduate one year program where hygienists would be trained with the emphasis on 0-5 year old patients. After consulting with Drs. Rutkauskas and Casamassimo, there is no other program like this in the United States so it's a very exciting project.

Other Issues

Countdown: Seven months and counting to the AAPD 2018 in Hawaii. Please contact me if you are able to help in poster judging or room monitoring for the annual session. I would book your room early and let me know if anyone needs help or suggestions with travel arrangements. Mahalo!!

#### Idaho

WSPD Representative(s): Brad Barlow; email:bradbarlowdds@yahoo.com

AAPD Component Information

Name: Idaho Academy of Pediatric Dentistry

Officer Rotation: None/ subsequent nominations to occur each year at annual IAPD

meeting Officers

President-Johny Ukich; email-jrukich@yahoo.com

President-Elect-Rusty McWhorter; email-rustymc6@yahoo.com

Vice President-

Secretary-Paige Schmidt

Treasurer-Paige Schmidt; email paigeryanschmidt@gmail.com

Immediate Past President-

AAPD Liaison-

Membership Contact-

Number of pediatric dentists

Province/State Member Pediatric Dentists: 40 active, 3 affiliate, 4 retired, 1 life, 1 postdoctoral

Province/State unit and related activities, i.e. C.E offerings, meetings

Currently no active CE but plan to soon, also our annual meetings plans will coincide with annual ISPD meetings. Current IAPD officers were elected at June 2017 meeting. Who is collecting your dues?

AAPD to start collecting state organization dues soon, \$100 dues amount for state organization approved by officers in June 2017

Dues structure and collection

Dues Structure: Active Member:

Faculty: Associate: Affiliate:

Active Member First Year:
Post and Pre-doctoral Student:

Retired:

Unit Board Update

Province/State Board Issues

### Legislative issues

- Access to care due to low reimbursement rates to providers, recent meetings with IAPD members and IDHW authorities seem promising in helping with lobbying for increased reimbursement for at least some common pediatric procedure codes in the next 1-2 years and have data driven conversations with IDHW.
- Midlevel practitioner debates continue across the state.
- Efforts are increasing with pediatric dentists getting to know and contact state legislators and help them be aware of these issues and also contribute more to IPAC to help ISDA lobby these issues.

### State Medicaid

See above

### Advocacy

**PPA Name** 

Johnny Ukich; email jrukich@yahoo.com

Access to care issues

See above, needs of rural areas are somewhat being met, however this is more of an issue due to severe low Medicaid reimbursement

Other Issues

### Nevada

WSPD Representative(s): Ashley Hoban; email: ashleyhobandmd@gmail.com

AAPD Component Information

Name: Nevada Academy of Pediatric Dentistry

Officer Rotation: Annual

Officers

President-Owen Sanders

President-Elect-Elizabeth McGee; email lizmcgee@gmail.com

Vice President-

Secretary-Emily Whipple Treasurer-Emily Whipple

Immediate Past President-Maryam Sina

AAPD Liaison-

Membership Contact-Maryam Sina; email nevadapeddent@gmail.com

Number of pediatric dentists

Province/State Member Pediatric Dentists: 85

Province/State unit and related activities, i.e. C.E offerings, meetings

The NVAPD Meeting was held January 26-27 in Las Vegas with with Speakers Lilly Cortes-Pona and Dr. Jeanette MacLean.

Who is collecting your dues?

AAPD

Dues structure and collections

Dues Structure: Active Member: \$160

Faculty: \$160 Associate: N/A

Affiliate: Not yet established Active Member First Year: \$160 Post and Pre-doctoral Student: Free

Retired: Not yet established

Unit Board Update

### Province/State Board Issues

The Nevada Board of Dental Examiners is in process of separating moderate sedation permits into a general permit and pediatric permit for those patients 12 and under. We consider this a positive change as pediatric permits will only be issued, once in place, to those that have completed a residency in pediatric dentistry, oral surgery or dental anesthesia. This is expected to pass mid-year 2018.

### Legislative issues

We now have a state dental director who will be a go-to person to address issues with the state. She is also affiliated with the dental school to help facilitate some of the issues with dental care in Nevada.

### State Medicaid

Liberty received the contract to facilitate Nevada Medicaid. This starts January 1, 2018. Advocacy

### PPA Name

Cody Hughes; email codyhugheskidsdmd@gmail.com

### Access to care issues

Numbers of children on the various state Medicaid plans is growing but provider numbers of those plans are not. Hopefully the new contract with Liberty will improve this.

### Other Issues

None at this time

### Oregon

WSPD Representative(s): Natasha Bramley, DMD; email: dr.natashabramley@gmail.com AAPD Component Information

Name: Oregon Academy of Pediatric Dentistry

Officer Rotation: Annually rotates from Secretary to VP to President to Past President.

Treasurer is fixed for 5+ years.

**Officers** 

President-Dr. Jenette Intrachat; email: jintrachat@gmail.com

Vice President-Dr. Natasha Bramley; email: dr.natashabramley@gmail.com

Secretary-Dr. Joseph Sease Treasurer-Dr. Joe Lubisich

Immediate Past President-Dr. Kendra Flann

AAPD Liaison-N/A

Membership Contact-Dr. Joe Lubisich; email: joelubisich@hotmail.com

Number of pediatric dentists

Province/State Member Pediatric Dentists: 90

Province/State unit and related activities, i.e. C.E offerings, meetings

The board meets 3-4 times a year. For members, PALS course offered twice a year. 2 all day CE courses offered, one in the spring and one in the fall. Social events for members, pediatric dental residents held 1-2 times a year.

Who is collecting your dues?

**AAPD** 

<u>Dues structure and collections</u> Dues Structure: Tripartite Active Member: \$185

Faculty: \$185 Associate: \$185 Affiliate: \$185

Active Member First Year: \$185 Post and Pre-doctoral Student: \$0

Retired: \$0 Unit Board Update

From the Oregon Board of Dentistry: Proposal to form a committee in January 2018 to look into in-office sedation and anesthesia practices in the state of Oregon.

<u>Advocacy</u>

**PPA Name** 

Natasha Bramley

#### Utah

Report

In the State of Utah there are a few ongoings:

We are still trying to organize our chapter, everyone seems to be very busy. I have been trying to get involved with the Utah Dental Association, they have recently appointed a pediatric dentist as a liaison between the UDA and the pediatric dentists, I am in close contact with him so I get frequent updates with the on goings of the state. I am hoping in the future to work more closely with the state association. I have tried a couple times to get a meeting with the Utah Academy of Pediatric Dentists so we can have elections and hopefully get more organized but I haven't had much luck. I will keep trying.

I am working closely with the director of the residency program at Primary Children's Hospital in Salt Lake. We are working together so we can do some meaningful CE for the pediatric dentists in the state. Working with the residency program and Primary Children's Hospital will be a great resource for UAPD, they have a lot of recourse that we could use.

In the state there has been a proposal to DOPL, from an oral surgeon and a dental anesthesiologist, to change the sedation regulations. DOPL has been concerned about our sedation regulations in state seeing as we really don't have any that anyone follows. The standards that these two have come up with are very restricting, do not take the AAPD regulations in to consideration and are a little self-serving. Some pediatric dentists as well as the UDA have been in close contact with DOPL to make sure that the new regulations are well founded and that they will serve the community as well as the dentist in a safe and efficient manner.

A few pediatric dentists are also working closely with the state to write a new RFP, as our old RFP and our contracts with our Medicaid providers are about to run out. The state seems to be listening to us and is willing to work with us, this time, to make sure the insurance

companies that administer the Medicaid programs are kept in check, so the patients are well cared for and the dentists are also treated reasonably.

We have a few changes going on in our state right now, we seem to be handling them well, but we definitely could be more organized. I will keep working on this for the future.

Clark Romney

### Washington

WSPD Representative(s): Lisa Block; email: lblockdmd@comcast.net;

Steve Beck; email stevebeck2thdoc@gmail.com

AAPD Component Information

Name: Washington State Academy of Pediatric Dentistry

Officer Rotation: annual

Officers

President-Patricia Benton; email: Pbaetn@yahoo.com

President-Elect-Stephen Kim

Secretary-Zheng Xu

Immediate Past President-Bri Butler

AAPD Liaison-John Gibbons

Membership Contact-Stephanie Cook; email: stephanielouisecook@gmail.com

Number of pediatric dentists

Province/State Member Pediatric Dentists: Roughly 200

Province/State unit and related activities, i.e. C.E offerings, meetings

PALS Certification Course--March

Annual State Meeting--October

Who is collecting your dues?

AAPD

Dues structure and collections

Dues Structure:

Active Member: 133—we are currently receiving dues and membership from AAPD.

Unit Board Update Legislative issues

SSB 6549 was passed unanimously in to law. The bill expanded the successful ABCD program to include children up to age 12 with disabilities.

State Medicaid

Changing to a manage care system.

<u>Advocacy</u>

**PPA Name** 

John Gibbons; email: jkagib@comcast.net

### Wyoming

No report received

As my three year term as the Western District Trustee ends I have to say I have received much more than I have given. Thank you to the Western District for allowing me the opportunity to have this unforgettable experience.

### WESTERN DISTRICT LEADERSHIP INTERN PROGRAM (WDLI) - REVISED

### Mission

The mission of the Western District Leadership Internship Program (WDLI) is to meet the current and future leadership needs of the WSPD, District and AAPD volunteer leadership through identification, cultivation, and development of potential and current leaders.

### Goals/objectives for the program:

To aid in the preparation and development of future leaders for leadership positions in their local and state component societies, WSPD and AAPD.

### • Recruitment

- To cultivate leaders through engagement of pediatric dental residents and new graduates
- o To keep the membership abreast of leadership opportunities in WSPD and AAPD
- o To identify potential leaders who are not currently involved in organized dentistry

### Advisory

- o To accept and review candidate applications for open positions
- o To have a standardized and transparent vetting process for potential leaders
- o To present at least one qualified candidate for every open position

### Development

- o To develop and train existing leaders to better meet leadership needs, and to better address leadership challenges
- To develop and maintain leadership resources for the leadership and membership of WSPD

### **Purpose**

The purpose is to identify qualified candidates, through a competitive application process, for a one (1) year internship on the WSPD and CSPD Board of Directors. It is the goal of WSPD to train and mentor pediatric dentists to become future leaders in our specialty organizations.

### Qualifications of Applicants:

- Applicants who are interested in leadership development.
- Pediatric dental residents in a program in one of the WSPD States/WESTERN DISTRICT regions who demonstrate an interest in State-District and National governance and leadership
- A recently graduated Pediatric Dentist within their first (3) years of completing their residency who resides and practices in a WSPD state, Province OR Western District.
- Interest in learning about State, WSPD and District governance with a goal to serve in volunteer leadership.
- Enthusiastic person who may desire personal and professional leadership skills training.
- Current member of WSPD.

### **Funding**

Funding for the program is estimated at \$3000.

The WSPD covers expenses for the Intern which will include transportation and lodging:

- 1) To the CSPD/WSPD annual session,
- 2) One CSPD board meeting (other than the annual session),

- 3) Attendance at the annual WSPD Board of Trustees meeting (Seattle).
- 4) The AAPD-Washington DC Advocacy Days

### **Program Experiences for the WBI:**

- 1) Participation in CA state and WSPD Board meetings: (5-6)
  - 2 CSPD Board meetings (one should be the annual meeting)
  - Attend WSPD Board of Trustee meeting (Fall/Spring meeting)
  - Required: Two (2) Face to face:
    - o CSPD/WSPD Annual session (attend CSPD meeting; attend WSPD meeting)
    - WSPD BOT held annually;
  - One (1) electronic meeting for CSPD,
  - One (1) electronic meeting as requested for the WSPD
  - One CSPD Foundation meeting-electronically (optional?)
- 2) Mentorship: Assign mentor who will assist in developing a project to be presented at an annual session during the CSPD/WSPD Board meetings
- 3) PPA /Advocacy experience (tag-along with state PPA)

### Status

- DRAFT proposal was presented to WSPD-BOT in Washington DC
- Funding amount was approved at \$3000.
- The WDLI program has been accepted. A selection committee needs to be composed to vet candidates
  - o Application form and criteria for selection needs to be determined
  - o One (1) candidate will be selected from the Western District

### Start date

Estimated October 2018 at the CSPD-WSPD annual session in La Jolla, CA

### Amr M. Moursi Academic At-Large Trustee 2015-2018



### Liaison to Post-Doctoral Council

- Academic Workforce Survey
  - Survey is complete, working out some IRB issues then data will be available soon
- Academic Day 2018
  - Will continue to hold on Thursday after strong response in 2017
  - o Agenda and speakers for joint morning session have been finalized.
  - o Will highlight programs with successful HRSA-funded projects
  - Will have presentations on the teaching of SDF
  - o A new Chair's session has been added as a forum for Department Chairs to discuss relevant issues.

### Liaison to the Post-doctoral InService Examination Committee

- Additional funds for electronic texts was greatly appreciated and will make the work
  of the committee more efficient and productive
- Results of the NBOME psychometric evaluation were positive

### Liaison to the Council on Scientific Affairs

 CSA will work with CCA to identify topics for consideration by the EBD group in order to develop the next set of evidence-based guidelines

### Liaison to Pediatric Oral Health Research and Policy Center

- Pre-conference session has been added to Annual Session 2019 on how to discuss sensitive clinical issues, such as obesity and substance abuse, with parents and patients.
- The Harris Fellow project surveying FQHC dentists is progressing well and a final report will be provided to the Board at the annual session
- The DentaQuest grant is in year 3 and is now in the validation phase.
- Several Briefs are in preparation including a revised brief on Early Preventive Visits and Medical Necessity
- Policy implications of the results of the Workforce Study were discussed
- Will defer to Director's report for a more complete description of Policy Center activities

### At-Large Trustee's Report – Amr M. Moursi – 2017-2018

### **Liaison to American Academy of Pediatrics**

- Resolution regarding single operator sedation was discussed at AAP Annual Session in Sept. 16, 2017. Informed SOOH that AAPD does not support revising existing joint sedation guidelines
- Dr. Cote made a presentation at the Ad Interim Board meeting recommending an addendum to the Joint Guidelines to clarify language regarding the personal recommended during deep sedation. The Board was supportive and Dr. Cote will follow up with the AAP.
- MOU was amended to have AAP representative attend AAPD Annual Session as a member of the Committee on Interprofessional Relations. Annual Session 2017 was first for this new structure and it went well. Will also re-evaluate at the 2018 Annual Session.
- Would like to encourage interaction between State and Local AAP and AAPD units
- SOOH is working on developing Medical-Dental referral form. A draft form is being circulated within the Section soliciting feedback from both Pediatricians and Pediatric Dentist
- Eager to continue AAP sessions at AAPD Annual Session however there will be no AAP session at 2018 Annual Session. We re-evaluate in the future.
- Optimal Timing of Surgery Task Force will submit Clinical Report in 2018. Will focus attention on children under 3 yo with surgeries lasting longer than 3 hours
- AAP is moving ahead with creating a National Child Health Registry. I encouraged them to include Oral Health. The SOOH will work with the working group developing the registry to try to include oral health data.
- Dental Hygienists providing full scope of services in Pediatricians offices is increasing.
   There is increased interest especially in states that have expanded the scope of care for Dental Hygienists.
- Update on Joint Guidelines and Policies:
  - Oral Aspects of Child Abuse (Dr. Ana Tate co-author): Completed, published
  - Sedation Guidelines (revision): Will Consider addendum under the direction of Dr. Cote.
  - o Updating AAP Clinical Report on Oral Health for Children with Disabilities
  - o Primary care pediatrician management of cleft lip and palate, (Dr. Lisa Jacobs, co-author), published
  - o Interest in a joint policy on adolescent oral health
  - o Interested in submitting a co-authored piece to PDT regarding HPV, they have created an HPV informational flyer for dentists which is currently on hold.
  - o Interested in a co-authored piece for AAP members on SDF
  - Interested collaborating with us in translating select AAPD guidelines into Spanish.
  - Interested in collaborating with us on training pediatric dentists in smoking prevention and cessation
  - o Interest in adding AAPD guidelines and consumer information, or links, on trauma and mouth guards onto AAP website
- Oral health campaigns under consideration:
  - o Early use of fluoride toothpaste
  - Oral health and poverty
  - o Expand "Brush, Book, Bed"
  - Adding oral screening and fluoride varnish to vaccine registry

At-Large Trustee's Report – Amr M. Moursi – 2017-2018

### **International Initiatives**

- Board approved sponsoring a Session at the Joint Congress of the Mediterranean and Arab Societies of Pediatric Dentistry, Nov. 9-11, in Alexandria Egypt.
- We have been approached by the Kenyan Society of Pediatric Dentistry to discuss possible collaborations
- The president of the IAPD, Dr. Anna Maria Vierrou, has expressed interest in promoting their upcoming meetings; 1st IAPD Global Summit on ECC in 1-4 November 2018 and the 27th IAPD Congress in Cancun Mexico in 3-7 July 2019

### Paula L. Coates At-Large Trustee 2016-2019



### ALOHA to my AAPD OHANA!!!!

As my second official year as an At-Large Trustee comes to a close, I must say that I have truly enjoyed myself. This has been another exciting year of learning, listening, developing new friendships and participating in transformative change within the Academy. I am feeling more confident about my role and have gotten over my fear of "speaking up" during meetings. I love working with all of my fellow Board members!

I also attended our Ad Interim Fall meeting in Chicago in October 2017. The AAPD Leadership and Staff planned a phenomenal meeting and the accommodations were excellent as usual. The meeting was very informative. I was very glad to have had to participate in planning of creating new Council and Committee Charges. I was also very excited to see one of my former students from Meharry Medical College School of Dentistry, Dr. Brittaney Hill in attendance. She has been serving as an Intern with the AAPD's Corporate Office.

I traveled to Naples, FL in January 2018 to participate in the Winter Planning meeting. Again, this experience was eye-opening and exciting. I was a tad bit disappointed to see that the committees that I had been assigned to for the past years had been eliminated, however I completely understand due to their inactivity. As a member of the Awards Committee, I met with my other fellow committee members while in Naples. This year's Awards Recipients are truly amazing individuals and well deserving of their respective awards. I was happy to have one of my recommended candidates, Dr. Janice Jackson to be unanimously awarded the Manuel Album Award. I left the meeting empowered and ready to continue my work within the Academy.

#### **Committee Activities**

To date, I have been assigned to serve as Board Liaison to the following committees:

Committee on the Adolescent Committee on Perinatal Oral Health Care Committee on Behavior Guidance

I have reached out to the Chairman of all three Committees, Dr. Ed Rick and inquired about the status of these committees. *Currently, there are no updates or new information coming out of these committees.* After the May 2018 meeting, I will no longer have to give a report regarding these committees since these committees have been recommended for dissolution. I am looking forward to see what my new assignments will be.

Since the Winter Planning meeting, a few emails went out regarding the opportunities for our International Members to participate during the Annual Session. Tonya Almond

### At-Large Trustee's Report – Paula L. Coates – 2017-2018

introduced possibilities of International Membership participation during the Annual Session during the Fall Ad Interim Meeting. As At-Large Trustee representing the International Membership, I am proud to have supported the recommendations for creating an opportunity for International Members to present their research during the Annual Session. This will serve as an opportunity for more International Members to attend the Annual Session (by having justification and hopefully receive financial support from their country or academic institution).

As well, I serve on the Council of Membership and Membership Services; I am also the NDA Liaison to the Committee on Interprofessional Relations. At this time I do not have anything to report from these groups.

I am happy to say that three individuals that I had recommended to AAPD President-Elect Joe Castellano for Volunteer Assignments within the Academy were approved. I am very proud and excited to have recommended these individuals, all of whom are women and represent various underrepresented minority groups. Diversity is the future of the AAPD!

I would like to close by thanking the AAPD membership and leadership for affording me the opportunity to serve in the capacity of At-Large Trustee. As I stated before, this past year has been an awesome experience. I have learned so much. Each time I gather with my AAPD colleagues, I am encouraged to continue to strive for excellence as I serve this great organization. Through hard work and determination, it is my desire and commitment to serve this Academy and its members to the best of my ability. As I approach my last year on the Board of Trustees, I am becoming somewhat sad, nevertheless I will continue to work hard and look forward to next year!!!!! **MAHALO!!!** 

### Tegwyn H. Brickhouse At-Large Trustee 2017-2020



This has been my first official year as an At-Large Trustee and I have enjoyed learning more about the processes, priorities, and decisions that face both the Academy and our profession.

### Training

Completed the Board Orientation Sessions as well as the National Spokespersons Workshop in Chicago.

#### **Service**

- Freshman Trustee to the Budget and Finance Committee
  - Budget and Finance committee met at the fall Ad-Interim meeting and with the March Policy Conference. Review of annual budget and investment portfolios.
- Freshman Trustee to the Strategic Planning Committee
  - Revisions to the AAPD Strategic Plan 2020 and charges to Councils and Committees.
- Liaison to Council on Scientific Affairs
  - Attended the fall CCS/CSA document workshop to review this years assigned policies and best practice guidelines for the 2017-2018 Reference Manual
  - Updating of EBD guidelines in progress
  - Attended American Association of Dental Research Meeting and the Pediatric Oral Health Research Group. Dr. Rebecca Slayton reported membership of over 400 members in the scientific groups and increasing numbers of abstract and symposium submissions. Planning for scientific awards for student presentation in the future.
  - o Revision of Council's Charges completed to align with the Academy's strategic plan occurred at the Ad-Interim and Mid-winter planning meetings
- Liaison to the Council on Government Affairs
  - o Attended conference calls and meeting at the March Policy Conference.
  - o Revision of Councils Charges completed to align with the Academy's strategic plan occurred at the Ad-Interim and Mid-winter planning meetings
- Fellow to the Pediatric Oral Health Research and Policy Center
  - o Completion of Policy Briefs and Toolkit for Treating Medicaid Patients
  - o Attended meeting at the Mid-Winter Planning meeting were there was a report of Center activities and presentation from the HSHC Harris Fellow.

### Kerry Maguire Affiliate Trustee 2014-2019



It is my honor to represent Affiliate members of the American Academy of Pediatric Dentistry on the Board of Trustees. As my fourth year on the Board ends, it's a pleasure to reflect on good work completed and that yet to be done. A hearty thanks to the AAPD staff and my fellow Trustees for their great energy, high spirits and, above all, dedication to the kids.

Contained in this report:

- Update on Task Force Implementation Plan Activities
- Affiliate Membership Statistics
- Trustee Meeting Attendance
- Board Liaison Reports
  - o Evidenced-Based Dentistry Committee
  - o Committee on Special Health Care Needs
  - Council on Pre-doctoral Education
  - o Consumer Review Committee
  - Council on Membership and Membership Services, Affiliate Advisory Committee

### Update on Implementation Plan Activities from the Report of the Task Force on Enhancing the Value of General Dentist Membership

Six activities from the Implementation Plan of the Report of the Task Force on Enhancing the Value of General Dentist Membership were approved by the Board of Trustees at the October 2, 2015 Ad Interim meeting. They are:

- Establish Affiliate Membership (AM) leadership
- Affiliate Member leadership and district liaisons to establish AM protocols
- Establish modes of communication
- Continue to develop AM leadership opportunities within the AAPD
- Develop an "AAPD Pre-Doctoral Tool Kit"
- Promote current Pre-doctoral member benefit of free attendance at AAPD annual session

Updates on each activity follows below.

### Establish Affiliate Membership (AM) leadership Affiliate Member leadership and district liaisons to establish AM protocols

The Affiliate Advisory Committee is now beginning its third year as an established entity of the Academy. In August 2017, Affiliate District representatives were introduced to their respective District Trustees. The Committee continues to establish functional and communication norms under the steady guidance of our Staff Liaison Suzanne Wester. Committee members are:

Kerry Maguire, Chair and Board Liaison
Jane Gillette, Immediate Past Trustee
Clemencia Vargas, Northeastern District
Gianna DeSimone, Southeastern District
Vacheree Peterson, Northcentral District
Twana Duncan, Southwestern District
John Blake, Western District
Neva Eklund, Council on Pre-Doctoral Education
Matt Geneser, Council on Annual Session, Scientific Program Committee
Ron Hsu, Council on Continuing Education
Nick Rogers, Consultant

#### Establish modes of communication

The Affiliate Membership communications plan includes bi-monthly interactions via <u>Pediatric Dentistry Today</u> (November, March and July issues) and e-mail news (January, May and September). At the 2018 Annual Session, the Committee will name a member responsible for managing communications throughout the year.

In January 2018, an email blast soliciting Affiliates interested in serving on Councils and Committees elicited responses from six members.

"Welcome to the AAPD" emails are sent to new members on a bi-monthly basis. AAC District representatives now receive word when a new member joins in their geographic area, allowing for a more personal follow-up. All Affiliate members received a letter of introduction from their respective Committee representatives in January 2018. Several reps are looking into establishing more direct contact with their District members via Facebook or other methods.

### Continue to develop AM leadership opportunities within the AAPD

Currently, 18 Affiliate members serve on the following:

- Council on Annual Session
- Council on Scientific Affairs
- Council on Governmental Affairs
- Council on Clinical Affairs, Committee on Special Health Care Needs
- Council on Clinical Affairs, Committee on Sedation/Anesthesia
- Council on Clinical Affairs
- Council on Membership and Member Services
- Council on Membership and Member Services, Committee Interpersonal Relations
- Council on Membership and Member Services, New Pediatric Dentist Committee
- Council on Membership and Membership Services, Affiliate Advisory Committee
- Council on Pre-Doctoral Education
- Council on Continuing Education

### Affiliate Trustee's Report, 2017-2018

- Pediatric Oral Health Policy Center Advisory Board
- · Healthy Smiles, Healthy Children: The Foundation of the AAPD

The names of six Affiliate members were sent to Dr. Joe Castellano for consideration for 2018 Council and Committee appointments.

### Develop an "AAPD Pre-Doctoral Tool Kit" Promote current Pre-doctoral member benefit of free attendance at AAPD annual

To address this charge, and in conjunction with the recommendation of the Task Force on Enhancing the Value of General Practice Membership, Council members and AAPD staff created a small ad hoc committee to discuss ways to promote, encourage and support new and existing student chapters. One goal is to develop a toolkit to guide establishment and development of student chapters, including "best practices" for outreach, advocacy, treatment and scholarly activities geared towards the general dentistry student and potential pediatric dentistry residents. Work is ongoing.

### **Affiliate Membership Statistics**

Nationwide, there are 517 AAPD Affiliate members which reflects level membership numbers compared to March 2016. In keeping with historical trends, there tends to be an uptick in membership in the lead-up to Annual Session, with new Affiliates taking advantage of member-only registration discounts.

District	March 2016	March 2017	March 2018	% Change 2015 to 2017
Northeastern	69	71	69	-5.4
Southeastern	100	107	94	-2.9
Northcentral	69	79	82	+1.2
Southwestern	142	140	139	+10
Western	131	127	133	-10
Total	511	524	517	-1.1

Membership numbers have remained steady over the past few years with the biggest growth since 2016 in the Northcentral District. Anecdotal feedback continues to reflect that general dentists <u>do not know</u> they are eligible to join AAPD.

### **Affiliate Trustee Meeting Attendance**

August 2017: National Conference of State Legislatures., Boston, MA

October 2017: AAPD Ad-Interim Meeting, Chicago, IL December 2017: AAPD Leadership Cohort V, Chicago, IL January 2017: AAPD Winter Planning Meeting, Naples, FL March 2017: AAPD Legislative Conference, Washington, DC

April 2017: National Oral Health Conference, Louisville, KY (upcoming)

May 2017: AAPD Annual Session, Honolulu, HI (upcoming)

### Affiliate Trustee's Report, 2017-2018

### **Board Liaison Updates**

Evidenced-Based Dentistry Committee (EBDC)

The EBDC has two active workgroups, Behavioral Guidance and Non-Vital Pulp Therapy. Selection of members for the Behavioral Guidance group is complete apart from a statistician. The Non-Vital Pulp Therapy group plans a full day work session at the upcoming May meeting.

All members of the EBDC community are eagerly awaiting news of a replacement for Laurel Graham. Laurel's many contributions to the maturation of the EBDC process and the resulting progress that the Academy made during her tenure is a source of great pride. She will be missed.

Council on Clinical Affairs: Committee on Special Health Care Needs
The Committee on Special Health Care Needs continues to work with partner Councils,
Committees and other organizations on issues affecting this challenging and vulnerable
patient population. The Committee requests that the Board of Trustees review letters from
the National Council on Disability (NDC) to the American Dental Association and consider
lending support. The NDC is asking that training of the care of persons with disabilities be
added as a CODA standard, and to include people with disabilities in the ADA Principles of
Ethics and Code of Conduct.

Council on Pre-doctoral Education No outstanding issues.

Council on Scientific Affairs: Consumer Review Committee No outstanding issues.

Council on Membership and Membership Services: Affiliate Advisory Committee Activities are summarized in the above Trustee report.

### **National Council on Disability**

Issue Brief



### **Highlights**

- Though it does prohibit other forms of discrimination, the American Dental Association's Principles of Ethics and Code of Professional Conduct does not currently prohibit a practitioner from refusing to accept a patient based on their disability, generally.
- The American Academy of Developmental Medicine notes that people with I/DD regularly face an uphill battle in finding clinicians properly trained to treat them because most dentists lack proper training and exposure regarding the health and psychological needs of the I/DD population.
- Requirements of the Commission on Dental Accreditation do not require that dental school graduates be proficient in treating patients with I/DD, they only require graduates be competent in "assessing" treatment needs.
- Absent more generous Medicaid coverage, solutions must be sought to help encourage dental care providers to serve this underserved population despite the financial predicaments of those providers.

# Neglected for Too Long: Dental Care for People with Intellectual and Developmental Disabilities

#### Fall 2017

This policy brief is designed to provide insight concerning the lack of dental care many people with intellectual and developmental disabilities (I/DD)\* continue to experience due to a shortage of properly trained dental care providers and, consequently, a lack of dental care providers willing to provide that care.

The brief will provide recommendations regarding how to begin to rectify the problem, including modifying dental school accreditation and professional ethics requirements. It will also recommend that Congress amend the Public Health Service Act,<sup>1</sup> thereby providing more public funding and student loan debt forgiveness to improve dental care.

### Introduction

Unfortunately, interactions with patients who have disabilities may become uncomfortable when the care providers themselves are unfamiliar with their disabilities. This may lead to a lack of care and, accordingly, a lack of preventive care. Adults with disabilities are four times more likely to report their health to be only fair or poor than people without disabilities. More specifically, studies have shown that adults with developmental disabilities are at risk for multiple health problems including poor oral health. Further, in 2002, the U.S. Surgeon General reported that, compared with other populations, "adults, adolescents, and children with [intellectual disability (*sic*)] experience poorer health and more difficulty in finding, getting to, and paying for appropriate health care."

There are multiple factors to consider as to why people with I/DD face challenges in finding proper care, including, among others, guardianship complications and compensation.<sup>5</sup> Often times providers are concerned about the length of time it might take to treat just one patient with I/DD.<sup>6</sup> As noted in NCD's 2005 publication *The Right to Health: Fundamental Concepts and The American Disability Experience*, dental care is a frequently forgotten area within the overall health care equation; and dental offices are often inaccessible and their equipment may not accommodate many disabilities. As was also noted, even when the physical environment has been adapted, a lack of understanding of disability issues among health professionals can minimize the effectiveness of the services provided, thus

<sup>\*</sup> NCD recognizes that not all people with I/DD require particular accommodations when receiving dental care

## Discuss with NCD

NCD is available to provide you with advice and assistance pertaining to these and other issues of importance to people with disabilities and welcomes any inquiries from you. NCD would be happy to provide information and analysis in person or via email to Members of Congress and staff. Please contact NCD's Legislative Affairs Specialist, Phoebe Ball, at pball@ncd.gov, or by phone at (202) 272-0104.

creating another roadblock for those claiming their health care rights. Insufficient dental school training in this space is part and parcel of these phenomena.

While laws such as the Rehabilitation Act<sup>7</sup> and, more broadly, the Americans with Disabilities Act<sup>8</sup> are useful tools for claiming one's right to accessible health care, including dental care, the cost to litigate such cases is not inexpensive. It is prudent to look for solutions to a problem before the need for litigation arises. To begin with, **NCD recommends the American Dental Association review its current** *Principles of Ethics and Code of Professional Responsibility* and make certain modifications to better reflect the rights of people with disabilities. Finding financial incentives through government programs for care providers to train for and treat people with I/DD is also worth considering.

The lack of proper training among dental students is among the most rooted problems. These future care providers are not adequately exposed to the I/DD population during their education to begin with. While there are some dental programs across the United States that do train their students in the care of patients with I/DD, a sample of which are examined here as potential models for the creation of other such programs, **NCD recommends all dental students have more robust training in the care of I/DD patients.** As such, a modification by the Commission on Dental Accreditation is also worth examining.

### **Principles of Ethics and Code of Professional Conduct**

The American Dental Association's *Principles of Ethics and Code of Professional Conduct* does not prohibit a practitioner from refusing to accept a patient based on their disability, generally. It does, however, prohibit other forms of discrimination at Section 4.A., as provided, where it states that "while dentists, in serving the public, may exercise reasonable discretion in selecting patients for their practices, dentists shall not refuse to accept patients into their practice or deny dental service to patients because of the patient's race, creed, color, sex or national origin." <sup>10</sup> This point is relevant because the established principles of ethics in a given profession is typically the guide a professional is taught to use in determining how to conduct themselves as they push forward in their career. Those principles of ethical obligations (as might be adopted by each respective state's law), also subjects practitioners to a legal liability concerning the proper execution of their professional conduct. Interestingly, the American Dental Association's principles do, though, mention one disability at Section 4.A.1. with respect to patients with bloodborne pathogens, as an advisory opinion, wherein it states that:

A dentist has the general obligation to provide care to those in need. A decision not to provide treatment to an individual because the individual is infected with Human Immunodeficiency Virus [(HIV)], Hepatitis B Virus, Hepatitis C Virus or another bloodborne pathogen, based solely on that fact, is unethical. Decisions with regard to the type of dental treatment provided or referrals made or suggested should be made on the same basis as they are made with other patients. As is the case with all patients, the individual dentist should determine if he or she has the need of another's skills, knowledge, equipment or experience . . ."11

### Related NCD Work

The Current State of Health Care for People with Disabilities (2009)

https://go.usa.gov/xnC9K

The insertion of this "advisory opinion" would appear to be in response to *Bragdon v. Abbott*, 524 U.S. 624 (1998) wherein the U.S. Supreme Court held that an individual's positive HIV status is a "disability" under the Americans with Disabilities Act. 12 The Court further stated that an HIV positive individual's dentist, providing services as a public accommodation, would be in violation of that Act unless it be shown that the provider was faced with a risk to the health or safety of others. Reasonably then, and more broadly, **NCD recommends** section 4.A. of these principles be modified to reflect that other disabilities covered under the Act should also be protected. The relevant section should state that:

While dentists, in serving the public, may exercise reasonable discretion in selecting patients for their practices, dentists shall not refuse to accept patients into their practice or deny dental service to patients because of the patient's race, creed, color, sex, national origin or disability, unless it is medically necessary due to the patient's disability or medical condition, in which case the dentist shall refer the patient to another care provider with the specialized skill and training required to meet the patient's needs. [Emphasis added].

This suggested language is inclusive while also recognizing that not every practitioner, at present, will be properly trained in providing specialized care if needed.

### **Dental Training**

The American Academy of Developmental Medicine and Dentistry (AADMD) Consensus Statement on Health Disparities for Persons with Neurodevelopmental Disorders and Intellectual Disabilities notes that people with I/DD regularly face an uphill battle in finding clinicians properly trained to treat them. <sup>13</sup> This is because most physicians and dentists lack the proper training and exposure with respect to the health and psychosocial needs of this population. <sup>14</sup> According to one study, more than 50 percent of dental and medical school deans have stated that their graduates are not competent to treat patients with I/DD. <sup>15</sup> As a result, people with I/DD are more likely to have poor oral hygiene, periodontal disease, and untreated dental caries than are members of the general population. <sup>16</sup> Additionally, people with I/DD have been more likely to not have had their teeth cleaned in the past five years, or never to have had their teeth cleaned, than those who are not disabled. <sup>17</sup>

It has been reported that due to the lack of proper skills among dentists, dental care is often more difficult to find than any other type of service for people with I/DD. 18 Again, society's ability to provide proper dental care to people with I/DD rests on whether dentists are properly trained to provide such services at the outset, and said training has been all too scarce. A series of studies of dental and dental hygiene educational programs through the 1990s and early 21st century found that more than 50 percent of dental students reported no clinical training in the care of patients with such specific care requirements, and 75 percent reported little to no preparation in providing care to these patients. 19 Only

### 75%

According to a series of studies, 75% of dental students reported little to no preparation in providing care to people with I/DD.

10 percent of general dentists responding in a study indicated that they treated children with cerebral palsy, intellectual disability, or medically compromising conditions often or very often.<sup>20</sup> Further, a national study of dental hygiene programs reported similar findings for treatment of people with disabilities in that 48 percent of 170 programs offered 10 hours or less of didactic training (including 14 percent with 5 hours or less); and 57 percent of programs reported no clinical experience.<sup>21</sup>

### **Dental School Curricula Requirements**

New language for dental and dental hygiene education programs were adopted by the Commission on Dental Accreditation (CODA) in 2004.<sup>22</sup> However, there is still only one accreditation requirement for dental schools with respect to treating patients characterized as requiring specialized dental care, which states, in only quite general terms, that:

Graduates must be competent in assessing the treatment needs of patients with special needs. Intent: An appropriate patient pool should be available to provide experiences that may include patients whose medical, physical, psychological, or social situations make it necessary to consider a wide range of assessment and care options. The assessment should emphasize the importance of non-dental considerations. These individuals include, but are not limited to, people with developmental disabilities, cognitive impairment, complex medical problems, significant physical limitations, and the vulnerable elderly. Clinical instruction and experience with patients with special needs should include instruction in proper communication techniques and assessing the treatment needs compatible with the special need.<sup>23</sup>

This standard clearly does not require that graduates be proficient in the techniques necessary to provide treatment, merely that they "be competent in assessing the treatment needs" of patients with disabilities. Gaining expertise in these areas requires added education and training beyond what is standard dental school curricula. There are, however, some dental schools that go beyond what is required in order to train dentists that are truly knowledgeable and practiced in providing quality specialized dental care to patients, including patients with I/DD.

### Sample of Programs that Train Dental Students in Providing Care for Patients with I/DD

Though they are few and far between, the dental school programs throughout the United States that have built clinics in this space have shown themselves to be leaders in providing education and experience in the treatment of people with I/DD, including programs at Tufts, West Virginia University, the University of Pittsburgh, the State University of New York (SUNY) at Stony Brook, and Rutgers University (among others). As previously noted, the Commission on Dental Accreditation has set a standard that dental school graduates "must be competent in assessing the treatment needs of patients with special needs." 24

While it is certainly vital that dentists can "assess" patients' treatment needs, it is also imperative that dental programs attempt to prepare students for the actual treatment of patients with I/DD. Through its discourse with the American Academy of Developmental Medicine and Dentistry in examining this issue, NCD was pointed to two dental programs that serve as good specific examples of schools that go beyond the "assessment" requirement in the training of their students: Rutgers and SUNY-Stony Brook.

Within the Rutgers program,<sup>25</sup> training of predoctoral students includes both didactic and clinical components. Rutgers' Special Care Treatment Center (SCTC) facility contains nine fully equipped dental operatories, one of which is dedicated to dental hygiene and two of which are specially configured to accommodate large wheelchairs and stretchers. The operatories, unlike standard dental school student treatment bays, are all enclosed to permit privacy and are equipped with individual x-ray and nitrous oxide delivery units.

Lectures to the predoctoral students by SCTC faculty regarding care for patients with I/DD are provided in several courses spread throughout the four-year curriculum, including among others: 1) pediatric dentistry: two lecture hours focusing on medical and dental issues in the most commonly encountered I/DD populations; 2) clinical communications: two lecture hours addressing specialized communication challenges and techniques for people with I/DD; 3) third-year problem-based learning seminar: three small-group seminar hours covering case-based assessment of people with I/DD primarily, including medical history, consultations and diagnostics, triage and treatment planning essentials; and 4) a fourth-year elective in specialized care dentistry: 20 lecture hours of advanced topics in specialized care, focusing on interdisciplinary issues. SCTC faculty also provide didactic education to pediatric dentistry and prosthodontic postgraduate programs as well as dental assisting and dental hygiene programs, and a lecture series for oral medicine and general practice residency residents and fellows. SCTC faculty have also provided continuing dental education for community dentists through the school's program.

All fourth-year dental students at Rutgers are required to complete a one-week rotation through the SCTC. During this week, they serve as direct care providers to patients with I/DD primarily, as well as the complex geriatric population. The students provide any needed diagnostic, preventative, restorative or surgical services under the supervision of SCTC faculty. There is a strong focus on reinforcing the individuality of people with disabilities, identifying opportunities for interdisciplinary care, developing communication skills, integrating medical and dental knowledge as well as principles of basic sciences in treatment planning and care, and introducing specialized techniques optimized for people with disabilities, if needed. By the completion of the week-long rotation, students demonstrate competency in patient assessment by taking and passing a patient-based competency exercise.

Similarly, in the SUNY-Stony Brook School of Dental Medicine, a program was created to prepare students for the treatment of patients with disabilities whereby those students receive the didactic portion beginning in their second year as an integrated component of the Children's Dentistry curriculum. The course includes

## Supported Decision Making

Supported decision-making (SDM) is an alternative to guardianship that allows an individual with a disability to work with a support network of people they have chosen to help them make decisions including regarding medical care. Dentists and other medical practitioners who are required to obtain informed consent should be aware of this and other alternatives to guardianship so that they can accommodate the individual.

Supported decision-making is discussed in depth in NCD's report on guardianship, which will be posted to NCD's website in 2018.

a seven-hour series addressing the needs of patients with varied disabilities, including risk of disease identification, appropriate scope of care, informed consent, management of behavioral issues, and conventional versus alternative treatment approaches. In their third-year, students are presented with medical, developmental, and social topics specific to care of patients with disabilities. As the students progress during that year, they provide treatment to patients with increasingly complex needs and management challenges. Finally, in their senior year, all students participate in a 13-week comprehensive care clinic that is specific to adults with disabilities. A postgraduate program is also available and includes a 12-month fellowship.<sup>26</sup>

Clearly, the more experience and practice dental students receive with I/DD patients the more comfortable they will be to provide services to that population upon entering private practice. In consideration of this, NCD recommends a modification to the relevant dental school accreditation requirement. As opposed to simply requiring that students be "competent in assessing the treatment needs of patients with special needs," NCD recommends students also "demonstrate clinical practice skills to perform the designated treatment; and to demonstrate a sensitivity to their ancillary needs (including respectful nomenclature, supported decision making, knowledge of living arrangements that might impact compliance, communication avenues, and systems of support)."

Per Dr. Evan Spivack, Professor of Pediatric Dentistry at the SCTC, the thinking behind the mere "assessment" requirement of the CODA standard is that not every school has an equitable amount of resources to build such a specific clinic. These programs also require hiring qualified professors who are content with the salary a university can provide in comparison to how much compensation is available in private practice. The creation of such a clinic has often come by way of educators with a personal dedication to the cause of proper treatment for those in the I/DD community.

Dr. Steven Perlman, Clinical Professor of Pediatric Dentistry at the Boston University School of Dental Medicine, added that patients with I/DD often have no choice but to travel several hours away to clinics such as those found at Rutgers and SUNY-Stony Brook because of the difficulty in finding private practitioners who are properly trained, willing, and able to provide the care they need. Perlman, who provided care for the late Rosemary Kennedy, at the request of her sister, the late Eunice Kennedy Shriver, has noted that many patients with I/DD may need some form of sedation or general anesthesia to complete the medically necessary dental care. In speaking with other practitioners, it was also noted that in the rare instance that the treatment provider *did* have the proper training, this process clearly requires more time than other patients are likely to need, thus private practitioners, many of whom have student loan debt they must pay, obviously find it more financially feasible to treat three patients in the time it would take to care for one patient with I/DD (a patient also unlikely to have private insurance).

### Medicaid

Approximately 60 percent of people in the United States with I/DD rely on Medicaid for their health insurance coverage;<sup>27</sup> and Medicaid's reimbursement doesn't always suffice. While comprehensive dental coverage is mandatory for children enrolled in Medicaid, dental benefits for adults eligible for Medicaid varies depending on the state.<sup>28</sup> States determine the scope of the dental services covered. While some states provide extensive coverage with more generous expenditure caps annually, others provide limited coverage with shorter caps, and some states only provide coverage for emergency relief alone.<sup>29</sup> Obviously, there is an ongoing debate concerning the proper allocation of public funds with respect to health care, and more specifically dental care, both nationally and within each respective state; however, the effect proper dental care has on preventing larger health concerns and costs cannot be underestimated.30 NCD recommends states that have limited their Medicaid coverage of adult dental benefit identify and implement mechanisms to pay for and provide more extensive coverage, including a per-person annual expenditure cap of at least \$1,000. Ultimately, absent more generous Medicaid coverage funding, solutions must be sought to not only produce better trained dental care providers in this space, but also to help encourage health care providers to serve the underserved despite their financial predicaments.

### **Underserved Population**

Many federal programs designed to improve access to health care services are offered through designations made by the Health Resources and Services Administration (HRSA), in accordance with the Public Health Service Act as amended.<sup>31</sup> As noted above, some people with I/DD experience significant health disparities, poorer health, and a lack of access to care. Also, as previously noted, not enough providers and specialists are trained or make themselves available to provide proper dental care to people of the I/DD population, thus creating a situation of medical underservice whereby patients must travel exceptionally long distances to find the clinics that do provide specialized care.

Currently, government programs that may help resolve these issues require population groupings based upon geography, which is problematic for people with I/DD. Historically, many people with I/DD were institutionalized and received what medical and dental care they may have received in the facility in which they resided, far removed from the rest of society and, for many decades, outside of meaningful oversight in terms of their care. The conditions at institutions such as Willowbrook, the largest facility of its kind and the most notorious for having been described by Robert Kennedy as a "snakepit," were extremely poor, with one former resident blaming her 19 years at Willowbrook for her mouth full of cavities.<sup>32</sup> (Because of this history and because institutionalization runs counter to the goals of the Americans with Disabilities Act, NCD has a longstanding position in favor of deinstitutionalization.)

Following the exposure of the deplorable conditions of many state-run institutions in the 1970s and following, the trend toward deinstitutionalization swept across the country and people with I/DD have no longer necessarily lived in congregate settings in the same geographic location, thus ineligible to access

many government programs that may otherwise help address their ongoing inadequate dental care.<sup>33</sup> Because deinstitutionalization was a significant civil rights achievement that advanced the equality of opportunity for people with disabilities to be full participants in society with respect to housing, employment, and community living, it should not result in a different step backward in equality of opportunity with respect to finding and availing oneself of accessible and appropriate dental care.<sup>34</sup>

As a means of helping to rectify the lack of proper dental care for people with I/DD, NCD recommends that Congress further amend the Public Health Services Act to authorize additional grants to public and nonprofit dental care providers to expand resources (including but not limited to proper and accessible equipment) and deliver, in specific, proper dental care to people with I/DD in scarcity areas (geographic areas that are not reasonably accessible to facilities equipped to provide such care), and to bolster loan repayment programs (not excluding the Student to Service Loan Repayment Program of the National Health Service Corps) for dentists training or already properly trained in the treatment of people with I/DD and are willing to provide that care in the aforementioned scarcity areas. NCD recommends that Congress form an advisory committee to determine and rectify any existing or potential conflicts of laws or programs, or other identifiable impediments, as a means of streamlining efforts for maximum efficiency in achieving the policy goals outlined above.

### **Conclusion**

Post-deinstitutionalization, many people of the I/DD population have become more reliant on local practitioners for their dental care and specialized clinics are often quite a distance away from many who could make use of them. It is imperative that members of the dental profession recognize their professional responsibility and dental students be provided with improved training in this area accordingly. It is also essential that Congress strengthen programs that provide dental practitioners additional incentives to provide that care once they enter practice.

Limited access to proper dental care is a significant problem for many people with I/DD. NCD's recommendations are intended to rectify this problem and secure professional dental care for people with I/DD in the same manner as others and in compliance with the Americans with Disabilities Act and the Rehabilitation Act.

### Recommendations

### Recommendation to Federal Policymakers

1. NCD recommends that Congress further amend the Public Health Service Act to authorize additional grants to public and nonprofit dental care providers to expand resources (including but not limited to proper and accessible equipment) and deliver, in specific, proper dental care to people with I/DD in scarcity areas (geographic areas that are not reasonably accessible to facilities equipped to provide such care), and to bolster loan repayment programs (not excluding the

Student to Service Loan Repayment Program of the National Health Service Corps) for dentists training or already properly trained in the treatment of people with I/DD and are willing to provide that specialized care in the aforementioned scarcity areas.

2. NCD recommends that Congress form an advisory committee to determine and rectify any existing or potential conflicts of laws or programs, or other identifiable impediments, as a means of streamlining efforts for maximum efficiency in achieving these policy goals.

### Recommendation to State Policymakers

3. NCD recommends states that have limited their Medicaid coverage of adult dental benefits provide the more extensive coverage options, including a perperson annual expenditure cap of at least \$1,000.

### Recommendation to the Commission on Dental Accreditation

4. NCD recommends a modification to the relevant dental school accreditation requirement. All dental students must have more robust training in the care of I/DD patients. As opposed to simply requiring that dental students be "competent in assessing the treatment needs of patients with special needs," NCD recommends students be required to "demonstrate clinical practice skills to perform the designated treatment; and to demonstrate a sensitivity to their ancillary needs (including respectful nomenclature, supported decision making, knowledge of living arrangements that might impact compliance, communication avenues, and systems of support)."

### Recommendation to the American Dental Association

5. NCD recommends that the American Dental Association review its current *Principles of Ethics and Code of Professional Responsibility* and make certain modifications to better reflect the rights of people with disabilities. It must modify its standard with respect to Patient Selection whereby it is established that "While dentists, in serving the public, may exercise reasonable discretion in selecting patients for their practices, dentists shall not refuse to accept patients into their practice or deny dental service to patients because of the patient's race, creed, color, sex, national origin *or disability, unless it is medically necessary due to the patient's disability or medical condition, in which case the dentist shall refer the patient to another care provider with the specialized skill and training required to meet the patient's needs."* 

### **Endnotes**

- 1. 42 U.S.C. § 201 et seq.
- 2. Krahn, et. al. 2015. "Persons with Disabilities as an Unrecognized Health Disparity." *American Journal of Public Health* 105: 198.
- 3. National Council on Disability. 2009. "The Current State of Health Care for People with Disabilities." 86.
- 4. Slashcheva, Lyubov, Rick Rader, MD, and Stephen B. Sulkes, MD. 2016. "Would People with Intellectual Disabilities Benefit from Being Designated 'Underserved'?" *American Medical Association Journal of Ethics* 18(4): 424.
- 5. Ibid., 425.

- 6. National Council on Disability. 2009. "The Current State of Health Care for People with Disabilities." 89.
- 7. 29 U.S.C. § 794.
- 8. 42 U.S.C. § 12101.
- Slashcheva, Lyubov, Rick Rader, MD, and Stephen B. Sulkes, MD. 2016. "Would People with Intellectual Disabilities Benefit from Being Designated 'Underserved'?" American Medical Association Journal of Ethics 18(4): 425.
- American Dental Association. Principles of Ethics and Code of Professional Conduct. 4.A. (Accessed October 20, 2017.)
- 11. Ibid., 4.A.1.
- 12. 42 U.S.C. § 12101.
- American Academy of Developmental Medicine and Dentistry Consensus Statement on Health Disparities for Persons with Neurodevelopmental Disorders and Intellectual Disabilities. http:// aadmd.org/articles/health-disparities-consensus-statement. (Accessed October 16, 2017.)
- 14. Ibid.
- Kornblau, Barbara L., JD, OTR, FAOTA. "The Case for Designating People with Intellectual and Developmental Disabilities as a Medically Underserved Population." Autistic Self Advocacy Network, 9.
- Morgan, et al. 2012. "The Oral Health Status of 4,732 Adults with Intellectual and Developmental Disabilities." Journal of the American Dental Association: 839.
- 17. Kornblau, Barbara L., JD, OTR, FAOTA. "The Case for Designating People with Intellectual and Developmental Disabilities as a Medically Underserved Population." *Autistic Self Advocacy Network*, 13.
- 18. National Council on Disability. 2009. "The Current State of Health Care for People with Disabilities." 87.
- Waldman, DDS, MPH, Ph.D., H. Barry; Sanford J. Fenton, DDS, MDS; Steven P. Perlman, DDS, MScD; Deborah A. Cinotti, DDS. 2005. "Preparing Dental Graduates to Provide Care to Individuals with Special Needs." *Journal of Dental Education*: 250.
- 20. Ibid.
- 21. Ibid.
- 22. Ibid., 251.
- Commission on Dental Accreditation. Accreditation Standards for Dental Education Programs. § 2-24.
- 24. Ibid.
- Information regarding the Rutgers School of Dental Medicine curriculum was submitted to NCD by Evan Spivack, DDS, FAGD, Professor, Pediatric Dentistry, Special Care Treatment Center, Rutgers School of Dental Medicine, February 16, 2017.
- Waldman, DDS, MPH, Ph.D., H. Barry; Sanford J. Fenton, DDS, MDS; Steven P. Perlman, DDS, MScD; Deborah A. Cinotti, DDS. 2005. "Preparing Dental Graduates to Provide Care to Individuals with Special Needs." *Journal of Dental Education*: 252.
- 27. The Arc. "Still in the Shadows with Their Future Uncertain." http://www.thearc.org/document. doc?id=3672. (Accessed October 16, 2017.)
- 28. Center for Health Care Strategies, Inc. 2017. "Medicaid Adult Dental Benefits: An Overview." 1.
- 29. Ibid.
- 30. United States Department of Health and Human Services. "Oral Health in America: A Report of the Surgeons General." https://www.nidcr.nih.gov/datastatistics/surgeongeneral/report/executivesummary.htm#message.
- 31. 42 U.S.C. § 201 et seq.
- 32. National Public Radio, "Remembering an Infamous New York Institution." http://www.npr.org/templates/story/story.php?storyId=87975196. (Accessed October 17, 2017.)
- 33. Section 330 of the Public Health Service Act. 42 USCS § 254b(b)(3)(B).
- 34. Olmstead v. L.C., 527 U.S. 581 (1999).

NCD would like to acknowledge the following individuals and thank them for their input in relation to this policy brief: Dr. Evan Spivack, Professor of Pediatric Dentistry, Rutgers School of Dental Medicine; Dr. Steven Perlman, Clinical Professor of Pediatric Dentistry, Boston University School of Dental Medicine; and Dr. Rick Rader, Director, Morton J. Kent Habilitation Center, Orange Grove Center, Chattanooga, TN.

# Congressional Liaison 2017-2018

As of late March when this report is being written, Congress has just reached a decision on the FY 2018 budget and President Trump has reluctantly signed the \$1.3 trillion Omnibus bill into law.



Our request for FY 2019 is a combined total of \$12 million, which lumps all of the funds together and makes a supplemental amount for the DFLRP unnecessary. Hopefully, this request will be approved by Congress. During the time of the AAPD Advocacy Conference earlier this month, all of the participants asked for the \$12 million lump sum and I did not hear of anyone who received negative comments from their visits with the various Congressional offices. Plus, we received 38 signatures to our "Dear Colleague" letter requesting the funding level of \$12 million for Title VII. The funding for this part of the overall budget bill is always one of the last things to be considered. We have been successful in the past and I believe that this year will follow that pattern.

In my opinion, the main focus for Title VII should shift to more grants to the DFLRP. Ten grants were made this year to difference institutions. While I had originally thought that each grant would take care of one person per institution, that is not how it seems to be working. I spoke with Dr. David Felton, the Dean at Ole Miss, about the grant they received, and David said that he would be able to hire 2 and possibly 3 people with the grant. That is the kind of "thinking outside of the box" that is needed! I know that the University of Washington used their grant to fund 3 individuals. If we can get funding for 4 more years, we can effectively change the face of pediatric dental education.

Senator Thad Cochran (R-MS), chairman of the Senate Appropriations Committee, is retiring on April 1. Thad has been one of my best friends, one of our strongest supporters, and has opened many doors for me that otherwise would have remained closed. The one constant in Congress is change and we will have to adapt to the new leaders as they appear. Senator Richard Shelby (R-AL) will probably become the new chairman of the committee and I look forward to developing a working relationship with him. Senator Roy Blunt (R-MO) is chairman of the Appropriations Subcommittee on Labor, HHS and Related Agencies, and we do have a good working relationship with him and his staff.

In the House, Congressman Rodney Frelinghuysen (R-NJ), chairman of the House Appropriations Committee, is retiring at the end of this term and, as of now, 5 people have announced that they are in the running for that position. Congresswoman Kay Granger (R-TX) has the most seniority and will probably win the position. However, Congressmen Mike Simpson (R-ID) and Tom Cole (R-OK) are also in the running, and will provide stiff opposition for the post. Cole is currently chairman of the Appropriations Subcommittee on Labor, HHS, Education and Related Agencies that handles our Title VII requests. Both Cole and Simpson have been and continue to be very supportive of our efforts in Congress.

### Congressional Liaison's Report, 2017-2018

All in all, I think that we are in good shape and look forward to the challenge of renewed funding for these critical programs. Let's leave the woodpile higher than we found it!

# Editor in Chief 2017-2018

Note: As many of our members will have heard, Suzi Seale Coll passed away on April 14, 2018. The Academy has lost a true treasure.



N. Sue Seale Coll AAPD Editor-in-Chief

I would like to thank the Board of Trustees for their support this year. The following are areas for update or report:

- 1. We have started the process of scanning JDC through the ADA again and are looking at alternatives for hosting the back issues of JDC other than the Ingenta site that has become very costly. The oldest issue that has been scanned is Volume 49, Numbers 1-6, 1982.
- 2. The backlog of accepted manuscripts has been reduced, and the wait time for publication of printed manuscripts following acceptance has been reduced to about 2-3 months.
- 3. The impact factor for Pediatric Dentistry for 2017 rose to 1.947 from 0.872 in 2016. In 2016 there was a total of 2,619 cites based on 131 citable items versus in 2015 there was a total of 1,544 cites based on 21 citable items.
- 4. The newly established process of making one manuscript in each issue "Open Access" has worked well.

### **Pediatric Dentistry**

### **Journal Statistics**

Pediatric Dentistry received 449 submissions for the calendar year 2017, of which 147 were rejected outright for being inappropriate, compared with 553 submissions for Calendar year 2016 of which 189 were rejected outright for being inappropriate.

Types of manuscripts were 84 Case Reports, 195 Clinical (human subjects) Articles, 75 Scientific Articles (animal) 26 Systematic Reviews, 1 EBD Systematic Review, 29 Brief Communication and 39 Other (see Figure 1 – Pediatric Dentistry – Number of Manuscripts by Type).

The journal statistics for decisions made on manuscripts indicate for 2017 there were: Sent for review 146, Accepted 45, Reject following review 111, and Reject inappropriate 147, (see Figure 2– Pediatric Dentistry – Number of Manuscripts by Decision).

Statistics for Pediatric Dentistry

Journal Statistics	MTD	Prior 12 Months
Avg. days from submission to first decision	0.0	46.4
Avg. Reviewer turnaround time (days) - Original	0.0	20.8
Avg. Reviewer turnaround time (days) - Resubmission	0.0	0.0
Avg. Reviewer turnaround time (days) - Revision	0.0	14.1
Avg. Time to Assign Reviewer (days) - Original	0.0	6.6
Avg. Time to Assign Reviewer (days) - Resubmission	0.0	0.0
Avg. Time to Assign Reviewer (days) - Revision	0.0	4.5
Avg. days from submission to final decision	0.0	56.1

The journal received submissions from 40 countries. The majority of submissions came From Brazil (86), US (134), India (79) and Turkey (37). (See Figure 3 – Pediatric Dentistry – Number of Manuscripts by Country).

IngentaConnect, the company that hosts our journals, reported that *Pediatric Dentistry* made the list of the top 100 of more than 16,200 titles for the period of October 1 to October 31, 2017. *Pediatric Dentistry* ranks 6<sup>th</sup> with 3,371 downloads.

- o Pediatric Dentistry had 4,607 abstract views.
- o Pediatric Dentistry had 7,089 table of content views.

From January 1, 2017 to October 31, 2017 there were 34,607 full-text *Pediatric Dentistry* downloads, compared with 39,245 from 2016.

#### **Editorial Board and Abstract Editors**

The following individuals will complete their 4-year terms on the Editorial Board of Pediatric Dentistry as of the 2018 Annual Session. I thank them for their dedication and service to the journal.

Veerasathpurush Allareaddy	Kaaren Vargas	Anne O'Connell
Mario Brondani	Kuei-Ling C. Hsu	Carlos Quiñonez
Vineet Dhar	Ashok Kumar	Daniel Stoeckel
Steven Ganzberg	Stephen Mitchell	Anupama Tate

I am pleased to request that the Board of Trustees approve my nomination of the following individuals as oncoming members of the Editorial Board for a 4-year term beginning immediately after the annual session. Each has accepted my invitation to be nominated for this service.

Chia-Yu Chen Martha Ann Keels Vineet Dhar Lorne Koroluk Anne O'Connell Michael Roberts Kaaren Vargas Martha Wells I would also like to thank the 123 ad hoc reviewers within and outside of our specialty who graciously reviewed manuscripts for the journal. They were publicly acknowledged and named in the Nov/Dec issue of the journal.

I am pleased to request that the Board of Trustees approve my nomination of the following individuals as oncoming and returning Abstract Editors for a 1-year term beginning immediately after the annual session. Each has accepted my invitation to be nominated for this service.

Abstract Editors for 2018

Ronald Hsu Janice Jackson Ari Kupietzky Robert Schroth Bobby Thikkurissy

### Goals for 2018

The major goals for the coming year are:

- 1. Maintain the shortened time between acceptance and publication to no more than two months.
- 2. Continue to seek ways to improve the Impact Factor.
- 3. Track to see if the new policy of one Open Access manuscript in each issue positively affects the Impact Factor.
- 4. Assist in the transition of the Editor in Chief position to Noel Childers.

### **Journal of Dentistry for Children**

#### **Journal Statistics**

Journal of Dentistry for Children received 177 submissions for the calendar year 2017 compared with 176 submissions during calendar year 2016.

Types of manuscripts received were 70 Case Reports, 16 Clinical Articles, 23 Clinical Human, 11 Public Health, 23 Scientific Articles, 22 Scientific in Vitro and 9 Systematic Reviews, 1 EBD Systematic Review, 1 Guideline, 1 Protocol. (See Figure 4 – JDC – Number of Manuscripts by Type).

The journal statistics for decisions made on manuscripts indicate for 2017 there were: Sent for review 30 Accepted 23, Reject following review 39 and Reject inappropriate 85, Revision 30 (see Figure 5 – JDC – Number of Manuscripts by Decision).

The number of manuscripts accepted for publication has decreased, mainly due to their low quality. The AAPD staff have put ads in our publications and an email will go out soon to program directors and department heads asking for papers to be submitted.

Statistics for Journal of Dentistry for Children

Journal Statistics	MTD	Prior 12 Months
Avg. days from submission to first decision	0.0	37.7
Avg. Reviewer turnaround time (days) - Original	0.0	19.7
Avg. Reviewer turnaround time (days) - Resubmission	0.0	0.0
Avg. Reviewer turnaround time (days) - Revision	0.0	15.4
Avg. Time to Assign Reviewer (days) - Original	0.0	5.7
Avg. Time to Assign Reviewer (days) - Resubmission	0.0	0.0
Avg. Time to Assign Reviewer (days) - Revision	0.0	8.2
Avg. days from submission to final decision	0.0	51.3

The journal received submissions from 22 countries. The majority of submissions came from India 52, Brazil 44, United States 40, and Iran 5 (see Figure 6 – JDC – Number of Manuscripts by Country).

IngentaConnect, the company that hosts our journals, reported that JDC again made the list of the top 100 out of more than 16,200 titles for number of full text downloads in 2017.

- o For the period of October 1 to October 31, 2017, JDC ranks 67<sup>th</sup> with 886 downloads.
- o Journal of Dentistry for Children had 1,061 abstract views.
- o Journal of Dentistry for Children had 2,118 table of content views.

From January 1, 2017 to October 31, 2017 there were 8,499 full-text *JDC* downloads compared with 9,423 in 2015.

I would also like to thank the 119 ad hoc reviewers within and outside of our specialty who graciously reviewed manuscripts for the journal. They were publicly acknowledged and named in the Sept/Dec issue of the journal.

### **Editorial Board**

There are three members on the Editorial Board whose term is expiring in 2018.

Raquel Assad David Avenetti Suher Baker

I am pleased to request that the Board of Trustees approve my nomination of the following individuals as oncoming members of the Editorial Board for a 4-year term beginning immediately after the annual session. Each has accepted my invitation to be nominated for this service.

Raquel Assad David Avenetti Ian Marion I would like to thank them and all of our reviewers for their help, which was considerable this year.

I would also like to thank the many ad hoc reviewers within and outside our specialty who graciously reviewed manuscripts for the journals. They will be named and acknowledged in the December issue of the journal.

As in the past, I welcome suggestions from the Board for the names of individuals interested in being on the Editorial Board in the future.

The major goals for the Journal last year were:

- 1. Continue the tight adherence to publication schedule.

  The average number of days from submission to first decision was decreased by one day, and the average number of days from submission to final decision was decreased by two days.
- 2. Increase the number of ad hoc reviewers to expedite the review process. Four new reviewers, from different specialties and institutions, were added in 2016.
- 3. Increase communication with reviewers and establish specific areas of interest of reviewers to expedite the reviewing process.

  We continue to recruit reviewers from different areas of expertise (see above).

The major goals of the *Journal of Dentistry for Children* for 2018 include:

- 1. Continue the tight adherence to publication schedule.
- 2. Increase the number of ad hoc reviewers to expedite the review process.
- 3. Increase communication with reviewers and establish specific areas of interest of reviewers to expedite the reviewing process.
- 4. Understand the reasons why it lost its impact factor and work on reestablishing it.

#### **Staff**

Finally, I wish to acknowledge the dedication and efforts of the AAPD Communications Department:

Cindy Hansen, Publications Director Robert Gillmeister, Communications Manager Adriana Loaiza, Publications Manager Lily Snyder, Web and Social Media Coordinator Kenneth Berry, Publications Associate

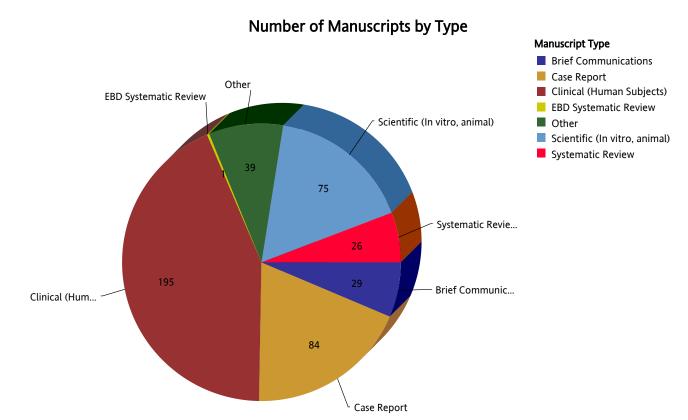
I appreciate all that they do to ensure that our journals are recognized worldwide as quality publications.

### **Manuscripts Decided for Pediatric Dentistry**

Estimated Data Date: Dec 14, 2017 2:44:02 PM

Information based on all manuscripts whose submission date is On or after Jan 1, 2017 and decision date is On or after Jan 1, 2017

### **Grouped by: Manuscript Type**



**Number of Manuscripts** 

Manuscript Type	Number of Manuscripts	Percentage of Total
Brief Communications	29	6.5%
Case Report	84	18.7%
Clinical (Human Subjects)	195	43.4%
EBD Systematic Review	1	0.2%
Other	39	8.7%
Scientific (In vitro, animal)	75	16.7%
Systematic Review	26	5.8%
Total:	449	100.0%

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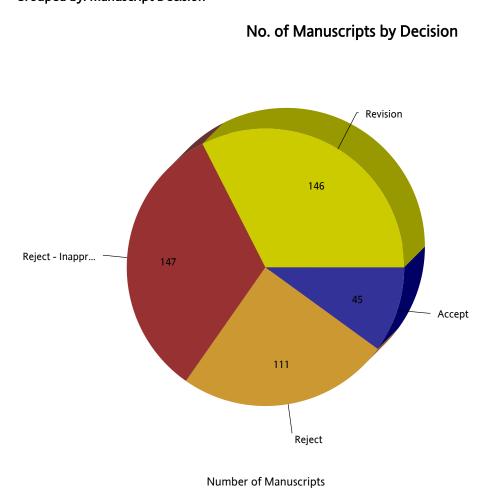
## Figure 2.

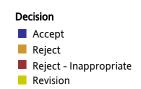
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## **Manuscripts Decided for Pediatric Dentistry**

Estimated Data Date: Dec 14, 2017 2:44:02 PM

Information based on all manuscripts whose submission date is On or after Jan 1, 2017 and decision date is On or after Jan 1, 2017 **Grouped by: Manuscript Decision** 





Manuscript Decision	Number of Manuscripts	Percentage of Total
Accept	45	10.0%
Reject	111	24.7%
Reject - Inappropriate	147	32.7%
Revision	146	32.5%
Total:	449	100.0%

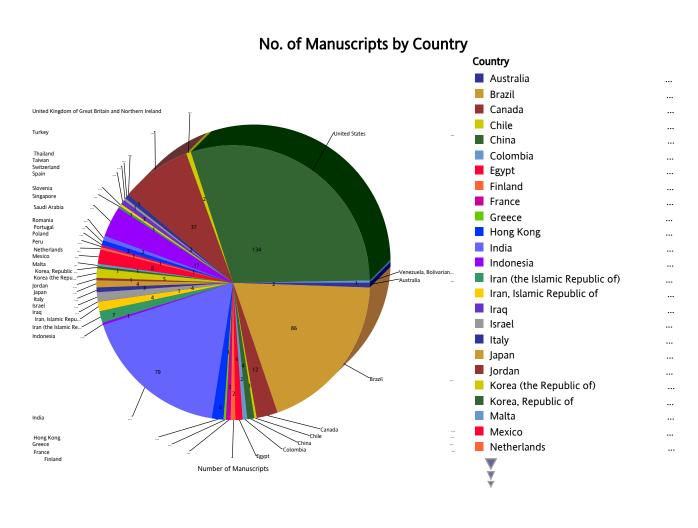
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## **Manuscripts Decided for Pediatric Dentistry**

Figure 3.

Estimated Data Date: Dec 14, 2017 2:44:02 PM

Information based on all manuscripts whose submission date is On or after Jan 1, 2017 and decision date is On or after Jan 1, 2017 **Grouped by: Country Of Submission** 



Country of Submitting Author	Number of	Percentage
, and the second	Manuscripts	of Total
Australia	2	0.4%
Brazil	86	19.2%
Canada	12	2.7%
Chile	1	0.2%
China	4	0.9%
Colombia	2	0.4%
Egypt	4	0.9%
Finland	2	0.4%
France	3	0.7%
Greece	1	0.2%
Hong Kong	6	1.3%
India	79	17.6%
Indonesia	1	0.2%
Iran (the Islamic Republic of)	7	1.6%
Iran, Islamic Republic of	4	0.9%
Iraq	1	0.2%
Israel	4	0.9%
Italy	3	0.7%
Japan	4	0.9%
Jordan	1	0.2%
Korea (the Republic of)	5	1.1%
Korea, Republic of	1	0.2%
Malta	1	0.2%

## **Manuscripts Decided for Pediatric Dentistry**

Estimated Data Date: Dec 14, 2017 2:44:02 PM

Information based on all manuscripts whose submission date is On or after Jan 1, 2017 and decision date is On or after Jan 1, 2017

**Grouped by: Country Of Submission** 

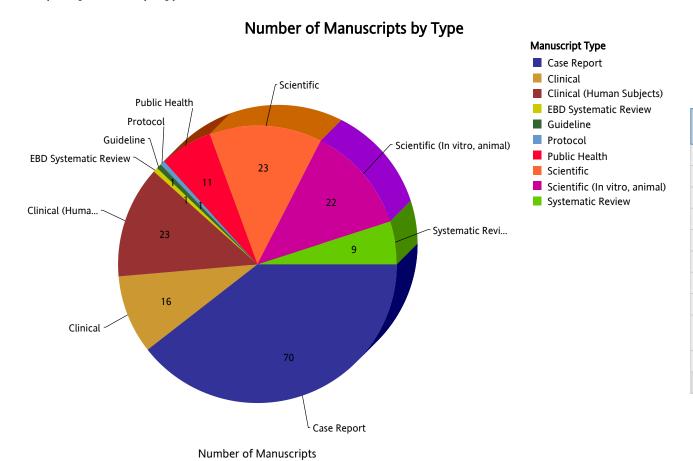
Country of Submitting Author	Number of Manuscripts	Percentage of Total
Mexico	8	1.8%
Netherlands	1	0.2%
Peru	1	0.2%
Poland	1	0.2%
Portugal	2	0.4%
Romania	2	0.4%
Saudi Arabia	17	3.8%
Singapore	1	0.2%
Slovenia	1	0.2%
Spain	3	0.7%
Switzerland	1	0.2%
Taiwan	2	0.4%
Thailand	1	0.2%
Turkey	37	8.2%
United Kingdom of Great Britain and Northern Ireland	2	0.4%
United States	134	29.8%
Venezuela, Bolivarian Republic of	1	0.2%
Total:	449	100.0%

## Manuscripts Decided for Journal of Dentistry for Children

Figure 4.

Estimated Data Date: Dec 14, 2017 3:48:02 PM

Information based on all manuscripts whose submission date is On or after Jan 1, 2017 and decision date is On or after Jan 1, 2017 **Grouped by: Manuscript Type** 



Manuscript Type	Number of Manuscripts	Percentage of Total
Case Report	70	39.5%
Clinical	16	9.0%
Clinical (Human Subjects)	23	13.0%
EBD Systematic Review	1	0.6%
Guideline	1	0.6%
Protocol	1	0.6%
Public Health	11	6.2%
Scientific	23	13.0%
Scientific (In vitro, animal)	22	12.4%
Systematic Review	9	5.1%
Total:	177	100.0%

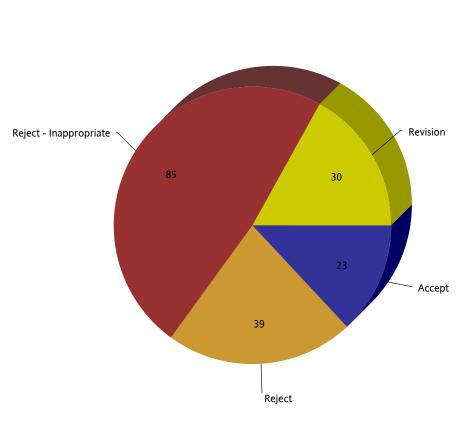
## Manuscripts Decided for Journal of Dentistry for Children

Figure 5.

Estimated Data Date: Dec 15, 2017 12:30:02 PM

Information based on all manuscripts whose submission date is Between Jan 1, 2017 and Dec 14, 2017 and decision date is Between Jan 1, 2017 and Dec 14, 2017 an





Decision		
	Accept	
	Reject	
	Reject - Inappropriate	
	Revision	

Manuscript Decision	Number of Manuscripts	Percentage of Total
Accept	23	13.0%
Reject	39	22.0%
Reject - Inappropriate	85	48.0%
Revision	30	16.9%
Total:	177	100.0%

**Number of Manuscripts** 

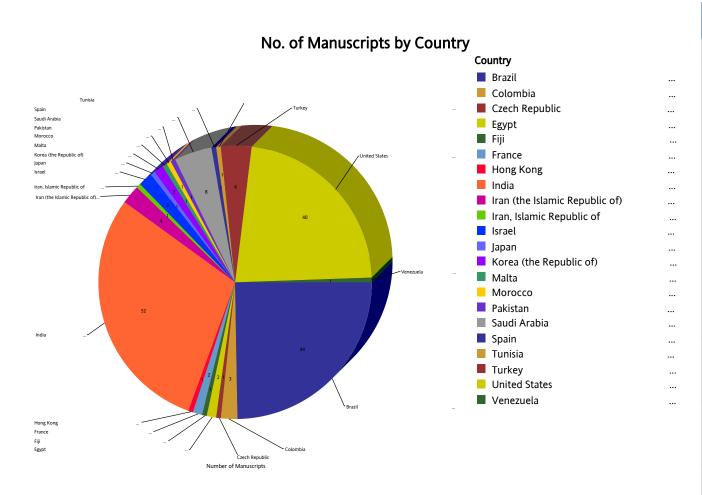
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Manuscripts Decided for Journal of Dentistry for Children

Information based on all manuscripts whose submission date is On or after Jan 1, 2017 and decision date is On or after Jan 1, 2017

### **Grouped by: Country Of Submission**

Figure 6.



Country of Submitting Author	Number of Manuscripts	Percentage of Total
Brazil	44	24.9%
Colombia	3	1.7%
Czech Republic	1	0.6%
Egypt	2	1.1%
Fiji	1	0.6%
France	2	1.1%
Hong Kong	1	0.6%
India	52	29.4%
Iran (the Islamic Republic of)	4	2.3%
Iran, Islamic Republic of	1	0.6%
Israel	3	1.7%
Japan	1	0.6%
Korea (the Republic of)	2	1.1%
Malta	1	0.6%
Morocco	1	0.6%
Pakistan	1	0.6%
Saudi Arabia	8	4.5%
Spain	1	0.6%
Tunisia	1	0.6%
Turkey	6	3.4%
United States	40	22.6%
Venezuela	1	0.6%
Total:	177	100.0%

## Awards Committee 2017-2018

Joseph B. Castellano (President-elect) Amr M. Moursi (Senior Trustee) Paula L. Coates (Junior Trustee) J.C. Shirley (Freshman Trustee) John S. Rutkauskas (Chief Executive Officer)

The Awards Committee has selected the following recipients:

Distinguished Service Award



Ned Savide

Pediatric Dentist of the Year



Donald Chi

Jerome B. Miller "For the Kids" Award



Courtney Chinn

Merle C. Hunter Leadership Award



Edward L. Rick

Manuel M. Album Award



Janice Jackson

Dr. Lewis A. Kay Excellence in Education Award



Deborah Studen-Pavlovich

#### Awards Committee, 2017-2018

I want to thank the Awards Committee for their suggestions and dedication to evaluating and selecting these wonderful recipients.

#### Other awards to be presented at the 71st AAPD Annual Session:

Paul P. Taylor Award

The AAPD Editorial Board has selected the following article:

Coll JA, Seale NS, Vargas K, Marghalani AA, Al Shamali S, Graham L. Primary Tooth Vital Pulp Therapy: A Systematic Review and Meta-analysis. *Pediat Dent* 2017,39(1):16-27.

Evidence-Based Dentistry Service Award Dr. Norman Tinanoff

## Budget and Finance Committee 2017-2018

Jessica Y. Lee, Secretary-Treasurer, Chair Bruce Weiner, Senior Trustee Deven V. Shroff, Junior Trustee Tegwyn Brickhouse, Freshman Trustee John S. Rutkauskas, Chief Executive Officer Thomas Jurczak, Director, Business Services

The Budget and Finance Committee has continued to guide our organization successfully primarily because of you—our members.

Our reserves are slightly below the recommended level of 100% of our annual operating budget. This is due to the expenses of the headquarters office expansion, completed in July 2014, and ongoing commitments to the Ad Council Public Awareness Campaign and the Mouth Monsters PR campaign. See the CEO's report for details.

We recently completed our regular audit and once again received the status of "Unqualified Opinion", which is the highest level possible. The auditing firm gave no management recommendations because no deficiencies were observed.

The dues increase was implemented, membership has remained at an extremely high level and the increase has effectively been put in place to manage increased costs to the Academy.

The Committee has also developed the 2018-19 Proposed Budget, which will go to the Board of Trustees for action at the Annual Meeting.

The Budget and Finance Committee met on two occasions during the past year. Those meetings occurred in October 2017 in Chicago and again in March 2018 in Washington, DC. The minutes of the October meeting are included below and the minutes of the March meeting, along with the proposed budget for FY2018-2019, will be presented to the Board of Trustees at the Annual Meeting.

Budget and Finance Committee, 2017-2018

## Minutes of the Regular Meeting of the Budget and Finance Committee

Date: Thursday, October 12, 2017

Place: Roosevelt Room, The Conrad Hotel, Chicago, Illinois

Presiding officer: Dr. Jessica Y. Lee, Secretary-Treasurer

Minute taker: Ms. Margaret A. Bjerklie, AAPD Executive Assistant and Office Manager

**Budget and Finance Committee members present:** 

Drs. Bruce Weiner, Senior Trustee; Deven Shroff, Junior Trustee; Tegwyn Brickhouse, Freshman Trustee; and John S. Rutkauskas, AAPD Chief Executive Officer AAPD staff present for all or part of meeting: Mr. Thomas Jurczak, Director of Business Services; Ms. Tonya Almond, Vice President for Meetings and Continuing Education; Ms. Veronica Gomez, Accounting Coordinator.

Guests present for all or part of meeting: Drs. James Nickman, AAPD President; Joseph Castellano, AAPD President-Elect; Mr. Scott Martin, Martin and Martin CPAs Participating by conference call: Mr. Troy Rossow and Mr. Ryan Grall, BMO Harris

Dr. Lee called the meeting to order at 9:53 a.m.

MOTION: To approve the agenda as presented.

Carried

## **Approval of Minutes**

MOTION: To approve the minutes of the March 5, 2017, meeting of the Budget and Finance Committee.

Carried

## **Annual Session Budget**

- Conservative on revenue, aggressive on expenses. Hawaii is more expensive.
- Fewer staff budgeted

Budget and Finance Committee, 2017-2018

- Budgeted attendance as equal to that of San Antonio meeting.
- Budgeted less exhibit revenue; many exhibitors don't see the return on investment, particularly with the freight fees to Hawaii.

MOTION: To recommend that the board approve the proposed budget for 2018 Annual Session.

Carried

### 2017-2018 Budget

• Informational. No modifications since approval in May.

#### **Income and Balance Statements**

• Informational. The committee thanked Mr. Jurczak for the new format.

## **Investment Update-BMO Harris**

• Recommend asset allocation should remain the same.

MOTION: To maintain the current asset allocation range for BMO Harris Bank: 40-70% equity, 25-50% fixed income, 5-20% cash, while maintaining at least 10% in cash.

Carried

## **Investment Update-Associated Bank**

Recommend asset allocation should remain the same.

MOTION: To maintain the current asset allocation range for Associated Bank: 40-65% equity, 30-50% fixed income, 5-20% cash.
Carried

#### Associated Bank Fee Increase

- AAPD has been given a significant discount for some time.
- · Associated Bank has not changed its fees for 5 years.
- AAPD discount is still going to be about 40%.

#### **MOTION: To accept the proposed increase in fees for Associated Bank.**

Carried

## 2017-18 Budget

- New layout for reporting will allow more accuracy with budgeting.
- Discussion of costs related to Public Policy Advocacy Conference.

Budget and Finance Committee, 2017-2018

### **Membership Statistics**

• Informational; it was noted that the numbers do not yet reflect terminations due to non-payment of dues

#### **Audit**

- This was a year of transition as far as how the expenses and income were allocated to different cost centers.
- Total assets went up \$676,000 compared to last year; most in investments.
- Total liabilities increased by \$376,000; most in accounts payable due to annual session and deferred income for dues receipts.
- Overall, very successful year.

Motion: The Budget and Finance Committee received and reviewed the draft audit report for 2016-2017.

Carried

### **Next meeting**

The next meeting of the Budget and Finance Committee will be March 4, 2018, in Washington, DC at the InterContinental Hotel-The Wharf.

The meeting was adjourned at 11:23 a.m. on Thursday, October 12, 2017.

## Constitution and Bylaws Committee 2017-2018

Kevin J. Donly, Chair (Vice President)
Jessica A. Meeske (Trustee)
Scott D. Smith (Member at Large)
Beverly A. Largent (Consultant)
C. Scott Litch (Chief Operating Officer and General Counsel, non-voting member)

Attached are proposed Constitution and Bylaws modifications that were presented and discussed during the 2017 Ad Interim meeting and will be presented to the membership at the Reference Committee then to the General Assembly for approval.

The Reference Committee hearing will take place on Saturday, May 26, 2018, from 10:00 to 11:00 a.m. in Room 308AB at the Hawaii Convention Center. Members are strongly encouraged to attend. Non-members may attend, but will be polled and asked to identify themselves by the chair, and are not allowed to comment. The Reference Committees are intended to be the venue for member discussion on any formal resolutions that will be proposed before the General Assembly. This is an opportunity for members to present testimony on proposed oral health policies and clinical guidelines and other business to come before the General Assembly.

The Awards Recognition and **General Assembly** will take place on **Sunday**, **May 27**, **2018**, **from 9:30 to 11:30 a.m. in Room 312 of the Hawaii Convention Center**. The General Assembly is a meeting of Active and Life members for the purposes of conducting the business of the AAPD.

## NOTICE TO ACTIVE AND LIFE MEMBERS

#### Constitution and Bylaws Amendments before the 2018 General Assembly

These amendments will be considered the AAPD Annual Session in Honolulu, Hawaii during the Reference Committee hearings and the General Assembly.

Note to readers: All line numbers reference the current AAPD Constitution and Bylaxes as printed in the 2018 Membership Directory.

Strikethrough words are to be removed; **bold underlined** words are to be added.

#### CLARIFICATION OF RECOGNIZED CHAPTERS TO IN-CLUDE PEDIATRIC DENTAL ORGANIZATIONS BASED IN OTHER COUNTRIES

The following proposed change to the Constitution and Bylaws was prepared by the Constitution and Bylaws Committee at the request of the Board of Trustees.

**Background:** While the AAPD provides Directors and Officers Liability Insurance to all "recognized chapters" and such coverage applies worldwide, the current Bylaws are not clear on the status of organizations that are not U.S.-based districts or states. Prior to 1999 these were called component societies. Therefore, this proposal would clarify their status. Recognizing the long AAPD history of support for and collaborations with several foreign-based pediatric dental societies, three existing organizations would be grandfathered in as recognized chapters, along with a process for considering recognition of chapters in other countries.

An amendment would be inserted via the following new paragraph after Chapter VII (State Unit Organizations):

#### CHAPTER VIII. RECOGNIZED FOREIGN COUNTRY CHAPTERS

#### **Section 1. DESCRIPTION:**

A. In addition to the District and State Organizations described in Chapters VI and VII, the AAPD shall also have recognized chapters based in and representing foreign countries.

B. Such foreign country chapters shall be independent, duly incorporated, non-profit organizations governed by an adopted constitution and bylaws which shall not be in conflict with or limit the Constitution and Bylaws of the Academy, and shall be in good standing as a non-profit organization in their country.

Section 2. PURPOSE:

A foreign chapter shall:

A. Facilitate communications between that country's pediatric dentists and the AAPD Board of Trustees.

- B. Provide educational opportunities for its members.
- D. Advocate for the improvement of the oral health of children in their country.

Section 3. DUTIES:

A foreign chapter shall:

A. Promote AAPD continuing education courses, including the annual session.

B. Assist the AAPD in the recruitment and retention of dentists eligible for AAPD international or international colleague membership who practice or reside in their country.

C. Provide an annual report to the AAPD membership on activities of the chapter.

#### **Section 4. MEMBERSHIP:**

A. The chapter shall determine its membership categories and eligibility as it deems appropriate, including dues level.

B. Any AAPD international member residing or practicing in the country of the foreign chapter shall be eligible for membership in such chapter.

#### Section 5. PROCEDURE FOR APPLICATION:

A. The following foreign country pediatric dental organizations are designated as chapters so long as criteria described in this chapter continues to be met: Canadian Academy of Pediatric Dentistry; Korean Academy of Pediatric Dentistry; and Mexican Academy of Pediatric Dentistry.

B. An application for a recognized foreign chapter shall be submitted to the AAPD Board of Trustees. Chapter status shall be granted by a majority vote of the District Board of Trustees.

Re-letter subsequent chapters.

## CLARIFICATION OF CREDENTIALS AND ETHICS PROCEEDINGS

The following proposed changes to the Constitution and Bylaws were prepared by the Constitution and Bylaws Committee at the request of the Board of Trustees

**Background**: It was recognized that in some situations regarding AAPD membership status, a hearing of the Credentials and Ethics Committee should not be required if the AAPD membership action was based on a decision by a state licensing board. Legal advice was also given that reference should be made to licensure status under AAPD membership requirements.

An amendment would be inserted in Chapter 1 (Membership):

114	CHAPTER I. MEMBERSHIP
120	Section 2. <b>ELIGIBILITY:</b>
121 122	A. <b>ACTIVE:</b> An ethical dentist may be considered for Active membership provided the applicant:
123	1. Is a member of the American Dental Association, Canadian
124	Dental Association, or a recognized foreign dental association
125	at the time of application. Active members are strongly encouraged
126	to maintain membership in the American Dental Association,
127	Canadian Dental Association, or a recognized foreign dental
128	association.
129	2. Meets the educational requirements of the Commission on
130	Dental Accreditation of the U.S. or Canada for the announcement
131	of ethical practice in pediatric dentistry or has achieved board
132	certification from the American Board of Pediatric Dentistry. An
133	applicant for Active membership who announced ethical practice in
134	pediatric dentistry prior to January 1, 1965, is eligible for consider-
135	ation for membership without two (2) years of approved advanced

## 3. In the case of an Active, Life, or Affiliate member, maintains a valid license to practice dentistry in at least one state or province.

137 3 <u>4</u>. Is approved by the Credentials and Ethics Committee.

An amendment would be inserted in Chapter XIII (Code of Professional Conduct and Judicial Procedures)

#### 1300 CHAPTER XIII. CODE OF PROFESSIONAL 1301 CONDUCT AND JUDICIAL PROCEDURES

education in pediatric dentistry.

1302	Section 1. CODE OF PROFESSIONAL CONDUCT: The Prin-
1303	ciples of Ethics of the American Dental Association and the Ad-
1304	visory Opinions appended thereto shall govern the professional
1305	conduct of all members of the Academy, except in those in-
1306	stances requiring a variance in interpretation of a "Principle" or
1307	"Advisory Opinion" which is deemed essential to the govern-
1308	ance of the Academy. Such variances shall be published with
1309	the Bylaws of the Academy.
1310	Section 2. PLEDGE: Every member of this Academy shall
1311	pledge to adhere to the Code of Professional Conduct of the
1312	Academy.

Section 3. **DISCIPLINE:** This Academy shall have the right to
 discipline any of its members who may be adjudged guilty of
 unprofessional conduct or violation of its Code of Professional
 Conduct or its Bylaws, and may impose the following:

A. **CENSURE:** Upon conviction of a charge which constitutes a violation of a provision of the Bylaws, the Principles of Ethics of the American Dental Association, or the accepted rules of moral conduct, a member may, at the discretion of the Credentials and Ethics Committee, be censured. Such censure shall be entered in the member's record and shall remain in force until such time that the member submits satisfactory evidence of the institution of acceptable corrective measures, providing such correction shall occur within a period of three (3) months following conviction.

B. **SUSPENSION:** Failure to institute acceptable corrective measures within the stipulated period of time associated with censure may, at the discretion of the Credentials and Ethics Committee, result in the suspension of all the member's rights and privileges associated with Academy membership. Such suspension shall remain in force for no longer than six (6) months; its termination shall be at the discretion of the Credentials and Ethics Committee pending submission of satisfactory evidence of corrective measures. Failure to submit such evidence shall result in expulsion.

C. **EXPULSION:** A member shall be expelled for failure to comply with the Bylaws provision relative to the payment of dues and assessments; and for such other specifically stipulated violations as are deemed of sufficient gravity by the Credentials and Ethics Committee to warrant expulsion, provided the member has elected to exhaust all avenues of appeal, or after due notice, fails to do so.

#### Section 4. JUDICIAL PROCEDURE:

A. ADVISEMENT: In the event that the Academy has been advised, directly or indirectly, that a member of the Academy has been found guilty, by a member's component or constituent dental society or a duly authorized licensing agency, of unethical conduct in practice or in other professional relationships, or is accused of such conduct, in writing, by an Academy council/committee or a member, it shall be the duty of the Credentials and Ethics Committee to obtain a certified copy of the alleged conviction and the charges associated with it. In the case of action initiated by an Academy committee or member, the Credentials and Ethics Committee shall obtain, in writing, a detailed specification of the alleged violation(s).

Having obtained the foregoing information, the committee shall determine whether, in its opinion, justification exists for instituting a formal hearing to properly dispose of the matter.

However, a hearing shall not be required if the committee's action is based on a decision made by a state or provincial dental licensing board that results in the suspension or termination of the dental license of an Active, Life, or Affiliate member. In such case, the decision shall go directly to the Board of Trustees for review as described in paragraph E.

1360	B. <b>HEARING:</b> Hearings shall be held at the location of, and	1394	G. <b>APPEALS BOARD:</b> The Appeals Board shall be composed of
1361	immediately prior to, the ad interim or annual meeting of the	1395	three (3) past Presidents who are not on the Board of Trustees.
1362	Board of Trustees. The accused member shall be entitled to a	1396	All decisions shall be stayed pending appeal. All notice and
1363	hearing before the Credentials and Ethics Committee at a time	1397	hearing requirements shall be applicable to appeals to the Ap-
1364	set by the committee, at which the accused member will be	1398	peals Board. The Appeals Board shall hold its hearing at the
1365	given the opportunity to present a defense to all charges	1399	next annual session following receipt of notice of appeal. The
1366	brought against the member. All proceedings shall be recorded	1400	decision of the Appeals Board following the appeal hearing
1367	and preserved.	1401	shall be final.
1368	C. <b>NOTICE:</b> The accused member shall be notified, in writing,	1402	Section 5. <b>HOLD HARMLESS:</b> Every member of this Acad-
1369	of the charges brought against the member and of the time and	1403	emy does waive the right to hold the Academy, its trustees,
1370	place of the hearing. Such notice shall be sent by registered	1404	officers, members, and/or employees responsible for any dam-
1371	mail, addressed to the member's last known address, not later	1405	age, pecuniary or otherwise, which may result from conviction
1372	than thirty (30) days prior to the date set for the hearing.	1406	and discipline associated with disciplinary proceedings against
		1407	said member.
1373	D. CHARGES: The written charges shall include a certified	TECH	NICAL CORRECTION CONCERN TRUCTER
1374	copy of the alleged conviction or determination of guilt, if any,		NICAL CORRECTION CONCERN TRUSTEE
1375	specification of the Bylaw(s) or ethical provision(s) alleged to	MEMB	BERSHIP REQUIREMENTS
1376	have been violated, as the case may be, and a description of the	The following proposed changes to the Constitution and Byla	
1377	conduct alleged to constitute each violation.		epared by the Constitution and Bylaws Committee at the
		•	of the Board of Trustees
1378	E. <b>DECISION:</b> The decision, following the hearing (if	request	of the Board of Trustees
	<b>applicable</b> ), shall be	Bac	<b>kground</b> : It was recognized that current language describing
1379	subject to the review and approval of the Board of Trustees.	trustee 1	membership requirements is inaccurate as related to the affili-
1380	Every decision, whether for acquittal, censure, suspension, or	ate trust	• •
1381	expulsion, shall be presented in writing and shall specify the		
1382	charges made against the member, the facts presented in sub-	554	CHAPTER V. BOARD OF TRUSTEES
1383	stantiation or refutation of the charges, the verdict rendered,	551	CIEM TER V. BOARD OF TROSTEES
1384	and the penalty, if any, imposed. Following the review and	607	Section 4. <b>QUALIFICATIONS:</b> A member of the Board of
1385	approval by the Board of Trustees, notice of the decision shall	608	Trustees shall be an Active or Life member of the Academy in
1386	be sent by registered mail to the accused member no later than	609	good standing and members of their District Organization and
1387	ten (10) days subsequent to the Board's action. Such notice	610	State Unit. The Chief Executive Officer may be excluded from
1388	shall also inform the accused member of the right of appeal.	611	these requirements. The Affiliate Trustee shall be an Affiliate
1000	E ADDRAY (FILL 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		member of the Academy in good standing and an Affiliate
1389	F. <b>APPEAL:</b> The member may appeal the decision of the com-		member of their District Organization and State Unit if
1390	mittee and the Board of Trustees by filing a statement of par-		such membership category is provided.
1391 1392	ticulars with the Chief Executive Officer no later than sixty (60)		· · · · · · · · · · · · · · · · · · ·
	days after the date of the mailing of the decision, accompanied		
1393	by a request for a hearing before the Appeals Board.		

The AAPD Constitution & Bylaws were originally adopted in 1984 and the current version, as amended through 2017, is printed in your *Membership Directory* and posted online under Member Resources.



## Did You Know

## Credentials and Ethics Committee 2017-2018

Kevin J. Donly, Chair (Vice President) Kerry Maguire (Trustee) John L. Gibbons (Trustee) John S. Rutkauskas (Chief Executive Officer)

The Credentials and Ethics Committee monitors information forwarded to the committee and stands ready for any committee action necessary. Presently, there are no cases pending.

## Leadership Development Committee 2017-2018

Joel H. Berg, Chair
Jade Miller (Immediate Past President, Board Liaison)
David K. Curtis
Beverly A. Largent
William F. Vann, Jr.
John S. Rutkauskas (Chief Executive Officer)

The Leadership Development Committee has been meeting for two years to discuss how the AAPD can be responsive to marketplace trends and needs, and to assure that as an Academy, we are systemically and structurally prepared to meet those trends from a leadership perspective.

We have met several times via phone and held an in-person meeting during the Winter Planning Session in 2017. During our most recent meeting, we identified some areas wherein we will explore further what potential suggestions for enhancements in our work or in our structure will be recommended to the BOT. We will make recommendations to the BOT for deliberation in advance of their fall 2018 meeting.

I thank the AAPD leadership, the AAPD staff and the outstanding colleagues with whom I have had the pleasure working on this important matter.

## Nominations Committee 2017-2018

Robert L. Delarosa (Past President, AAPD), Chair Jade Miller (Immediate Past President, AAPD) Jeffrey C. Mabry (President, ABPD)

#### **DELEGATES**

(term end in parentheses)
Douglas B. Keck, Northeastern District (2018)
Thomas Ison, Southeastern District (2018)
Clifford Hartmann, NorthCentral District (2019)
Timothy Fagan, Southwestern District (2019)
Gila Dorostkar, Western District (2020)

The Nominations Committee met in Naples, Florida, on January 10, 2018. Committee members reviewed the candidate's applications, conducted interviews of the candidates, and then decided on the following slate of nominations:

President-Elect Dr. Kevin J. Donly
Vice President Dr. Jessica Y. Lee
Secretary/Treasurer Dr. K. Jean Beauchamp
Academic At-Large Trustee Dr. Homa Amini
Dr. Gregory W. Olson

Dr. Joseph B. Castellano will ascend to AAPD President.

Dr. John T. Fales has been selected by the Southwestern District to be the new Trustee to the AAPD Board of Trustees.

Dr. Jacob K. Lee has been selected by the members of the Western District to be the new Trustee to the AAPD Board of Trustees.

Candidate profiles were published in the March 2018 issue of *Pediatric Dentistry Today* (pages 12-13).

I want to thank the committee members for their dedication and hard work on this very important committee.

## Policy and Procedure Committee 2017-2018

Jade Miller, Chair (Immediate Past President)
Mario E. Ramos (Parliamentarian)
Bruce Weiner (Senior Trustee)
John L. Gibbons (Junior Trustee)
J.C. Shirley (Freshman Trustee)
John S. Rutkauskas (Chief Executive Officer)

The Policy and Procedure Committee responded to several requests by the Board of Trustees during the AAPD year 2017-18. The current edition of the AAPD Administrative Policy and Procedure Manual is posted under "Member Resources" in the Members Only section of the AAPD website.

The Board of Trustees approved the following changes to the AAPD *Administrative Policy* and *Procedure Manual* in 2017-18:

Section 3.A.10: Clarify district trustee reporting requirements.

Section 6.A: Refunds for annual session (technical clean-up, so that Manual reflects actual practice).

Section 7: To implement dues reduction for predoctoral student members transitioning to Affiliate membership.

Section 7.B: Update HSHC and PAC voluntary recommended amounts

Section 7.H: Refunds for continuing education courses (technical clean-up, so that Manual reflects actual practice).

Section 9.C: Technical correction to the process for development of policies and best practices.

Section 9.C: Clarify development of background and intent statements for Best Practices.

Section 9.G.3: Add EBD workgroup performance requirements

Sections 8.P.18 and 8.P.17: To specify that there are no term limits for CDBP chair and members.

Section 10.C: Clarify e-blast timing for AAPD support of district and chapter initiatives

Section 13.J: Add new language on international collaboration at end of current collaboration policy.

Section 14: To operationalize the Safety Committee.

Section 15 (new): To operationalize Special Interest Groups (SIGs).

Some additional housekeeping provisions will also be considered by the Board of Trustees at its meeting during the 2018 AAPD Annual Session in Honolulu, Hawaii.

## Strategic Planning Committee 2017-2018

Joseph B. Castellano, Chair (President-Elect) John L. Gibbons (Senior Trustee) Deven Shroff (Junior Trustee) Tegwyn H. Brickhouse (Freshman Trustee) Scott D. Smith (Consultant) John S. Rutkauskas (Chief Executive Officer)

The Strategic Planning Committee met in January at the Winter Planning Meeting. One of the main goals of the committee for the year was to get all the council and committee charges aligned with the AAPD's new Strategic Plan. The way that the current charges are structured do not allow them to fit well into the revised Strategic Plan.

The Strategic Planning Committee and the Council and Committee chairs, along with their members, have realigned their respective charges to be in congruence with the new strategic plan. The intent of the charges was kept, and redundancies were deleted, however, they were reworded to fit seamlessly into the new strategic plan format. The new slate of charges will be reviewed and finalized by the councils and committees and presented to the new Board of Trustees for approval at the AAPD Annual Session in Hawaii. Following approval, they will be placed on the website for reference.

Thank you to all the members of the Strategic Planning Committee and to the Council and Committee Chairs and members for your efforts in getting our Plan and Charges in line.

## Optimal Oral Health for All Children The American Academy of Pediatric Dentistry Strategic Plan 2020

#### Vision

Optimal oral health for all children.

#### Mission

To advance optimal oral health for all children by delivering outstanding service that meets and exceeds the needs and expectations of our members, partners, and stakeholders.

#### **AAPD Culture**

Our members put children first in everything they do, and at the highest standards of ethics and patient safety. As such, the American Academy of Pediatric Dentistry is THE leading national advocate dedicated exclusively to children's oral health. We are the embodiment of our members' expertise as the *big authorities on little teeth*.

#### Strategic Objectives

#### Clinical Expertise

We equip our members and all other providers with data, knowledge, competencies and skills to provide safe, high-quality, evidence-based patient care in the context of a Dental Home.

- Provide and promote continuing clinical education that meets the changing needs of patients and their caregivers
- Use the authority and expertise of our members to advocate for patient safety, improved outcomes, and intelligent regulatory oversight
- Invest in pre- and post-doctoral education by supporting training programs, advising accreditation boards, and sponsoring programs to enhance success throughout their career

#### **Patient Care and Access**

We help members address barriers to care, such as parent oral health literacy and affordability; reduce administrative burdens for payment/reimbursement; and invest in community-based initiatives providing care to underserved children.

- Support research that identifies the scope of dental need in the U.S. and supports the best clinical practices for patient care
- Advocate for legislative reforms to reduce the administrative complexity of reimbursement for dental treatment
- Support and promote programs that provide care to those in need

#### Strategic Planning Committee, 2017-2018

#### Workforce and Practice Transformation

We support the pediatric dental workforce, expanding its reach and to better address children's oral health needs. We develop practical tools and resources to help all members in any practice setting build and sustain high-functioning dental care practices to the benefit of their patients and their communities.

- Support research to examine the distribution and profiles of providers, to help members make informed decisions about their practices
- Develop and provide tools that enable our members in all practice settings to provide optimal care
- Offer education courses in non-clinical areas of dental practice
- Assist members in achieving a healthy work-life balance so they can enjoy a sustained career in pediatric dentistry
- Provide opportunities to develop leadership skills that will help our members in their practice as well as in volunteer positions in the AAPD
- Sponsor programs to manage student debt

#### Advocacy

We take a solutions-based approach to educating the broader dental profession, local, state and national policy makers, and consumers/parents about critical issues affecting child oral health in the United States.

- Advise and influence public policy through direct advocacy as well as by training members to be advocates in their practices and their communities
- Educate the public on key children's oral health topics through public service messages, media interviews by AAPD-trained spokespersons, contributions to parent blogs, and other communication opportunities as they occur
- Help members to exchange information on legislative issues
- Exchange information with other healthcare and children's organizations

#### **Operations**

We maintain organizational effectiveness by meeting and exceeding accepted professional association management standards.

- Nurture an efficient and effective governance structure that incorporates a variety of experiences so that all viewpoints are represented. The structure creates a network of experts so that AAPD can quickly respond to emerging issues
- Help volunteer leadership concentrate on issues by providing full administrative support and strategic advice
- Coordinate marketing and public relations for a consistent message to members and the public
- Select and develop the best talent
- Provide solid financial analysis and direction for all activities of the AAPD

# Council on Annual Session 2017-2018

Kevin J. Donly, Chair and Board Liaison

**Ex-Officio Members** 

Rebecca L. Slayton, Chair, Council on Annual Session, Scientific Program Committee

Lynn Fujimoto, Chair, Council on Annual Session, Local Arrangements Committee

Staff Liaison

Tonya Almond, Vice President for Meetings and Continuing Education Kristi Casale, Meeting Services Director

Vision

Duties

The duties of the Council on Annual Session, as listed in the *AAPD Administrative Policy and Procedure Manual*, are to supervise and coordinate all aspects of the annual session.

## **Standing Charges**

### Charge 1

In conjunction with the Chief Executive Officer and Headquarters Office staff, prepare a final budget for the 2018 Annual Session to be reviewed by the council chair and presented at the 2017 Ad Interim meeting of the Board of Trustees.

Background and Intent: The Annual Session budget should be reviewed and approved by council leadership prior to presentation to the Board of Trustees at the Ad Interim Meeting.

#### **Progress Report**

A complete proposal for all social events has been reviewed and submitted as part of the budget process. Tonya Almond and Kristi Casale conduct a thorough analysis of past registration figures, exhibits and sponsorship sales to recommend revenues for the AAPD 2018. Expenses are based on existing contracts in place, current quotes from facilities/vendors as well as historical data. The budget has been presented to the Board of Trustees. The Board approved the AAPD 2018 Budget at the Ad Interim Meeting.

## Charge 2

Review and update the LAC Manual for each destination to be distributed prior to the Planning Meeting in July. During this meeting a comprehensive review of the evaluations takes place as well as a list of recommended improvements from staff is discussed.

Background and Intent: Data derived from the Annual Session evaluations and feedback from the Council on Annual Session and Scientific Program committee should be used for the planning of the following year's session.

#### **Progress Report**

A complete review of the evaluations collected during AAPD 2017 were analyzed and discussed at the planning meeting. Tweaks are made each year to improve the planning and execution of the Annual Session. Staff updated the LAC Manual so it is reflective of current best practices, operations, and policies.

## Council on Annual Session, Scientific Program Committee 2017-2018

Rebecca L. Slayton, SE District, Chair

Kevin J. Donly, Board Liaison

#### **Members**

Dan Fanikos, NE District

Robert D. Elliott, SE District

David M. Avenetti, NC District

Janice Townsend, SW District

Cody C. Hughes, W District

Steven Pike, Affiliate Member

#### Consultants

Carlos A. Bertot

Ann M. Bynum

Matthew Geneser

Steven J. Hernandez

Lois A. Jackson

Anthea Drew Mazzawi

Ricardo A. Perez

#### **Ex-Officio Members**

D. Cody Mast, Ex-Officio (Chair, Council on Continuing Education)

Donald L. Chi, Ex-Officio (Chair, Council on Scientific Affairs)

#### Staff Liaison

Tonya Almond, Vice President for Meetings and Continuing Education Kristi Casale, Meeting Services Director

#### Vision

#### **Duties**

The duties of the Council on Annual Session, Scientific Program Committee, as listed in the *AAPD Administrative Policy and Procedure Manual*, are to propose and develop the scientific program for the annual session.

## **Standing Charges**

## Charge 1

Complete planning for the 2018 Annual Session in Honolulu, HI and begin planning for the 2019 Annual Session in Chicago, IL. The programs and content of the Annual Session should be in conformity with the Strategic Plan of the AAPD and with the

#### Council on Annual Session, Scientific Program Committee, 2017-2018

information gained from member needs surveys and member evaluations of prior meetings.

Background and Intent: The content of the Annual Session should reflect the Academy's Strategic Plan and membership needs.

#### **Progress Report**

The Scientific Program is complete for the AAPD 2018 and all speakers are working to finalize their presentations for May. Registration details are included in the Annual Report. Please download the AAPD 2018 App for complete details and content for the meeting. We are working on the framework for the meeting in Chicago to determine the optimal CE hours and schedule.

Edward L. Rick, NC District, Chair John L. Gibbons, Board Liaison

#### **Members**

Rachael Simon, NE District Ann M. Bynum, SE District Jennifer L. Cully, NC District Carolyn A. Kerins, SW District Sheila Marie Brown, Affiliate Member

#### Consultants

Jeffrey N. Brownstein, Consultant Judith R. Chin, Consultant Carolyn B. Crowell, Consultant Maria Regina (Ninna) P. Estrella, Consultant Elizabeth Gosnell, Consultant Rishita Jaju, Consultant Elva V. Jordan, Consultant Ashok Kumar, Consultant Randall Lout, Consultant Oariona Lowe, Consultant Brian J. Sanders, Consultant Ana Lucia Seminario, Consultant Anupama Tate, Consultant Karin Weber-Gasparoni, Consultant Thomas R. Stark, Expert Consultant Jenny Ison Stigers, Expert Consultant Norman Tinanoff, Expert Consultant

#### **Staff Liaisons**

Mary Essling, Dental Benefits Director Laurel Graham, Evidence-Based Dentistry Manager John Rutkauskas, Chief Executive Officer

#### Vision

The vision of the Council on Clinical Affairs (CCA) is to be a critical and vital aspect of American Academy of Pediatric Dentistry continuing as the world leader on children's oral health. Formed from a group of passionate, committed and bright pediatric dentists, this council draws on its long history and responsibility to the organization and the children its members serve. With the common goal of providing the best and most current evidenced based science, documents are drafted that are relevant to healthcare providers and organizations, governmental bodies, and other industry stakeholders. With that bold

platform, CCA is an invaluable resource for all of those parties that seek to impact the lives of children by vastly improving their oral health.

#### **Duties**

The duties of the Council on Clinical Affairs, Committee on Sedation and Anesthesia, as listed in the AAPD Administrative Policy and Procedure Manual, are to: 1) advise the Board of Trustees on matters concerning the clinical practice of pediatric dentistry; 2) review and develop oral health policies and guidelines regarding the clinical practice of pediatric dentistry and submit recommendations through the Board of Trustees; 3) perform such other duties as assigned by the President or the Board of Trustees.

### **Standing Charges**

#### Charge 1

Review all definitions, oral health policies and clinical guidelines at no less frequent interval than every fifth year. Engage the Council on Scientific Affairs to perform a literature review for scientific validity.

Background and Intent: This is a standing charge to the Council. To be effective advocates for infants, children, adolescents, and persons with special health care needs, AAPD oral health policies and clinical guidelines must be supported by the best available evidence. Documents will be reviewed and revised/reaffirmed/retired in a cycle of not more than 5 year intervals. When there is sufficient reason (e.g., publications from a consensus conference), documents will be evaluated in advance of their scheduled review cycle.

#### **Progress Report**

Documents reviewed in 2017-2018 and workgroups assigned:

a) Definition of Dental Home

Work group: CCA: Rachael Simon, Maria Estrella CSA: Matina Angelopoulou, Man Wai Ng

b) Policy on Minimizing Occupational Health Hazards Associated with Nitrous Oxide

Work group: CCA: Sheila Brown, Ana Seminario, Ann Bynum

CSA: Glenn Rosivack, Kaaren Vargas

c) Policy on Patient Safety

Work group: CCA: Tom Stark, Elizabeth Gosnell

CSA: Anna Jung-Wei Chen, Man Wai Ng

d) Policy on the Role of Pediatric Dentists as Both Primary and Specialty Care Providers

Work group: CCA: Rishita Jaju, Oariona Lowe

CSA: Kimberly Patterson, Matina Angelopoulou

e) Policy on the Use of Fluoride

Work group: CCA: Jennifer Cully, Rishita Jaju, Carolyn Crowell

CSA: Yasmi Crystal, Tim Wright

f) Policy on Prevention of Sports-related Orofacial Injuries

Work group: CCA: Carolyn Kerins, Jennifer Cully

CSA: Glenn Rosivack, Anne O'Connell

g) Policy on the Dental Home

Work group: CCA: Maria Estrella, Rachael Simon

CSA: Anne Wilson, Matina Angelopoulou

h) <u>Best Practices on Periodicity of Examination, Preventive Dental Services, Anticipatory Guidance/Counseling, and Oral Treatment for Infants, Children, and Adolescents</u>

Work group: CCA: Karin Weber-Gasparoni, Randy Lout

CSA: Francisco Ramos-Gomez, Anne Wilson

i) Best Practices on Dental Management of Heritable Dental Developmental Anomalies\*

Work group: CCA: Ana Seminario, Elva Jordan, Judi Chin

CSA: Tim Wright, Kimberly Patterson

j) <u>Best Practices on Dental Management of Pediatric Patients Receiving Chemotherapy,</u> <u>Hematopoietic Cell Transplantation, and/or Radiation Therapy</u>

Work group: CCA: Oariona Lowe, Carolyn Kerins, Carolyn Crowell

CSA: Kaaren Vargas, Christel Haberland

k) Best Practices on Fluoride Therapy

Work group: CCA: Ashok Kumar, Jennifer Cully, Norman Tinanoff

CSA: Yasmi Crystal, Tim Wright

I) <u>Best Practices on Use of Nitrous Oxide for Pediatric Dental Patients</u>

Work group: CCA: Elizabeth Gosnell, Sheila Brown, Ann Bynum

CSA: Glenn Rosivack, Christel Haberland

m) <u>Best Practices on Use of Anesthesia Providers in the Administration of Office-based Deep sedation/general Anesthesia to the Pediatric Dental Patient</u>

Work group: CCA: Ed Rick

#### **Progress Report**

\*"Best Practices on Dental Management of Heritable Dental Developmental Anomalies": CCA recommends that the document was no longer needed, could be retired, and that CSA investigate the literature on Molar Incisal Hypoplasia (MIH) to see if a "Best Practices on MIH" was needed.

The revised Policies and *Best Practices* Recommendations were posted on the AAPD website for review by the members. Approval at General Assembly.

#### Charge 2

Annually review all AAPD-endorsed policies and guidelines developed by other healthcare organizations.

Background and Intent: This is a standing charge to the Council to promote optimal standards of care. CCA annually will monitor the policies and guidelines of other dental and medical healthcare organizations to determine when revisions have been made by the authoring group and the appropriateness of AAPD's continued endorsement.

#### **Progress Report**

Nothing to report.

### Charge 3

Annually review the tables, charts, graphs and other items found in the resource section of the Reference Manual.

Background and Intent: This is a standing charge to the Council to provide contemporary guidance in clinical practice. CCA will maintain a resource section within the Reference Manual that supplements AAPD oral health policies and clinical guidelines. An annual review will determine the accuracy of information and appropriateness for continued inclusion.

#### **Progress Report**

The resource section is under review for updates.

### Charge 4

Identify potential topics for new definitions, oral health policies, clinical guidelines, and items for the resource section. Present a list of potential topics and recommendations to the Board of Trustees annually.

Background and Intent: This is a standing charge to the Council to anticipate and respond effectively to changes in the clinical and scientific environment.

#### **Progress Report**

Recommendation: To develop a clinical practice recommendations (Best Practices) on principles of periodontal diagnosis (including risk assessment) and management of pediatric periodontal conditions.

Background and Intent: Since 2003, the AAPD has endorsed and reprinted in the Reference Manual multiple documents produced by the American Academy of Periodontology. This includes Periodontal Diseases of Children (2004) which addresses five clinically distinct periodontal infections 1) dental plaque-induced gingival diseases; 2) chronic periodontitis; 3) aggressive periodontitis; 4) periodontitis as a manifestation of systemic diseases; and 5) necrotizing periodontal diseases. Clinical recommendations that are 13+ years old are likely to contain outdated and/or incomplete information, especially relative to antimicrobial therapy. By report, the leadership of AAPD reached out to the leadership of AAPerio, and that organization had no desire to update Periodontal Diseases of Children, either singularly or in a joint endeavor. In order for AAPD to continue to remain "The Big Authority on Little Teeth" and to be consistent with its goal of current evidence-based clinical recommendations, CCA is charged with developing clinical practice recommendations (best practices) on principles of periodontal diagnosis (including risk assessment) and management of pediatric periodontal diseases. This new document will replace the existing endorsement in the Reference Manual. Delineation of common periodontal diseases that affect pediatric patients (based on the 1999 classifications of the AAPerio), as well as specific treatment recommendations, is expected. A discussion regarding the need/how to distinguish aggressive or chronic periodontitis from inflammatory periodontal conditions having a systemic etiology should be included. The workgroup can determine if there is a logical and concise way in which to include other (i.e., non-infectious) periodontal conditions.

#### Charge 5

Develop definitions, policies, guidelines or other materials as requested by the Board of Trustees.

Background and Intent: This is a standing charge to the Council. To be effective advocates for infants, children, adolescents, and persons with special health care needs, AAPD must delineate the organization's position on new and emerging health issues and translate science into clinical practice.

#### **Progress Report**

New documents in 2017-2018, background, and workgroups assigned:

a) Pre-anesthesia form

Background and Intent: There are inherent risks associated with the use of sedation in the pediatric dental office. The dentist is responsible for the proper evaluation and determination of the appropriateness and clearance for any planned dental procedure. The use of a Pre Anesthesia form will provide a helpful guideline that will minimize the potential risk of morbidity and mortality to the patient. This form should contain a methodology to assess the patient pre operatively. The form should include the indications for the procedure, medical history, review of systems, ASA classification, dosage calculations, vitals and NPO status. In addition there should be a method of confirming that each step has been completed prior to initiating care to the patient.

The intent of the pre-sedation form is to assist the dental providers in providing optimal dental care to patient that are undergoing sedation in the office setting. The AAPD's goal is to provide resources to its members to optimize dental care for patients undergoing office based sedation.

Work group: CCA: Brian Sanders, Jeffrey Brownstein

CSA: Kimberly Patterson, Anna Check

#### Report

Workgroup reviewed existing sources and developed a form for inclusion in the Resource Section of the Reference Manual 2018-2019.

b) Chairside Resource: Use of Silver Diamine Fluoride for Pediatric Dental Patients *Background and Intent*: The American Academy of Pediatric Dentistry (AAPD) recognizes that dental caries continues to be a prevalent and severe disease in children; especially those of low socioeconomic status. Treatment of incipient caries usually involves early therapeutic intervention using topical fluoride, and non-surgical restorative techniques like sealants and resin infiltration. Treatment of cavitated lesions traditionally requires surgical intervention to remove the diseased tooth structure followed by placement of a restorative material to restore form and function to the tooth.

Silver Diamine fluoride (SDF) has been used in Japan for over 40 years to arrest caries and reduce tooth hypersensitivity in permanent teeth. During the past decade many other countries such as Australia and China have begun been using this compound with similar success (Shah et al, J Adv Dental Res 2014). In 2016, the Food and Drug Administration approved SDF for reducing tooth sensitivity (ADA-CDT code 1354) and off label use for arresting caries is now permissible and appropriate for use in patients (Horst et al CDA 2016). In January of 2016, authors at the University of California at San Francisco published a systematic review on the efficacy, clinical indications and protocol for use of SDF to arrest caries (Horst et al CDA 2016). Since SDF is used off-label for arresting caries, the manufacturer does not have instructions

for use in their packaging material. This has created some confusion since there is no clear guidance from the only manufacturer in the U.S.

Recognizing its effectiveness, membership interest and increased use of SDF in pediatric dentistry, the AAPD should develop a resource for Chairside Instruction and Application on SDF. This evidence based document would go in the Resource Section of the Reference Manual. The document will support the use of SDF as part of an ongoing caries management plan with the aim of providing specific chairside instructions on the placement of SDF along with case selection considerations and follow-up recommendations.

Work group: CCA: Judi Chin, Karin Weber-Gasparoni

CSA: Yasmi Crystal, Tim Wright,

#### Report

The Chairside Resource: Use of Silver Diamine Fluoride for Pediatric Dental Patients to be included in Resource Section of the Reference Manual 2017-2018

#### c) <u>Best Practices on Pain Management</u>

Background and Intent: Pain is defined by the International Association of the Study of Pain (IASP) as an unpleasant sensory and emotional experience associated with actual or potential tissue damage. Pain management has been given national attention based on the pediatric deaths and the opioid epidemic that the country is facing. Recent recommendations coming from the office of the Surgeon General and the Center for Disease Control and Prevention include strategies to decrease opioid use and diversion. Dentists are at the forefront of this national conversation due to the frequent prescription of opioid analgesics. Pediatric dentists encounter varying scenarios where there is the potential for pain management in infants, children, adolescence and patients with special health care needs (SHCN). Pain management following orofacial traumatic injuries, invasive surgical procedures, odontogenic and non-odontogenic inflammatory conditions and infections, musculoskeletal injuries to temporomandibular structures, and neuropathic conditions are within the scope of practice for a pediatric dentist.

Pain management includes both pharmacologic and non-pharmacologic strategies to treat both acute and chronic pain. Many analgesic medications that are approved by the United States Food and Drug Administration in adults are not recommended for use in children. Safety concerns related to weight-based dosing and drug metabolism make pharmacologic pain management strategies in a pediatric population particularly difficult. Potential for diversion of opioid analgesics or misuse in the adolescence and adult population is also concerning. Therefore, formal recommendations would be useful for the practitioner to best manage their patients and avoid potential morbidity and mortality associated with prescribing medications for analgesia. The AAPD has an existing policy on "Acute Pediatric Dental Pain Assessment and Management." A formal guideline or best practice should be considered useful in guiding practitioners on providing evidence-based recommendation regarding a broader scope of pain management.

Work group: CCA: Tom Stark, Randy Lout

CSA: Kaaren Vargas, Naomi Lane

#### Report

Best Practices on Pain Management completed.

#### d) Best Practices on Choosing an Anesthesia Provider

Background and Intent: It is the responsibility of the dentist to identify and evaluate the abilities of an anesthesia provider providing office-based care on behalf of the dentist. Current methods for examining an individual's credentials and abilities are extremely variable, if even existent. This has left AAPD members vulnerable to potential risks during the delivery of office-based anesthesia care. With the recent and ongoing changes surrounding the delivery of office-based general anesthesia in the pediatric dental setting, it is the intent of the AAPD to provide its members with a simplified process for the selection of a qualified anesthesia provider. This document should address information on: identifying qualified individuals and defining the standard education for each subtype (e.g., dentist anesthesiologist, physician anesthesiologist, certified registered nurse anesthetist, anesthesia assistant) investigating an individual's training, establishing an individual's level of experience within a particular patient population (e.g., infants, toddlers, special needs), collecting vital documentation (e.g., proof of liability insurance, state permits, DEA, dental license), verifying good standing, acquiring recommendations from previous dental clients, assessing experience, evaluating access to anesthesia care vs. considered risks (i.e., discussing rural locations, decreased access to hospital/ambulatory surgical care, or decreased access to mobile MD/DA anesthesiologist).

By establishing a dependable methodology for analyzing an individual abilities and experience, the AAPD anticipations to further mitigate morbidity and mortality associated with the use of office-based general anesthesia.

Work group: CCA: Jeffrey Brownstein, Brian Sanders

CSA: Anna Chen, Naomi Lane

#### Report

Policy for Selecting Anesthesia Providers for the Delivery of Office-Based General Anesthesia completed.

The new Policy and *Best Practices* Recommendation were posted on the AAPD website for review by the members. Approval at General Assembly.

### Charge 6

Annually review AAPD pamphlets, brochures and other AAPD publications for scientific accuracy and consistency with AAPD Policies and Guidelines.

Background and Intent: This is a standing charge to the Council to ensure that the publications and promotional and educational materials offered to our members, other professionals, and the public are scientifically accurate and consistent with our Policies and Guidelines.

#### **Progress Report**

The Council was asked to review three new brochures based on Clinical Practice Guidelines: Indirect Pulp Treatment, Pulp Therapy, and Silver Diamine Fluoride. These brochures have been published.

## Charge 7

At the request of the Executive Committee of the AAPD, provide timely review of policies, guidelines, and definitions submitted by the AAP Section on Oral Health, with particular attention to conformity with AAPD oral health policies and clinical guidelines.

Background and Intent: This is a standing charge to the Council. This mechanism implements the intent of the Memorandum of Understanding with the AAP Section on Oral Health, to review proposed documents for consistency with AAPD policies and guidelines. The Council will review these documents with sensitivity to the embargoed status of the drafts. A summary report will be submitted to the Executive Committee.

#### **Progress Report**

No requests have been made.

#### Charge 8

At the request of any council or committee of the AAPD, review proposed definitions, policies, guidelines, or other publications for scientific accuracy and consistency with AAPD Policies and Guidelines.

Background and Intent: This is a standing charge to the Council to ensure that any definition, policy, guideline or other publication offered to our members, other professionals, and the public are scientifically accurate and consistent with our Policies and Guidelines.

#### **Progress Report**

No requests have been made.

#### Charge 9

Using evidence based dentistry approaches; the Council on Clinical Affairs will participate in the development of evidence-based clinical guidelines, in conjunction with the Council on Scientific Affairs, under the direction of the Evidence-Based Dentistry Committee. *Background and Intent*: This is a standing charge to the Council. Working with the Evidence-Based Dentistry Committee, the councils contribute to the development of evidence-based guidelines.

#### **Progress Report**

Nothing to report.

## Charge 10

In conjunction with the Council of Scientific Affairs, identify and submit to the Evidence-Based Dentistry Committee those guidelines that may contain sufficient evidence to be considered for an evidence-based clinical guideline.

Background and Intent: This is a standing charge to the Councils to ensure that any guideline that has sufficient evidence is evaluated by the Evidence-Based Dentistry Committee for inclusion in the evidenced-based process.

#### **Progress Report**

This charge was shared with members of CCA along with a history of development of new Clinical Practical Guidelines (CPG). A request to identify guidelines that may contain sufficient evidence to be considered, other than those identified by EBDC, has been made. CCA recommends the "Best Practices on Fluoride Therapy" be considered by EBDC for fast track to an evidenced-based clinical guideline.

## **Project Charges**

### Charge 11

With the assistance of the Council on Scientific Affairs, assist the Council on Continuing Education to plan and conduct a series of podcasts on pertinent clinical guideline updates and practical reviews.

Background and Intent: Currently, a majority of pediatric dental residents receive a portion of their training electronically. Younger dentists communicate electronically for a majority of their professional and non-professional encounters. The Academy needs to be prepared to engage this group professionally through electronic continuing education.

#### **Progress Report**

No request has been made by the Council on Continuing Education.

# 1 Definition of Dental Home

3 Review Council

- 4 Council on Clinical Affairs
- 5 Latest Revision
- 6 <del>2015</del> <u>2018</u>

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- 9 The dental home is the ongoing relationship between the dentist and the patient, inclusive of all aspects
- of oral health care delivered in a comprehensive, continuously accessible, coordinated, and family-
- centered way. The dental home should be established no later than 12 months of age to help children
- and their families institute a lifetime of good oral health. Dental homes address anticipatory guidance,
- preventive, acute and comprehensive oral care and includes-referral to dental specialists when appropriate.

- 15 This definition was originally developed by the Council on Clinical Affairs and adopted in 2006. This
- document is an update of the previous version, reaffirmed in <del>2010</del>. 2015.

- Policy on Minimizing Occupational Health Hazards Associated with Nitrous
- 2 Oxide

3

- 4 Review Council
- 5 Council on Clinical Affairs
- 6 Latest Revision
- 7 <del>2013</del> 2018

8

- 9 Purpose
- The American Academy of Pediatric Dentistry (**AAPD**) recommends recognizes that exposure to ambient
- 11 nitrous oxide (N<sub>2</sub>O) be minimized to reduce occupational may be an occupational health hazards hazard
- for dental personnel and encourages practitioners to take all precautions to minimize associated risks.

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- 14 Methods
- 15 This policy was originally developed by the Clinical Affairs Committee and adopted in 1987. This
- document is a revision of the previous version, revised in 2008 2013. The policy is based on a systematic
- 17 literature search of the PubMed<sup>®</sup> electronic data base using the terms: nitrous oxide, occupational
- 18 exposure, AND dentistry; fields: all; limits: within the last 10 years, English. Sixteen articles met these-
- 19 criteria; three additional papers from the previous policy statement were reviewed and added to the
- 20 references. Guidelines and recommendations from the National Institute for Occupational Safety and
- 21 Health (NIOSH) also were reviewed<sup>1,2</sup>. The update used electronic database and hand searches of the
- 22 articles in the medical and the dental literature using the following parameters: Terms: nitrous oxide,
- 23 occupational exposure, AND dentistry. Fields: all; Limits: within the last 10 years, English. Additionally,
- 24 guidelines and recommendations from the National Institute for Occupational Safety and Health
- 25 (NIOSH) were reviewed<sup>1,2</sup>. Expert opinions and best current practices were relied upon when sufficient
- scientific data were not available.

- 28 Background
- 29 Effects of occupational exposure to ambient N<sub>2</sub>O are uncertain, especially since the introduction of
- methods to scavenge N<sub>2</sub>O and ventilate operatories<sup>3</sup>. Studies that linked increased general health
- 31 problems and reproductive difficulties among dental personnel to chronic exposure to significant levels of
- 32 ambient N<sub>2</sub>O have been challenged<sup>3</sup>. As of 2008, there were no definitive studies linking general health

33 problems and reproductive difficulties among dental personnel to chronic exposure to scavenged ambient  $N_2O^3$ . A maximum safe level of ambient  $N_2O$  in the dental environment has not been determined<sup>4,5,6</sup>. 34 35 36 Reduction of ambient N<sub>2</sub>O through system maintenance, scavenging, ventilation, use of the minimal effective dose, and patient management is important to maintaining the lowest practical levels in the 37 38 dental environment<sup>1,2,7</sup>. Frequent and regular inspection and maintenance of the N<sub>2</sub>O delivery system, together with the use of a scavenging system, can reduce ambient N<sub>2</sub>O significantly<sup>8</sup>. Using a well-fitted 39 40 mask and an appropriate amount of suction via the scavenging system will minimize leakage, reducing ambient N<sub>2</sub>O levels<sup>8,9</sup>. The use of a double-mask patient delivery system has also been shown to be more 41 effective than a single-mask system in the removal of waste nitrous oxide<sup>10,11</sup>. The combined use of the 42 double mask system and scavenging systems with a high evacuation rate have been demonstrated to 43 decrease occupational exposure to nitrous<sup>12</sup>. NIOSH has recommended that the exhaust ventilation of 44 N<sub>2</sub>O from the patient's mask be maintained at an air flow rate of 45 L/min and vented outside the building 45 away from fresh air intakes<sup>1,5</sup>. However, scavenging at this rate has been shown to reduce the level of 46 pyschosedation achieved with N<sub>2</sub>O inhalation<sup>13</sup>. Where possible, outdoor air should be used for dental 47 operatory ventilation.<sup>1,14</sup>. Supply and exhaust vents should be well separated to allow good mixing and 48 prevent short-circuiting<sup>1</sup>. Female dental staff frequently exposed to nitrous oxide (3 or more days a week) 49 50 have been found to have no elevated risk of spontaneous abortion in offices using appropriate scavenging systems<sup>15,16</sup>. 51 52 Patient selection is an important consideration in reducing ambient N<sub>2</sub>O levels<sup>7</sup>. Patients who are 53 54 unwilling or unable to tolerate the nasal hood and those with medical conditions (e.g., obstructive 55 respiratory diseases, emotional disturbances, drug dependencies) that contraindicate the use of N<sub>2</sub>O should be managed by other behavior guidance techniques<sup>7</sup>. In the dental environment, patient behaviors 56 57 such as talking, crying, and moving have been shown to result in significant increases in baseline ambient N<sub>2</sub>O levels despite the use of the mask-type scavenging systems <sup>17,18</sup>. <u>Utilization of appropriate nitrous</u> 58 concentration levels should also be considered in relation to procedure difficulty. Nitrous can be 59 discontinued once adequate anesthesia is achieved<sup>19</sup>, or decreased levels can be maintained during easier 60 procedures and increased for stimulating procedures<sup>5</sup>. Furthermore, the use of scavenging systems alone 61 cannot lower the ambient N<sub>2</sub>O levels to the recommended standards<sup>8,17,20</sup>. Use of supplemental measures, 62 such as a high-volume dental aspirator suction placed in proximity to the dental operative site, has been 63 shown to reduce ambient N<sub>2</sub>O levels significantly 17,21. During the first three to five minutes after 64 terminating N<sub>2</sub>O administration, a significant amount of the gas is exhaled by the patient. Once N<sub>2</sub>O 65

- 66 administration is discontinued, administering 100 percent oxygen to the patient for at least five minutes
- 67 allows oxygen to replace the N<sub>2</sub>O in the gas delivery system<sup>2,3</sup>. This post procedural oxygenation also
- 68 decreases the risk of diffusion hypoxia to the patient. Diligent use of the above practices in the pediatric
- dental environment has allowed for the reduction of ambient N<sub>2</sub>O to the levels recommended by
- NIOSH $^{21,22}$ . Measurement of N<sub>2</sub>O levels in the dental operatory can be helpful in determining the type and
- 71 extent of remediation necessary to decrease occupational exposure.

73 Policy statement

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- 74 The AAPD encourages dentists and dental auxiliaries to maintain the lowest practical levels of N<sub>2</sub>O in the
- dental environment while using N<sub>2</sub>O. Adherence to the recommendations below can help minimize
- 76 occupational exposure to  $N_2O$ .
- Educate dental personnel on minimizing occupational exposure to and potential abuse of nitrous oxide.
  - Use scavenging systems that remove N<sub>2</sub>O during patient's exhalation.
- Ensure that exhaust systems adequately vent scavenged air and gases to the outside of the building and away from fresh air intake vents.
- Use, where possible, outdoor air for dental operatory ventilation.
- Implement careful, regular inspection, and maintenance of the nitrous oxide/oxygen delivery equipment.
  - Carefully consider patient selection criteria (i.e., indications and contraindications) prior to administering N<sub>2</sub>O.
  - Select a properly-fitted mask size for each patient.
- During administration, visually monitor the patient and titrate the flow/percentage to the minimal
   effective dose of N<sub>2</sub>O.
  - Encourage patients to minimize talking and mouth breathing during N<sub>2</sub>O administration.
- Use rubber dam and high volume dental evacuator suction when possible during N<sub>2</sub>O
   administration.
- Administer 100 percent oxygen to the patient for at least five minutes after terminating nitrous
   oxide use to replace the N<sub>2</sub>O in the gas delivery system.

## 96 References

- 97 1. National Institute of Occupational Safety and Health. Control of nitrous oxide in dental operatories.
- 98 Appl Occup Environ Hyg 1999;14(4):218-20.
- 99 2. National Institute of Occupational Safety and Health. Controlling exposures of nitrous oxide during
- anesthetic administration. Cincinnati, Ohio: National Institute of Occupational Safety and Health;
- 101 1994. DHHS/NIOSH Publication No. 94-100.
- 102 3. Clark MS. Contemporary issues surrounding nitrous oxide. In: Malamed SA. Sedation: A Guide to
- Patient Management. 5th ed. St. Louis, Mo.: Mosby Elsevier; 2010:256.
- 3. Sanders RD, Weimann J, Maze M. Biologic effects of nitrous oxide. Anesthesiology
- 105 2008;109(4):707-22.
- 106 4. Howard WR. Nitrous oxide in the dental environment: Assessing the risk and reducing the
- 107 exposure. J Am Dent Assoc 1997;128(3):356-60.
- 108 5. American Dental Association Council on Scientific Affairs, American Dental Association Council
- on Dental Practice. Nitrous oxide in the dental office. J Am Dent Assoc 1997;128(3):364-5.
- 110 6. Donaldson D, Meechan JG. The hazards of chronic exposure to nitrous oxide: An update. Br Dent J
- 111 1995;178(3):95-100.
- 112 7. American Academy of Pediatric Dentistry, Guideline on use of nitrous oxide for pediatric dental
- patients. Pediatr Dent 2013;35(special issue):200-4. 38(6):206-210.
- 114 8. Rademaker AM, McGlothlin JD, Moenning E, Bagnoli M, Carlson G, Griffin C. Evaluation of two
- nitrous oxide scavenging systems using infrared thermography to visualize and control emissions. J
- 116 Am Dent Assoc 2009;140(2):190-9.
- 117 9. Crouch KG, Johnston OE. Nitrous oxide control in the dental operatory: Auxiliary exhaust and
- mask leakage, design, and scavenging flow rate as factors. Am Ind Hyg Assoc J 1996;57(3):272-8.
- 119 10. Chrysikopoulou A, Matheson P, Miles M, Shey Z, Houpt M, Effectiveness of Two Nitrous Oxide
- Scavenging Nasal Hoods During Routine Pediatric Dental Treatment. Ped Dent 2006, 28(3): 242-
- **121** 247
- 12. Freilich MM, Alexander L, Sandor GKB, Judd P, Effectiveness of 2 Scavenger Mask Systems for
- Reducing Exposure to Nitrous Oxide in a Hospital=Based Pediatric Dental Clinic: A Pilot Study.
- JCDA 2007;73(7);615-615d
- 125 12. Messeri A, Amore E, Dugheri S, Bonari A, Pompilio L, Arcangeli G, Rizzo G. Occupational
- exposure to nitrous oxide during procedural pain control in children: a comparison of different
- inhalation techniques and scavaging systems. Pediatric Anesthesia 2016; 26 (1):919-925. American
- 128 Dental Association. Oral Health Topics Nitrous Oxide Dental Best Practices for Nitrous Oxide-

- Oxygen Use 2017 Available at "http://www.ada.org/en/member-center/oral-health-topics/nitrous-oxide". Accessed October 2017.
- 131 13. Primosch R, McLellan M, Jerrell G, Venezie R. Effect of scavenging on the psychomotor and
- cognitive function of subjects sedated with nitrous oxide and oxygen inhalation. Pediatr Dent
- 133 1997;19(8):480-3.
- 134 14. Centers for Disease Control and Prevention. Control of Nitrous Oxide in Dental Operatories. 2014.
- https://www.cdc.gov/niosh/docs/hazardcontrol/hc3.html
- 136 <u>15.</u> Rowland AS, Baird DD, Shore DL, Weinberg CR, Shore DL, Shy CM, Wilcox AJ. Reduced
- Fertility among Women Employed as Dental Assistants Exposed to High Levels of Nitrous Oxide.
- N EnglJ Med 1992;327:993-997.
- 139 <u>16.</u> Rowland AS, Baird DD, Shore DL, Weinberg CR, Savitz DA, Wilcox AJ. Nitrous oxide and
- spontaneous abortion in female dental assistants. Am J Epidemiol 1995;141(6):531-7.
- 141 17. Henry RJ, Primosch RE, Courts FJ. The effects of various dental procedures and patient behaviors
- upon nitrous oxide scavenger effectiveness. Pediatr Dent 1992;14(1):19-25.
- 143 18. Crouch KG, McGlothin JD, Johnston OE. A long-term study of the development of N<sub>2</sub>O controls at
- a pediatric dental facility. Am Ind Hyg Assoc J 2000;61(5):753-6.
- 145 19. Guelmann M, Brackett R, Beavers N, Primosch RE, Effect of continuous versus interrupted
- administration of nitrous oxide-oxygen inhalation on behavior of anxious pediatric dental patients:
- a pilot study. J Clin Pediatr Dent 2012 Fall;37(1):77-82
- 148 20. Gilchrist F, Whitters CJ, Cairns AM, Simpson M, Hosey MT. Exposure to nitrous oxide in a
- paediatric dental unit. Int J Paediatr Dent 2007;17(2):116-22.
- 150 21. Henry RJ, Borganelli GN. High-volume aspiration as a supplemental scavenging method for
- reducing ambient nitrous oxide levels in the operatory: A laboratory study. Int J Paediatr Dent
- 152 1995;5(2):157-61.
- 153 22. Borganelli GN, Primosch RE, Henry RJ. Operatory ventilation and scavenger evacuation rate
- influence on ambient nitrous oxide levels. J Dent Res 1993;72(9):1275-8.

Policy on Patient Safety 1 2 3 Review Council 4 Council on Clinical Affairs 5 Revised 6 <u>2018</u> 7 8 Purpose 9 The American Academy of Pediatric Dentistry (AAPD) recognizes patient safety as an essential 10 component of quality oral health care for infants, children, adolescents, and individuals with special 11 health care needs. The AAPD encourages dentists to consider thoughtfully the environment in which they 12 deliver health care services and to implement practices to improve patient safety that decrease a patient's 13 risk of injury or harm during the delivery of care. This policy is not intended to duplicate safety 14 recommendations for medical facilities accredited by national commissions such as Tthe Joint 15 Commission on Accreditation of Healthcare Organizations or those related to workplace safety such as 16 Occupational Safety & Health Administration. 17 18 Methods 19 This policy was originally developed by the Council on Clinical Affairs and adopted in 2008. This policy 20 is based on a review of current dental and medical literature, including a literature search of the 21 MEDLINE/PubMed<sup>®</sup> electronic data base using the terms: patient safety AND dentistry, fields: all; limits: 22 within the last 10 years, humans, English. Ten articles matched these criteria. Eight hundred twenty-two 23 articles met these criteria. Papers for review were chosen from this list and from the references within 24 selected articles. 25 26 Background 27 All health care systems should be designed to provide promote-a practice environment that promotes 28 patient safety. health and protection. The World Health Organization (WHO) defines patient safety as 29 "the reduction of risk of unnecessary harm associated with healthcare to an acceptable minimum."<sup>2</sup>. The 30 most important challenge in the field of patient safety is prevention of harm, particularly avoidable harm, 31 to patients during treatment and care.<sup>2</sup>. Dental practices must be in compliance with federal laws that help

protect patients from preventable injuries misuse of personal information [e.g., Health Insurance-

Portability and Accountability Act (HIPAA) (US DHHS National Standards, WHO Guidelines, Boyce and Pittet, AAPD Infection Control) and potential dangers such as the transmission of disease. 3,4,5 Stateand local I-Laws help regulate hazards related to potential chemical and environmental factors (e.g., spills, radiation) hazards and facilities (e.g., fire prevention systems, emergency exits)<sup>6</sup>. American Academy of Pediatric Dentistry best practices and oral health policies provide additional information regarding the delivery of safe pediatric dental care<sup>7-18</sup>. Furthermore, state dental practice acts and hospital credentialing committees are intended to ensure the safety of patients and the trust of the public by regulating the competency of and provision of services by dental health professionals. 19,20,21. Designing-Patient-centered health care systems that focus on preventing errors and being more efficient and patient family centered is are critical to assuring patient safety<sup>21,22</sup>. Some possible sources of error in the dental office are miscommunication, interruptions, stress, fatigue, failure to review the patient's medical history (e.g., current medications drugs and allergies medications), and lack of standardized records, abbreviations, and processes. 1,21,23. Treating the wrong patient or tooth/surgical site, delay in treatment, disease progression after misdiagnosis, inaccurate referrals, incorrect medication dosages ordered/administered, unintentional swallowing, aspiration, or retention of a foreign object, and breaches in sterilization are examples of patient safety events that occur in dentistry. <sup>24,25,26,27,28</sup>. Adverse events may be classified in terms of severity of harm.<sup>29</sup>. Standardizationed processes and workflows helps assure clerical and clinical personnel execute their responsibilities in a safe and effective manner. 23. Policy and procedure manuals that describe each a facility's established protocols serve as a valuable training tool for new employees and reinforce a consistent approach for to promoting safe, and quality patient care<sup>23</sup>. Identifying deviations from such established protocols and studying patterns of occurrence can help reduce the likelihood of adverse events. 23,28,30. Safety checklists are used by many industries and healthcare organizations to reduce preventable errors.<sup>31,32</sup>. Data supports the use of procedural checklists to minimize the occurrence of adverse events in dentistry (i.e. presedation checklist). 33,34,35. In addition, order sets, reminders, and clinical guidelines built into an electronic charting system may improve adherence to best practices.<sup>28</sup>. Reducing clinical errors requires a careful examination of adverse events, and including 'near misses', events, and root cause analysis of how the event could be avoided in the future so that safety practices can

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be implemented. 22,36 In a near miss event, an error was committed, but the patient did not experience 66 clinical harm.<sup>22,36</sup>. Detection of errors and problems within a practice or organization may be used as 67 teaching points to motivate changes and avoid recurrence.<sup>37</sup>. A root cause analysis can be conducted to 68 determine causal factors and corrective actions so these types of events may be avoided in the 69 70 future. 31,38,39. Embracing a patient sSafety culture demands a culture in which communication does not 71 <del>depend on hierarchy;</del> a non-punitive or no blame environment that <del>culture</del> encourages all personnel 72 regardless of position to report errors and intervene in matters of patient safety. 1,22,38. Alternatively, a fair 73 and just culture is one that learns and improves by openly identifying and examining its own weaknesses; 74 individuals know that they are accountable for their actions, but will not be blamed for system faults in 75 their work environment beyond their control.<sup>39</sup>. Evidence-based systems have been designed for 76 healthcare professionals to improve team awareness, clarify roles and responsibilities, resolve conflicts, improve information sharing, and eliminate barriers to patient safety. 40,41,42. 77 78 79 The environment in which dental care is delivered impacts patient safety. In addition to structural issues 80 regulated by state and local laws, other design features should be planned and periodically evaluated for 81 patient safety, especially as they apply to young children. Play structures, games, and toys are possible 82 sources for accidents and infection. 43,44. 83 84 Consequently, t The dental patient would benefit from a practitioner who follows current literature and participates in professional continuing education courses to increase awareness and knowledge of best 85 86 <u>current practices. 45.</u> Scientific knowledge and technology continually advance, and patterns of care evolve 87 due, in part, to recommendations by organizations with recognized professional expertise and stature 88 including: the American Dental Association, The Joint Commission (National Patient Safety Goals 2017), 89 WHO, Institute for Health Improvement, and Agency for Healthcare Research and Quality. Some-90 recommendations can be based only on suggestive evidence or theoretical rationale (e.g., infection 91 control); other concerns of clinical practice remain in flux (e.g., materials utilized in restorative dentistry). 92 Consequently, the dental patient would benefit from a practitioner who follows current literature and 93 participates in professional continuing education courses to increase awareness and knowledge of best-94 current practices. Data-driven solutions are possible through documenting, recording, reporting, and analyzing patient safety events. <sup>26, 46,47</sup>. Continuous quality improvement efforts including outcome 95 measure analysis to improve patient safety should be implemented into practices. <sup>28,45</sup>. Patient safety 96 97 incident disclosure is lower in dentistry compared with medicine since a dental-specific reporting system

98	does not exist in the United States. <sup>47</sup> . Identifiable patient information that is collected for analysis is
99	considered protected under the Health Insurance Portability and Accountability Act ( <b>HIPAA</b> ). 48,49.

The AAPD emphasizes safe, age appropriate, nonpharma-cological or pharmacological behavior
guidance techniques for use with pediatric dental patients. It is important to base behavior guidance on
each patient's individual needs with goals of fostering a positive dental attitude, safety, and providing
quality dental care (AAPD Behavior Guidance). Appropriate diagnosis of behavior and safe and effective
implementation of advanced behavior guidance techniques (i.e., protective stabilization, sedation, general
anesthesia) necessitate knowledge and experience that generally are beyond the core knowledge that

107 students receive during predoctoral education (AAPD Behavior Guidance, AAPD Protective-

108 Stabilization).

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## Policy statement

- 111 To promote patient <u>safety health and protection</u>, the AAPD encourages:
- 1. Patient safety instruction in dental curricula to promote safe, patient-centered care (Kiersman, Plake and Darbishire 2011).
- Professional continuing education by all licensed dental professionals to maintain familiarity with current regulations, technology, and clinical practices.
- 3. Compliance with federal laws such as HIPAA to protect patients against misuse of information
   identifiable to them (US DHHS National Standards).
- 118 <u>3</u>4. Compliance and recognition of the importance of infection control policies, procedures, and
  119 practices in dental health care settings in order to prevent disease transmission from patient to
  120 care provider, from care provider to patient, and from patient to patient (WHO Guidelines, Boyce
  121 and Pittett, AAPD Infection Control).
- 122 <u>45.</u> Routine inspection of physical facility in regards to patient safety. This <u>would</u> includes development <u>and periodic review</u> of office emergency and fire safety protocols and routine inspection and maintenance of clinical equipment.
- 125 <u>56.</u> Recognition that informed consent by the parent is essential in the delivery of health care and
  126 effective relationship/communication practices can help avoid problems and adverse events
  127 (AAPD Informed Consent). The parent should be encouraged to understand and be actively
  128 engaged in the planned treatment and active participant in the child's care.
- 129 <u>6</u>7. Accuracy of patient identification with the use of at least two patient identifiers, such as name and date of birth, when providing care, treatment, or services (JCAHO 201712/13).

131	<u>7</u> 8.	An accurate and complete patient chart that can be interpreted by a knowledgeable third party
132		(AAPD Record Keeping). Standardizing abbreviations, acronyms, and symbols throughout the
133		record is recommended.
134	<u>8</u> 9.	An accurate, comprehensive, and up-to-date medical/dental history including medications and
135		allergy list to ensure patient safety during each visit (AAPD Record-Keeping). Ongoing
136		communication with health care providers, both medical and dental, who manage the child's
137		health helps ensure comprehensive, coordinated care of each patient.
138	<u>9</u> 10.	A pause or time out with dental team members present before an invasive procedure(s) to confirm
139		the patient, planned procedure(s), and tooth/surgical site(s) are correct.
140	<u>10</u> 11	. Appropriate staffing and supervision of patients treated in the dental office.
141	<u>11<del>12</del></u>	. Adherence to AAPD recommendations on behavior guidance, especially as they pertain to use of
142		advanced behavior guidance techniques (i.e., protective stabilization, sedation, general
143		anesthesia) (AAPD Behavior Guidance, AAPD Protective Stabilization).
144	<u>12</u> 13	. Standardization and consistency of processes within the practice. A policies and procedures
145		manual, with ongoing review and revision, could help increase employee awareness and decrease
146		the likelihood of untoward events. Dentists should emphasize procedural protocols that protect
147		the patient's airway (e.g., rubber dam isolation) (AAPD Restorative), guard against unintended
148		retained foreign objects (e.g., surgical counts; observation of placement/removal of throat packs,
149		retraction cords, cotton pellets, and orthodontic separators), and minimize opportunity for
150		iatrogenic injury during delivery of care (e.g., protective eyewear).
151	<u>13</u> 14	. Minimizing exposure to nitrous oxide by maintaining the lowest practical levels in the dental
152		environment. This would-includes routine inspection and maintenance of nitrous oxide delivery
153		equipment as well as adherence to clinical guidelines recommendations for patient selection and
154		delivery of inhalation agents (AAPD N2O Policy).
155	<u>14</u> 15	. Minimizing radiation exposure through adherence to ALARA (as low as reasonably achievable)
156		principle, equipment inspection and maintenance, and patient selection criteria (ADA 2012).
157	<u>15</u> 16	. All facilities performing sedation for diagnostic and therapeutic procedures to maintain records
158		that track adverse events. Such events then can be examined for assessment of risk reduction and
159		improvement in patient safety (AAPD/AAP Sedation Guideline).
160	<u>16</u> 17	. Dentists who utilize in-office anesthesia eare providers personnel take all necessary measures to
161		minimize risk to patients. Prior to delivery of sedation/general anesthesia, appropriate
162		documentation shall address rationale for sedation/general anesthesia, informed consent,
163		instructions to parent, dietary precautions, preoperative health evaluation, and any prescriptions

164		along with the instructions given for their use. Rescue equipment should have regular safety and
165		function testing and medications should not be expired. The dentist and anesthesia care provider
166		personnel must communicate during treatment to share concerns about the airway or other details
167		of patient safety-(AAPD Anesthesia Personnel).
168	<u>17</u> 4	8. Ongoing quality improvement strategies and Rroutine assessment of risk, adverse events, and
169		near misses. mistakes with aA plan for reduction and improvement in patient safety and
170		satisfaction is imperative for such strategies (JCAHO 201712/13, Ramoni et al 2012).
171	<u>18.</u>	Comprehensive review and documentation of indication for medication order / administration.
172		Review current medications, allergies, drug interactions, and correct calculation of dosage.
173	<u>19.</u>	Promoting a culture of patient safety where staff members are empowered and encouraged to
174		speak up or intervene in matters of patient safety.
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176	Refe	rences
177	<u>1.</u>	Bailey E, Tickle M, Campbell S. Patient safety in primary care dentistry: where are we now?
178		British Dental Journal 2014; 217(7): 333-44.
179	<u>2.</u>	Patient Safety: making health care safer. Geneva: World Health Organization; 2017 License CC
180		BY-NC-SA 3.0 IGO. Availible at: "http://apps.who.int/iris/bitstream/10665/255507/1/WHO-HIS-
181		SDS-2017.11-eng.pdf" Accessed 17 December 2017. (Archived by WebCite® at:
182		http://www.webcitation.org/6vmjtem6y).
183	3.	Boyce JM, Pittet D. Guideline for Hand Hygiene Task Force Advisory Committee and the
184		HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. Available at:
185		"http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5116a1.htm". Accessed December 17, 2017.
186		(Archived by WebCite® at: http://www.webcitation.org/6vmkKjYxM).
187	4.	World Health Organization. WHO Guidelines On Hand Hygiene In Health Care (advanced
188		draft):A Summary. Available at: "http://www.who.int/patientsafety/events/05/HH_en.pdf"
189		"http://apps.who.int/iris/bitstream/10665/44102/1/9789241597906_eng.pdf." Accessed December
190		17, 2017. (Archived by WebCite® at: http://www.webcitation.org/6vmm59D9M).
191	<u>5.</u>	_American Academy of Pediatric Dentistry. Policy on infection control. Pediatr Dent 2017; 39(6):
192		<u>144</u> 42;34(special issue):108131.
193	6.	Occupational Safety and Health Administration Laws and Regulation. Available at:
194		https://www.osha.gov/law-regs.html Accessed December 18, 2017 (Archived by WebCite® at:
195		http://www.webcitation.org/6vpmTao5J)

- 7. American Academy of Pediatric Dentistry. Policy on minimizing occupational health hazards
   associated with nitrous oxide. Pediatr Dent 2017; 39(6): 102-3.
- 8. American Academy of Pediatric Dentistry. Best practices on the use of nitrous oxide for pediatric
   dental patients. Pediatr Dent 2017; 39(6): 273-7.
- 200 9. American Academy of Pediatric Dentistry. Best practices on prescribing dental radiographs for
- infants, children, adolescents, and individuals with special health care needs. Pediatr Dent 2017;
- 202 <u>39(6): 205-7.</u>
- 203 <u>10.</u> American Academy of Pediatric Dentistry. Best practices on behavior guidance for the pediatric 204 dental patient. Pediatr Dent 2017; 39(6): 246-59.
- 205 <u>11. American Academy of Pediatric Dentistry. Best practices on protective stabilization for pediatric</u> 206 dental patients, Pediatr Dent 2017; 39(6): 260-5.
- 207 <u>12. American Academy of Pediatric Dentistry. Best practices on informed consent. Pediatr Dent 2017;</u>
   208 39(6): 397-99.
- 209 <u>13. American Academy of Pediatric Dentistry. Best practices on monitoring and management of</u>
- 210 pediatric patients before, during, and after sedation for diagnostic and therapeutic procedures:
- 211 <u>Update 2016. Pediatr Dent 2017; 39(6): 278-307.</u>
- 212 <u>14. American Academy of Pediatric Dentistry. Best practices on the use of anesthesia providers in the</u>
- 213 <u>administration of office-based deep sedation/general anesthesia to the pediatric dental patient.</u>
- 214 Pediatr Dent 2017; 39(6): 308-11.
- 215 <u>15. American Academy of Pediatric Dentistry. Best practices on the use of local anesthesia in pediatric</u>
   216 <u>dental patients. Pediatr Dent 2017; 39(6): 266-72.</u>
- 217 <u>16.</u> American Academy of Pediatric Dentistry. Oral health policy on acute pediatric dental pain
- 218 <u>management. Pediatr Dent 2017; 39(6): 99-101.</u>
- 219 <u>17.</u> American Academy of Pediatric Dentistry. Best practices on the use of antibiotic therapy for
- pediatric dental patients. Pediatr Dent 2017; 39(6): 371-3.
- 221 <u>18. American Academy of Pediatric Dentistry. Best practices on pediatric restorative dentistry. Pediatr</u>
- 222 <u>Dent 2017; 39(6): 312-24.</u>
- 223 <u>19. American Association of Dental Boards, Composite 29<sup>th</sup> ed. Published by the American</u>
- 224 <u>Association of Dental Boards. 2018.</u>
- 225 <u>20.</u> American Association of Dental Examiners. Criteria and Mechanisms for continued competency
- in dentistry, Published by the American Association of Dental Boards. 2014.
- 227 <u>21. Joint Commission on Accreditation of Health Care Organizations. 2017 National Patient Safety</u>
- 228 <u>Goals Ambulatory Care Program. Available at:</u>

- 229 <u>"http://www.jointcommission.org/standards\_information/npsgs.aspx"</u>. Accessed December 18,
   230 2017 (Archived by WebCite® at: http://www.webcitation.org/6voEn2g2B.
- 231 22. Ramoni RB, Walji MF, White J, Stewart D, Vanderholdi R. Simmons D, et al. From good to
- better: towards a patient safety initiative in dentistry. J Am Dent Assoc 2012; 143(9): 956-60.
- 233 <u>23. Jadhay A, Kumar S, Acharya S, Payoshnee B, Ganta S. Patient safety practices in dentistry: a</u> 234 review. International J of Scientific Study. 2016; 3(10) 163-5.
- 235 <u>24. Black I, Bowie P. Patient safety in dentistry: development of a candidate 'never event' list for</u> 236 primary care. British Dental Journal 2017; 222(10): 759-63.
- 237 <u>25. Cullingham P, Saksena A, Pemberton MN. Patient safety: reducing the risk of wrong tooth</u>
   238 <u>extraction. British Dental Journal 2017; 222(10): 759-63.</u>
- 26. Obadan EM, Ramoni RB, Kalenderian E. Lessons learned from dental patient safety case reports. J
   Am Dent Assoc 2015; 146(5): 318-26.
- 241 <u>27.</u> Ensaldo-Carrasco E, Suarez-Ortegon MF, Carson-Stevens A, Cresswell K, Bedi R, Sheikh A.
- 242 <u>Patient safety incidents and adverse events in ambulatory dental care: a systematic scoping review.</u>
- 243 <u>J of Patient Safety 2016; September 8 Epub ahead of print: 1-11.</u>
- 24. American Academy of Pediatrics. Principles of patient safety in pediatrics: reducing harm due to
  24. medical care. Pediatrics 2011: 127(6): 1199-210. Erratum: Pediatrics 2011; 128(6): 1212.
- 246 29. Kalenderian E, Obadan-Udoh E, Maramaldi P, Etolue J, Yansane A, Stewart D et al. Classifying
- 247 <u>adverse events in the dental office. J of Patient Safety 2017; June 30 Epub ahead of print: 1-17.</u>
- 248 <u>30. Hurst D. Little research on effective tools to improve patient safety in the dental setting. Evid</u>
- 249 <u>Based Dent 2016; 17(2): 38-9.</u>
- 250 31. Harden SW, Roberson JB 8.5 tips for dental safety checklists. Todays FDA 2013; 25(6):40-3, 45.
- 251 <u>32. World Health Organization Surgical Safety Checklist 2009. Available at:</u>
- http://apps.who.int/iris/bitstream/10665/44186/2/9789241598590\_eng\_Checklist.pdf. Accessed
- 253 <u>December 17, 2017. (Archived by WebCite® at: http://www.webcitation.org/6vpkewZQc).</u>
- 254 33. Bailey E, Tickle M, Campbell M, O'Malley L. Systematic review of patient safety interventions in
   255 dentistry. BMC Oral Health 2015; 15(152): 1-11.
- 256 34. Saksena A, Pemberton MJ, Shaw A, Dickson S, Ashley MP. Preventing wrong tooth extraction:
- 257 <u>experience in development and implementation of an outpatient safety checklist. Br Dent J. 2014;</u>
- 258 <u>217(7): 357-62 Erratum in: Br Dent J. 2014 217(10):585.</u>
- 259 35. Pahel BT, Rozier RG, Stearns SC. Agreement between structured checklists and Medicaid claims
- for preventive dental visits in primary care medical offices. Health Informatics J 2010; 2:115-28.

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- 262 <u>effective care. White Paper. Cambridge, MA: Institute for Healthcare Improvement and Safe & </u>
- Reliable Healthcare; 2017.
- 264 <u>37. Tucker AL, Edmondson AC. Why hospitals don't learn from failures: organizational and</u>
- 265 <u>psychological dynamics that inhibit systemic change. California Management 2003; 45(2): 55-72.</u>
- 266 38. Ramoni R, Walii MF, Tavares A, White J, Tokede O, Vaderhobli R et al. Open wide: looking into
- 267 the safety culture of dental school clinics. J Dent Educ. 2014; 78(5): 745-56.
- 268 39. Frankel AS, Leonard MW, Denham CR. Fair and just culture, team behavior, and leadership
- engagement: the tools to achieve high reliability. 2006; Health Services Research 41:4.
- 270 40. Sheppard F, Williams M, Klein V. TeamSTEPPS® and patient safety in healthcare. J of
- Healthcare Risk Management: The Journal of American Society for Healthcare Risk Management;
- 272 2013; 32(3): 5-10.
- 273 41. TeamSTEPPS® Dental Module: Agency for Healthcare Research and Quality (ARHQ). Available
- 274 <u>at: https://www.ahrq.gov/teamstepps/dental/index.html Accessed 19 December, 2017 (Archived</u>
- by WebCite® at: http://www.webcitation.org/6vppUlhk5).
- 276 42. Leonard M, Frankel A, Federico F, Frush K, Haradan C. The Essential Guide for Patient Safety
- 277 Officers 2<sup>nd</sup> ed. The Joint Commission and the Institute for Healthcare Improvement. 2013.
- 278 43. Rathmore MH, Jackson MA. Infection prevention and control in pediatric ambulatory services.
- 279 Pediatrics. 2017; 140(5):1-23.
- 280 44. American Academy of Pediatrics. Policy statement prevention of choking among children.
- 281 Pediatrics. 2010; 125(3) 601-607.
- 282 45. Kiersma ME, Plake KS, Darbishire PL. Patient safety institution in US health professionals
- 283 education. Am J Pharm Educ. 2011; 75(8): 162.
- 284 46. Spera AL, Saxon MA, Yepes JF. Office-based anesthesia: safety and outcomes in pediatric dental
- 285 patients. Anesth Prog 2017; 64:144-152.
- 286 47. Thusu S, Panasar S, Bedi R. Patient safety in dentistry state of play as revealed by a national
- database of errors. British Dental Journal 213(E3): 1-8.
- 288 48. American Academy of Pediatric Dentistry. Best practices on record-keeping. Pediatr Dent 2017;
- 289 39(6): 389-96.
- 290 49. U.S. Dept of Health and Human Services. Medical Privacy National Standards to Protect the
- 291 <u>Privacy of Personal Health Information: Available at: https://www.hhs.gov/hipaa/index.html</u>
- Accessed on December 19, 2017 (Archived by WebCite® at:
- 293 <a href="http://www.webcitation.org/6vpkewZQc">http://www.webcitation.org/6vpkewZQc</a>).

294	American Academy of Pediatric Dentistry. Guideline on informed consent. Pediatr Dent-
295	20152;38(6)4(special issue):295-7351-3.
296	American Academy of Pediatric Dentistry. Guideline on record-keeping. Pediatr Dent 2012;34(special-
297	issue):287-94.UPDATE
298	American Academy of Pediatric Dentistry. Policy on minimizing occupational health hazards associated-
299	with nitrous oxide. Pediatr Dent 2013;35(special issue):80-1. UPDATE
300	American Academy of Pediatric Dentistry. Guideline on behavior guidance for the pediatric dental-
301	patient. Pediatr Dent 2012;34(special issue):170-82. UPDATE
302	American Academy of Pediatric Dentistry. Guideline on protective stabilization for pediatric dental-
303	patients. Pediatr Dent 2013;35(special issue):189-93.UPDATE
304	American Academy of Pediatric Dentistry. Guideline on pediatric restorative dentistry. Pediatr Dent-
305	2012;34(special issue):214-21.UPDATE
306	American Academy of Pediatric Dentistry. Guideline on use of anesthesia personnel in the administration
307	of office-based deep sedation/general anesthesia to the pediatric dental patient. Pediatr Dent-
308	2012;34(special issue):211-3.UPDATE
309	American Dental Association, U.S. Dept of Health and Human Services. The Selection of Patients for X-
310	Ray Examination: Dental Radiographic Examinations. Rockville, Md: Food and Drug-
311	Administration, 2012. Available at:
312	$\it ``http://www.fda.gov/downloads/RadiationEmittingProducts/RadiationEmittingProducts and Procedure (Control of the Control of the Control$
313	ures/MedicalImaging/MedicalX-Rays/UCM329746.pdf". Accessed June 21, 2013. Update
314	American Academy of Pediatric Dentistry, American Academy of Pediatrics. Guideline for monitoring
315	and management of pediatric patients during and after sedation for diagnostic and therapeutic
316	procedures. Pediatr Dent 2012;34(special issue):194-210. Update
317	American College of Prosthodontists. Editorial. US Army Dental Corps showcases patient safety
318	program. ACP Messenger 2008;39(4):1-3.

Policy on the Role of Pediatric Dentists as Both Primary and Specialty Care 1 **Providers** 2 3 4 **Review Council** 5 Council on Clinical Affairs 6 Reaffirmed 7 <del>2013</del> 8 Latest Revision 9 2018 10 11 Purpose 12 The American Academy of Pediatric Dentistry (AAPD) emphasizes that health care providers and other 13 interested third parties must recognize the dual role that pediatric dentists play in the provision of 14 professional preventive and therapeutic oral health care, which includes both primary and specialty care 15 services. 16 17 Methods 18 This policy was originally developed by the Council on Clinical Affairs and adopted in 2003. This is a 19 revision an affirmation of the last revision version reaffirmed in 2013. and was It is based on a review of 20 the accreditation standards for advanced specialty training programs in pediatric dentistry and the AAPD 21 position paper on the role of pediatric dentists as primary and specialty care providers<sup>1,2</sup>. An electronic 22 search was conducted using the terms pediatric dentist, pediatric specialist, primary care provider, dual 23 care provider, and specialty care provider. 24 25 Background 26 "Pediatric dentistry is an age-related specialty that provides both primary and comprehensive preventive 27 and therapeutic oral health needs for infants and children through adolescence, including those with 28 special health care needs"2. The American Dental Association, the American Academy of General 29 Dentistry, and the AAPD all recognize the pediatric dentist as both a primary care provider and specialty

care provider. The dual role of pediatric dentists is similar to that of pediatricians, gynecologists, and

internists in medicine. Within the medical profession, clinicians and third party payors recognize these

32 physicians in a dual role and have designed payment plans to accommodate this situation. 33 34 The AAPD respects the rights of employers to negotiate health care benefits for their employees. 35 Unfortunately, tThird-party payors sometimes do not recognize pediatric dentists as primary care 36 providers. This position restricts access to pediatric dentists for children who have reached a 37 predetermined age and/or who may be best served by specialized oral health care providers and 38 counseling. In some instances, this restriction results in necessity for a specialty referral to a pediatric 39 dentist prior to evaluation. 40 41 Policy statement 42 The AAPD recognizes that infants, children, adolescents, and individuals with special health care needs 43 have the right to quality oral health care. The AAPD encourages third party payors to recognize pediatric 44 dentists as both primary and specialty oral health care providers and to refrain from age-related 45 restrictions when a parent or referring clinician desires to utilize the services and expertise of a pediatric 46 dentist to establish a dental home or for limited specialized care. 47 48 References 49 1. American Academy of Pediatric Dentistry Council on Dental Benefits Programs. Position paper: 50 The role of pediatric dentists as primary and specialty care providers. Chicago, Ill.; 2002. 51 2. American Dental Association Commission on Dental Accreditation. Accreditation standards for 52 advanced specialty education programs in pediatric dentistry. Chicago, Ill.; 20137. Available at: 53 "http://www.ada.org/sections/educationAndCareers/pdfs/revised\_ped\_2013.pdf". Accessed June-54 20, 2013 https://www.ada.org/~/media/CODA/Files/ped.pdf?la=en Accessed March 16, 2018 55 (Archived by WebCite® at http://www.webcitation.org/6xxyl5TyJ) 56

1 Policy on Use of Fluoride

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- 3 Review Council
- 4 Council on Clinical Affairs
- 5 Revised
- 6 <del>2014\*,</del> 2018
- 7 \*Revisions limited to ADA 2014 guidelines regarding use of fluoride toothpaste in young children.

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- 9 Purpose
- 10 The American Academy of Pediatric Dentistry (AAPD), affirms ing that the appropriate use of
- 11 fluoride as an adjunct in the prevention of caries is a safe and effective. adjunct in an individualized-
- 12 prevention plan. The AAPD in reducing the risk of caries and reversing enamel demineralization,
- 13 encourages dentists and other health care providers, public health officials, health care providers, and
- 14 parents/caregivers to optimize fluoride exposure based on a caries risk assessment. The American
- Academy of Pediatric Dentistry (AAPD), affirms that the use of fluoride as an adjunct in the
- prevention of caries is safe and effective. The AAPD encourages dentists and other health care
- 17 providers, public health officials, and parents/caregivers to optimize fluoride exposures to reduce the
- risk for caries and to enhance the remineralization of affected tooth structures.

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- Methods
- 21 This document was originally developed by the Liaison with Other Groups Committee and adopted in
- 22 1967. This is an update from the last revision in 20134. An electronic database search using the terms
- 23 fluoride, fluoridation, acidulated phosphate fluoride, fluoride varnish, fluoride therapy, and topical
- 24 fluoride was <u>previously</u> conducted to <u>develop and</u> update this policy. The current update relied upon
- 25 systematic reviews, expert opinions and best current practices also were relied upon for this policy.
- 26 The use of silver diamine fluoride is addressed in a separate AAPD policy.(Policy on the Use of
- 27 Silver Diamine Fluoride for Pediatric Dental Patients, 2017)

- Background
- 30 The adjustment of the fluoride level in community water supplies to optimal concentration is the most
- 31 beneficial and inexpensive method of reducing the occurrence of caries. Epidemiologic data from the
- 32 last half-century indicate reductions in caries of 55 to 60 percent, and recent data show caries

reduction of approximately 25 percent, without significant enamel fluorosis, when domestic watersupplies are fluoridated at an optimal level.<sup>2</sup> Evidence accumulated from long-Long-term use of fluorides has demonstrated that reduced the cost of oral health care for children can be reduced by as much as 50 percent.<sup>3</sup> These savings in health dollars accrue to private individuals, group purchasers, and government care programs. When public water is fluoridated to an optimal level, there is a 35% percent reduction in decayed, missing, filled primary teeth and 26% percent less decayed, missing, and filled permanent teeth. (Iheozor-Ejiofor Z, 2015) The occurrence of fluorosis, causing esthetic concerns, has been reported to be 12% percent when public water contains 0.7 ppm F. (Iheozor-Ejiofor Z, 2015) An even higher caries reduction can be obtained if the proper use of fluorides is combined with other dietary, oral hygiene, and preventive measures<sup>4</sup> as applied or prescribed by a dentist or physicianfamiliar with the child's oral health and family history caries risk assessment. When combined with other dietary, oral hygiene and preventive measures<sup>4</sup>, the use of fluorides can reduce the incidence of caries. Professional fluoride products should only be applied by or under the direction of a dentist or physician who is familiar with the child's oral health and has completed a caries risk assessment. A large body of literature supports the incorporation of optimal fluoride levels in drinking water supplies. When fluoridation of drinking water is impossible, effective fluoride supplementation can be achieved through the intake of daily fluoride supplements, according to established guidelines 1,12-14 13-15. Before supplements are prescribed, it is essential to review dietary sources of fluoride (eg, all drinking water sources, consumed beverages, prepared food, toothpaste) to determine the patient's true exposure to fluoride<sup>1,5,6</sup>, and to take into consideration the caries risk of the child. The mean Efluoride concentration of ready-to-use feed infant formulas in the U.S. and Canada ranges from is 0.15ppm for milk-based formulas to and 0.3 0.21ppm for soy-based formulas.mg/L<sup>7</sup>, which provides only a modest source of fluoride. The more important issue, however, is the fluoride content of concentrated or powdered formula when reconstituted with fluoridated water. The range of fluoride in ppm for reconstituted powdered or liquid concentrate, when reconstituted with water containing 1ppm fluoride, is 0.64 - 1.07. Considering the potential for mild fluorosis, caution is advised for infants consuming formula that is reconstituted with optimally fluoridated water. 8As the Environmental Protection Agency/Department of Health and Human Services' recommendation<sup>9,16</sup> for optimizing community water supplies to 0.7 ppm F is instituted, fluorosis due to reconstituting infant formula

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66 with fluoridated water will be less is less of an issue. 67 68 Significant cariostatic benefits can be achieved by the use of over-the-counter fluoride-containing preparations such as toothpastes, gels, and rinses, especially in areas without water fluoridation. <sup>1</sup> The 69 70 brushing of teeth with appropriate amounts of fluoride toothpaste twice daily for all children is encouraged. 11 Monitoring children's use of topical fluoride- containing products, including toothpaste, 71 72 may prevent ingestion of excessive amounts of fluoride. 10,11 Numerous clinical trials have confirmed 73 the anti-caries effect of professional topical fluoride treatments, including 1.23 percent acidulated phosphate fluoride [APF; 1.23% F], and five percent neutral sodium 5 percent sodium fluoride 74 varnish [NaFV; 2.26% F], 0.09 percent fluoride mouthrinse, and 0.5 percent fluoride gel/paste. 412 75 76 For children under the age of 6 years, 5 percent sodium fluoride varnish [NaFV; 2.26% F], is the 77 professionally applied topical fluoride of choice.<sup>12</sup> 78 A significant number of parents and caregivers are concerned about their child receiving fluoride and 79 80 may refuse fluoride treatment even though fluoride is safe and effective. (Chi 2014) This is similar to 81 opposition to community water fluoridation (Melbye and Armfield 2013). Topical fluoride refusal and resistance may be a growing problem and mirror trends seen with vaccination refusal in 82 83 medicine. 84 Policy statement 85 86 The AAPD: Endorses and encourages the adjustment of fluoride content of domestic community public 87 drinking water supplies to optimal levels where feasible. 88 89 Endorses the supplementation of a child's diet with fluoride according to established guidelines 1,12-14 13-15 when fluoride levels in community water supplies public drinking water 90 are suboptimal and after consideration of sources of dietary sources of fluoride and the caries 91 92 risk of the child. Encourages the brushing of teeth with appropriate amounts of fluoride toothpaste twice daily 93 for all children <sup>11</sup>. 94

Encourages the application of professional fluoride treatments for all children all individuals

Encourages dental professionals to inform medical peers of the potential of enamel fluorosis

at risk for dental caries.

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- when excess fluoride is ingested prior to enamel maturation.
  - <u>Encourages the continued research on safe and effective fluoride products.</u>
  - <u>Supports</u> the delegation of fluoride application to auxiliary dental personnel or other trained allied health professionals by prescription or order of a dentist after a comprehensive oral examination, or by a physician after a dental screening <u>and caries risk assessment has have</u> been performed.
    - Encourages all beverage and infant formula manufacturers to include fluoride concentration with the nutritional content on food labels.
    - encourages dentists and other health care providers to educate parents that infant formula, ifconstituted with optimally fluoridated water, contains fluoride. Dentists and other health careproviders, therefore, should assist parents in determining the infant's fluoride exposure.
    - Recognizes that drinking fluoridated water and brushing with fluoridated toothpaste at least twice daily are perhaps the most effective method in reducing dental caries prevalence in children.
    - Encourages dental providers to talk to parents and caregivers about the benefits of fluoride and to proactively address fluoride hesitance through chairside and community education.

#### References

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- CDC. Recommendations for using fluoride to prevent and control dental caries in the United
   States. MMWR Recomm Rep 2001;50(RR14):1-42.
- CDC. Achievements in public health, 1900-1999: Fluoridation of drinking water to prevent
   dental caries. MMWR 1999;48(12):933-40.
- Griffen SO, Jones K, Tomar, SL. An economic evaluation of community water fluoridation. J
   Pub Health Dent 2001;61(2):78-86.
- Featherstone JD. The science and practice of caries prevention. J Am Dent Assoc
   2000;131(7):887-99.
- Levy SM, Kohout FJ, Kiritsy MC, Heillman JR, Wefel JS. Infants' fluoride ingestion from
   water, supplements, and dentifrice. J Am Dent Assoc 1995;126(12):1625-32.
- Adair SM. Evidence-based use of fluoride in contemporary pediatric dental practice. Pediatr
   Dent 2006;28(2): 133-42.
- Foman SJ, Ekstrand J. Fluoride intake. In Fejerskov O, Ekstrand J, Burt BA eds. Fluoride in
   Dentistry, 2nd ed. Copenhagen: Munksgaard; 1996:40-52. Berg et al. Evidence-based clinical

130		recommendations regarding fluoride intake from reconstituted infant formula and enamel
131		fluorosis. JADA 2011; 142(1):79-87.
132	8.	Hujoel PP, Zina LG. Moimas SAS, Cunha-Cruz J. Infant formula and enamel fluorosis: A
133		systematic review. J Am Dent Assoc 2009;140(7):841-54.
134	9.	Department of Health and Human Services. News Release: HHS and EPA announce new-
135		scientific assessments and actions on fluoride. January 7, 2011. Available at:
136		"http://yosemite.epa.gov/opa/admpress.nsf/3881d73f4d4a
137		aa0b85257359003f5348/86964af577c37ab28525781100 5a8417!OpenDocument". Accessed
138		June 23, 2013.
139	10.	Warren JJ, Levy SM. A review of fluoride dentifrice related to dental fluorosis. Pediatr Dent
140		1999;21(4): 265-71.
141	<u>11.</u>	American Dental Association Council on Scientific Affairs. Fluoride toothpaste use for young
142		children. J Am Dent Assoc 2014;145(2):190-1.
143	11.	Hunter J. W., Chan J. T., Featherstone DB, et al. Professionally-applied topical fluoride:
144		Evidence based clinical recommendations. J Am Dent Assoc 2006;137 (8):1151-9.
145	<u>12.</u>	Weyant RJ, Tracy SL, Anselmo TT, Beltrán Aguilar ED, Donly KJ, Frese WA, Hujoel PP,
146		Iafolla T, Kohn W, Kumar J, Levy SM, Tinanoff N, Wright JT, Zero D, Aravamudhan K,
147		Frantsve Hawley J, Meyer DM et al. for the American Dental Association Council on
148		Scientific Affairs Expert Panel on Topical Fluoride Caries Preventive Agents. Topical fluoride
149		for caries prevention: executive summary of the updated clinical recommendations and
150		supporting systematic review. J Am Dent Assoc. 2013 Nov;144(11):1279-91. Erratum in J Am
151		Dent Assoc. 2013 Dec;144(12):1335. Dosage error in article text.
152	1 <del>2</del> <u>3</u> .	Rozier RG, Adair S, Graham F, et al. Evidence-based clinical recommendations on the
153		prescription of dietary fluoride supplements for caries prevention: A report of the American
154		Dental Association Council on Scientific Affairs. J Am Dent Assoc 2010;141(12):1480-9.
155	<del>13.</del>	American Academy of Pediatrics Committee on Nutrition. Fluoride supplementation for
156		children: Interim policy recommendations. Pediatrics 1995;95(5):777.
157	<u>14.</u>	Melinda B. Clark, MD, FAAP, Rebecca L. Slayton, DDS, PhD, and Section on Oral Health.
158		Clinical Report: Fluoride Use in Caries Prevention in the Primary Care Setting. Pediatrics
159		<u>2014;134:626–633.</u>
160	14 <u>5</u> .	American Academy of Pediatric Dentistry. Guideline on fluoride therapy. Fluoride Therapy.
161		Pediatr Dent <u>2017;39(6)</u> : 242-245.
162	16.	U.S. Department of Health and Human Services Federal Panel on Community Water

163	Fluoridation <u>U.S. Public Health Service recommendation for fluoride concentration in</u>
164	drinking water for the prevention of dental caries. Public Health Reports 2015;130:1-14.
165	
166	American Academy of Pediatric Dentistry. Policy on the Use of Silver Diamine Fluoride for Pediatric
167	Dental Patients. Pediatr Dent 2017; 39 (special issue): 51-53.
168	Chi DL. Caregivers who refuse preventive care for their children: The relationship between
169	immunization and topical fluoride refusal. Am J Public Health 2014 July; 104(7): 1327-33.
170	Melbye ML, Armfield JM. The dentist's role in promoting community water fluoridation: A call to
171	action for dentists and educators. J Am Dental Assoc 2013 Jan; 144(1): 65-75.
172	Iheozor-Ejiofor Z, Worthington HV, Walsh T, O'Malley L, Clarkson JE, Macey R, Alam R, Tugwell
173	P, Welch V, Glenny A. Water fluoridation for the prevention of dental caries. Cochrane
174	Database of Systematic Reviews 2015, Issue 6. Art. No.: CD010856. DOI:
175	10.1002/14651858.CD010856.pub2

# Policy on Prevention of Sports-related Orofacial Injuries

1 2 **Review Council** 3 Council on Clinical Affairs 4 Revised 5 <u>201</u>8 6 7 8 Purpose 9 The American Academy of Pediatric Dentistry (AAPD) recognizes the prevalence of sports-related 10 orofacial injuries in our nation's youth and the need for prevention. This policy is intended to educate 11 dental professionals, health care providers, and educational and athletic personnel on the prevention of 12 sports-related orofacial injuries. 13 Methods 14 15 This policy was originally developed by the Clinical Affairs Committee and adopted in 1991. This 16 document is a revision of the previous version, revised in 2010-2018. The revision of this policy is based 17 upon a review of current dental and medical literature related to orofacial injuries, including their 18 prevention. Database searches were performed using the terms: sports injuries, injury prevention, dental 19 injuries, orofacial injuries. Seventy citations were chosen from this method and from references within 20 selected articles. When data did not appear sufficient or were inconclusive, recommendations were based 21 upon expert and/or consensus opinion by experienced researchers and clinicians. The policies, 22 recommendations, and listed references of the Academy for Sports Dentistry (ASD) and the International 23 Association of Dental Traumatology (IADT) were consulted as valuable resources in preparation of this 24 document. 25 Background 26 27 The tremendous popularity of organized youth sports and the high level of competitiveness have resulted 28 in a significant number of dental and facial injuries (Castaldi 1986, Castaldi 1988. From 1990-2003, there 29 was an average of 22,000 dental injuries annually in children <18 years of age. This is approximately 31.6

dental injuries per 100,000 children and adolescents<sup>1</sup>. Over the past decade, approximately 46 million youths in the United States were involved in "some form of sports" <sup>2</sup>. It is estimated that 30 million

children in the U.S. participate in organized sport programs <sup>3</sup> All sporting activities have an associated

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33 risk of orofacial injuries due to falls, collisions, contact with hard surfaces, and contact from sportsrelated equipment. A systemic review reported between 10-61% of athletes reported experiencing dental 34 trauma 4. Sports accidents reportedly account for 10 to 39 percent of all dental injuries in children 35 (Newsome, Tran and Cooke 2001). A 10 year study of 3,385 craniomaxillofacial trauma cases presenting 36 37 to an oral and maxillofacial surgery department found 31.8 percent of injuries in children occurred during 38 sports activities.<sup>5</sup> Children are most susceptible to sports related oral injury between the ages of seven and 39 11 years (Tesini and Soporowski 2000, Rodd and Chesham 1997, ADA 2006, Stewart et al 2009). The administrators of youth, high school, and college football, lacrosse, and ice hockey have demonstrated 40 41 that dental and facial injuries Children age 17 years and younger represented 80.6% of the total (sport and 42 not-sport related) dental injuries that presented that presented to U.S. emergency rooms from 1990-2003. In all age groups, males were more likely to have dental injuries than females.<sup>1</sup> 43 44 It has been demonstrated that dental and facial injuries can be reduced significantly by introducing 45 mandatory protective equipment.<sup>6,7</sup> Currently football, lacrosse and ice hockey require protective 46 47 equipment. Popular sports such as baseball, basketball, soccer, softball, wrestling, volleyball, and gymnastics lag far behind in injury protection for girls and boys. Baseball and basketball have been 48 49 shown to have the highest incidence of sports-related dental injuries in children seven to 17 years of age.<sup>1</sup> More specifically, baseball accounted for had the highest incidence most dental injuries within the seven 50 51 to 12 year old age group, while basketball was the most frequent sport associated with dental injuries in the 13 to 17 year age group. Youths participating in leisure activities such as skateboarding, inline or 52 roller skating, and bicycling also benefit from appropriate protective equipment. 8,9,10,11 A large national 53 54 survey confirmed the bicycle as the most common consumer sports product related to dental injuries in children <sup>1</sup> followed by playground equipment, other riding equipment (skates, roller blades) and 55 56 trampolines. 57 58 The use of the trampoline provides specialized training for certain sports. However, when used 59 recreationally, a significant number of head and neck injuries occurs, with head injuries most commonly a result of falls. 12 The American Academy of Pediatrics (AAP) recommends practitioners advise patients 60 61 and their families against recreational trampoline use and discuss that current safety measures have not significantly decreased injury rates.<sup>12</sup> The AAP also states that practitioners "should only endorse use of 62 63 trampolines as part of a structured training program with appropriate coaching, supervision, and safety measures in place".12 64

Studies of dental and orofacial athletic injuries are reported throughout the medical and dental literature. <sup>13,14,15,16</sup> Injury rates vary greatly depending on the size of the sample, the sample's geographic location, the ages of the participants, and the specific sports involved in the study. 13,14,15,16,17 Rates of traumatic dental injuries also differ in regards to the athlete's level of competition; less-professional athletes exhibit a higher prevalence of sports-related injuries. 15 The highest incidence of sports-related dental injuries has been demonstrated in 15 to 18 year old males (Huang 2009). Most of the current data regarding injuries comes from the National High School Sports-Related Injury Surveillance Study and captures information such as exposure (competition vs practice), the injury, and details of the event and type of protective equipment used. 18 Data from this source found that in 2016-2017 school year, of the 699,441 injuries reported during competition; of those, 223,623 (32 percent) occurred to the head/face; another 91,410 occurred during practice. A similar study using this database followed athletes from 2008-2014 and found the rate of dental injuries in competition was three times higher than in practice. For the majority of these reported injuries, the athlete was not wearing a mouthguard. Review of this database found the highest rates of dental injuries in high school athletes occurred in girls' field hockey and boys' basketball <sup>17</sup>, Although the statistics vary, many studies reported that dental and orofacial injuries occurred regularly and concluded that participation in sports carries a considerable risk of injury. 14,15,5,9 Consequences of orofacial trauma for children and their families are substantial because of potential for pain, psychological effects, and economic implications. Children with untreated trauma to permanent teeth exhibit greater impacts on their daily living than those without any traumatic injury. 19,20 The yearly costs of all injuries, including orofacial injuries, sustained by young athletes have been estimated to be between 500 million <sup>21</sup> and as high as 1.8 billion dollars.<sup>3</sup> Significant costs can accrue over a patient's lifetime for restorative, endodontic, prosthodontic, implant, or surgical treatment(s) resulting from dentoalveolar trauma. Piccininni et al suggested that the lifetime cost of an avulsed tooth in a teenage athlete can reach \$20,000, exceeding the maximum benefits for most insurance companies. <sup>22</sup> Traumatic dental injuries have additional indirect costs that include children's hours lost from school and parents' hours lost from work, consequences that disproportionately burden lower income, minority, and noninsured children. 23,24,25,26 The majority of sport-related dental and orofacial injuries affect the upper lip, maxilla, and maxillary incisors, with 50 to 90 percent of dental injuries involving the maxillary incisors. <sup>13,14,27,22</sup> The most

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common dental injuries were lacerations (36.5%), chipped front teeth (23.9%) and avulsions (11.3%).<sup>21</sup> 97 Use of a mouthguard can protect the upper incisors. However, studies have shown that even with a 98 mouthguard in place, up to 25 percent of dentoalveolar injuries still can occur.<sup>28</sup> 99 100 101 Identifying patients who participate in sports and recreational activities allows the healthcare provider to 102 recommend and implement preventive protocols for individuals at risk for orofacial injuries. In 2000, a 103 predictive index was developed to identify the risk factors involved in various sports. This index is based upon a defined set of risk factors that predict the chance of injury including demographic information 104 105 (age, gender, dental occlusion), protective equipment (type/usage), velocity and intensity of the sport, 106 level of activity and exposure time, level of coaching and type of sports organization, whether the player 107 is a focus of attention in a contact or non-contact sport, history of previous sports-related injury, and the 108 situation (e.g., practice vs game). 9,29 Behavioral risk factors (e.g., hyperactivity) also have been associated significantly with injuries affecting the face and/or teeth. <sup>30,31</sup> While this predictive index 109 110 looked at contact versus non-contact sport as a factor, non-contact sports can carry significant risk. For example., basketball is one of the sports with the highest incidence of dental injury, but these injuries 111 112 usually involve player-player contact whereas greater than 87% of all dental injuries sustained by baseball, softball and field hockey players are due to player-object contact.<sup>17</sup> 113 114 115 The frequency of dental trauma is significantly higher for children with increased overjet (>6 mm) and inadequate lip coverage. 32,33 A dental professional may be able to modify these risk factors. Initiating 116 preventive orthodontic treatment in early- to middle-mixed dentition of patients with an overjet greater 117 than three millimeters has the potential to reduce the severity of traumatic injuries to permanent incisors.<sup>32</sup> 118 119 Although some sports-related traumatic injuries are unavoidable, most can be prevented.<sup>33,34,35</sup> Helmets, 120 121 facemasks, and mouthguards have been shown to reduce both the frequency and severity of dental and orofacial trauma.<sup>33</sup> While facemasks may not significantly reduce the risk of orofacial trauma due to 122 123 player-player contact, they might have a significant effect with player-object contact. The protective and 124 positive results of wearing a mouthguard have been demonstrated in numerous epidemiological surveys and tests. <sup>36,15,37,39,40</sup> However, few sports have regulations that require their use. The National Federation 125 of State High School Associations mandates mouthguards only for football, ice hockey, lacrosse, and 126 field hockey and for wrestlers wearing braces. 41 Several states have attempted to increase the number of 127 sports which mandate mouthguard use, with various degrees of success and acceptance. Four states 128

129 (Minnesota, New Hampshire, Maine and Massachusetts) have been successful in increasing the number of sports requiring mouthguard use to include sports such as soccer, wrestling, and basketball.<sup>35,42,43</sup> It is 130 likely that the mandated mouthguard rule has not expanded to other sports due to complaints by athletes, 131 parents, and coaches that mouthguards interfere with how the game is played and the athletes' 132 133 enjoyment.<sup>44,42</sup> Regardless of the relatively limited use of mouthguards in sports, the American Dental Associations and International Academy of Sports Dentistry currently recommends the use of 134 mouthguards in 29 sports or activities.<sup>45</sup> 135 136 137 Initially used by professional boxers, the mouthguard has been used as a protective device since the early 1900s. 14,4,46 The mouthguard, also referred to as a gumshield or mouth protector, is defined as a "resilient 138 device or appliance placed inside the mouth to reduce oral injuries, particularly to teeth and surrounding 139 structures."47 The mouthguard was constructed to "protect the lips and intraoral tissues from bruising and 140 laceration, to protect the teeth from crown fractures, root fractures, luxations, and avulsions, to protect the 141 142 jaw from fracture and dislocations, and to provide support for edentulous space."48 The mouthguard helps to prevent fractures and dislocations of teeth by absorbing and redistributing shock during forceful 143 144 impacts and decreases the likelihood of jaw fracture by a similar mechanism and also by stabilizing the mandible. 40 The mouthguard decreases the incidence of soft tissue injuries by separating the teeth from 145 the tissues. works by "absorbing the energy imparted at the site of impact and by dissipating the 146 147 remaining energy." (McClelland, Kinirons and Geary 1999). Recent data suggests that a properly fitted mouthguard of 3.0 mm thickness might reduce the incidence of concussion injuries from a blow to the 148 jaw by positioning the jaw to absorb the impact forces which without it would be transmitted through the 149 skull base to the brain.<sup>49</sup> 150 151 152 153 The American Society for Testing and Materials (ASTM) classifies mouthguards by three categories 154  $(ASTM 2006)^{50}$ : 155 1. Type I – Custom-fabricated mouthguards are produced on a dental model of the patient's mouth by either the vacuum-forming or heat-pressure lamination technique.<sup>33</sup> The ASTM recommends that 156 for maximum protection, cushioning, and retention, the mouthguard should cover all teeth in at 157 least one arch, customarily the maxillary arch, less the third mola.<sup>50</sup> A mandibular mouthguard is 158 recommended for individuals with a Class III malocclusion. The custom-fabricated type is superior 159

- in retention, protection, and comfort.<sup>33,51,52,53,54</sup> When this type is not available, the mouth-formed mouthguard is preferable to the stock or preformed mouthguard.<sup>55,56,57</sup>
- 2. Type II Mouth-formed, also known as boil-and-bite, mouthguards are made from a thermoplastic material adapted to the mouth by finger, tongue, and biting pressure after immersing the appliance in hot water.<sup>47</sup> Available commercially at department and sporting-good stores, <u>as well as online</u>, these are the most commonly used among athletes but vary greatly in protection, retention, comfort, and cost.<sup>36,33</sup>
- 3. Type III Stock mouthguards are purchased over-the-counter. They are designed for use without any modification and must be held in place by clenching the teeth together to provide a protective benefit.<sup>33</sup> Clenching a stock mouthguard in place can interfere with breathing and speaking and, for this reason, stock mouthguards are considered by many to be less protective.<sup>36,48,54,58</sup> Despite these shortcomings, the stock mouthguard could be the only option possible for patients with particular clinical presentations (e.g., use of orthodontic brackets and appliances, periods of rapidly changing occlusion during mixed dentition).

The ASD "recommends the use of a properly fitted mouthguard. It encourages the use of a custom fabricated mouthguard made over a dental cast and delivered under the supervision of a dentist. The ASD strongly supports and encourages a mandate for use of a properly fitted mouthguard in all collision and contact sports." During fabrication of the mouthguard, it is recommended to establish proper anterior occlusion of the maxillary and mandibular arches as this will prevent or reduce injury by better absorbing and distributing the force of impact. The practitioner also should consider the patient's vertical dimension of occlusion, personal comfort, and breathing ability. By providing cushioning between the maxilla and mandible, mouthguards also may reduce the incidence or severity of condylar displacement injuries as well as the potential for concussions. 36,60,49

Due to the continual shifting of teeth in orthodontic therapy, the exfoliation of primary teeth, and the eruption of permanent teeth, a custom-fabricated mouthguard may not fit the young athlete soon after the impression is obtained.<sup>61</sup> Several block-out methods used in both the dental operatory and laboratory may incorporate space to accommodate for future tooth movement and dental development.<sup>61</sup> By anticipating required space changes, a custom fabricated mouthguard may be made to endure several sports seasons.<sup>61</sup>

CCA 1f. P SportsInjuries

Parents play an important role in the acquisition of a mouthguard for young athletes. In a 2004 national fee survey, custom mouthguards ranged from \$60 to \$285.54 In a study to determine the acceptance of the three types of mouthguards by seven and eight-year-old children playing soccer, only 24 percent of surveyed parents were willing to pay \$25 for a custom mouthguard.<sup>62</sup> Thus, cost may be a barrier<sup>62</sup>, however it could be more likely that children do not accept mouthguard use easily. In a study of children receiving mouthguards at no cost, 29 percent never wore the mouthguard, 32 percent wore it occasionally, 15.9 percent wore it initially but quit wearing it after one month, and only 23.2 percent wore the mouthguard when needed.63 Attitudes of officials, coaches, parents, and players about wearing mouthguards influence their usage.<sup>44</sup> Although coaches are perceived as the individuals with the greatest impact on whether or not players wear mouthguards, parents view themselves as equally responsible for maintaining mouthguard use. 44,64 However, surveys of parents regarding the indications for mouthguard usage reveal a lack of complete understanding of the benefits of mouthguard use. 64 Compared to other forms of protective equipment, mouthguard use received only moderate parental support in youth soccer programs.<sup>65</sup> A survey commissioned by the American Association of Orthodontists (AAO) reported that 67 percent of parents stated their children do not wear a mouthguard during organized sports. The survey also found that 84 percent do not wear mouthguards while participating in organized sports because it is not required, even though other protective equipment such as helmets and shoulder pads is mandatory. <sup>66</sup> Players' perceptions of mouthguard use and comfort largely determine their compliance and enthusiasm.<sup>51</sup> Realizing athletes' speech as a potential hindrance to mouthguard compliance, the Academy for Sports Dentistry recommends that a properly fitted mouth guard should provide for adequate speech commiserate with the playing status of the athlete.<sup>59</sup> Given the multiple reasons for lack of compliance in wearing mouthguards, the dental profession needs to influence and educate all stakeholders about the risk of sports-related orofacial injuries and available preventive strategies. <sup>55,50,70</sup> Routine dental visits can be an opportunity to initiate patient/parent education and make appropriate recommendations for use of a properly-fitted athletic mouthguard.<sup>33</sup> Policy statement The AAPD encourages: Dentists to play an active role in educating the public in the use of protective equipment for the

prevention of orofacial injuries during sporting and recreational activities.

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- Continuation of preventive practices instituted in youth, high school and college football, lacrosse, field hockey, ice hockey, and wrestling (for wrestlers wearing braces).
  - An ASTM-certified face protector be required for youth participating in baseball and softball activities.
  - Mandating the use of properly-fitted mouthguards in other organized sporting activities that carry risk of orofacial injury.
    - Coaches/administrators of organized sports to consult a dentist with expertise in orofacial injuries
      prior to initiating practices for a sporting season, for recommendations for immediate
      management of sports-related injuries (e.g., avulsed teeth).
    - Continuation of research in development of a comfortable, efficacious, and cost-effective sports mouthguard to facilitate more widespread use of this proven protective device.
      - Dentists of all specialties, including pediatric and general dentists, to provide education to parents
        and patients regarding prevention of orofacial injuries as part of the anticipatory guidance
        discussed during dental visits.
      - Dentists to prescribe, fabricate, or provide referral for mouthguard protection for patients at increased risk for orofacial trauma.
      - Third-party payors to realize the benefits of mouthguards for the prevention and protection from orofacial sports-related injuries and, furthermore, encourages them to improve access to these services.
      - Pediatric dentists to partner with other dentists and child health professionals, school administrators, legislators, and community sports organizations to promote the broader use of mouthguards.
      - Pediatric dental departments to teach dental students fabrication of custom-fitting mouthguards.

## References

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- Stewart GB, Shields BJ, Fields S, Comstock RD, Smith GA. Consumer products and activities
   associated with dental injuries to children treated in United States emergency departments 1990 2003. Dental Traumatol 2009;25(4):399-405.
- 252 2. Barron M, Powell J. Fundamentals of injury prevention in youth sports. J Pediatr Dent Care 253 2005;11(2):10-2.
- 3. Adirim T, Cheng T. Overview of injuries in the young athlete. Sports Med 2003;33(1):75-81.

- 4. Knapik JJ, Marshall SW, Lee RB, et al. Mouthguards in sport activities: history, physical
- properties and injury prevention effectiveness. Sports Med 2007;37(2):117-44.
- 5. Gassner R, Tuli T, Hachl O, Rudisch A, Ulmer H. Craniomaxillofacial trauma: A 10 year review of 9,543 cases with 21,067 injuries. J Craniomaxillofac Surg 2003;31:51-61.
- 6. Black AM, Patton DA, Eliason PH, Emery CA. Prevention of sport-related facial injuries. Clin
   Sports Med 2017;36(2):257-78.
- Carniol ET, Shaigany K, Svider PF, et al. "Beaned": A 5-year analysis of baseball-related injuries
   of the face. Otolaryn-Head Neck Surg 2015; 153(6): 957-61.
- Resini DA, Soporowski NJ. Epidemiology of orofacial sports-related injuries. Dent Clin North Am
   2000;44(1):1-18.
- 9. Ranalli DN. Prevention of sports-related dental traumatic injuries. Dent Clin North Am
   2000;44(1):35-51.
- 10. Finnoff JT, Laskowski ER, Altman KC, Diehl NW. Barriers to bicycle helmet use. Pediatrics
   2001;108(1):4-10.
- 11. Fasciglione D, Persic R, Pohl Y, Fillippi A. Dental injuries in inline skating Level of information
   and prevention. Dent Traumatol 2007;23(3):143-8.
- 12. Council on Sports Medicine and Fitness American Academy of Pediatrics, Briskin S, LaBotz M.
- Policy statement on trampoline safety in childhood and adolescence. Pediatrics 2012;130(4):774-9.
- 273 Reaffirmation July 2015.
- 13. Kumamoto D, Maeda Y. Global trends and epidemiology of sports injuries. J Pediatr Dent Care 2005;11(2):15-25.
- 14. Kumamoto D, Maeda Y. A literature review of sports-related orofacial trauma. Gen Dent
   277 2004;52(3):270-80.
- 278 15. Glendor U. Aetiology and risk factors related to traumatic dental injuries: A review of the literature.
- 279 Dental Traumatol 2009;25(1):19-31.
- Huang B, Wagner M, Croucher R, Hector M. Activities related to the occurrence of traumatic dental injuries in 15- to 18-year-olds. Dental Traumatol 2009;25(1):64-8.
- 282 <u>17. Collins CL, McKenzie LB, Ferketich AK, Andridge R, Xiang H, Comstock RD. Dental injuries</u>
- sustained by high school athletes in the United States, from 2008/2009 through 2013/2014
- 284 <u>academic years. Dent Traum 2016;32(2):121-7.</u>
- 285 <u>18. Colorado School of Public Health, Program for Injury Prevention, Education and Research. High</u>
- School RIO. Reporting Information Online. Available at:

- 287 <a href="https://urldefense.proofpoint.com/v2/url?u=http-">https://urldefense.proofpoint.com/v2/url?u=http-</a>
- 3A\_www.webcitation.org\_6uhhnfR0u&d=DwIDAw&c=cpvmSBWXd8YiHoMtYk\_a9E2QIiaEhe
- 289 <u>G3-</u>
- 290 gfMB16YPq0&r=hFHClsP51iDHr5jtV4nGDsmSeh07jIzDQnatdBbLvKg&m=FUwjEBoeAFw6\_R
- 291 ndFANpEnwngEo-tlHCVWsWAxp1TBc&s=6-
- 292 <u>w72Asmvm8VWNYw5HY7EsX8ygPBSireHTkjFTjsE\_k&e</u>= Accessed November 3, 2017.
- 293 19. Cortes M, Marcenes W, Sheiham A. Impact of traumatic injuries to the permanent teeth on the oral
- health-related quality of life in 12-14-year old children. Community Dent and Oral Epidemiol
- 295 2002;30(3):193-8.
- 20. Berger TD, Kenny DJ, Casas MJ, Barrett EJ, Lawrence HP. Effects of severe dentoalveolar trauma
- on the quality-of-life of children and parents. Dent Traumatol 2009;25(5):462-9.
- 298 21. Welch CI, Thomson WM, Kenned R. ACC claims for sports-related dental trauma from 1999-2008:
- 299 <u>a retrospective analysis. N Z Dent J. 2010; 106(2): 137-42.</u>
- 300 22. Piccininni P, Clough A, Padilla R, Piccininni G. Dental and orofacial Injuries. Clin Sports Med
- 301 2107;36 (2):369-405.
- 302 23. Sane J, Ylipaavalniemi P, Turtola L, Niemi T, Laaka V. Traumatic injuries among university
- students in Finland. J Am Coll Health 1997;46(1):21-4.
- 304 24. Ngyuyen PM, Kenny DJ, Barret EJ. Socio-economic burden of permanent incisor replantation on
- 305 children and parents. Dent Traumatol 2004;20(3):123-33.
- 306 25. Gift HC, Reisine ST, Larach DC. The social impact of dental problems and visits. Am J Public
- 307 Health 1992;82(12):1663-8.
- 308 26. McIntyre JD, Lee JY, Trope M, Vann WF. Elementary school staff knowledge about dental
- 309 injuries. Dent Traumatol 2008;24(3):289-98.
- Takeda T, Ishigami K, Nakajima K, et al. Are all mouthguards the same and safe to use? Part 2.
- The influence of anterior occlusion against a direct impact on maxillary incisors. Dent Traumatol
- 312 2008;24(3):360-5.
- 313 28. Onyeaso C, Adegbesan O. Knowledge and attitudes of coaches of secondary school athletes in
- 314 Ibadan, Nigeria regarding orofacial injuries and mouthguard use by the athletes. Dent Traumatol
- 315 2003;19(5):204-8.
- 316 29. Fos P, Pinkham JR, Ranalli DN. Prediction of sports-related dental traumatic injuries. Dent Clin
- North Am 2000;44(1):19-33.
- 318 30 .Lalloo R. Risk factors for major injuries to the face and teeth. Dent Traumatol 2003;19(1):12-4.

- 31. Sabuncuoglu O. Traumatic dental injuries and attention-deficit/hyperactivity disorder: Is there a link? Dental Traumatol 2007;23(3):137-42.
- 32. Bauss O, Rohling J, Schwestka-Polly R. Prevalence of traumatic injuries to the permanent incisors in candidates for orthodontic treatment. Dent Traumatol 2004;20(2):61-6.
- 33. Ranalli DN. Sports dentistry in general practice. Gen Dent 2000;48(2):158-64.
- 34. 1st World Congress of Sports Injury Prevention. Abstracts. Br J Sports Med 2005;39:373-408.
- 35. Mills S. Can we mandate prevention? J Pediatr Dent Care 2005;11(2):7-8.
- 36. American Dental Association Council on Access, Prevention, and Interprofessional Relations and
- Council on Scientific Affairs. Using mouthguards to reduce the incidence and severity of sports-
- 328 related oral injuries. Statement on Athletic Mouthguards. J Am Dent Assoc 2006;137(12):1712-
- 329 <u>20. Available at:</u>
- "https://www.ada.org/~/media/ADA/Science%20and%20Research/Files/SCI\_Statement%20on%20
- 331 <u>Athletic%20Mouthguards\_2016Oct24.pdf?la=en</u>" Accessed March 16, 2018. (<u>Archived by</u>
- 332 WebCite® at http://www.webcitation.org/6xy6JSRzl)
- 33. Ranalli, DN. Sports dentistry and dental traumatology. Dental Traumatol 2002;18(5):231-6..
- 38. Ozawa T, Tomotaka T, Ishigami K, et al. Shock absorption ability of mouthguard against forceful,
- traumatic mandibular closure. Dent Traum 2014; 30(3): 204-210.
- 39. Maeda Y, Kumamoto D, Yagi K, Ikebe K. Effectiveness and fabrication of mouthguards. Dental
- 337 Traumatol 2009;25(6):556-64.
- 338 40. Takeda T, Ishigami K, Mishima O, et al. Easy fabrication of a new type of mouthguard
- incorporating a hard insert and space and offering improved shock absorption ability. Dental
- 340 Traumatol 2011;27(6):489-95.
- 41. National Federation of State High School Associations, Sports Medicine Advisory Committee.
- Position Statement and Recommendations for Mouthguard Use in Sports. 2014. Available at:
- 343 "http://www.nfhs.org/media/1014750/mouthguard-nfhs-smac-position-statement-october-
- 344 2014.pdf". Accessed: March 16, 2018. (Archived by WebCite<sup>®</sup> at
- 345 http://www.webcitation.org/6xy6zdy5x)
- 346 <u>42. Mills SC. Mandatory mouthguard rules for high school athletes in the United States. General</u>
- 347 <u>Dentistry 2015; 63(6):35-40.</u>
- 43. Kumamoto D. Establishing a mouthguard program in your community. Gen Dent 2000;48:160-4.
- 349 44. Gardiner D, Ranalli DN. Attitudinal factors influencing mouthguard utilization. Dent Clin North
- 350 Am 2000;44(1):53-65.

- 45. American Dental Association. The importance of using mouthguards: tips for keeping your smile
   safe. JADA 2004; 135: 1061.
- 353 46. Tooth protectors for boxers. Oral Hyg 1930;20: 298-9.
- 354 47. Newsome P, Tran D, Cooke M. The role of the mouthguard in the prevention of sports-related dental injuries: A review. Int J Paediatr Dent 2001;11(6):396-404.
- 48. Biasca N, Wirth S, Tegner Y. The avoidability of head and neck injuries in ice hockey: A historical review. Br J Sports Med 2002;36(6):410-27.
- 49. Winters J, DeMont R. Role of mouthguards in reducing mild traumatic brain injury/concussion
   incidence in high school athletes. Gen Dent 2014;62(3):34-8.
- 50. American Society for Testing and Materials. Standard practice for care and use of athletic mouth
   protectors. ASTM F697-00. West Conshohocken, Pa: 2016, www.astm.org.
- 51. McClelland C, Kinirons M, Geary L. A preliminary study of patient comfort associated with customised mouthguards. Br J Sports Med 1999;33(3):186-9.
- Warnet L, Greasley A. Transient forces generated by projectiles on variable quality mouthguards
   monitored by instrumented impact testing. Br J Sports Med 2001;35(4):257-62
- 53. Greasley A, Imlach G, Karet B. Application of a standard test to the in vitro performance of
   mouthguards. Br J Sports Med 1998;32(1):17-9.
- Duddy FA, Weissman J, Lee, RA Sr, Paranipe A, Johnson JD, Cohenca N. Influence of different
   types of mouthguards on strength and performance of collegiate athletes: A controlled-randomized
   trial. Dent Traumatol 2012;28(4):263-7.
- 55. Patrick DG, van Noort R, Found MS. Scale of protection and the various types of sports mouthguard. Br J Sports Med 2005;39(5):278-81.
- 56. Bureau of Dental Health Education and Bureau of Economic Research and Statistics. Evaluation of mouth protectors used by high school football players. J Am Dent Assoc 1964;68:430-42.
- 57. DeYoung AK, Robinson E, Godwin WC. Comparing comfort and wearability: Custom-made vs. self-adapted mouthguards. J Am Dent Assoc 1994;125(8):1112-8.
- 58. Ranalli DN. Prevention of craniofacial injuries in football. Dent Clin North Am 1991;35(4):627-45.
- 59. Academy for Sports Dentistry. Position statement: A properly fitted mouthguard. 2010. Available
   at:
- http://www.academyforsportsdentistry.org/index.php?option=com\_content&view=article&id=51:p
  osition-statements&catid=20:site-content&Itemid=111. Accessed 10/19/2017

- Waliko T, Bir C, Godwin W, King A. Relationship between temporomandibular joint dynamics and mouthguards: Feasibility of a test method. Dent Traumatol 2004;20(5):255-60.
- 61. Croll T, Castaldi CR. Custom sports mouthguard modified for orthodontic patients and children in the transitional dentition. Pediatr Dent 2004;26(5):417-20.
- 386 62. Walker J. Parents plus: Getting mouthguards into kids' mouths. J Pediatr Dent Care 2005;11(2):39-387 40.
- 388 63. Matalon V, Brin I, Moskovitz M, Ram D. Compliance of children and youngsters in the use of mouthguards. Dental Traumatol 2008;24(4):462-7.
- 390 64. Diab N, Mourino A. Parental attitudes toward mouth-guards. Pediatr Dent 1997;19(8):455-60.
- 391 65. Khodaee M, Fetters MD, Gorenflo DW. Football (soccer) safety equipment use and parental
- attitudes toward safety equipment in a community youth sports program. Res Sports Med 2011;19(2):129-43.
- 394 66. Academy for Sports Dentistry. Position statement: Mouthguard mandates. 2010. Available at:
- 395 "http://www.academyforsportsdentistry.org/Organization/PositionStatement/tabid/58/Default.aspx"
- 396 . Accessed March 24, 2013.
- http://www.academyforsportsdentistry.org/index.php?option=com\_content&view=article&id=51:p osition-statements&catid=20:site-content&Itemid=111. Accessed 10/19/2017
- Walker J, Jakobsen J, Brown S. Attitudes concerning mouthguard use in 7- to 8-year-old children. J
   Dent Child 2002;69(2):207-11.
- 401 68. Raaii F, Vaidya N, Vaidya K, et al. Patterns of mouthguard utilization among atom and pee wee 402 minor ice hockey players: A pilot study. Clin J Sport Med 2011;21(4):320-4.
- 69. Gawlak D, Mańka-Malara K, Kamiński T, Łuniewska M, Mierzwińska-Nastalska E. Comparative
   evaluation of custom and standard boil and bite (self-adapted) mouthguards and their effect on the
   functioning of the oral cavity. Dent Traum 2016;32(5):416-20.
- 406 70. Woodmansey K. Athletic mouth guards prevent orofacial injuries: A review. Gen Dent 1999;47(1):64-9.
- 409 Academy for Sports Dentistry, American Academy of Pediatric Dentistry, American Association of Oral-
- 410 and Maxillofacial Surgeons, American Association of Orthodontists, American Dental Association.
- 411 Play It Safe: Prevent Facial Injuries With Simple Sports Safety Precautions. April 1, 2013.
- 412 Available at: URL https://urldefense.proofpoint.com/v2/url?u=http-
- 413 3A\_\_www.webcitation.org\_6uhfP9YPL&d=DwIDAw&c=cpvmSBWXd8YiHoMtYk\_a9E2QliaEheG3-

114	${\it gfMB16YPq0\&r=hFHClsP51iDHr5jtV4nGDsmSeh07jlzDQnatdBbLvKg\&m=O\_FtFg1xNMJPiFERixLkTR} \\$
115	RTP1Ohw1kW7P6iL-zPuv8&s=m2VF0M79qaARkp7MeyYYZ7-4cPVpknYgN-y9FcFRk8Q&e
116	11/3/2017.
117	Castaldi CR. Sports related oral and facial injuries in the young athlete: A new challenge for the pediatric
118	dentist. Pediatr Dent 1986;8(4):311-6.
119	Castaldi CR. Athletic mouthguards: History and present status. Sports Med Digest 1988;10:1-2.
120	Forsberg C, Tedestam G. Etiological and predisposing factors related to traumatic injuries to permanent
121	teeth. Swed Dent J 1993;17(5):183-90.
122	Gassner R, Tuli T, Hachl O, Moreira R, Ulmer H. Craniomaxillofacial trauma in children: A review of
123	3,385 cases with 6,060 injuries in 10 years. J Oral Maxillofac Surg 2004;62(4):399-407.
124	Kvittem B, Hardi NA, Roettger M, Conry J. Incidence of orofacial injuries in high school sports. J Public
125	<u>Health Dent 1998;58(4):288-93.</u>

1 Policy on the Dental Home

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- 3 Originating Council
- 4 Council on Clinical Affairs
- 5 Review Council
- 6 Council on Clinical Affairs
- 7 Adopted
- 8 2001
- 9 Revised
- 10 2004, 2012, 2015, 2018
- 11 Reaffirmed 2010

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- 13 Purpose
- 14 The American Academy of Pediatric Dentistry (**AAPD**) supports the concept of a dental home for all
- infants, children, adolescents, and persons with special health care needs. The dental home is inclusive of
- all aspects of oral health that result from the interaction of the patient, parents, dentists, dental
- professionals, and nondental professionals. Establishment of the dental home is initiated by the
- 18 identification and interaction of these individuals, resulting in a heightened awareness of all issues
- impacting the patient's oral health<sup>1</sup>. This concept is derived from the American Academy of Pediatrics'
- 20 (AAP) definition of a medical home which is an approach to providing comprehensive and high quality
- 21 primary care and not a location or physical structure<sup>2</sup>. states pediatric primary health care is best delivered
- or supervised by qualified child health specialists (AAP 2013, AAP 2002, Glick 2009).

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- Methods
- 25 This policy was originally developed by the Council on Clinical Affairs and adopted in 2001. This
- document is an update from the last revision in 20122015. This policy is based on a review of the current
- 27 dental and medical literature related to the establishment of a dental home. An electronic search was
- 28 conducted using the terms: dental home, medical home in pediatrics, and infant oral health care; fields: all
- 29 fields: limits: within the last 10 years, humans, English. Papers for review were chosen from this list and
- from references within selected articles. Expert opinions and best current practices were relied upon when
- 31 clinical evidence was not available.

	<b>D</b> 1
33	Background

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- 34 The AAP issued a policy statement defining the medical home in 1992<sup>3</sup>. Since that time, it has been
- shown that health care provided to patients in a medical home environment is more effective and less
- costly in comparison to emergency care facilities or hospitals<sup>3-5</sup> (Kempe et al 2000). Strong clinical
- evidence exists for the efficacy of early professional dental care complemented with caries-risk and
- periodontal risk assessment, anticipatory guidance, and periodic supervision<sup>6</sup>. (Savage et al 2004). The
- establishment of a dental home <u>may-follows</u> the medical home model as a cost-effective <u>measure to</u>
- 40 reduce the financial burden and number of dental treatment procedures experienced by young children<sup>7,8</sup>.
- 41 <u>It also serves as a and-higher quality health care alternative to in orofacial</u> emergency care situations<sup>9</sup>.
- Children who have a dental home are more likely to receive appropriate preventive and routine oral health
- care, therefore improving families' oral health knowledge and practices especially in children at high risk
- 45 <u>for early childhood caries</u><sup>6</sup>. Referral by the primary care physician or health provider has been
- 46 recommended, based on risk assessment, as early as six months of age and no later than 12 months of
- age<sup>10-12</sup>. Furthermore, subsequent periodicity of reappointment is based upon risk assessment. This
- provides time-critical opportunities to implement preventive health practices and reduce the child's risk of
- 49 preventable dental/oral disease<sup>13</sup>.

# Policy statement

- 52 The AAPD encourages parents and other care providers to help every child establish a dental home by 12
- months of age. The AAPD recognizes a dental home should provide:
- Comprehensive, continuous, ly-accessible, family-centered, coordinated, compassionate, and
- culturally-effective care for children, as modeled by the AAP<sup>1,14</sup>. (AAP 2013, AAP 2002, AAP
- 56 <del>2005</del>, <del>AAP 2004,</del>).
  - Comprehensive <u>evidence-based</u> oral health care including acute care and preventive services in
- 58 accordance with AAPD periodicity schedules<sup>1,15</sup>.
- Comprehensive assessment for oral diseases and conditions.
  - Individualized preventive dental health program based upon a caries-risk assessment<sup>16</sup> and a
- 61 periodontal disease risk assessment<sup>12</sup>.
- Anticipatory guidance regarding growth and development<sup>15</sup>.
- Management of acute/chronic oral pain and infection.
- Plan, for management and long-term follow-up of acute dental trauma<sup>17-19</sup>.

- Information about proper care of the child's teeth, <u>and</u> gingivae <u>and other oral structures</u>. This would include the prevention, diagnosis, and treatment of disease of the supporting and surrounding tissues and the maintenance of health, function, and esthetics of those structures and tissues<sup>20</sup>.
- Dietary counseling<sup>21</sup>.

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- Referrals to dental specialists when care cannot directly be provided within the dental home.
- Education regarding future referral to a dentist knowledgeable and comfortable with adult oral health issues for continuing oral health care.
- Recommendations and coordination of uninterrupted comprehensive oral health care during the
   transition from adolescence to adulthood 14,22.
  - Referral at an age determined by patient, parent, and pediatric dentist.
- 77 The AAPD advocates interaction with early intervention programs, schools, early childhood education
- and child care programs, members of the medical and dental communities, and other public and private
- 79 community agencies to ensure awareness of age-specific oral health issue<sup>23</sup>.

#### 81 References

- 82 1. American Academy of Pediatric Dentistry. Definition of Dental Home. Pediatr Dent
   83 2017;39(6):12.
- 84 2. American Academy of Pediatrics. The medical home. Pediatrics 2002;110(1Pt1):184-6.
- American Academy of Pediatrics Ad Hoc Task Force on the Definition of the Medical Home. The medical home. Pediatrics 1992;90(5):774.
- 4. American Academy of Pediatrics Council on Children with Disabilities. Care coordination:
- Integrating health and related systems of care for children with special health care needs. Pediatrics 2005;116(5):1238-44.
- 90 <u>5. Klitzner TS, Rabbitt LA, Chang RK. Benefits of care coordination for children with complex</u>
- 91 <u>disease: A pilot medical home project ina resident teaching clinic. J Pediatr 2010;156(6):1006-</u>
- 92 1010.
- 93 <u>6. Thompson CL, McCann AL, Schneiderman ED. Does the Texas first dental home program</u>
- 94 <u>improve parental oral care knowledge and practices? Pediatr Dent 2017;39(2):124-129.</u>
- 95 <u>7. Nowak AJ, Casamassimo PS, Scott J, Moulton R. Do early dental visits reduce treatment and </u>
- treatment costs for children? Pediatr Dent 2014;36(7):489-493.

- 8. Kolstad C, Zavras A, Yoon R. Cost-benefit analysis of the age one dental visit for the privately
   insured. Pediatr Dent 2015;37(4):376-380.
- 99 9. Allareddy V, Nalliah RP, Haque M, Johnson H, Tech SRB, Lee MK. Hospital-based emergency
- department visits with dental conditions among children in the United States: Nationwide
- epidemiological data. Pediatr Dent 2014;36(5):393-9.
- 10. Nowak AJ, Casamassimo PS. The dental home: A primary oral health concept. J Am Dent Assoc
   2002;133 (1):93-8.
- 104 11. Casamassimo P, Holt K, eds. Bright Futures in Practice: Oral Health. Pocket Guide, 2nd ed.
- Washington, DC: National Maternal and Child Oral Health Resource Center; 2014.
- 12. American Academy of Periodontology. Periodontal diseases of children and adolescents. J
   Periodontol 2003; 74(11):1696-704.
- 108 13. US Dept of Health and Human Services. Healthy People 2020: Oral health of children and
- adolescents. Available at: "http://www.healthypeople.gov/2020/topics-objectives/topic/oral-
- health/objectives". Accessed September 1, 2015. March 1, 2018. (Archived by WebCite®at:
- http://www.webcitation.org/6xapJQZVg).
- 112 14. American Academy of Pediatrics Preamble to Patient-Centered Medical Home Joint Principles
- 113 <u>2007. Available at: "https://www.aap.org/en-us/professional-resources/quality-</u>
- improvement/\_layouts/15/WopiFrame.aspx?sourcedoc=/en-us/professional-resources/quality-
- improvement/Documents/Preamble-Patient-Centered-Principles.doc&action=default." Accessed
- March 1, 2018. (Archived by WebCite®at: http://www.webcitation.org/6uEP86IxA)
- 117 15. American Academy of Pediatric Dentistry. Guideline on periodicity of examination, preventive
- dental services, anticipatory guidance/counseling, and oral treatment for infants, children, and
- adolescents. Pediatr Dent <u>2017;39(6):188-195.2015;37(special issue):123-31.</u>
- 120 16. American Academy of Pediatric Dentistry. Guideline on caries-risk assessment and management
- for infants, children, and adolescents. Pediatr Dent 2017;39(6):197-204.2015;37(special issue):132-
- 122 <del>9.</del>
- 123 17. DiAngelis AJ, Andreasen JO, Ebeleseder KA, et al. International Association of Dental
- Traumatology guidelines for the management of traumatic dental injuries: 1. Fractures and
- luxations of permanent teeth. Dental Traumatology 2012;28(1):2-12.
- 126 18. Andersson L, Andreasen JO, Day P, et al. International Association of Dental Traumatology
- guidelines for the management of traumatic dental injuries: 2. Avulsion of permanent teeth. Dental
- 128 Traumatology 2012;28(2):88-96.

129	<u> 19.</u>	Malmgren B, Andreasen JO, Flores MT, et al. International Association of Dental Traumatology
130		guidelines for the management of traumatic dental injuries: 3. Injuries in the primary dentition.
131		<u>Dental Traumatology 2012;28(3):174-182.</u>
132	<u>20.</u>	American Academy of Pediatric Dentistry. Policy on early childhood caries: Classifications,
133		consequences and preventive strategies. Pediatr Dent 2017;39(6):59-61.
134	21.	American Academy of Pediatric Dentistry. Policy on dietary recommendations for infants, children
135		and adolescents. Pediatr Dent 2017;39(6):64-66.
136	<u>22.</u>	American Academy of Pediatric Dentistry. Policy on transitioning from a pediatric-centered to an
137		adult-centered dental home for individuals with special health care needs. Pediatr Dent
138		<u>2017;39(6):129-132.</u>
139	23.	American Academy of Pediatric Dentistry. Dental Home resource center. Available at:
140		"http://www.aapd.org/advocacy/dentalhome/". Accessed March 16, 2018.
141	Ame	vrican Academy of Pediatrics Section on Pediatric Dentistry. Oral health risk assessment timing and
142		establishment of the dental home. Pediatrics 2003;111(5):1113-6.
143	Ame	vrican Academy of Pediatrics. Ensuring culturally effective pediatric care: Implications for education
144		and health policy. Pediatrics 2004;114(6):1677-85.
145	Ame	vrican Academy of Pediatrics Committee on Pediatric Workforce. Scope of practice issues in the
146		delivery of pediatric health care. Pediatrics 2013;131(6):1211-6.
147	Glie	k M. A home away from home: The patient centered health home. JADA 2009;140(2):140-142.
148	Kem	pe A, Beaty B, Englund BP, Roark RJ, Hester N, Steiner JF. Quality of care and use of the medical-
149		home in a state-funded capitated primary care plan for low-income children. Pediatrics
150		<del>2000;105(5):1020-8.</del>
151	Sava	ge MF, Lee JY, Kotch JB, Vann WF Jr. Early preventive dental visits: Effects on subsequent-
152		utilization and costs. Pediatrics 2004;114:e418-23.

- 1 Best Practices on Periodicity of Examination, Preventive Dental Services,
- 2 Anticipatory Guidance/Counseling, and Oral Treatment for Infants,
- 3 Children, and Adolescents
- 5 Review Council
- 6 Council on Clinical Affairs
- 7 Revised

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- 8 <del>2013,</del> 2018
- 10 Purpose
- 11 The American Academy of Pediatric Dentistry (**AAPD**) intends this guideline these recommendations to
- 12 help practitioners make clinical decisions concerning preventive oral health interventions, including
- anticipatory guidance and preventive counseling, for infants, children, and adolescents.
- 15 Methods
- 16 This guideline was These recommendations were originally developed by the Clinical Affairs Committee
- and adopted in 1991. This document is a revision of the previous version, last revised in 20092013. The
- 18 update used electronic database and hand searches of articles in the medical and dental literature using the
- 19 terms: periodicity of dental examinations, dental recall intervals, preventive dental services, anticipatory
- 20 guidance and dentistry, caries risk assessment, early childhood caries, dental caries prediction, dental care
- 21 cost effectiveness and children, periodontal disease and children and adolescents U.S., pit and fissure
- 22 sealants, dental sealants, fluoride supplementation and topical fluoride, dental trauma, dental fracture and
- tooth, non-nutritive oral habits, treatment of developing malocclusion, removal of wisdom teeth, removal
- of third molars; fields: all; limits: within the last 10 years, humans, English, and clinical trials; birth
- through age 18. From this search, 3,418 1,884 articles matched these criteria and were evaluated by title
- and/or abstract. Information from <u>11349</u> articles was chosen for review to update this document. When
- 27 data did not appear sufficient or were inconclusive, recommendations were based upon expert and/or
- 28 consensus opinion by experienced researchers and clinicians.
- 30 Background

Professional dental care is necessary to maintain oral health<sup>1</sup> (US DHHS 2000). The AAPD emphasizes the importance of initiating professional oral health intervention in infancy and continuing through adolescence and beyond<sup>2</sup> (US DHHS 2000, US DHHS 2003, Lewis and Ismail 1995). The periodicity of professional oral health intervention and services is based on a patient's individual needs and risk indicators<sup>3,4,5,6,7,8</sup>. Each age group, as well as each individual child, has distinct developmental needs to be addressed at specific intervals as part of a comprehensive evaluation<sup>2,9-11</sup>. Continuity of care is based on the assessed needs of the individual patient and assures appropriate management of all oral conditions, dental disease, and injuries<sup>12-18</sup>. The early dental visit to establish a dental home provides a foundation upon which a lifetime of preventive education and oral health care can be built. The early establishment of a dental home has the potential to provide more effective and less costly dental care when compared to dental care provided in emergency care facilities or hospitals<sup>19-23</sup>. Anticipatory guidance and counseling are essential components of the dental visit<sup>2,9,10,19,20,22,24-27</sup> (CDC 2001). Collaborative efforts and effective communication between medical and dental homes is essential to prevent oral disease and promote oral and overall health among children. Medical professionals can play an important role in children's oral health by providing primary prevention and coordinated care. Equally, dentists can improve the overall health of children not only by treating dental disease, but also by proactively recognizing child abuse, preventing traumatic injuries through anticipatory guidance, preventing obesity by longitudinal dietary counseling, and monitoring of weight status<sup>28</sup>. In addition, dentists can have an important role in assessing immunization status and developmental milestones for potential delays, as well as making appropriate referral for further neurodevelopmental evaluations and therapeutic services<sup>29</sup>. The unique opportunity dentists have to help address overall health issues strengthens as children get older since annual well child visits decreases while dental recall visits increase. Research shows that children aged 6- to 12-years are, on average, four times more likely to visit a dentist than a pediatrician<sup>30,31</sup>.

55 Recommendations

This <u>guideline document</u> addresses periodicity and general principles of examination, preventive dental services, anticipatory guidance/counseling, and oral treatment for children who have no contributory medical conditions and are developing normally. <u>An aA</u>ccurate, comprehensive, and up-to-date medical, <u>dental</u>, <u>and social</u> histories <u>are</u> necessary for correct diagnosis and effective treatment planning.

Recommendations may be modified to meet the unique requirements of patients with special health care needs<sup>32</sup>.

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63 Clinical oral examination The first examination is recommended at the time of the eruption of the first tooth and no later than 12 64 months of age<sup>2,19,20,22</sup>. The developing dentition and occlusion should be monitored throughout eruption at 65 regular clinical examinations<sup>27</sup>. Evidenced-based prevention and Early early detection and management of 66 67 caries/oral conditions can improve a child's oral/general health, general health and, well-being, and school readiness<sup>5,24,33-36</sup>. It has been reported that the number and cost of dental procedures among high-68 69 risk children is less for those seen at an earlier age versus later, confirming the fact that the sooner a child is seen by a dentist, the less treatment needs they are likely to have in the future<sup>37</sup>. On the other hand, 70 71 Delayed delayed diagnosis of dental disease can result in exacerbated problems which lead to more extensive and costly care<sup>8,33,38-41</sup>. Early diagnosis of developing malocclusions may allow for timely 72 73 therapeutic intervention<sup>9,27</sup>. 74 75 Components of a comprehensive oral examination include assessment of: 76 General health/growth assessment. 77 Pain. 78 • Extraoral soft tissue. 79 Temporomandibular joint. • Intraoral soft tissue. 80 Oral hygiene and periodontal health. 81 82 • Intraoral hard tissue. Developing occlusion 83 84 Caries risk. 85 Behavior of child. 86 87 Based upon the visual examination, the dentist may employ additional diagnostic aids (e.g., radiographs, 88 photographs, pulp vitality testing, laboratory tests, study casts)<sup>8,13,42-44</sup>. 89 90 The most common interval of examination is six months should be based on the child's individual needs or risk status/susceptibility to disease however, some patients may require examination and preventive 91 services at more or less frequent intervals, based upon historical, clinical, and radiographic findings<sup>4,7,8,16</sup>-92 <sup>18,25,45-48</sup> (ADA The Use of Dental Radiographs; Update and Recommendations 2006, Greenwell 2001). 93

Caries and its sequelae are among the most prevalent health problems facing infants, children, and

adolescents in America<sup>49</sup> (US DHHS 2000). Carious Caries lesions are cumulative and progressive and, in the primary dentition, are highly predictive of caries occurring in the permanent dentition<sup>6,50</sup> (Li and Wang 2002, Powell 1998). Reevaluation and reinforcement of preventive activities contribute to improved instruction for the caregiver of the child or adolescent, continuity of evaluation of the patient's health status, and repetitive exposure to dental procedures, potentially allaying anxiety and fear for the apprehensive child or adolescent<sup>51</sup>. Individuals with special health care needs may require individualized preventive and treatment strategies that take into consideration the unique needs and disabilities of the patient<sup>32</sup>.

Caries-risk assessment

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Risk assessment is a key element of contemporary preventive care for infants, children, adolescents, and persons with special health care needs. It should be carried out as soon as the first primary teeth erupt and reassessed periodically by dental and medical providers<sup>6,25</sup>. Its goal is to prevent disease by (1) identifying and minimizing causative factors (e.g., microbial burden, dietary habits, plaque accumulation) and optimizing protective factors (e.g., fluoride exposure, oral hygiene, sealants) children at high risk for caries, (2) developing individualized preventive measures and caries management, as well as (3) aiding the practitioner in determining appropriate periodicity of services<sup>25,52,53</sup>. Taking into consideration that the etiology of dental caries is multifactorial and complex, current caries-risk assessment models entail a combination of factors including diet, fluoride exposure, host susceptibility, and microflora analysis and consideration of how these factors interact with social, cultural, and behavioral factors. More comprehensive models that include social, political, psychological, and environmental determinants of health are also available<sup>54-57</sup>. Caries risk assessment forms and caries management protocols are available and aimed to simplify and clarify the process<sup>25,58,59</sup> (CDC 2001). Sufficient evidence demonstrates certain groups of children at greater risk for development of early childhood caries (ECC) would benefit from infant oral health care<sup>24,33,60-64</sup>. Infants and young children have unique caries-risk factors such as ongoing establishment of oral flora and host defense systems, susceptibility of newly erupted teeth, and development of dietary habits. Because the etiology of ECC is multifactorial and significantly influenced by health behaviors<sup>65</sup>, preventive messages for expectant parents and parents of very young children should target risk factors (e.g., early mutans streptococci contamination, poor oral hygiene habits, nighttime feeding, high sugar consumption frequency) known to place children at a higher risk for developing caries 24,33,57,66. Children are most likely to develop caries if mutans streptococci are acquired at an early age (Harris et al 2004, Berkowitz 2006). The characteristics of ECC and the availability of

127	preventive approaches support age-based strategies in addressing this significant pediatric health problem
128	(Berkowitz 2006). ECC can be a costly, devastating disease with lasting detrimental effects on the
129	dentition and systemic health (AAPD Policy ECC Classifications, AAPD Policy ECC Challenges,
130	Clarke et al 2006, Dye et al 2004, Jackson et al 2011, Davis, Deinard and Maiga 2010, Kobayashi et al
131	2005, Lee et al 2006, AAP 2011). Motivational problems may develop when parents/patients are not
132	interested in changing behaviors or feel that the changes require excessive effort. Therefore, it is
133	important that health care professionals utilize preventive approaches based on psychological and
134	behavioral strategies. Moreover, they should be sensitive to how they can effectively communicate their
135	recommendations so that parents/patients can perceive their recommendations as behaviors worth
136	pursuing. Two examples of effective motivational approaches used for caries prevention that share similar
137	psychological philosophies are motivational interviewing and self-determination theory <sup>67-73</sup> .
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139	Consistently, studies have reported caries experience in the primary dentition as a predictor of future
140	caries <sup>74</sup> . Early school-aged children are at a transition stage from primary to mixed dentition. These
141	children face challenges such as unsupervised toothbrushing and increased consumption of cariogenic
142	foods and beverages while at school, placing them at a higher risk for developing caries 75-77. Therefore,
143	special attention should be given to school-aged children regarding their oral hygiene and dietary
144	practices.
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146	Adolescence can be a time of heightened caries activity due to an increased <u>number of tooth surfaces in</u>
147	the permanent dentition and intake of cariogenic substances-and, as well as low priority for oral
148	hygiene <sup>9,78</sup> procedures (APA 2002). Risk assessment can assure preventive care (e.g., water fluoridation,
149	professional and home-use fluoride and antimicrobial agents, frequency of dental visits) is tailored to each
150	individual's needs and direct resources to those for whom preventive interventions provide the greatest
151	benefit <sup>9</sup> . Because a child's risk for developing dental disease can change over time due to changes in
152	habits (e.g., diet, home care), oral microflora, or physical condition, risk assessment must be documented
153	and repeated regularly and frequently to maximize effectiveness <sup>11,25</sup> .
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155	Prophylaxis and professional topical fluoride treatment
156	The interval for frequency of professional preventive services is based upon assessed risk for caries and
157	periodontal disease <sup>3,4,7,8,10,11,25,58,59,60</sup> . Prophylaxis aids in plaque, stain, and calculus removal, as well as in
158	educating the patient on oral hygiene techniques and facilitating the clinical examination 10. Gingivitis,

which is nearly universal in children and adolescents, it usually responds to thorough removal of bacterial deposits and improved oral hygiene<sup>47,79,80</sup>. Hormonal fluctuations, including those occurring during the onset of puberty and adolescent pregnancy, can modify the gingival inflammatory response to dental plaque<sup>47,48,81</sup>. Children can develop any of the several forms of periodontitis, with aggressive periodontitis occurring more commonly in children and adolescents than adults<sup>47,48,80</sup>. Caries risk may change quickly during active dental eruption phases. Newly erupted teeth may be athigher risk of developing caries, especially during the post eruption maturation process. Children who exhibit higher risk of developing caries and/or periodontal disease would benefit from recall appointments at greater frequency (e.g., every three months) than every six months<sup>3,4,8,10,11,25,59</sup>. This allows increased professional fluoride therapy application and improvement of oral health by demonstrating proper oral hygiene techniques, in addition to microbial monitoring, antimicrobial therapy reapplication, and reevaluation of behavioral changes for effectiveness<sup>3,10,48,59,82-84</sup>. Fluoride contributes to the prevention, inhibition, and reversal of caries<sup>85-87</sup> (CDC 2001). Professional topical fluoride treatments should be based on caries risk assessment and be part of a comprehensive preventive program in a dental home 19,25,86,89 (CDC 2001, Facts about Fluoride 2006, ADA Fluoride 2006). Plaque and pellicle are not a barrier to fluoride uptake in enamel<sup>10</sup> (Johnston and Lewis 1995, Ripa 1984, Bader, Shugars and Bonito 2001). Consequently, there is no evidence of a difference in caries rates or fluoride uptake in patients who receive rubber cup prophylaxis or a toothbrush prophylaxis before fluoride treatment<sup>88,89</sup> (Johnston and Lewis 1995, Ripa 1984). Precautionary measures should be taken to prevent swallowing of any professionally applied topical fluoride. Children at moderate caries risk should receive a professional fluoride treatment at least every six months; those with high caries risk should receive greater frequency of professional fluoride applications (e.g., every three to six months)85,89-92 (Bader, Shugars and Bonito 2001). Fluoride supplementation Fluoride contributes to the prevention, inhibition, and reversal of caries (Adair 2006, AAPD Guideline-Fluoride Therapy, CDC 2001, Tinanoff 2009). The AAPD encourages optimal fluoride exposure for every child, recognizing fluoride in the community water supplies as the most beneficial and costeffective preventive intervention. Fluoride supplementation should be considered for children at moderate

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to high caries risk when fluoride exposure is not optimal<sup>85</sup>. Determination of dietary fluoride sources (e.g., drinking water, toothpaste, foods, beverages) before prescribing supplements is required and can help reduce intake of excess fluoride<sup>85</sup>. In addition, supplementation should be in accordance with the guidelines recommended by the AAPD<sup>85,93,94</sup>. Radiographic assessment Radiographs are a valuable adjunct in the oral health care of infants, children, and adolescents used to diagnose and monitor oral diseases, evaluate dentoalveolar trauma, as well as monitor dentofacial development and the progress of therapy<sup>45</sup>. Timing of initial radiographic examination should not be based on the patient's age, but upon each child's individual circumstances<sup>45,46</sup>. The need for dental radiographs can be determined only after consideration of the patient's medical and dental histories, completion of a thorough clinical examination, and assessment of the patient's vulnerability to environmental factors that affect oral health<sup>45</sup>. Every effort must be made to minimize the patient's exposure by applying good radiological practices (e.g., use of protective aprons and thyroid collars, when appropriate) and by following the ALARA Principle (As Low as Reasonably Achievable)<sup>45</sup>. Anticipatory guidance/counseling Anticipatory guidance is the process of providing practical, developmentally-appropriate information about children's health to prepare parents for the significant physical, emotional, and psychological milestones<sup>2,9,19,20,95,96</sup>. Individualized discussion and counseling should be an integral part of each visit. Topics to be included are oral/dental development, growth and speech/language development, nonnutritive habits, diet and nutrition, injury prevention, development, tobacco use, substance use/abuse, intraoral/perioral piercing and oral jewelry/accessories<sup>2,9,15,19,27,95-102</sup>. Anticipatory guidance regarding the characteristics of a normal healthy oral cavity should occur during infant oral health visits and throughout follow-up dental visits. This allows parents to measure against any changes such as, but not limited to, growth delays, traumatic injuries, and presence of poor oral hygiene or caries. Tooth development and chronology of eruption can help parents better understand the implications of delayed or accelerated tooth emergence, the role of fluorides in newly erupted teeth that may be at higher risk of developing caries, especially during the post-eruption maturation process<sup>95</sup>. Assessment of developmental milestones (i.e., fine/gross motor skills, language, social interactions) is crucial for early recognition of potential delays and appropriate referral to therapeutic services<sup>29</sup>. Speech

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and language are integral components of a child's early development<sup>101</sup>. Deficiencies and abnormal 223 delays in speech and language production can be recognized early and referral made to address these 224 concerns. Communication and coordination of appliance therapy with a speech and language professional 225 can assist in the timely treatment of speech disorders<sup>101</sup>. 226 227 228 Oral habits (e.g., nonnutritive sucking - digital and pacifier habits, bruxism, tongue thrust swallow and abnormal tongue position, abnormal tongue thrusts, self-injurious/self-mutilating behavior) may apply 229 forces to teeth and dentoalveolar structures. Although early use of pacifiers and digit sucking are 230 231 considered normal, habits of sufficient frequency, intensity, and duration can contribute to deleterious changes in occlusion and facial development<sup>27</sup>. It is important to discuss the need for early pacifier and 232 digit sucking, then the need to wean from the habits before malocclusion or skeletal dysplasias occur<sup>27</sup>. 233 234 Early dental visits provide an opportunity to encourage parents to help their children stop sucking habits by age three years or younger. For school-aged children and adolescent patients, counseling regarding any 235 236 existing habits (e.g., fingernail biting, clenching, bruxism) is appropriate<sup>27</sup>. Parents should be provided with information regarding the potential immediate and long-term effects on the craniofacial complex and 237 238 dentition from a habit. If treatment is indicated, habit treatment include patient/parent counseling, behavior modification techniques, appliance therapy, or referral to other providers including, but not 239 limited to, orthodontists, psychologists, or otolaryngologists<sup>27</sup>. 240 241 Oral hygiene counseling involves the parent and patient. Initially, oral hygiene is the responsibility of the 242 parent. As the child develops, home care is performed jointly by parent and child. When a child 243 demonstrates the understanding and ability to perform personal hygiene techniques, the health care 244 professional should counsel the child. The effectiveness of home care should be monitored at every visit 245 246 and includes a discussion on the consistency of daily oral hygiene preventive activities, including adequate fluoride exposure<sup>3,4,9,25,85,103</sup>. 247 248 249 Caries conducive dietary practices The development of dietary habits and childhood food preferences 250 appear to be established early and may affect the oral health as well as general and well-being of a child<sup>104</sup>, probably by 12 months of age, and are maintained throughout early childhood (Douglass 2000, 251 Reisine and Douglass 1998). The establishment of a dental home no later than 12 months of age allows 252 dietary and nutrition counseling to occur early. This helps parents to develop proper oral health habits 253 254 early in their child's life, rather than trying to change established unhealthy habits later. During infancy,

255 counseling should focus on breastfeeding, bottle or no-spill cup usage, concerns with nighttime feedings, 256 frequency of in-between meal consumption of sugar-sweetened beverages (e.g., sweetened milk, 100 percent juice, soft drinks, fruit drinks, sports drinks) and snacks, as well as special diets<sup>26</sup>. Dietary-257 practices, including prolonged and/or frequent bottle or training cup with sugar containing drinks and 258 259 frequent between meal consumption of sugar containing snacks or drinks (e.g., juice, formula, soda), increase the risk of caries (Reisine and Douglass 1998, Tinanoff and Palmer 2000). The role of 260 261 earbohydrates in caries initiation is unequivocal. Acids in carbonated beverages and sports drinks canhave a deleterious effect (i.e., erosion) on enamel (Li, Zou and Dig 2012, Jawale et al 2012, Gambon et al 262 2011). Excess consumption of carbohydrates, fats, and sodium contribute to poor systemic health 105-107. 263 264 Dietary analysis and the role of dietary choices on oral health, malnutrition, and obesity should be addressed through nutritional and preventive oral health counseling at periodic visits<sup>26,108</sup>. The U.S. 265 266 Department of Health and Human Services and the U.S. Department of Agriculture Food Plate (USDA) and Center for Disease Control and Prevention/National Center for Health Statistics' Growth Charts-267 (CDC Growth Charts) provide dietary guidelines every five years to help Americans two years of age and 268 older make healthy choices to help prevent chronic diseases and promote a healthy diet<sup>109</sup> guidance for 269 270 parents and their children and promote better understanding of the relationship between healthy diet and 271 development. 272 273 Traumatic dental injuries that occur in preschool, school-age children, and young adults comprise 5 percent of all injuries for which treatment is sought for 110. Facial trauma that results in fractured, 274 275 displaced, or lost teeth can have significant negative functional, esthetic, and psychological effects on children<sup>111</sup> (Cortes, Marcenes and Shelham 2002). Practitioners should provide age-appropriate injury 276 prevention counseling for oro-facial trauma<sup>15,96</sup>. Initially, discussions would include advice regarding play 277 objects, pacifiers, car seats, and electrical cords. As motor coordination develops and the child grows 278 279 older, the parent/patient should be counseled on additional safety and preventive measures, including use 280 of athletic mouthguards for sporting activities. The greatest incidence of trauma to the primary dentition 281 occurs at two to three years of age, a time of increased mobility and developing coordination (Flores-282 2002). The most common injuries to permanent teeth occur secondary to falls, followed by traffic 283 accidents, violence, and sports (Rocha and Cardoso 2001, Caldas and Burgos 2001, Skaare and Jacobsen-2003, Tapias et al 2003). Dental injuries could have improved outcomes not only if the public were aware 284 285 of first-aid measures and the need to seek immediate treatment, but also if the injured child had access to emergency care at all times. Concerns with caregivers' dissatisfaction with experienced barriers to access 286

care, specifically the referral out of the dental home for emergency dental care, have been reported 112. 287 Therefore, it is important that all primary care providers inform parents about ways to access emergency 288 289 care for dental injuries and provide telephone numbers to access a dentist, including for after-hours emergency care<sup>113</sup>. 290 291 292 Nonnutritive oral habits (e.g., digital and pacifier habits, bruxism, abnormal tongue thrusts) may apply forces to teeth and dentoalveolar structures (AAPD Guideline Developing Dentition). Although early use-293 of pacifiers and digit sucking are considered normal, habits of sufficient frequency, intensity, and duration 294 295 can contribute to deleterious changes in occlusion and facial development (AAPD Guideline-Developing-296 Dentition). It is important to discuss the need for early pacifier and digit sucking, then the need to wean 297 from the habits before malocclusion or skeletal dysplasias occur (AAPD Guideline Developing 298 Dentition). Early dental visits provide an opportunity to encourage parents to help their children stopsucking habits by age three years or younger. For school aged children and adolescent patients, 299 300 counseling regarding any existing habits (e.g., fingernail biting, clenching, bruxism) is appropriate-301 (AAPD Guideline-Developing Dentition). 302 Speech and language are integral components of a child's early development (American Speech 303 Language Hearing Association). Deficiencies and abnormal delays in speech and language production-304 305 can be recognized early and referral made to address these concerns. Communication and coordination of 306 appliance therapy with a speech and language professional can assist in the timely treatment of speech 307 disorders (American Speech-Language-Hearing Association). Smoking and smokeless tobacco use almost always are initiated and established in adolescence 114-116 308 (CDC 1994). During this time period, children may be exposed to opportunities to experiment with other 309 310 substances that negatively impact their health and well-being. The most common tobacco products 311 include cigarettes, cigars, hookahs, snus, smokeless tobacco, pipes, bidis and kreteks (unfiltered cigarettes 312 from India), dissolvable tobacco, and electronic cigarettes. In 2016, 7.2 percent of middle school students 313 and 20.2 percent of high school students reported current tobacco product use<sup>117</sup>. E-cigarette use rose from 1.5 percent to 16.0 percent among high school students and from 0.6 percent to 5.3 percent among 314 middle school students from 2011 to 2015<sup>117</sup>. Practitioners should provide education regarding the serious 315 health consequences of tobacco use and exposure to second hand smoke<sup>97,117</sup> (CDC 1994). The 316 317 practitioner may need to obtain information regarding tobacco use and alcohol/drug abuse confidentially from an adolescent patient<sup>9,100</sup>. When tobacco or substance abuse has been identified, practitioners should 318

provide brief interventions for encouragement, support, and positive reinforcement for avoiding substance use<sup>97,100</sup> referral for appropriate intervention is indicated. If indicated, dental practitioners should provide referrals to primary care providers or behavioral-health/addiction specialists for assessment and/or treatment of substance use disorders in adolescents<sup>100</sup>. Complications from intraoral/perioral piercings can range from pain, infection, and tooth fracture to lifethreatening conditions of bleeding, edema, and airway obstruction<sup>99</sup>. Although piercings most commonly are observed in the teenaged pediatric dental patient, education regarding pathologic conditions and sequelae associated with these piercings should be initiated for the preteen child/parent and reinforced during subsequent periodic visits (AAPD Policy Intraoral/Perioral Piercing). The AAPD strongly opposes the practice of piercing intraoral and perioral tissues and use of jewelry on intraoral and perioral tissues due to the potential for pathological conditions and sequelae associated with these practices<sup>99</sup>. **Radiographic assessment** Appropriate radiographs are a valuable adjunct in the oral health care of infants, children, and adolescents (AAPD Guideline Radiographs, ADA The Use of Dental Radiographs; Update and Recommendations 2006). Timing of initial radiographic examination should not be based on the patient's age (ADA The Use of Dental Radiographs; Update and Recommendations 2006). Rather, after review of an individual's history and clinical findings, judicious determination of radiographic needs and examination can optimize patient care while minimizing radiation exposure (AAPD Guideline Radiographs, ADA The Use of Dental Radiographs; Update and Recommendations 2006). The U.S. Food and Drug Administration/ADA guidelines were developed to as sist the dentist in deciding under what circumstances specific radiographs are indicated (ADA The Use of Dental Radiographs; Update and Recommendations 2006). Treatment of dental disease/injury Health care providers who diagnose oral disease or trauma should either provide therapy or refer the patient to an appropriately trained individual for treatment <sup>118</sup>. Immediate intervention is necessary to prevent further dental destruction, as well as more widespread health problems. Postponed treatment can result in exacerbated problems that may lead to the need for more extensive care<sup>22,34,35,40</sup>. Early intervention could result in savings of health care dollars for individuals, community health care programs, and third-party payors<sup>22,34,35,37,40</sup>.

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Treatment of developing malocclusion Guidance of eruption and development of the primary, mixed, and permanent dentitions is an integral component of comprehensive oral health care for all pediatric dental patients<sup>27</sup>. Dentists have the responsibility to recognize, diagnose, and manage or refer abnormalities in the developing dentition as dictated by the complexity of the problem and the individual clinician's training, knowledge, and experience<sup>118</sup>. Early diagnosis and successful treatment of developing malocclusions can have both shortterm and long-term benefits, while achieving the goals of occlusal harmony and function and dentofacial esthetics<sup>119</sup> (Kanellis 2001, Woodside 2000, Kurol 2002, Sankey et al 2000). Early treatment is beneficial for many patients, but is not indicated for every patient. When there is a reasonable indication that an oral habit will result in unfavorable sequelae in the developing permanent dentition, any treatment must be appropriate for the child's development, comprehension, and ability to cooperate. Use of an appliance is indicated only when the child wants to stop the habit and would benefit from a reminder<sup>27</sup>. At each stage of occlusal development, the objectives of intervention/treatment include: (1) reversing adverse growth, (2) preventing dental and skeletal disharmonies, (3) improving esthetics of the smile, (4) improving selfimage, and (5) improving the occlusion<sup>27</sup>. **Sealants** A 2016 systematic review concluded sealants are effective in preventing and arresting pit-and-fissure occlusal caries lesions of primary and permanent molars in children and adolescents and can minimize the progression of noncavitated occlusal caries lesions<sup>120</sup>. Sealants reduce the risk of pit and fissure caries insusceptible teeth and are cost-effective when maintained (Feigal 2002, Feigal and Donly 2006, AAPD-Policy on Policy on Third party Reimbursement of Fees Related to Dental Sealants, Beauchamp et al-2008, Isman 2010). They are indicated for primary and permanent teeth with pits and fissures that are predisposed to plaque retention<sup>121</sup>. At-risk pits and fissures should be sealed as soon as possible. Because caries risk may increase at any time during a patient's life due to changes in habits (e.g., dietary, home care), oral microflora, or physical condition, unsealed teeth subsequently might benefit from sealant application<sup>122</sup> (Feigel 2002). The need for sealant placement should be reassessed at periodic preventive care appointments. Sealants should be monitored and repaired or replaced as needed 121-123. Third molars Panoramic or periapical radiographic assessment is indicated during late adolescence to assess the presence, position, and development of third molars (ADA The Use of Dental Radiographs; Update

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and Recommendations 2006). A decision to remove or retain third molars should be made before the middle of the third decade 124,125. Impacted third molars are potentially pathologic. Pathologic conditions generally are more common with an increase in age. Evaluation and treatment may require removal, exposure, and/or repositioning. In selected cases, long-term clinical and radiographic monitoring may be needed. Treatment should be provided before pathologic conditions adversely affect the patient's oral and/or systemic health 119,124,125. Consideration should be given to removal when there is a high probability of disease or pathology and/or the risks associated with early removal are less than the risks of later removal 14,119,125. Postoperative complications for removal of impacted third molars are low when performed at an early age. A Cochrane review in 2012 reported that there was no difference in late lower incisor crowding with removal or retention of asymptomatic impacted third molars 126.

# Referral for regular and periodic dental care

As adolescent patients approach the age of majority, it is important to educate the patient and parent on the value of transitioning to a dentist who is knowledgeable in adult oral health care. At the time agreed upon by the patient, parent, and pediatric dentist, the patient should be referred to a specific practitioner in an environment sensitive to the adolescent's individual needs<sup>9,127</sup>. Until the new dental home is established, the patient should maintain a relationship with the current care provider and have access to emergency services. For the patient with special health care needs, in cases where it is not possible or desired to transition to another practitioner, the dental home can remain with the pediatric dentist and appropriate referrals for specialized dental care should be recommended when needed<sup>127</sup>. Proper communication and records transfer allow for consistent and continuous care for the patient<sup>42</sup>.

## Recommendations by age

### 6 to 12 months

- 1. Complete the clinical oral examination with adjunctive diagnostic tools (e.g., radiographs as determined by child's history, clinical findings, and susceptibility to oral disease) to assess oral growth and development, pathology, and/or injuries; provide diagnosis.
- 2. Complete a caries risk assessment.
- 411 3. Provide oral hygiene counseling for parents.
  - 3. <u>Clean and rRemove supragingival</u> and subgingival stains or deposits as indicated.
- 4. Assess the child's systemic and topical fluoride status (including type of infant formula used, if any, and exposure to fluoridated toothpaste) and provide counseling regarding fluoride.

415		Prescribe systemic fluoride supplements, if indicated, following assessment of total fluoride
416		intake from drinking water, diet, and oral hygiene products.
417	5.	Assess appropriateness of feeding practices, including bottle and breast-feeding, and provide
418		counseling as indicated-
419	6.	P; provide dietary counseling related to oral health.
420	7.	Provide age-appropriate injury prevention counseling for orofacial trauma.
421	8.	Provide counseling for nonnutritive oral habits (e.g., digit, pacifiers).
422	9.	Provide required treatment and/or appropriate referral for any oral diseases or injuries.
423	10.	Provide anticipatory guidance.
424	<u>11.</u>	Assess overall growth and development and make appropriate referral to therapeutic services if
425		needed.
426	<u>12</u> 11	F. Consult with the child's physician as needed.
427	<del>12.</del>	Complete a caries risk assessment.
428	<u>14</u> 13	3. Determine the interval for periodic reevaluation <u>based on the child's individual needs or risk</u>
429		status/susceptibility to disease.
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431	12 to 2	24 months
432	1.	Repeat the procedures for ages six to 12 months every six months or as indicated by the child's
433		individual needs or risk status/susceptibility to disease individual patient's risk-
434		status/susceptibility to disease.
435	2.	Assess appropriateness of feeding practices (including bottle, breast-feeding, and no-spill
436		training cups) and provide counseling as indicated.
437	3.	Review patient's fluoride status (including any childcare arrangements which may impact-
438		systemic fluoride intake) and provide parental counseling.
439	4.	Provide topical fluoride treatments every six months or as indicated by the <u>child's individual</u>
440		needs or risk status/susceptibility to disease.
441		
442	2 to 6	years
443	1.	Repeat the procedures for 12 to 24 months every six months or as indicated by the child's
444		individual needs or risk status/susceptibility to disease. Provide age-appropriate oral hygiene
445		instructions.
446	2.	Scale and clean the teeth every six months or as indicated by individual patient's needs.

- 447 3. Provide pit and fissure sealants for caries-susceptible primary molars and permanent molars, premolars, and anterior teeth.
  - 4. Provide counseling and services (e.g., mouthguards) as needed for orofacial trauma prevention.
- 5. Provide assessment/treatment or referral of developing malocclusion as indicated by individual patient's needs.
- 452 6. Provide required treatment and/or appropriate referral for any oral diseases, habits, or injuries as indicated.
  - 7. Assess speech and language development and provide appropriate referral as indicated.

## 6 to 12 years

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- 1. Repeat the procedures for ages two to six years every six months or as indicated by the child's individual needs or risk status/susceptibility to disease individual patient's risk status/susceptibility to disease.
- 2. Provide substance abuse counseling <u>and/or referral to primary care providers or behavioral-health/addiction specialists if indicated (e.g., smoking, smokeless tobacco).</u>
- 3. Provide counseling on intraoral/perioral piercing.

#### 12 years and older

- 1. Repeat the procedures for ages six to 12 years every six months or as indicated by the child's individual needs or risk status/susceptibility to disease individual patient's risk status/susceptibility to disease.
- 2. During late adolescence, assess the presence, position, and development of third molars, giving consideration to removal when there is a high probability of disease or pathology and/or the risks associated with early removal are less than the risks of later removal.
- 471 3. At an age determined by patient, parent, and pediatric dentist, refer the patient to a general dentist for continuing oral care.

#### References

U.S. Dept of Health and Human Services. Office of the Surgeon General. A national call to action
 to promote oral health. Rockville, MD: U.S. Department of Health and Human Services, Public
 Health Service, National Institutes of Health, National Institute of Dental and Craniofacial
 Research; 2003.

- 479 2. American Academy of Pediatric Dentistry. <u>Guideline Best practices on perinatal and infant oral</u>
  480 health care. Pediatr Dent <u>20122017;3439(special issue):132-6208-12</u>.
- 481 3. Pienihakkinen K, Jokela J, Alanen P. Risk-based early prevention in comparison with routine
- prevention of dental caries: A 7-year follow-up of a controlled clinical trial; clinical and economic
- 483 results. BMC Oral Health 2005;5(2):1-5.
- 484 4. Beil HA, Rozier RG. Primary health care providers' advice for a dental checkup and dental use in children. Pediatr 2010;126(2):435-41.
- 486 <u>5. Fontana M. Noninvasive caries risk-based management in private practice settings may lead to</u>
- reduced caries experience over time. J Evid Based Dent Pract 2016;16(4):239-42.
- 488 <u>6. Fontana M, González-Cabezas C. The clinical, environmental, and behavioral factors that foster</u>
- early childhood caries: evidence for caries risk assessment. Pediatr Dent 2015;37(3):217-25.
- 490 7. Patel S, Bay C, Glick M. A systematic review of dental recall intervals and incidence of dental
- 491 caries. J Am Dent Assoc 2010;141(5):527-39.
- 492 8. Pahel BT, Rozier RG, Stearns SC, Quiñonez RB. Effectiveness of preventive dental treatments by
- 493 physicians for young Medicaid enrollees. Pediatr 2011;127(3):682-9.
- 494 9. American Academy of Pediatric Dentistry. Guideline Best practices on adolescent oral health care.
- 495 Pediatr Dent <del>2012</del>2017;<del>3439</del>(special issue):<del>137-44</del>213-20.
- 496 10. American Academy of Pediatric Dentistry. Policy on the role of dental prophylaxis in pediatric
- 497 dentistry. Pediatr Dent <del>2012</del>2017:<del>34</del>39(special issue):<del>141-24</del>7-8.
- 498 11. Ramos-Gomez FJ, Crystal YO, Ng MW, Crall JJ, Feath-erstone JBD. Pediatric dental care:
- 499 Prevention and management protocols based on caries risk assessment. CDAJ 2010;38(10):746-61.
- 500 12. American Academy of Pediatric Dentistry. Guideline Best practices on pediatric restorative
- dentistry. Pediatr Dent <del>2012</del>2017;<del>34</del>39(special issue):<del>214-21</del>312-24.
- 502 13. American Academy of Pediatric Dentistry. Best practices on acquired temporomandibular disorders
- in infants, children, and adolescents. Pediatr Dent 20122017;3439(special issue):258-63354-60.
- 504 14. American Academy of Pediatric Dentistry. Guideline Best practices on management considerations
- for pediatric oral surgery and oral pathology. Pediatr Dent 20122017;3439(special issue):264-
- 506 <del>71</del>361-70.
- 507 15. American Academy of Pediatric Dentistry. Policy on prevention of sports-related orofacial injuries.
- Pediatr Dent <del>2012</del>2017;<del>34</del>39(special issue):<del>67-71</del>85-9.

- 509 16. Diangelis AJ, Andreasen JO, Ebeleseder KA, et al. International Association of Dental
- Traumatology Guidelines for the Management of Traumatic Dental Injuries: 1. Fractures and
- luxations of permanent teeth. Dent Traumatol 2012;28(1):2-12.
- 512 17. Andersson L, Andreasen JO, Day P, et al. International Association of Dental Traumatology
- Guidelines for the Management of Traumatic Dental Injuries: 2. Avulsion of permanent teeth. Dent
- 514 Traumatol 2012;28(2):88-96.
- 515 18. Malmgren B, Andreasen JO, Flores MT, et al. International Association of Dental Traumatology
- Guidelines for the Management of Traumatic Injuries: 3. Injuries in the primary dentition. Dent
- 517 Traumatol 2012;28(3):174-82.
- 518 19. American Academy of Pediatric Dentistry. Policy on the dental home. Pediatr Dent
- 519 <del>2012</del>2017;3439(special issue):24-529-30.
- 520 20. American Academy of Pediatrics. Oral health risk assessment timing and establishment of the
- dental home. Pediatr 2003;11(5):1113-6. Reaffirmed 2009;124(2):845.
- 522 <u>21. American Academy of Pediatrics Council on Children with Disabilities. Care coordination:</u>
- Integrating health and related systems of care for children with special health care needs, Pediatrics.
- 524 2005;116(5):1238–44.
- 525 22. Berg JH, Stapleton FB. Physician and dentist: New initiatives to jointly mitigate early childhood
- oral disease. Clin Pediatr 2012;51(6):531-7.
- 527 23. Kempe A, Beaty B, Englund BP, et al: Quality of care and use of the medical home in a state-
- funded capitated primary care plan for low-income children, Pediatrics 2000;105(5):1020–28.
- 529 24. American Academy of Pediatric Dentistry. Policy on early childhood caries (ECC): Classifications,
- consequences, and preventive strategies. Pediatr Dent <del>2012</del>2017;<del>34</del>39(special issue):<del>50-2</del>59-61.
- 531 25. American Academy of Pediatric Dentistry. Guideline Best practices on caries risk assessment and
- management for infants, children, and adolescents. Pediatr Dent 20122017;3439(special issue):123-
- 533 <del>30</del>197-204.
- 534 26. American Academy of Pediatric Dentistry. Policy on dietary recommendations for infants, children,
- and adolescents. Pediatr Dent 20122017;3439(special issue):56-864-6.
- 536 27. American Academy of Pediatric Dentistry. Best Practices on management of the developing
- 537 dentition and occlusion in pediatric dentistry. Pediatr Dent 20122017;3439(special issue):239
- 538 <del>51</del>334-47.
- 539 28. Tseng R, Vann WF Jr, Perrin EM: Addressing childhood overweight and obesity in the dental
- office: Rationale and practical guidelines, Pediatr Dent 2010;32(5):417–23.

- 541 29. Scharf RJ, Scharf GJ, Stroustrup A. Developmental milestones. Pediatr Rev 2016;37(1):25-37.
- 542 30. Brown EJ: Children's dental visits and expenses, United States, 2003. Statistical Brief no. 117. In:
- Quality AFHRA, ed. Rockville, Md; AHRQ Publication: 2006.
- 544 31. Selden TM: Compliance with well-child visit recommendations: Evidence from the Medical
- Expenditure Panel Survey, 2000-2002, Pediatrics 2016;118(6):e1766–78.
- 32. American Academy of Pediatric Dentistry. Guideline Best practices on management of persons
- 547 <u>dental patients</u> with special health care needs. Pediatr Dent 20122017;3439(special issue):152
- 548 <del>7</del>229-34.
- 33. American Academy of Pediatric Dentistry. Policy on early childhood caries (ECC): Unique
- challenges and treatment options. Pediatr Dent 20122017;3439(special issue):53-562-3.
- 551 34. Clarke M, Locker D, Berall G, Pencharz P, Kenny DJ, Judd P. Malnourishment in a population of
- young children with severe early childhood caries. Pediatr Dent 2006;28(3):254-9.
- 553 35. Dye BA, Shenkin JD, Ogden CL, Marshall TA, Levy SM, Kanellis MJ. The relationship between
- healthful eating practices and dental caries in children ages 2-5 years in the United States, 1988-
- 555 1994. J Am Dent Assoc 2004;135(1):55-6.
- 36. Jackson SL, Vann WF, Kotch J, Pahel BT, Lee JY. Impact of poor oral health on children's school
- attendance and performance. Amer J Publ Health 2011;10(10):1900-6.
- Nowak AJ, Casamassimo PS, Scott J, Moulton R: Do early dental visits reduce treatment and
- treatment costs for children? Pediatr Dent 2014;36(7):489–93.
- 560 38. Davis EE, Deinard AS, Maiga EW. Doctor, my tooth hurts: The costs of incomplete dental care in
- the emergency room. J Pub Health Dent 2010;70(3):205-10.
- 562 39. Kobayashi M, Chi D, Coldwell SE, Domoto P, Milgrom P. The effectiveness and estimated costs of
- the access to baby and child dentistry programs in Washington State. J Am Dent Assoc
- 564 2005;136(9):1257-63.
- 565 40. Lee JY, Bouwens TJ, Savage MF, Vann WF Jr. Examining the cost-effectiveness of early dental
- visits. Pediatr Dent 2006;28(2):102-5, discussion 192-8.
- 567 41. American Academy of Pediatrics. Early childhood caries in indigenous communities. Pediatr
- 568 2011;127(6):1190-8.
- 569 42. American Academy of Pediatric Dentistry. Best practices on record-keeping. Pediatr Dent
- 570 <u>20122017;3439(special issue):287-94389-96.</u>
- 571 43. Dean JA. Examination of the mouth and other relevant structures. In: Dean JA, ed. McDonald and
- Avery's Dentistry for the Child and Adolescent. 10th ed. St. Louis, Mo: Elsevier; 2016:1-16.

- 573 44. Fontana M. Patient evaluation and risk assessment. In: Little JW, Falace DA, Miller CS, Rhodus,
- NL eds. Dental Management of the Medically Compromised Patient. 8th ed. St. Louis, Mo:
- 575 <u>Elsevier; 2013:1-18.</u>
- 576 45. American Academy of Pediatric Dentistry. Guideline Best Practices on prescribing dental
- 577 radiographs <u>for infants, children, adolescents, and individuals with special health care needs.</u>
- Pediatr Dent <del>2012</del>2017;<del>34</del>39(special issue):<del>299-301</del>205-7.
- 579 46. American Dental Association (ADA). Dental radiographic examinations: Recommendations for
- patient selection and limiting radiation exposure. Available at:
- 581 <a href="http://www.ada.org/~/media/ADA/Publications/ADA%20News/Files/Dental\_Radiographic\_Exami">http://www.ada.org/~/media/ADA/Publications/ADA%20News/Files/Dental\_Radiographic\_Exami</a>
- nations\_2012.pdf?la=en). Accessed August 15, 2017.
- 583 47. Califano JV, Research Science and Therapy Committee American Academy of Periodontology.
- Periodontal diseases of children and adolescents. J Periodontol 2003;74(11):1696-704.
- 585 48. Clerehugh V. Periodontal diseases in children and adolescents. British Dental J 2008;204(8):469-
- 586 71.
- 587 49. Dye BA, Hsu K-L, Afful J. Prevalence and measurement of dental caries in young children. Pediatr
- 588 Dent 2015;37(3):200-16.
- 589 50. Tagliaferro EP, Pereina AC, Meneghin MDC, Ambrosono GBM. Assessment of dental caries
- 590 prediction in a seven-year longitudinal study. J Pub Health Dent 2006;66(3):169-73.
- 591 51. American Academy of Pediatric Dentistry. Guideline-Best practices on behavior guidance for the
- 592 pediatric dental patient. Pediatr Dent 20122017;3439(special issue):170-82246-59.
- 593 52. Crall JJ, Quinonez RB, Zandona AF: Caries risk assessment: rationale, uses, tools, and state of
- development. In Berg JH, Slayton RL, editors: Early childhood oral health, Second Edition,
- 595 <u>Hoboken, New Jersey, 2016, Wiley-Blackwell.</u>
- 596 53. Fontana M, Zero DT. Assessing patients' caries risk. J Am Dent Assoc 2006;137(9):1231-9.
- 597 54. American Academy of Pediatric Dentistry. Policy on social determinants of children's oral health
- 598 and health disparities or al health programs for infants, children, and adolescents. Pediatr Dent
- 599 2017;39(special issue): 23-6.
- 55. Fisher-Owens SA, Gansky SA, Platt LJ, et al: Influences on children's oral health: A conceptual
- 601 model, Pediatrics 2007;120(3):e510–20.
- 602 56. Lee JY, Divaris K: The ethical imperative of addressing oral health disparities: A unifying
- framework, J Dent Res 2014;93(3):224–30.
- 57. Seow KW: Environmental, maternal, and child factors which contribute to early childhood caries: a

- 605 <u>unifying conceptual model, Int J Paediatr Dent 2012;22(3):157-68.</u>
- 58. Domejean S, White JM, Featherstone JD. Validation of the CDA CAMBRA caries risk assessment:
- A six year retrospective study. J Calif Dent Assoc 2011;39(10):709-15.
- 608 59. Ramos-Gomez F, Ng MW. Into the future: Keeping healthy teeth caries free: Pediatric CAMBRA
- protocols. J Calif Dent Assoc 2011;39(10):723-33.
- 610 60. Harris R, Nicoll AD, Adair PM, Pine CM. Risk factors for dental caries in young children: A
- systematic review of the literature. Community Dent Health 2004;21(suppl):71-85.
- 612 61. Ramos-Gomez FJ. A model for community-based pediatric oral health: implementation of an infant
- oral care program. Int J Dent 2014;2014:156821.
- 614 62. Southward LH, Robertson A, Edelstein BL. Oral health of young children in Mississippi Delta child
- care centers. A second look at early childhood caries risk assessment. J Public Health Dent
- 616 2008;68(4):188-95.
- 617 63. Nunn ME, Dietrich T, Singh HK, Henshaw MM, Kressin NR. Prevalence of early childhood caries
- among very young urban Boston children compared with U.S. children. J Public Health Dent
- 619 2009;69(3):156-62.
- 620 <u>64. Weber-Gasparoni K, Kanellis MJ, Qian F: Iowa's public health-based infant oral health program: A</u>
- decade of experience, J Dent Educ 2010;74(4):363–71.
- 622 65. Albino J, Tiwari T. Preventing childhood caries: a review of recent behavioral research. J Dent Res.
- 623 2016;95(1):35-42.
- 624 66. Plutzer K, Keirse MJ. Incidence and prevention of early childhood caries in one- and two-parent
- families. Child Care Health Dev 2011;37(1):5-10.
- 626 67. Halvari AEM, Halvari H, Bjørnebekk G, Deci EL. Self-determined motivational predictors of
- 627 <u>increases in dental behaviors, decreases in dental plaque, and improvement in oral health: a</u>
- 628 randomized clinical trial. Health Psychol 2012;31(6):777-88.
- 629 68. Harrison RL, Veronneau J, Leroux B. Effectiveness of maternal counseling in reducing caries in
- 630 Cree children. J Dent Res 2012;91(11):1032-07.
- 631 69. Ismail AI, Ondersma S, Jedele JM, Little RJ, Lepkowski JM. Evaluation of a brief tailored
- motivational intervention to prevent early childhood caries. Community Dent Oral Epidemiol
- 633 2011;39(5):433-48.
- 634 70. Miller WR, Rollnick S. Meeting in the middle: motivational interviewing and self-determination
- 635 theory. Int J Behav Nutr Phys Act 2012;2(9):25.
- 636 71. Riedy C, Weinstein P, Manci L, et al. Dental attendance among low-income women and their

637	children following a brief motivational counseling intervention: A community randomized trial.
638	Social Science & Medicine. 2015;144:9-18.

- Weber-Gasparoni K, Reeve J, Ghosheh N, et al. An effective psychoeducational intervention for
   early childhood caries prevention: part I. Pediatr Dent 2013;35(3):241-6.
- 73. Weber-Gasparoni K, Warren JJ, Reeve J, et al. An effective psychoeducational intervention for
   early childhood caries prevention: part II. Pediatr Dent 2013;35(3):247-51.
- 74. Mejàre I, Axelsson S, Dahlén D, et al. Caries risk-assessement: a systematic review. Acta Odontol
   Scand 2014;72(2):81-91.
- 75. American Academy of Pediatric Dentistry. Policy on snacks and beverages sold in schools. Pediatr
   Dent 2017;39(special issue): 67-8.
- 647 <u>76. Marshall TA, Levy SM, Broffitt B, et al. Dental caries and beverage consumption in young</u> 648 children. Pediatrics 2003;112(3Pt1):e184-e191.
- Chankanka O, Marshall TA, Levy SM, Cavanaugh JE, Warren JJ, Broffitt B, Kolker JL. Mixed
   dentition cavitated caries incidence and dietary intake frequencies. Pediatr Dent 2011;33(3):233-40.
- 78. Warren JJ, Van Buren JM, Levy SM, et al. Dental caries clusters among adolescents. Community
   Dent Oral Epidemiol 2017 Jul 3. doi: 10.1111/cdoe.12317. [Epub ahead of print]
- 653 79. American Academy of Periodontology Research Science and Therapy Committee. Treatment of 654 plaque-induced gingivitis, chronic periodontitis, and other clinical conditions. J Periodontol
- 655 2001;72:1790-800. Erratum J Periodontol 2003;74(10):1568.
- 656 80. American Academy of Periodontology. Comprehensive periodontal therapy: A statement by the 657 American Academy of Periodontology. J Periodontol 2011;82(7):943-9.
- 81. American Academy of Pediatric Dentistry. Best practices on oral health care for the pregnant
   adolescent. Pediatr Dent 2017;39(special issue): 221-8.
- Anderson MH, Shi W. A probiotic approach to caries management. Pediatr Dent 2006;28(2):151-3.
- Featherstone JDB. Caries prevention and reversal based on the caries balance. Pediatr Dent 2006;28(2):128-32.
- 663 84. Clerehugh V, Tugnait A. Periodontal diseases in children and adolescents: 2. Management. Dent 664 Update 2001;28(6):274-81.
- 665 85. American Academy of Pediatric Dentistry. <u>Guideline Best practices</u> on fluoride therapy. Pediatr 666 Dent <del>2012</del>2017;<del>34</del>39(special issue):<del>167-70</del>242-45.
- 86. Adair SM. Evidence-based use of fluoride in contemporary pediatric dental practice. Pediatr Dent
   2006;28(2):133-42.

- 669 87. Tinanoff N. Use of fluoride in early oral health. In: Early Childhood Oral Health. Berg JH, Slayton
- 670 RL, eds, Wiley Blackwell John Wiley & Sons, Ames, Ia Hoboken, New Jersey 2009 2016:92-
- 671 <u>109</u>104-119.
- 672 88. Azarpazhooh A, Main PA. Efficacy of dental prophylaxis (rubber-cup) for the prevention of caries
- and gingivitis: a systematic review of the literature. Brit Dent J 2009;207:E14.
- 674 89. Weyant RJ, Tracy SL, Anselmo TT, et al. Topical fluoride for caries prevention: Executive
- 675 <u>summary of the updated clinical recommendations and supporting systemic review. J Amer Dent</u>
- 676 <u>Assoc 2013;144:1279-91.</u>
- 677 90. Featherstone JD, Adair SM, Anderson MH, et al. Caries management by risk assessment:
- Consensus statement, April 2002. J Calif Dent Assoc 2003;331(3):257-69.
- 679 91. Axelsson S, Söder B, Norderam G, et al. Effect of combined caries-preventive methods: A
- systematic review of controlled clinical trials. Acta Odontol Scand 2004;62(3):163-9.
- 681 92. Källestål C. The effect of five years' implementation of caries-preventive methods in Swedish high-
- risk adolescents. Caries Res 2005;39(1):20-6.
- 683 93. American Dental Association Council on Scientific Affairs. Professionally-applied topical fluoride:
- Evidence-based clinical recommendations. J Am Dent Assoc 2006;137(8):1151-9.
- 685 94. Rozier RG, Adair, S, Graham F, et al. Evidence-based clinical recommendations on the prescription
- of dietary fluoride supplements for caries prevention. J Am Dent Assoc 2010;141(12):1480-9.
- 687 95. Casamassimo PS, Nowak AJ: Anticipatory guidance. In Berg JH, Slayton RL, editors: Early
- childhood oral health, 2<sup>nd</sup> edition, Hoboken, New Jersey, 2016, Wiley-Blackwell, pp 169-192.
- 689 96. Sigurdsson A. Evidence-based review of prevention of dental injuries. Pediatr Dent
- 690 2013;35(2):184-90.
- 691 97. American Academy of Pediatric Dentistry. Policy on tobacco use. Pediatr Dent
- 692 <del>2012</del>2017;<del>34</del>39(special issue):<del>61-4</del>69-73.
- 693 98. American Academy of Pediatric Dentistry. Policy on electronic cigarettes. Pediatr Dent 39(6):74-6.
- 694 99. American Academy of Pediatric Dentistry. Policy on intraoral/perioral piercing and oral
- jewelry/accessories. Pediatr Dent 20122017;3439(special issue):65-683-4.
- 696 100. American Academy of Pediatric Dentistry. Policy on substance abuse in adolescent dental patients.
- 697 Pediatr Dent 2017;39(special issue);77-80.
- 698 101. American Speech-Language-Hearing Association. Available at:
- 699 "http://www.asha.org/public/speech/development/chart.htm". Accessed <u>August 23, 2017</u>.

- 102. Lewis CW, Grossman DC, Domoto PK, Deyo RA. The role of the pediatrician in the oral health of children: A national survey. Pediatrics 2000;106(6):E84.
- 702 103. American Academy of Pediatric Dentistry. Policy on use of fluoride. Pediatr Dent 2017;39(6):49-703 50.
- 104. Kranz S, Smiciklas-Wright H, Francis LA. Diet quality, added sugar, and dietary fiber intakes in American pre-schoolers. Pediatr Dent 2006;28(2):164-71.
- 706 105. Drewnowski A. The cost of U.S. foods as related to their nutritive value. Am J Clin Nutr 707 2010;92(5):1181-8.
- 106. Ervin RB, Kit BK, Carroll MD, Ogden CL. Consumption of added sugar amoung U.S. children and
   adolescents, 2005-2008. NCHS Data Brief 2012;3(87):1-8.
- 710 107. Mobley C, Marshall TA, Milgrom P, Coldwell SE. The contribution of dietary factors to dental 711 caries and disparities in caries. Acad Pediatr 2009;9(6):410-4.
- 108. U.S. Department of Agriculture. Center for Nutrition Policy and Promotion. USDA Food Patterns,
   2015. Available at: "http://www.cnpp.usda.gov/USDAFoodPatterns". Accessed March 19, 2018.
- 714 <u>109. U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015–2020</u>
- Dietary Guidelines for Americans, 8th ed, Washington, DC:U.S. Department of Health and Human
- 716 <u>Services and U.S. Department of Agriculture; 2016.</u>
- 717 <u>110. Andreasen JO, Andreasen FM, Andersson L. Textbook and color atlas of traumatic injuries to the</u> 718 teth, 4th edn. Oxford, UK: Wiley-Blackwell; 2007.
- 719 111. Lee JY, Divaris K. Hidden consequences of dental trauma: the social and psychological effects.
- 720 Pediatr Dent 2009;31(2):96-101.
- 721 112. Meyer BD, Lee JY, Lampiris LN, Mihas P, Vossers S, Divaris K. "They Told Me to Take Him
- Somewhere Else": Caregivers' Experiences Seeking Emergency Dental Care for Their Children.
- 723 Pediatr Dent 2017;15:39(3):209-14.
- 724 <u>113. American Academy of Pediatric Dentistry. Policy on emergency oral care for infants, children,</u>
- adolescents, and individuals with special health care needs. Pediatr Dent 2017;39(special issue):46.
- 726 114. American Lung Association. Stop Smoking. Available at: "http://www.lung.org/stop-smoking/".
- 727 Accessed August 23, 2017.
- 115. Albert DA, Severson HH, Andrews JA. Tobacco use by adolescents: The role of the oral health
- professional in evidence-based cessation program. Pediatr Dent 2006;28(2):177-87.
- 730 <u>116. U.S. Dept of Health and Human Services. Preventing Tobacco Use Among Youth and Young</u>
- Adults: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers

- for Disease Control and Prevention, Office on Smoking and Health, Atlanta, Georgia, 2012.
- Available at: "http://www.cdc.gov/tobacco/data\_ statistics/sgr/2012/index.htm". Accessed August
- 734 <u>15, 2017.</u>
- 735 117. Centers for Disease Control and Prevention (CDC). Tobacco use among middle and high school
- 536 students United States, 2011-2016. Morbidity and Mortality Weekly Report. 2017; 66(23):597-
- 737 <u>603.</u>
- 738 118. American Academy of Pediatric Dentistry. Policy on ethical responsibility to treat or refer in the
- oral health care management of infants, children, adolescents, and individuals with special health
- 740 <u>care needs</u>. Pediatr Dent <u>20132017;3539(special issue):106136-7</u>.
- 741 119. Bell RA, Dean JA, McDonald RE, Avery DR. Managing the developing occlusion. In: Dean JA,
- 742 McDonald RE, Avery DR, Jones JE, Vinson LAW, eds. McDonald and Avery's Dentistry for the
- 743 Child and Adolescent. Maryland HeightsSt. Louis, Mo: Mosby-Elsevier Co; 20112016:415-478.
- 744 120. Wright JT, Tampi MP, Graham L, et al. Sealants for preventing and arresting pit-and-fissure
- occlusal caries in primary and permanent molars: A systematic review of randomized controlled
- 746 <u>trials-a report of the American Dental Association and the American Academy of Pediatric</u>
- 747 Dentistry. J Am Dent Assoc 2016;147(8):631-45.
- 748 121. Beauchamp J, Caufield PW, Crall JJ, et al. Evidence-based clinical recommendations for the use of
- pit-and-fissure sealants. J Am Dent Assoc 2008;139(3):257-67.
- 750 122. Sasa I, Donly KJ. Dental sealants: A review of the materials. Calif Dent Assoc J 2010;38(10):730-
- 751 4.
- 752 123. American Academy of Pediatric Dentistry. Policy on third-party reimbursement of fees related to
- 753 dental sealants. Pediatr Dent <del>2012</del>2017;3439(special issue):91-2120-1.
- 754 124. American Association of Oral and Maxillofacial Surgeons. Parameters and Pathways: Clinical
- 755 Practice Guidelines for Oral and Maxillofacial Surgery. Version 4.0. AAOMS ParCare 2007:69-72.
- 756 125. American Association of Oral and Maxillofacial Surgeons (AAOMS). Advocacy white paper on
- 757 third molar teeth (2016). Available at:
- 758 "https://www.aaoms.org/docs/govt affairs/advocacy white papers/management third molar whit
- paper.pdf". Accessed August 15, 2017.
- 126. Mettes TD, Ghaeminia H, Nienhuijs ME, Perry J, van deer Sanden WJ, Plasschaert A. Surgical
- 761 removal versus retention for the management of asymptomatic impacted wisdom teeth. Cochrane
- 762 Database Syst Rev 2012;13(6):CD003879.
- 763 127. American Academy of Pediatric Dentistry. Policy on transitioning from a pediatric-centered to an

764	adult-centered dental home for individuals with special health care needs. Pediatr Dent
765	2017;39(special issue): 129-132.
766	
767	
768	
769	American Academy of Pediatrics. Tobacco use: A pediatric disease. Pediatr 2009;24(5):1474-87.
770	American Dental Association Council on Scientific Affairs. The use of dental radiographs; Update and
771	recommendations. J Am Dent Assoc 2006;137(9):1304-12.
772	American Association of Oral and Maxillofacial Surgeons (AAOMS). Advocacy white paper on evidence
773	based third molar surgery. Available at: "http://aaoms.org/advocacy_position_statements.php".
774	Accessed June 30, 2013.
775	American Psychological Association. Developing adolescents: A reference for professionals. Washington,
776	DC. American Psychological Association; 2002.
777	Bader JD, Shugars DA, Bonito AJ. A systematic review of selected caries prevention and management-
778	methods. Community Dent Oral Epidemiol 2001;29(6):399-411.
779	Berkowitz RJ. Mutans streptococci: Acquisition and transmission. Pediatr Dent 2006;28(2):106-9.
780	Caldas FA Jr, Burgos ME. A retrospective study of traumatic dental injuries in a Brazilian dental trauma-
781	elinic. Dental Traumatol 2001;17(6):250-3.
782	CDC, National Center for Health Statistics. Growth charts. Available at:
783	"http://www.cdc.gov/growthcharts/". Accessed March 11, 2013.
784	CDC. Preventing tobacco use among young people: A report of the Surgeon General (executive-
785	summary). MMWR Recomm Rep 1994;43(RR-4):1-10.
786	CDC. Recommendations for using fluoride to prevent and control dental caries in the United States.
787	MMWR Recomm Rep 2001;50(RR14):1-42.
788	Cortes MI, Marcenes W, Shelham A. Impact of traumatic injuries to the permanent teeth on the oral-
789	health related quality of life in 12 to 14 year old children. Comm Dent Oral Epidemiol
790	<del>2002;30(3):193-8.</del>
791	Douglass JM. Response to Tinanoff and Palmer: Dietary determinants of dental caries and dietary-
792	recommendations for preschool children. J Public Health Dent 2000;60(3):207-9.
793	Dye BA, Tan S, Smith V, et al. Trends in oral health status. United States, 1988-1984 and 1999-2004.
794	Vital Health Stat II 2007;248:1-92.
795	Facts about Fluoride. CDS Rev 2006;99(1):44.

/96	Featherstone JD. The caries balance: The basis for caries management by risk assessment. Oral Health
797	Prev Dent 2004;2(suppl 1):259-64.
798	Feigal RJ, Donly KJ. The use of pit and fissure sealants. Pediatr Dent 2006;28(2):143-50.
799	Feigal RJ. The use of pit and fissure sealants. Pediatr Dent 2002;24(5):415-22.
800	Flores MT. Traumatic injuries in the primary dentition. Dental Traumatol 2002;18(6):287-98.
801	Gambon DL, Brand HS, Boutkabout C, Levie D, Veerman EC. Patterns in consumption of potentially
802	erosive beverages among adolescent school children in the Netherlands. Int Dent J 2011;61(5):247-
803	<del>51.</del>
804	Greenwell H. Committee on Research, Science and Therapy American Academy of Periodontology.
805	Guidelines for periodontal therapy. J Periodontol 2001;72(11):1624-8.
806	Isman R. Dental sealants: A public health perspective. Calif Dent Assoc J 2010;38(10):735-45.
807	Jawale BA, Bendgude V, Mahuli AV, Dave B, Kulkarni H, Mittal S. Dental plaque pH variation with
808	regular soft drink, diet soft drink, and high energy drink: An in vivo study. J Contemp Dent Pract-
809	<del>2012;13(2):201-4.</del>
810	Johnston DW, Lewis DW. Three year randomized trial of professionally applied topical fluoride gel-
811	comparing annual and biannual applications with/without prior prophylaxis. Caries Res-
812	<del>1995;29(5):331-6.</del>
813	Kanellis MJ. Orthodontic Treatment in the primary dentition. In Bishara SE, ed. Textbook of
814	Orthodontics. Philadelphia, Pa: WB Saunders Co; 2001:248-56.
815	Kurol J. Early treatment of tooth-eruption disturbances. Am J Orthod Dentofacial Orthop
816	<del>2002;121(6):588-91.</del>
817	Lewis DW, Ismail AI. Periodic health examination, 1995 Update: 2. Prevention of dental caries. The
818	Canadian Task Force on the Periodic Health Examination. Can Med Assoc J 1995;152(6):836-46.
819	Li Y, Wang W. Predicting caries in permanent teeth from caries in primary teeth: An eight-year cohort-
820	study. J Dent Res 2002;81(8):561-6.
821	Li H, Zou Y, Ding G. Dietary factors associated with dental erosion: A meta-analysis. PLoS One-
822	2012;7(8):e42626.doi:10.1371/journal.pone.0042626. Epub 2012 Aug 31.
823	Macgregor ID, Regis D, Balding J. Self-concept and dental health behaviors in adolescents. J Clin-
824	Periodontol 1997;24(5):335-9.
825	Powell LV. Caries prediction: A review of the literature. Community Dent Oral Epidemiol-
826	<del>1998:26(6):361-76.</del>

827	Reisine S, Douglass JM. Pyschosocial and behavorial issues in early childhood caries. Comm Dent Oral-
828	Epidem 1998;26(suppl):132-44.
829	Ripa LW. Need for prior tooth cleaning when performing a professional topical fluoride application. A
830	review and recommendation for change. J Am Dent Assoc 1984;109(2):281-5.
831	Rocha MJdC, Cardoso M. Traumatized permanent teeth in Brazilian children assisted at the Federal
832	University of Santa Catarina, Brazil. Dental Traumatol 2001;17(6):245-9.
833	Sankey WL, Buschang PH, English J, Owen AH III. Early treatment of vertical skeletal dysplasia: The
834	hyper-divergent phenotype. Am J Orthod Dentofacial Orthop 2000;118(3):317-27.
835	Skaare AB, Jacobsen I. Dental injuries in Norwegians aged 7-18 years. Dental Traumatol 2003;19(2):67-
836	<del>71.</del>
837	Tapias MA, Jiménez-García R, Lamas F, Gil AA. Prevalence of traumatic crown fractures to permanent
838	incisors in a childhood population: Mostoles, Spain. Dental Traumatol 2003;19(3):119-22.
839	Tinanoff NT, Palmer C. Dietary determinants of dental caries in pre-school children and dietary
840	recommendations for pre-school children. J Pub Health Dent 2000;60(3):197-206.
841	U.S. Dept of Agriculture. Food Plate. Available at: "http://www.choosemyplate.gov". Accessed March
842	<del>11, 2013.</del>
843	U.S. Dept of Health and Human Services. Oral Health in America: A Report of the Surgeon General.
844	Rockville, Md: U.S. Dept of Health and Human Services, National Institute of Dental and
845	Craniofacial Research, National Institutes of Health; 2000.
846	Woodside DG. The significance of late developmental crowding to early treatment planning for incisor
847	crowding. Am J Orthod Dentofacial Orthop 2000;117(5):559-61.
848 849	

# Recommendations for Pediatric Oral Health Assessment, Preventive Services, and Anticipatory Guidance/Counseling

Since each child is unique, these recommendations are designed for the care of children who have no contributing medical conditions and are developing normally. These recommendations will need to be modified for children with special health care needs or if disease or trauma manifests variations from normal. The American Academy of Pediatric Dentistry (AAPD) emphasizes the importance of very early professional intervention and the continuity of care based on the individualized needs of the child. Refer to the text of this guideline for supporting information and references. Refer to the text in the Recommendations on the Periodicity of Examination, Preventive Dental Services, Anticipatory Guidance, and Oral Treatment for Infants, Children, and Adolescents (www.aapd.org/policies/) for supporting information and references.

AMERICA'S DEPLATIC DENTISTS	AGE				
THE BIG AUTHORITY ON little teeth	6 TO 12 MONTHS	12 TO 24 MONTHS	2 TO 6 YEARS	6 TO 12 YEARS	12 YEARS AND OLDER
Clinical oral examination <sup>1</sup>	•	•	•	•	•
Assess oral growth and development <sup>2</sup>	•	•	•	•	•
Caries-risk assessment <sup>3</sup>	•	AN A	•	•	•
Radiographic assessment <sup>4</sup>	• (010		•	•	•
Prophylaxis and topical fluoride 3,4	•39/	•	•	•	•
Fluoride supplementation <sup>5</sup>	<u> </u>	•	•	•	•
Anticipatory guidance/counseling <sup>6</sup>	•	•	•	•	•
Oral hygiene counseling <sup>7</sup>	Parent	Parent	Patient/parent	Patient/parent	Patient
Dietary counseling <sup>8</sup>	7.	•	•	•	•
Injury prevention counseling <sup>9</sup>	•	• 4	•	•	•
Counseling for nonnutritive habits 10	•	• /*	•	•	•
Counseling for speech/language development	•	•	•		
Assessment and treatment of developing malocclusion			•	•	•
Assessment for pit and fissure sealants 11			•	•	•
Substance abuse counseling				•	•
Counseling for intraoral/perioral piercing				•	•
Assessment and/or removal of third molars					•
Transition to adult dental care					•

- 1 First examination at the eruption of the first tooth and no later than 12 months. Repeat every 6 months or as indicated by child's risk status/susceptibility to disease. Includes assessment of pathology and injuries.
- 2 By clinical examination.
- 3 Must be repeated regularly and frequently to maximize effectiveness.
- 4 Timing, selection, and frequency determined by child's history, clinical findings, and susceptibility to oral disease.
- 5 Consider when systemic fluoride exposure is suboptimal. Up to at least 16 years.
- 6 Appropriate discussion and counseling should be an integral part of each visit for care.
- 7 Initially, responsibility of parent; as child matures, jointly with parent; then, when indicated, only child.

- 8 At every appointment; initially discuss appropriate feeding practices, then the role of refined carbohydrates and frequency of snacking in caries development and childhood obesity.
- 9 Initially play objects, pacifiers, car seats; when learning to walk; then with sports and routine playing, including the importance of mouthguards.
- 10 At first, discuss the need for additional sucking: digits vs pacifiers; then the need to wean from the habit before malocclusion or skeletal dysplasia occurs. For school-aged children and adolescent patients, counsel regarding any existing habits such as fingernail biting, clenching, or bruxism.
- 11 For caries-susceptible primary molars, permanent molars, premolars, and anterior teeth with deep pits and fissures; placed as soon as possible after eruption.

- 1 Best Practices on Dental Management of Pediatric Patients Receiving
- 2 Chemotherapy, Hematopoietic Cell Transplantation, Immunosuppressive
- 3 Therapy and/or Radiation Therapy

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- 5 Review Council
- 6 Council on Clinical Affairs
- 7 Latest Revision
- 8 2013 2018

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- 10 Keywords: Hematopoietic Stem Cell transplantation (HSCT), Low-level laser therapy (LLLT), Oral
- mucositis (OM), radiation therapy, chemotherapy, pediatric patient, immunosuppressed patient
- 12 <u>hematologic considerations.</u>

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- 14 Purpose
- 15 The American Academy of Pediatric Dentistry (**AAPD**) recognizes that the pediatric dental professional
- plays an important role in the diagnosis, prevention, stabilization, and treatment of oral and dental
- problems that can compromise the child's quality of life before, during, and after <u>immunosuppressive</u>
- 18 therapy which lowers the body's normal immune response. This can be deliberate as in lowering the
- 19 immune response to prevent the rejection of an organ or hematopoietic stem cell transplant (HSCT) or it
- 20 can be incidental as in a side effect of chemotherapy, radiation therapy, or HSCT conditioning. Dental
- 21 intervention with certain modifications must be done promptly and efficiently, with attention to the
- 22 patient's medical history, treatment protocol, and health status

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- 24 Chemotherapy, and/or radiotherapy for the treatment of cancer or in preparation for hematopoietic cell-
- 25 transplantation (HCT) Immunosuppressive therapy may cause many acute and long-term side effects in
- the oral cavity. Furthermore, because of the immunosuppression that patients experience, any existing or
- 27 potential sources of oral/dental infections and/or soft tissue trauma can compromise the medical
- treatment, leading to morbidity, mortality, and higher hospitalization costs. It is imperative that the
- 29 pediatric dentist be familiar with the <u>patient's</u> medical history as well as oral manifestations of the
- 30 patient's underlying condition, and the treatment differences for patients undergoing chemotherapy and/or
- 31 radiotherapy and those who will receive HCT.

33 Methods 34 This guideline was Originally developed by the Clinical Affairs Committee as Dental Management of 35 Pediatric Patients Receiving Chemotherapy, Hematopoietic Cell Transplantation and/or Radiation 36 Therapy and adopted in 1986, this document was is a revision of the previous version, last revised in 37 2013 2008. This revision included a new-systematic literature search of the PubMed® electronic database 38 using the terms: pediatric cancer, pediatric oncology, hematopoietic cell transplantation, bone marrow 39 transplantation, immunosuppressive therapy, mucositis, stomatitis, chemotherapy, radiotherapy, acute 40 effects, long-term effects, dental care, oral health, pediatric dentistry, and practice guideline; field: all; 41 limits: within the last 10 years, humans, English, clinical trials, birth through age 18. Sixty one thousand 42 four hundred thirty two articles matched these criteria. One hundred thirty three papers were chosen for 43 review from this list and from the references within selected articles. When data did not appear sufficient 44 or were inconclusive, recommendations were based upon expert and/or consensus opinion by experienced 45 researchers and clinicians. 46 Background 47 48 A multidisciplinary approach involving oncologists physicians, nurses, social workers, dieticians, dentists 49 and other related health professionals is essential in caring for the child before, during and after any 50 cancer\_immunosuppressive therapy<sup>1,2</sup>. The oral cavity is highly susceptible to the effects of 51 chemotherapy and radiation and is the most frequently documented source of sepsis in the 52 immunosuppressed cancer patients. For these reasons, early and definitive dental intervention, including 53 comprehensive oral hygiene measures, reduces the risk for oral and associated systemic complications 54 (Hong, Brennan and Lockhart 2009, Scully and Epstein 1996, Hong et al 2010, Lalla Brennan and 55 Schubert 2011, Elad et al 2008, Stiff et al 2006, Schubert and Peterson 2009, Bavier 1990, Little et al 56 2012, Semba, Mealy and Hallmon 1994, Sonis, Fazio and Fang 1995, Peterson, Bensadoun and Roila-57 2011/2012). 58 59 Acute oral sequelae as a result of cancer therapies and HCT regimens are common in children (Hong, 60 Brennan and Lockhart 2009). Oral and associated systemic complications that may occur as a sequelae 61 of immunosuppressive therapy may include pain, mucositis, oral ulcerations, bleeding, taste dysfunction, 62 secondary infections (e.g., candidiasis, herpes simplex virus), dental caries, salivary gland dysfunction 63 (e.g., xerostomia), neurotoxicity, mucosal fibrosis, gingival hypertrophy post-radiation osteonecrosis, 64 bisphosphonate related osteonecrosis, soft tissue necrosis, temporomandibular dysfunction (e.g., trismus), 65 craniofacial and dental developmental anomalies, and oral graft versus host disease (GVHD)<sup>1.3,4</sup>.

66 67 All patients with cancer undergoing immunosuppressive therapy should have an oral examination prior to the initiation of the oncology therapy treatment<sup>1,2</sup>. Prevention and treatment of pre-existing or 68 69 concomitant oral disease is essential to minimize complications in this population<sup>5</sup>. The key to success in 70 maintaining a healthy oral cavity during eancer therapy is patient compliance. The child and the parents 71 should be educated regarding the possible acute side effects and the long-term sequelae of eancer 72 immunosuppressive therapies in the oral cavity<sup>3,5-9</sup> (Scully and Epstein 1996, da Fonseca 1998, da-73 Fonseca 2000). Because there are many oncology and HCT protocols, Every patient should be managed 74 on an individual basis; consultations with the patient's physicians and, when appropriate, other dental 75 specialists should be sought before dental care is instituted<sup>7</sup>. 76 77 Recommendations 78 Dental and oral care before the initiation of <del>cancer therapy</del> immunosuppressive therapy 79 **Objectives** 80 The objectives of a dental/oral examination before eancer therapy starts are three-fold to<sup>9</sup>: 81 (da Fonseca 2000): 82 To Identify and stabilize or eliminate existing and potential sources of infection and local irritants 83 in the oral cavity—without needlessly delaying the cancer-treatment or inducing complications. 84 To Communicate with the medical oncology team regarding the patient's oral health status, plan, 85 and timing of treatment. 86 To Educate the patient and parents about the importance of optimal oral care in order to minimize 87 oral problems/discomfort before, during, and after treatment and about the possible acute and 88 long-term effects of the therapy in the oral cavity and the craniofacial complex. 89 90 Initial evaluation 91 Medical history review: should include, but not be limited to, disease/condition (type, stage, prognosis), 92 treatment protocol (conditioning regimen, surgery, chemotherapy, radiation, transplant), medications 93 (including bisphosphonates), allergies, surgeries, secondary medical diagnoses, hematological status 94 [complete blood count (CBC)], coagulation status, immunosuppression status, presence of an indwelling 95 venous access line, and contact of oncology medical team/primary care physician(s)<sup>1</sup>. For HSCT patients,

include type of transplant, HSCT source (i.e., bone marrow, peripheral stem cells, cord blood stem cells),

prophylaxis or signs of transplant rejection. The American Heart Association (AHA) recommends that

matching status, donor, conditioning protocol, expected date of transplant, and presence of GVHD

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antibiotic prophylaxis for nonvalvular devices, including indwelling vascular catheters (i.e., central lines) is indicated only at the time of placement of these devices in order to prevent surgical site infections (Baddour et al 2010, Hong et al 2010, Lockhart et al 2007). The AHA found no convincing evidence that microorganisms associated with dental procedures cause infection of nonvalvular devices at any timeafter implantation (Baddour et al 2010, Hong et al 2010, Lockhart et al 2007). The infections occurring after device implantation most often are caused by staphyloccal Gram-negative bacteria or other microorganisms associated with surgical implantation or other active infections (Baddour et al 2010, Hong et al 2010). Due to the risk of antibiotic adverse events, development of drug resistance among oralflora, spectrum of non-oral bacteria causing catheter related infections, and lack of evidence from clinical trials, antibiotic prophylaxis is not necessary for patients with an indwelling central venous catheter whoare undergoing dental procedures (Baddour et al 2010, Hong et al 2010). Immunosuppression is not an independent risk factor for nonvalvular device infections; immunocompromised hosts who have those devices should receive antibiotic prophylaxis as advocated for immunocompetent hosts (Baddour et al-2010, Hong et al 2010, Lockhart et al 2007, Wilson et al 2007). Consultation with the child's physician isrecommended for management of patients with nonvalvular devices. Patients with a compromised immune system may not be able to tolerate a transient bacteremia following invasive dental procedures. The decision regarding the need for antibiotic prophylaxis for dental procedures should be made in consultation with the child's physician. Unless advised otherwise by the physician, the American Heart Association's standard regimen to prevent endocarditis is an accepted option<sup>2,10</sup>. Dental history review: includes information such as fluoride exposure, habits, trauma, symptomatic teeth, previous care, preventive practices, oral hygiene, and diet assessment. Oral/dental assessment: should include thorough head, neck, and intraoral examinations, oral hygiene assessment and training, and radiographic evaluation based on history and clinical findings. Preventive strategies Oral hygiene: Oral hygiene includes brushing of the teeth and tongue two to three times daily with regular soft nylon brush or electric toothbrush, regardless of the hematological status<sup>7,8,11,12</sup> (Bavier 1990, Ransier et al 1995). Ultrasonic brushes and dental floss should be allowed only if the patient is properly trained<sup>8</sup>. If capable, the patient's teeth should be gently flossed daily. If pain or excessive bleeding occurs, the patient should avoid the affected area, but floss the other teeth<sup>1</sup>. Patients with poor oral hygiene and/or periodontal disease may use chlorhexidine rinses daily until the tissue health improves or mucositis

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develops<sup>13</sup>. The high alcohol content of commercially-available chlorhexidine mouthwash may cause 132 133 discomfort and dehydrate the tissues in patients with mucositis; thus, an alcohol-free chlorhexidine 134 solution is indicated in this situation. 135 136 For Immunosuppressed Patients 137 Oral hygiene: Intensive oral care is of paramount importance because it reduces the risk of developing 138 moderate/severe mucositis without causing an increase in septicemia and infections in the oral cavity<sup>1,3,5</sup>-8,11,14,15. Thrombocytopenia should not be the sole determinant of oral hygiene as patients are able to brush 139 140 without bleeding at widely different levels of platelet count<sup>8</sup>. Patients should use a soft nylon brush two to 141 three times daily and replace it on a regular (every two to three months) basis<sup>8,11</sup>. Fluoridated toothpaste 142 may be used but, if the patient does not tolerate it during periods of mucositis due to oral burning or 143 stinging sensations, it may be discontinued and the patient should switch to mild-flavored non-fluoridated 144 toothpaste. If moderate to severe mucositis develops and the patient cannot tolerate a regular soft nylon 145 toothbrush or an end-tufted brush, foam brushes or super soft brushes soaked in chlorhexidine may be 146 used<sup>9</sup>. Otherwise, foam or super soft brushes should be discouraged because they do not allow for 147 effective cleaning<sup>2</sup>. The use of a regular brush should be resumed as soon as the mucositis improves<sup>8,11,16</sup>. 148 Brushes should be air-dried between uses<sup>8</sup>. Electric or ultrasonic brushes are acceptable if the patient is 149 capable of using them without causing trauma and irritation<sup>8</sup>. If patients are skilled at flossing without 150 traumatizing the tissues, it is reasonable to continue flossing throughout treatment<sup>8</sup>. Toothpicks and water 151 irrigation devices should not be used when the patient is pancytopenic to avoid tissue trauma<sup>8,15</sup>. 152 153 Diet: Dental practitioners should encourage discuss the importance of a healthy diet to maintain 154 nutritional status with an emphasis on foods that do not promote caries, a non-cariogenic diet and advise 155 Patients and parents should be advised about the high cariogenic potential of dietary supplements rich in 156 carbohydrates and oral pediatric medications rich in sucrose<sup>6</sup>. They should also be instructed that sharp, 157 crunchy, spicy, highly acidic foods and alcohol should be avoided during chemotherapy, radiation and  $HCT^{1}$ . 158 159 160 Fluoride: Preventive measures include the use of fluoridated toothpaste or gel, fluoride supplements if 161 indicated, neutral fluoride gels/rinses, or applications of fluoride varnish for patients at risk for caries and/or xerostomia<sup>6,8</sup>. A brush-on technique is convenient and may increase the likelihood of patient 162 163 compliance with topical fluoride therapy<sup>8</sup>. 164

165 Lip care: Lanolin-based creams and ointments are more effective in moisturizing and protecting against 166 damage than petrolatum-based products<sup>8</sup> (Semba, Mealy and Hallmon 1994). 167 168 Trismus prevention/treatment: Patients who receive radiation therapy to the masticatory muscles may 169 develop trismus. Thus, daily oral stretching exercises/physical therapy should start before radiation is 170 initiated and continue throughout treatment<sup>7,15</sup>. Therapy for trismus may include prosthetic aids to reduce 171 the severity of fibrosis, trigger-point injections, analgesics, muscle-relaxants, and other pain management-172 strategies (Scully and Epstein 1996). 173 174 Reduction of radiation to healthy oral tissues: In cases of radiation to the head and neck, the use of lead-175 lined stents, prostheses, and shields, as well as salivary gland sparing techniques (e.g., three-dimensional 176 conformal or intensity modulated radiotherapy, concomitant cytoprotectants, surgical transfer of salivary 177 glands), should be discussed with the radiation oncologist. 178 179 Education: Patient and parent education includes the importance of optimal oral care in order to minimize 180 oral problems and discomfort before, during, and after treatment and the possible acute and long-term 181 effects of the therapy in the craniofacial complex<sup>1</sup>. 182 183 Dental care 184 Hematological considerations<sup>4</sup>: 185 • Absolute neutrophil count (**ANC**): 186 - >2,000/mm<sup>3</sup>: no need for antibiotic prophylaxis<sup>1,15</sup>; 187 — 1000 to 2000/mm<sup>3</sup>: Use clinical judgment<sup>1</sup> based on the patient's health status and planned procedures. Some authors<sup>1,7</sup> suggest that antibiotic coverage (dosed per AHA 188 189 recommendations<sup>13</sup>) may be prescribed when the ANC is between 1,000 and 2,000/mm<sup>3</sup>. If 190 infection is present or unclear, more aggressive antibiotic therapy may be indicated and 191 should be discussed with the medical team; and 192 — <1,000/mm<sup>3</sup>: defer elective dental care<sup>4</sup>. In dental emergency cases, discuss antibiotic 193 coverage (antibiotic prophylaxis versus antibiotic coverage for a period of time) with medical 194 team before proceeding with treatment. The patient may need hospitalization for dental 195 management (Sonis, Fazio and Fang 1995). 196 Platelet count<sup>4,7</sup>: 197 - >75,000/mm<sup>3</sup>: no additional support needed;

- 40,000 to 75,000/mm<sup>3</sup>: platelet transfusions may be considered pre- and 24 hours postoperatively. Localized procedures to manage prolonged bleeding may include sutures, hemostatic agents, pressure packs, and/or gelatin foams; and
- <40,000/mm³: defer care. In dental emergency cases, contact the patient's physician to discuss supportive measures (e.g., platelet transfusions, bleeding control, hospital admission and care) before proceeding. In addition, localized procedures (e.g., microfibrillar collagen, topical thrombin) and additional medications as recommended by the hematologist/oncologist (e.g., aminocaproic acid, tranexamic acid) may help control bleeding¹).</p>
- Other coagulation tests may be in order for individual patients.

### Dental procedures:

- In general terms, most oncology/hematology protocols (exclusive of HCT, which will be discussed later) are divided into phases (cycles) of chemotherapy, in addition to other therapies (e.g., radiotherapy, surgery). The patient's blood counts normally start falling five to seven days after the beginning of each cycle, staying low for approximately 14 to 21 days, before rising again to normal levels for a few days until the next cycle begins. Ideally, all dental care should be completed before cancer immunosuppressive therapy is initiated. When that is not feasible, temporary restorations may be placed and non-acute dental treatment may be delayed until the patient's hematological status is stable<sup>1,7</sup>, The patient's blood counts normally start falling five to seven days after the beginning of each cycle, treatment cycle staying low for approximately 14 to 21 days, before rising again to normal levels for a few days until the next cycle begins.
- Prioritizing procedures: When all dental needs cannot be treated before eancer therapy is initiated, priorities should be infections, extractions, periodontal care (e.g., scaling, prophylaxis), and sources of tissue irritation before the treatment of carious teeth, root canal therapy for permanent teeth, and replacement of faulty restorations<sup>4,15</sup>. The risk for pulpal infection and pain determine which carious lesions should be treated first<sup>8</sup>. Incipient to small carious lesions may be treated with fluoride, silver diamine fluoride and/or sealants until definitive care can be accomplished<sup>7</sup>. Some patients requiring an organ transplant will be best able to tolerate dental care at least three months after transplant when overall health improves<sup>2</sup>. It is important for the practitioner to be aware that the signs and symptoms of periodontal disease may be decreased in immunosuppressed patients<sup>7</sup>.
- Pulp therapy in primary teeth: Although there have been no studies to date that address the Few studies have evaluated the safety of performing pulp therapy in primary teeth prior to the

- initiation of chemotherapy and/or <u>radiotherapy</u>. <u>Many</u> clinicians choose to provide a more definitive treatment in the form of extraction because pulpal/periapical/furcal infections during immunosuppression periods can become life-threatening<sup>4,7,8</sup> (<u>Semba</u>, <u>Mealy and Hallmon 1994</u>). Teeth that already have been treated pulpally and are clinically and radiographically sound should be monitored periodically for signs of internal resorption or failure due to pulpal/periapical/furcal infections.
- Endodontic treatment in permanent teeth: Symptomatic non-vital permanent teeth should receive root canal treatment at least one week before initiation of eancer therapy to allow sufficient time to assess treatment success before the chemotherapy<sup>4,7,15</sup>. If that is not possible, extraction is indicated. Extraction is also the treatment of choice for teeth that cannot be treated by definitive endodontic treatment in a single visit. In that case, the extraction should be followed by antibiotic therapy (penicillin or, for penicillin-allergic patients, clindamycin) for about one week<sup>7,15</sup> (Sonis, Fazio and Fang 1995). Endodontic treatment of asymptomatic non-vital permanent teeth may be delayed until the hematological status of the patient is stable<sup>4,15</sup> (Semba, Mealy and Hallmon-1994, Peters et al 1993). It is important that the etiology of periapical lesions associated with previously endodontically treated teeth be determined because they can be due to a number of factors including pulpal infections, inflammatory reactions, apical scars, cysts, and malignancy<sup>8</sup>. If a periapical lesion is associated with an endodontically treated tooth and no signs or symptoms of infection are present, there is no need for retreatment or extraction since the radiolucency likely is due to an apical scar<sup>17</sup> (Peters et al 1993).
- Orthodontic appliances and space maintainers: Poorly-fitting appliances can abrade oral mucosa and increase the risk of microbial invasion into deeper tissues<sup>7</sup>. Appliances should be removed if the patient has poor oral hygiene and/or the treatment protocol or HCT conditioning regimen carries a risk for the development of moderate to severe mucositis<sup>4</sup>. Simple appliances (e.g., band and loops, fixed lower lingual arches) that are not irritating to the soft tissues may be left in place in patients who present good oral hygiene<sup>4,8</sup>. Removable appliances and retainers that fit well may be worn as long as tolerated by the patient who maintains good oral care<sup>7,8</sup> (Sheller and Williams-1996). Patients should be instructed to clean their appliance daily and routinely clean appliance cases with an antimicrobial solution to prevent contamination and reduce the risk of appliance-associated oral infections<sup>7</sup>. Consider removing orthodontic bands or adjusting prosthesis if a patient is expected to receive Cyclosporine or other drugs known to cause gingival hyperplasia. If band removal is not possible, vinyl mouth guards or orthodontic wax should be used to decrease tissue trauma<sup>8</sup>.

- Periodontal considerations: Partially erupted molars can become a source of infection because of pericoronitis. The overlying gingival tissue should be excised if the dentist believes it is a potential risk and if the hematological status permits<sup>8,15</sup>. Patients should have a periodontal assessment and appropriate therapy prior to receiving bisphosphonates as part of eancer treatment<sup>18-20</sup>. Extraction is the treatment of choice for teeth with a poor prognosis that cannot be treated by definitive periodontal therapy. If the patient has had bisphosphonates and an invasive periodontal procedure is indicated, risks must be discussed with the patient, parents, and physicians prior to the procedure.
- Extractions: There are no clear recommendations for the use of prophylactic antibiotics for extractions<sup>4</sup>. Recommendations generally have been empiric or based on anecdotal experience. Surgical procedures must be as atraumatic as possible, with no sharp bony edges remaining and satisfactory closure of the wounds<sup>7,8,15</sup>. (Semba, Mealy and Hallmon 1994, Sonis, Fazio and Fang 1995). If there is documented infection associated with the tooth, antibiotics (ideally chosen with the benefit of sensitivity testing) should be administered for about one week<sup>7,8,15</sup> (Sonis, Fazio and Fang 1995).

To minimize the risk of development of osteonecrosis, osteoradionecrosis, or bisphosphonate-related osteonecrosis of the jaw (**BRONJ**), patients who will receive radiation to the jaws or bisphosphonate treatment as part of the eancer therapy must have all oral surgical procedures completed before those measures are instituted <sup>18-20</sup>. If the patient has received bisphosphonates or radiation to the jaws and an oral surgical procedure is necessary, risks must be discussed with the patient, parents, and physician prior to the procedure. In patients undergoing long-term potent, high-dose intravenous bisphosphonates, there is an increased risk of BRONJ after a tooth extraction or with periodontal disease <sup>18-20</sup>, although most of the evidence has been described in the adult population <sup>19</sup>. Patients with a high risk of BRONJ are best managed by a dental specialist in coordination with the <u>oncology</u> medical team in the hospital setting.

Loose primary teeth should be allowed to exfoliate naturally. Nonrestorable teeth, root tips, teeth with periodontal pockets greater than six millimeters, symptomatic impacted teeth, and teeth exhibiting acute infections, significant bone loss, involvement of the furcation, or mobility should be removed ideally two weeks (or at least seven to 10 days) before eancer-therapy is initiated to allow adequate healing<sup>4,7,8,15</sup> (Semba, Mealy and Hallmon 1994).

297 Some practitioners prefer to extract all third molars that are not fully erupted, particularly prior to 298 HCT, while others favor a more conservative approach, recommending extraction of third molars 299 at risk for pulpal infection or those associated with significant pathology, infection, periodontal 300 disease, or pericoronitis or if the tooth is malpositioned or non-functional<sup>8,21,22</sup>. 301 302 Communication: 303 It is vital that the dentist communicate the comprehensive oral care plan with the oncology medical team. 304 Information to be shared includes the severity of dental caries (number of teeth involved and which teeth 305 need immediate treatment), endodontic needs (pulpal versus periapical infection), periodontal status, 306 number of teeth requiring extraction, soft tissue pathology, and any other urgent care needed. 307 Furthermore, it is important for the dentist to discuss with the oncology medical team how much time is 308 needed for the stabilization of oral disease as this will also affect the timing of the treatment or 309 conditioning protocols<sup>1</sup>. 310 311 Dental and oral care during immunosupression periods 312 *Objectives* 313 The objectives of a dental/oral care during cancer therapy are three-fold: 314 1. To maintain optimal oral health during cancer therapy. 315 2. To manage any oral side effects that may develop as a consequence of the cancer therapy. 316 3. To reinforce the patient and parents' education regarding the importance of optimal oral care in 317 order to minimize oral problems/discomfort during treatment. 318 319 Preventive strategies 320 321 Diet: Dental practitioners should encourage, a non-cariogenic diet and advise patients/parents about the 322 high cariogenic potential of dietary supplements rich in carbohydrates and oral pediatric medications rich 323 in sucrose (Hong et al 2010). 324 325 Fluoride: Preventive measures include the use of fluoridated toothpaste or gel, fluoride supplements if 326 indicated, neutral fluoride gels/rinses, or applications of fluoride varnish for patients at risk for caries 327 and/or xerostomia. A brush on technique is convenient, familiar, and simple and may increase the 328 likelihood of patient compliance with topical fluoride therapy (Schubert and Peterson 2009). 329

330 Lip care: Lanolin based creams and ointments are more effective in moisturizing and protecting against 331 damage than petrolatum based products (Schubert and Peterson 2009, Semba, Mealy and Hallmon 1994). 332 333 Education: Patient/parent education includes reinforcing the importance of optimal oral hygiene and 334 teaching strategies to manage soft tissue changes (e.g., mucositis, oral bleeding, xerostomia) in order to 335 minimize oral problems/discomfort during treatment and the possible acute and long term effects of the 336 therapy in the craniofacial complex. 337 338 Dental care 339 During immunosuppression, elective dental care should not be provided. If a dental emergency arises, the 340 treatment plan should be discussed with the patient's physician who will make recommendations for 341 supportive medical therapies (e.g., antibiotics, platelet transfusions, analgesia). The patient should be seen 342 every six months (or in shorter intervals if there is a risk of xerostomia, caries, trismus, and/or chronic 343 oral GVHD) for an oral health evaluation during treatment, in times of stable hematological status and 344 always after reviewing the medical history. 345 346 Management of oral conditions related to cancer immunosuppressive therapies 347 348 Trismus: 349 Trismus prevention/treatment: Patients who receive radiation therapy to the masticatory muscles may 350 develop trismus. Thus, daily oral stretching exercises/physical therapy should start before radiation is 351 initiated and continue throughout treatment. Therapy for trismus may include prosthetic aids to reduce the 352 severity of fibrosis, trigger point injections, analgesics, muscle relaxants, and other pain management 353 strategies (Scully and Epstein 1996, Lalla, Brennan and Schubert 2011, Little et al 2012). 354 355 Lip care: Lanolin-based creams and ointments are more effective in moisturizing and protecting against 356 damage than petrolatum based products (Schubert and Peterson 2009, Semba, Mealy and Hallmon 1994). 357 358 Mucositis: 359 -Mucositis care remains focused on palliation of symptoms, and efforts to reduce the influence of 360 secondary factors on mucositis, (Lalla, Brennan and Schubert 2011, Little et al 2012, Sonis, Fazio and 361 Fang 1995, Keefe et al 2007). The Multinational Association of Supportive Care in Cancer/International 362 Society of Oral Oncology (MASCC/ISOO) has published guidelines for treatment of mucositis 11,16,23. The

363	most common prescriptions for management of mucositis include good oral hygiene, analgesics, non-
364	medicated oral rinses (e.g., 0.9 percent saline or sodium bicarbonate mouth rinses four to six times/day),
365	and parenteral nutrition as needed <sup>1,11,14</sup> . Mucosal coating agents (e.g., Amphojel®, Kaopectate®,
366	hydroxypropylmethylcellulose) and film-forming agents (e.g., Zilactin®) and Gelclair® also have been
367	suggested <sup>1</sup> . The use of palifermin, also known as keratnocyte growth factor 1, for prevention of oral
368	mucositis associated with HCT and oral cryotherapy as prophylaxis and treatment to decrease mucositis
369	recently have been recommended (NCI 2016, Lalla et al 2014, Peterson, Bensadoun and Roila 2011/2012,
370	Keefe et al 2007). Palifermin has been observed to decrease the incidence and duration of severe oral
371	mucositis in patients undergoing conditioning with high dose chemotherapy, with or without
372	radiotherapy, followed by HCT (Lalla et al, 2014, Stiff et al 2006). The guidelines, however, did not
373	recommend the use of sucralfate, antimicrobial lozenges, pentoxifylline, and granulocyte macrophage
374	colony stimulating factor mouthwash for oral mucositis (Lalla et al 2014, Peterson, Bensadoun and Roila-
375	2011/2012, Keefe et al 2007).
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377	Effective interventions for mucositis prevention include the use of palifermin, low-level laser therapy
378	(LLLT), and cryotherapy. The use of sucralfate, antimicrobial lozenges, pentoxifylline, and granulocyte-
379	macrophage-colony stimulating factor mouthwash for oral mucositis are not recommended 11,16,23.
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381	Palifermin (keratinocyte growth factor-1) is an FDA approved drug for the prevention and treatment of
382	oral mucositis. Palifermin is recommended for mucositis prophylaxis for patients undergoing
383	conditioning with high-dose chemotherapy and total body irradiation followed by HCT <sup>23</sup> . Palifermin is
384	believed to stimulate epithelial cell reproduction, growth, and development so that mucosal cells damaged
385	by chemotherapy and radiation are replaced quickly, accelerating the healing process <sup>24</sup> .
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387	There is limited, but encouraging, evidence to support the use of low level laser therapy to decrease the
388	duration of chemotherapy induced oral mucositis; further studies are required to evaluate the efficacy and
389	develop specific recommendations (Keefe et al 2007, Kuhn et al 2009, Migliorati et al 2013
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391	The current MASCC/ISOO guidelines support the use of low-level laser therapy to prevent oral mucositis
392	for patients undergoing HSC conditioning with high-dose chemotherapy with or without total body
393	irradiation as well as patients undergoing radiation treatment for head and neck cancer <sup>23</sup> . Low-level laser
394	therapy can decrease pain, duration and severity of chemotherapy induced mucositis in children <sup>25-27</sup> .
395	LLLT may not be available at all cancer treatment centers due to the cost of the equipment and the need

396 for trained personnel. Appropriate protocol must be followed when using LLLT to prevent contamination 397 and occupational risks to the child and dental team. 398 399 Oral cryotherapy, the cooling of intraoral tissue with ice during chemotherapy treatment, is recommended 400 as mucositis prophylaxis for patients receiving bolus infusion of chemotherapy drugs with short half-401 lives<sup>23,28</sup>. This includes patients treated with fluorouracil as well as patients receiving high-dose melphalan as conditioning for HCT<sup>23</sup>. Oral cryotherapy reduces blood flow to the mouth by narrowing 402 the blood vessels, limiting the amount of chemotherapy drugs delivered to the tissues. Cryotherapy is 403 404 inexpensive and readily available, but further research is needed to confirm the effectiveness of oral cryotherapy in pediatric oncology<sup>28</sup>. 405 406 407 Studies on the use of chlorhexidine for mucositis have given conflicting results. Most studies have not 408 demonstrated a prophylactic impact or a reduction in the severity of mucositis, although reduced colonization of candidial species has been shown (Sonis, Fazio and Fang 1995). Chlorhexidine is 409 410 no longer recommended for preventing oral mucositis in patients undergoing radiotherapy<sup>11,23</sup>. 411 412 Patient-controlled analgesia has been helpful in relieving pain associated with mucositis, reducing the 413 requirement for oral analgesics. There is no significant evidence of the effectiveness or tolerability of 414 mixtures containing topical anesthetics (e.g., Philadelphia mouthwash, magic mouthwash)<sup>16</sup> The use of 415 topical anesthetics has been recommended for pain management although there are no studies available to 416 assess the benefit and potential for toxicity. Topical anesthetics only provide short term pain relief<sup>11</sup>. 417 Lidocaine use may obtund or diminish taste and the gag reflex and/or result in a burning sensation, in 418 addition to possible cardiovascular and central nervous system effects. 419 420 Oral mucosal infections: The signs of inflammation and infection may be greatly diminished during 421 neutropenic periods. Thus, the clinical appearance of infections may differ significantly from the 422 normal<sup>15</sup>. Close monitoring of the oral cavity allows for timely diagnosis and treatment of fungal, viral, 423 and bacterial infections. Prophylactic nystatin is not effective for the prevention and/or treatment of 424 fungal infections<sup>7,31</sup>. Oral cultures and/or biopsies of all suspicious lesions should be performed and prophylactic medications should be initiated until more specific therapy can be prescribed<sup>1,7,8,15,</sup> (Bavier 425 426 1990, Semba, Mealy and Hallmon 1994, Sonis, Fazio and Fang 1995). 427

Oral bleeding: Oral bleeding occurs due to thrombocytopenia, disturbance of coagulation factors, and/or damaged vascular integrity. Management should consist of local approaches (e.g., pressure packs, antifibrinolytic rinses or topical agents, gelatin sponges) and systemic measures (e.g., platelet transfusions, aminocaproic acid)<sup>7,8,15</sup>. Dental sensitivity/pain: Tooth sensitivity could be related to decreased secretion of saliva during radiation therapy and the lowered salivary pH<sup>7,8,15</sup>. Patients who are using plant alkaloid chemotherapeutic agents (e.g., vincristine, vinblastine) may present with deep, constant pain affecting the mandibular molars with greater frequency, in the absence of odontogenic pathology. The pain usually is transient and generally subsides shortly after dose reduction and/or cessation of chemotherapy<sup>7,8,15</sup>. Xerostomia: Sugar-free chewing gum or candy, sucking tablets, special dentifrices for oral dryness, saliva substitutes, frequent sipping of water, alcohol-free oral rinses, and/or oral moisturizers are recommended<sup>8,32</sup>. Placing a humidifier by bedside at night may be useful<sup>15</sup>. Saliva stimulating drugs are not approved for use in children. Fluoride rinses and gels are recommended highly for caries prevention in these patients. Trismus: Daily oral stretching exercises/physical therapy must continue during radiation treatment. Management of trismus may include prosthetic aids to reduce the severity of fibrosis, trigger-point injections, analgesics, muscle relaxants, and other pain management strategies<sup>7,15</sup> (Scully and Epstein-<del>1996</del>). Dental and oral care after the cancer therapy is completed (exclusive of HCT) **Objectives** The objectives of a dental/oral examination after cancer therapy ends are three-fold: • To maintain optimal oral health. • To reinforce to the patient/parents the importance of optimal oral and dental care for life. • To address and/or treat any dental issues that may arise as a result of the long term effects of cancer therapy. **Preventive strategies** -Oral hygiene: Patients must brush their teeth two to three times daily with a soft nylon toothbrush. Brushes should be air-dried between uses (Schubert and Peterson 2009). Patients should floss daily.

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494 given bisphosphonates in the future present a challenge for orthodontic care. Although bisphosphonate-495 inhibition of tooth movement has been reported in animals, it has not been quantified for any dose or 496 duration of therapy in humans (Zahrowski 2007). Consultation with the patient's parents and physician-497 regarding the risks and benefits of orthodontic care in this situation is recommended. 498 499 Oral surgery: Consultation with an oral surgeon and/or periodontist and the patient's physician is 500 recommended for non-elective oral surgical and invasive periodontal procedures in patients who have 501 used or are using bisphosphonates or those who received radiation therapy to the jaws in order to devise 502 strategies to decrease the risk of osteonecrosis and osteoradionecrosis, respectively (Saad et al 2012, Kuhl-503 et al 2012, Dodson 2009). Elective invasive procedures should be avoided in these patients (Dahllöf et al-504 2001). Patients with a high risk of BRONJ are best managed by in coordination with the oncology team in 505 the hospital setting. 506 507 Xerostomia: Sugar-free chewing gum or candy, special dentifrices for oral dryness, saliva substitutes, 508 frequent sipping of water, alcohol-free oral rinses, and/or oral moisturizers are recommended (Schubert-509 and Peterson 2009, Euvrard, Kanitakis and Claudy 2003, Jensen et al 2010). Placing a humidifier by 510 bedside at night may be useful (Little et al 2012). Saliva stimulating drugs are not approved for use in-511 children. Fluoride rinses and gels are recommended highly for caries prevention in these patients. 512 513 Trismus: Daily oral stretching exercises/physical therapy should continue after radiation therapy is 514 finished in order to prevent or ameliorate trismus. Management of trismus may include prosthetic aids to 515 reduce the severity of fibrosis, trigger point injections, analgesics, muscle relaxants, and other pain-516 management strategies (Scully and Epstein 1996, Lalla, Brennan and Schubert 2011, Little et al 2012). 517 518 Hematopoietic stem cell transplantation 519 Hematopoietic stem cell transplant can be used in children to treat malignancies, hematologic 520 disorders as well and certain metabolic syndromes. Examples include: 521 522 Malignant disorders treated with autologous HSCT 523 <u>leukemia</u> 524 Brain tumors 525 Ewing sarcoma Germ cell tumors 526

527	Hodgkin lymphoma
528	Neuroblastoma
529	Non-Hodgkin lymphoma
530	<u>Retinoblastoma</u>
531	Rhabdomyosarcoma
532	Wilms tumor
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534	Malignant disorders treated with allogenic HSCT
535	Acute lymphocytic leukemia
536	Acute myeloid leukemia
537	Juvenile myelomonocytic leukemia
538	Myelodysplastic syndrome
539	<u>High-risk solid tumors</u>
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541	Non-malignant disorders treated with allogenic HSCT
542	Bone marrow failure syndromes
543	Chronic granulomatous disease
544	Fanconi anemia
545	Metabolic storage disorders
546	Osteogenesis imperfecta
547	<u>Osteopetrosis</u>
548	Severe aplastic anemia
549	Sickle cell anemia
550	<u>Thalessemia</u>
551	Wiskott-Aldrich syndrome
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554	Specific oral complications can be correlated with phases of HSCT <sup>1,4,8</sup> (da Fonseca 1998).
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556	Phase I: Preconditioning
557	The oral complications are related to the current systemic and oral health, oral manifestations of the
558	underlying condition, and oral complications of recent medical therapy. Oral complications observed
559	include oral infections, gingival leukemic infiltrates, bleeding, ulceration, temporomandibular

dysfunction<sup>1</sup>. Most of the principles of dental and oral care before the transplant are similar to those discussed for pediatric cancer9. The two major differences are: 1) in HSCT, the patient receives all the chemotherapy and/or total body irradiation in just a few days before the transplant, and 2) there will be prolonged immunosuppression following the transplant. Elective dentistry will need to be postponed until immunological recovery has occurred, at least 100 days following HSCT, or longer if chronic GVHD or other complications are present<sup>7,8</sup>. Therefore, all dental treatment should be completed before the patient becomes immunosuppressed. Phase II: Conditioning neutropenic phase In this phase, which encompasses the day the patient is admitted to the hospital to begin the transplant conditioning to 30 days post-HCT, the oral complications are related to the conditioning regimen and supportive medical therapies<sup>8</sup>. Mucositis, xerostomia, oral pain, hemorrhage, opportunistic infections, taste dysfunction, neurotoxicity (including dental pain, muscle tremors), and temporomandibular dysfunction (including jaw pain, headache, joint pain) may be seen, typically with a high prevalence and severity of oral complications<sup>1</sup>. Oral mucositis usually begins seven to 10 days after initiation of conditioning, and symptoms continue approximately two weeks after the end of conditioning<sup>1</sup>. Among allogeneic transplant patients, hyperacute GVHD can occur, causing more severe inflammation and severe mucositis symptoms, although its clinical presentation is difficult to diagnose<sup>1</sup>. The patient should be followed closely to monitor and manage the oral changes and to reinforce the importance of optimal oral care. Dental procedures usually are not allowed in this phase due to the patient's severe immunosuppression. If emergency treatment is necessary, the dentist should consult and coordinate with the attending hematology/oncology transplant team. Phase III: Engraftment to hematopoietic recovery The intensity and severity of complications begin to decrease normally three to four weeks after transplantation. Oral fungal infections and herpes simplex virus infection are most notable<sup>1</sup>. Acute GVHD can become a concern for allogeneic graft recipients. Xerostomia, hemorrhage, neurotoxicity, temporomandibular dysfunction, and granulomas/papillomas sometimes are observed<sup>1</sup>. A dental/oral examination should be performed and invasive dental procedures, including dental cleanings and soft tissue curettage, should be done only if authorized by the HCT team because of the patient's continued immunosuppression<sup>8</sup>. Patients should be encouraged to optimize oral hygiene and avoid a cariogenic diet. Attention to xerostomia and oral GVHD manifestations is crucial. HSCT patients are particularly sensitive to intraoral thermal stimuli between two and four months post-transplant<sup>8</sup>. The mechanism is not

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well understood, but the symptoms usually resolve spontaneously within a few months. Topical application of neutral fluoride or desensitizing toothpastes helps reduce the symptoms<sup>8</sup>.

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Phase IV: Immune reconstitution/recovery from systemic toxicity

After day 100 post-HCT, the oral complications predominantly are related to the chronic toxicity associated with the conditioning regimen, including salivary dysfunction, craniofacial growth abnormalities, late viral infections, oral chronic GVHD, and oral squamous cell carcinoma<sup>1,8</sup>. Xerostomia and relapse-related oral lesions may also be observed<sup>1</sup>. Unless the patient is neutropenic or with severe chronic GVHD, mucosal bacterial infections are less frequently seen. Periodic dental examinations with radiographs can be performed, but invasive dental treatment should be avoided in patients with profound impairment of immune function<sup>8</sup>. Consultation with the patient's physician and parents regarding the risks and benefits of orthodontic care is recommended.

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#### Phase V: Long-term survival

Craniofacial, skeletal, and dental developmental issues are some of the complications faced by cancersurvivors (NCI 2016, Schubert and Peterson 2009, da Fonseca 2011) and usually develop among children who were less than six years of age at the time of their cancer therapy (Schubert and Peterson 2009, da-Fonseca 2011). Long term effects of cancer therapy may include tooth agenesis, microdontia, crowndisturbances (size, shape, enamel hypoplasia, pulp chamber anomalies), root disturbances (early apicalclosure, blunting, changes in shape or length), reduced mandibular length, and reduced alveolar processheight (da Fonseca 2011). The severity of the dental developmental anomaly will depend on the age and stage of development during exposure to cytotoxic agents or ionizing radiation. Patients may experience permanent salivary gland hypofunction/dysfunction or xerostomia (Dahllöf et al 2001, Jensen et al 2010). Relapse or secondary malignancies can develop at this stage (NCI 2016). Routine periodic examinations are necessary to provide comprehensive oral healthcare. Careful examination of extraoral and intraoral tissues (including clinical, radiographic, and/or additional diagnostic examinations) are integral todiagnosing any secondary malignancies in the head and neck region. Dental treatment may require a multidisciplinary approach, involving a variety of dental specialists to address the treatment needs of each individual. Consultation with the patient's physician is recommended when relapse or the patient's immunologic status declines.

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Dental and oral care after the cancer therapy immunosuppressive therapy is completed (exclusive of HCT)

- 626 **Objectives** 627 The objectives of a dental/oral examination after cancer therapy ends are three-fold: 628 To Mmaintain optimal oral health. 629 • To-Rreinforce to the patient/parents the importance of optimal oral and dental care for life. 630 • To-Aaddress and/or treat any dental issues that may arise as a result of the long-term effects of 631 cancer therapy. 632 633 Dental care 634 Periodic evaluation: The patient should be seen at least every six months (or in shorter intervals if issues 635 such as chronic oral GVHD, xerostomia, or trismus are present). Patients who have experienced moderate 636 or severe mucositis and/or chronic oral GVHD should be followed closely for malignant transformation 637 of their oral mucosa (e.g., oral squamous cell carcinoma)<sup>5,33</sup>. 638 639 Education: The importance of optimal oral and dental care for life must be reinforced. It is also important 640 to emphasize the need for regular follow-ups with a dental professional, especially for patients who are at 641 risk for or have developed GVHD and/or xerostomia and those who were younger than six years of age 642 during treatment due to potential dental developmental problems. caused by cancer therapies. 643 644 Orthodontic treatment: Orthodontic care may start or resume after completion of all therapy and after at 645 least a two year disease-free survival when the risk of relapse is decreased and the patient is no longer 646 using immunosuppressive drugs<sup>4</sup> (Sheller and Williams 1996). A thorough assessment of any dental 647 developmental disturbances caused by the cancer therapy must be performed before initiating orthodontic 648 treatment. The following strategies should be considered when providing orthodontic care for patients 649 with dental sequelae: (1) use appliances that minimize the risk of root resorption, (2) use lighter forces, 650 (3) terminate treatment earlier than normal, (4) choose the simplest method for the treatment needs, and 651 (5) do not treat the lower jaw<sup>34</sup>. However, specific guidelines for orthodontic management, including 652 optimal force and pace, remain undefined. Patients who have used or will be given bisphosphonates in the 653 future present a challenge for orthodontic care. Although bisphosphonate inhibition of tooth movement 654
- 655 Consultation with the patient's parents and physician regarding the risks and benefits of orthodontic care

has been reported in animals, it has not been quantified for any dose or duration of therapy in humans<sup>34</sup>.

656 in this situation is recommended.

Oral surgery: Consultation with an oral surgeon and/or periodontist and the patient's physician is 658 659 recommended for non-elective oral surgical and invasive periodontal procedures in patients who have 660 used or are using bisphosphonates or those who received radiation therapy to the jaws in order to devise 661 strategies to decrease the risk of osteonecrosis and osteoradionecrosis, respectively<sup>18-20</sup>. Elective invasive 662 procedures should be avoided in these patients (Dahllöf et al 2001). Patients with a high risk of BRONJ 663 are best managed by in coordination with the oncology team in the hospital setting. 664 665 Long Term Concerns 666 Craniofacial, skeletal, and dental developmental issues are some of the complications faced by cancersurvivors<sup>1,4,8</sup> and usually develop among children who were less than six years of age at the time of their 667 cancer therapy<sup>4,8</sup>. Long term effects of cancer therapy immunosuppressive therapy may include tooth 668 669 agenesis, microdontia, crown disturbances (size, shape, enamel hypoplasia, pulp chamber anomalies), 670 root disturbances (early apical closure, blunting, changes in shape or length), reduced mandibular length, 671 and reduced alveolar process height<sup>4</sup>. The severity of the dental developmental anomaly will depend on 672 the age and stage of development during exposure to cytotoxic agents or ionizing radiation. Patients may 673 experience permanent salivary gland hypofunction/dysfunction or xerostomia<sup>35</sup> (<del>Dahllöf et al 2001</del>). 674 Relapse or secondary malignancies can develop at this stage<sup>1</sup>. Routine periodic examinations are 675 necessary to provide comprehensive oral healthcare. Careful examination of extraoral and intraoral tissues 676 (including clinical, radiographic, and/or additional diagnostic examinations) are integral to diagnosing 677 any secondary malignancies in the head and neck region. Dental treatment may require a 678 multidisciplinary approach, involving a variety of dental specialists to address the treatment needs of each 679 individual. Consultation with the patient's physician is recommended when if relapse or the patient's 680 immunologic status declines. 681 682 References 683 National Cancer Institute: PDQ® Oral Complications of Chemotherapy and Head/Neck Radiation. 684 Bethesda, Md.: National Cancer Institute. Modified December 16, 2016 Available at: 685 "http://cancer.gov/cancertopics/pdq/supportivecare/oralcomplications/HealthProfessional." 686 Accessed September 28,2017. 687 National Institute of Dental and Craniofacial Research. Dental management of the organ or stem 688 cell transplant patient Bethesda, Md. NIDCR Modified July 2016 Available at 689 https://www.nidcr.nih.gov/oralhealth/Topics/OrganTransplantationOralHealth/OrganTransplantPro 690 f.htm. Accessed November 4,2017.

- Hong CH, Brennan MT, Lockhart PB. Incidence of acute oral sequelae in pediatric patients undergoing chemotherapy. Pediatr Dent 2009;31(5):420-5.
- da Fonseca, M. Childhood cancer. In: Nowak AJ, Casamassimo PS, ed. The Handbook of Pediatric
   Dentistry, 4th Edition; Chicago, Ill. American Academy of Pediatric Dentistry; 2011:225-31.
- 5. Elad S, Thierer T, Bitan M, Shapira MY, Meyerowitz C. A decision analysis: The dental management of patients prior to hematology cytotoxic therapy or hematopoietic stem cell
- 697 transplantation. Oral Oncol 2008;44(1):37-42.
- 698 6. Hong CH, Napeñas JJ, Hodgson BD, et al. A systematic review of dental disease in patients undergoing cancer therapy. Support Care Cancer 2010;18(8):1007-21.
- 7. Lalla RV, Brennan MT, Schubert MM. Oral complications of cancer therapy. In: Yagiela JA, Dowd
   FJ, Johnson BS, Marrioti AJ, Neidle EA, eds. Pharmacology and Therapeutics for Dentistry. 6th ed.
   St. Louis, Mo: Mosby-Elsevier; 2011:782-98.
- 8. Schubert MM, Peterson DE. Oral complications of hematopoietic cell transplantation. In:
  Appelbaum RF, Forman SJ, Negrin RS, Blume KG, eds. Thomas' Hematopoietic Cell
- 705 Transplantation: Stem Cell Transplantation, 4th ed. Oxford, UK: Wiley-Blackwell; 2009:1589-607.
- Hong CH, da Fonseca M. Considerations in the pediatric population with cancer. Dent Clin N Am
   2008;52(1):155-81.
- 708 <u>10. American Academy of Pediatric Dentistry. Antibiotic prophylaxis for dental patients at risk for infection. Pediatr Dent 2017;39(6):374-379.</u>
- 710 11. Peterson DE, Bensadoun RJ, Roila F, ESMO Guidelines Working Group. Management of oral and 711 gastrointestinal mucositis: ESMO Clinical Practice Guidelines. Ann Oncol 2011;22(Suppl 6):vi78-712 84. Erratum in Ann Oncol 2012;23(3):810.
- 713 12. Wilson W, Taubert KA, Gewitz M, et al. Prevention of infective endocarditis: Guidelines from the
- American Heart Association: A guideline from the American Heart Association Rheumatic Fever,
- Endocarditis, and Kawasaki Disease Committee, Council on Cardiovascular Disease in the Young,
- and the Council on Clinical Cardiology, Council on Cardiovascular Surgery and Anesthesia, and
- 717 the Quality of Care and Outcomes Research Interdisciplinary Working Group. Circulation
- 718 2007;116(15):1736-54. Erratum in: Circulation 2007;116(15):e376-7.
- 719 13. Hong CH, Allred R, Napenas JJ, Brennan MT, Baddour LM, Lockhart PB. Antibiotic prophylaxis
- for dental procedures to prevent indwelling venous catheter-related infections. Am J Med
- 721 2010;123(12):1128-33.

- 722 14. Stiff PJ, Emmanouilides C, Bensinger WI, et al. Palifermin reduces patient-reported mouth and
- throat soreness and improves patient functioning in the hematopoietic stem-cell transplantation
- 724 setting. J Clin Oncol 2006;24(33):5186-93.
- 15. Little JW, Falace DA, Miller CS, Rhodus NL. Cancer and oral care of the cancer patient. In: Little
- and Falace's Dental Management of the Medically Compromised Patient, 8th ed. St. Louis, Mo:
- 727 Elsevier-Mosby; 2012:459-92.
- 728 16. Keefe DM, Schubert MM, Elting LS, et al. Updated clinical practice guidelines for the prevention
- 729 and treatment of mucositis. Cancer 2007;109(5):820-831.
- 730 <u>17. Yamagata K, Onizawa K, Yanagawa T, et al. A prosprctive study to evaluate a new dental</u>
- 731 <u>management protocol before hematopoietic stem cell transplantation. Bone Marrow Transplant</u>
- 732 2006:38930:237-42.
- 733 18. Saad F, Brown JE, Van Poznak C, et al. Incidence, risk factors, and outcomes of osteonecrosis of
- the jaw: Integrated analysis from three blinded active-controlled phase III trials in cancer patients
- 735 with bone metastases. Ann Oncol 2012;23(5):1341-7.
- 736 19. Kuhl S, Walter C, Acham S, Pfeffer R, Lambrecht JT. Bisphosphonate-related osteonecrosis of the
- 737 jaws—A review. Oral Oncology 2012;48(10):938-47.
- 738 20. Dodson TB. Intravenous bisphosphonate therapy and bisphosphonate-related osteonecrosis of the
- 739 jaws. J Oral Maxillofac Surg 2009;67(suppl 1):44-52.
- 740 21. American Academy of Pediatric Dentistry. Management considerations for oral surgery and oral
- 741 pathology. Pediatr Dent 2017;39(6):361-370.
- 742 22. American Association of Oral and Maxillofacial Surgeons. White paper: Evidence based third
- molar surgery. November 10, 2011. Available at:
- "http://www.aaoms.org/docs/evidence based third molar surgery.pdf". Accessed June 23,
- 745 <u>2013.Accessed November 17, 2017</u>
- 746 23. Lalla, RV, Bowen J, Barasch A et al. MASCC/ISOO clinical practice guidelines for the
- management of mucositis secondary to cancer therapy. Cancer 2014;120(10):1453-61.
- 748 24. FDA US Food and Drug Administration Questions and answers on palifermin 8/26/13 Available
- 749 <u>at:</u>
- 750 https://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/
- 751 ucm110264.htm Accessed October 12,2017.
- 752 25. He, M. Zhang, B., Shen, N. et al. A Systematic review and meta-analysis of the effect of low level
- 1753 <u>laser therapy (LLLT) on chemotherapy-induced oral mucositis in pediatric and young patients. Eur</u>
- 754 J Pediatr (2017); pp 1-11. https://doi.org/10.1007/s00431-017-3043-4

- 755 <u>26.</u> Amadori F, Bardellini E, Conti G, et al. Low-level laser therapy for treatment of chemotherapy-
- 756 <u>induced oral mucositis in childhood: a randomized double-blind controlled study. Lasers Med Sci</u>
- 757 2016;31(6):1231-6.
- 758 27. Kuhn A, Porto FA, Miraglia P, Brunetto AL. Low-level infrared laser therapy in chemotherapy-
- 759 induced oral mucositis: A randomized placebo-controlled trial in children. J Pediatr Hematol Oncol
- 760 2009;31(1):33-7.
- Peterson DE, Ohrn K, Bowen J, et al. Systematic review of oral cryotherapy for management of
- oral mucositis caused by cancer therapy. Support Care Cancer 2013;21 (1):327-32.
- Clarkson JE, Worthington HV, Furness S, McCabe M, Khalid 660 T, Meyer S. Interventions for
- treating oral mucositis for patients with cancer receiving treatment (Review). Cochrane Database
- 765 Syst Rev 2010;4(8):CD001973.
- 766 30. Cardona A, Balouch A, Abdul MM, Sedghizadeh PP, Enciso R. Efficacy of chlorhexidine for the
- prevention and treatment of oral mucositis in cancer patients: a systematic review with meta-
- 768 <u>analysis. J Oral Pathol Med 2017.</u>
- 769 31. Gøtzche PC, Johansen HK. Nystatin prophylaxis and treatment in severely immunocompromised
- patients. Cochrane Database Syst Rev 2002;(2):CD002033. Update in Cochrane Database Syst Rev
- 771 2002;(4):CD002033.
- 772 32. Nieuw Amerongen AV, Veerman EC. Current therapies for xerostomia and salivary gland
- hypofunction associated with cancer therapies. Support Care Cancer 2003;11(4):226-31.
- 774 33. Euvrard S, Kanitakis J, Claudy A. Skin cancers after organ transplantation. N Engl J Med
- 775 2003;348(17):1681-91.
- 776 34. Zahrowski JJ. Bisphosphonate treatment: An orthodontic concern for a proactive approach. Am J
- 777 Orthod Dentofacial Orthop 2007;131(3):311-20.
- 778 35. Jensen SB, Pedersen AM, Vissink A, et al. A systematic review of salivary gland hypofunction and
- xerostomia induced by cancer therapies: Prevalence, severity, and impact on quality of life. Support
- 780 Care Cancer 2010;18(8):1039-60.

782783

- 784 American Academy of Pediatric Dentistry. Guideline on pediatric oral surgery. Pediatr Dent
- 785 2012;34(special issue):264-71.
- 786 Baddour LM, Epstein AE, Erickson CC, et al. Update on cardiovascular implantable electronic device-
- 787 infections and their management. Circulation 2010;121(3):458-77.

788	Bavier AR. Nursing management of acute oral complications of cancer. Consensus Development
789	Conference on Oral Complications of Cancer Therapies: Diagnosis, Prevention, and Treatment.
790	National Cancer Institute Monograph No. 9. Bethesda, Md: National Institutes of Health; 1990:23-
791	<del>128.</del>
792	da Fonseca MA. Pediatric bone marrow transplantation: Oral complications and recommendations for
793	care. Pediatr Dent 1998;20(7):386-94.
794	da Fonseca MA. Long-term oral and craniofacial complications following pediatric bone marrow-
795	transplantation. Pediatr Dent 2000;22(1):57-62.
796	Dahllöf G, Jönsson A, Ulmner M, Huggare J. Orthodontic treatment in long term survivors after bone-
797	marrow transplantation. Am J Orthod Dentofacial Orthop 2001;120(5):459-65.
798	Lockhart PB, Loven B, Brennan MT, Baddour LM, Levinson M. The evidence base for the efficiency of
799	antibiotic prophylaxis in dental practice. J Am Dent Assoc 2007;138(4):458-74.
800	Migliorati C, Hewson I, Lalla RV, et al. Systematic review of laser and other light therapy for the
801	management of oral mucositis in cancer patients. Support Care Cancer 2013;21(1):333-41.
802	Peters E, Monopoli M, Woo SB, Sonis S. Assessment of the need for treatment of . Oral Surg Oral Med-
803	Oral Pathol 1993;76(1):45-8.
804	Ransier A, Epstein JB, Lunn R, Spinelli J. A combined analysis of a toothbrush, foam brush, and a
805	chlorhexidine soaked foam brush in maintaining oral hygiene. Canc Nurs 1995;18(5):393-6.
806	Scully C, Epstein JB. Oral health care for the cancer patient. Eur J Cancer B Oral Oncol-
807	<del>1996;32B(5):281-92.</del>
808	Semba SE, Mealy BL, Hallmon WW. Dentistry and the cancer patient: Part 2: Oral health management of
809	the chemotherapy patient. Compend 1994;15(11):1378, 1380-7; quiz 1388.
810	Sheller B, Williams B. Orthodontic management of patients with hematologic malignancies. Am J Orthodontic
811	Dentofacial Orthop 1996;109(6):575-80.
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Best Practices on Fluoride Therapy

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- 3 Review Council
- 4 Council on Clinical Affairs
- 5 Latest Revision
- 6 2014\* 2018
- 7 \*The 2014 revision was limited to use of fluoridated toothpaste in young children

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- Purpose
- 10 The American Academy of Pediatric Dentistry (AAPD) intends this guideline these recommendations to
- 11 help practitioners and parents make decisions concerning appropriate use of fluoride as part of the
- 12 comprehensive oral health care for infants, children, adolescents, and persons with special health care
- 13 needs.

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- Methods
- 16 This guideline was originally developed by the Council on Clinical Affairs Committee and adopted in
- 17 1967. This document is a revision of the previous version, last revised in 20132014. To update this
- 18 guidance, an electronic search from 2012 to 2017 pertaining to-Athorough review of the scientific
- 19 literature in the English language pertaining to regarding the use of systemic and topical fluoride was
- 20 conducted.completed to revise and update this guideline. Database searches were conducted using the
- 21 terms: fluoride caries prevention, fluoridation, fluoride gel, fluoride varnish, fluoride toothpaste, fluoride
- therapy, and topical fluoride. Because over two million 720 papers were identified through these
- electronic searches, an alternate strategy strategies of limiting the information gathering to systematic
- 24 reviews using term "fluoride caries prevention" yielded 95 papers since 2012. Nine well conducted
- 25 systematic reviews and their references primarily were used for this update <sup>1-9</sup>. such as appraisal of
- 26 references from recent evidence based reviews and meta analyses, as well as hand searches, were
- 27 performed. This strategy yielded 105 manuscripts, primarily related to randomized clinical trials and
- 28 evidence based reviews, that were evaluated further by abstract. Of those, 45 manuscripts each had full
- 29 examination and analysis in order to revise this guideline. Expert opinions and best current clinical
- practices also were relied upon for this guideline these recommendations.

Background Widespread use of f<u>F</u>luoride has been a major factor in the decline in prevalence and severity of dental caries in the U.S. and other economically developed countries. When used appropriately, fluoride is both safe and effective in preventing and controlling dental caries. Decisions concerning the administration of fluoride are based on the unique needs of each patient, including the risks and benefits (i.e., risk of mild or moderate fluorosis versus the benefits of decreasing caries increment and, in some cases preventing, devastating dental disease). Fluoride has several caries-protective mechanisms of action. Topically, low levels of fluoride in plaque and saliva inhibit the demineralization of sound enamel and enhance the re-mineralization of demineralized enamel. Fluoride also inhibits dental caries by affecting the metabolic activity of cariogenic bacteria <sup>10</sup>. High levels of fluoride, such as those attained with the use of topical gels or varnishes, produce a temporary layer of calcium fluoride-like material on the enamel surface. The fluoride is released when the pH drops in response to acid production and becomes available to remineralize enamel or affect bacterial metabolism <sup>11</sup>. The original belief was that fluoride's primary action was to inhibit dental caries when incorporated into developing dental enamel (i.e., the systemic route), but the fluoride concentration in sound enamel does not fully explain the marked reduction in dental caries. It is oversimplification to designate fluoride simply as systemic or topical. Fluoride that is swallowed, such as fluoridated water and dietary supplements, may contribute to a topical effect on erupted teeth (before swallowed, as well as a topical effect due to increasing salivary and gingival crevicular fluoride levels). Additionally, elevated plasma fluoride levels can treat the outer surface of fully mineralized, but unerupted, teeth topically. Similarly, topical fluoride that is swallowed may have a systemic effect <sup>12</sup>. Fluoridation of community drinking water is the most equitable and cost-effective method of delivering fluoride to all members of most communities <sup>13</sup>. Water fluoridation at the level of 0.7-1.2 mg fluoride ion/L (ppm F) was introduced in the U.S. in the 1940s. Since fluoride from water supplies is now one of several sources of fluoride, the Department of Health and Human Services recently has proposed recommended to not have having a fluoride range, but rather to limit the recommendation to the lower standardize all water to the limit of 0.7 ppm F level. The rationale is to balance the benefits of preventing dental caries while reducing the chance of fluorosis <sup>1</sup>. Community water fluoridation has been associated with the decline in caries prevalence in adolescents from 90 percent in at least one permanent tooth in U.S. 12-17 years-olds in the 1960s, to 60 percent in a

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1999-2004 survey <sup>14</sup>. When used appropriately, fluoride is both safe and effective in preventing and controlling dental caries. Although adverse health effects, such as decreased cognitive ability, endocrine disruption and cancer, have been ascribed to the use of fluoride over the years, the preponderance of evidence from large cohort studies and systematic reviews does not support an association of such health issues and consumption of fluoridated water <sup>1</sup>. Regarding cognitive ability, a recent study of mothers' urinary fluoride levels and their child's IQ levels suggested an association with exposure levels greater than those recommended in the U.S. for water fluoridation <sup>15</sup>. However, a prospective study in New Zealand did not support an association between fluoridated water and IO measurements <sup>16</sup>, and a national sample in Sweden found no relationship between fluoride levels in water supplies and cognitive ability, non-cognitive ability, and education <sup>17</sup>. Consumption of fluoride during the mineralization of teeth. however, can cause fluorosis (children 1-3 years of age being most susceptible for fluorosis of the permanent incisors). The NHANES 1999-2004 study found 23 percent of the U.S. population had very mild or mild fluorosis <sup>18</sup>. Decisions concerning the administration of fluoride are based on the unique needs of each patient, including the risks and benefits (e.g., risk of mild or moderate fluorosis versus the benefits of decreasing caries increment and, in some cases preventing, devastating dental disease). Fluoride supplements also are effective in reducing prevalence of dental caries and should be considered for children at high caries risk who drink fluoride-deficient (less than 0.6 ppm F) water <sup>19</sup> (see Table). Determination of dietary fluoride before prescribing supplements can help reduce intake of excess fluoride. Sources of dietary fluoride may include drinking water from home, day care, and school; beverages such as soda <sup>20</sup>, juice <sup>21</sup>, and infant formula <sup>22</sup>; prepared food <sup>23</sup>, and toothpaste. Concentrated Finfant formulas requiring reconstitution with water have raised concerns regarding especially powdered formulas that have been reconstituted with fluoridated water, have been associated with an increased risk of fluorosis <sup>24</sup>. Infants may be particularly susceptible because of the large consumption of such liquid in the first year of life, while the body weight is relatively low <sup>12</sup>. However, a recent-An evidence-based review found that consumption of suggests that reducing fluoride intake from reconstituted infant formula can be associated with an increased risk of mild fluorosis, but recommended the continued use of fluoridated water <sup>25</sup>. One study has shown that dental fluorosis levels do not vary in fluoridated areas regardless of premixed versus reconstituted formula <sup>26</sup>. Standardization of the optimal fluoride levels in drinking water to 0.7 ppm F, however, makes this issue mute. alone will not eliminate the risk of fluorosis development. Fluorosis is associated with cumulative fluoride intake during enamel development, with the severity dependent on the dose, duration, and timing of intake. Findings from a national survey report that eight percent of 12-15 year olds have mild fluorosis and five percent have moderate fluorosis.

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Table. DIETARY FLUORIDE SUPPLEMENTATION SCHEDULE

Age	<0.3 ppm F	0.3 to 0.6 ppm F	>0.6 ppm F
Birth to 6 months	0	0	0
6 mo to 3 years	0.25 mg	0	0
3 to 6 years	0.50 mg	0.25 mg	0
6 to at least 16	1.00 mg	0.50 mg	0
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Professionally-applied topical fluoride treatments are efficacious in reducing prevalence of dental caries. The most commonly used agents for professionally-applied fluoride treatments are five 5 percent sodium fluoride varnish (NaFV; 2.26% F, 22,600 ppm F) and 1.23 percent acidulated phosphate fluoride (APF; 1.23%F 12,300 ppm F). The efficacy of Meta-analyses of 23 clinical trials, most with twice yearly application, favors the use of fluoride varnish in primary and permanent teeth <sup>2</sup>. Unit doses of fluoride varnish are the only professional topical fluoride agent that are recommended for children younger than age six 2, when used at least twice a year has been reported in at least four randomized controlled trials. The efficacy of fluoride varnish in permanent teeth, applied at three or six month intervals, also has been reported in at least four randomized controlled trials. Meta-analyses of 14-placebo-controlled trials show that fluoride gels, applied at three month to one year intervals, also are efficacious in reducing caries in permanent teeth <sup>27</sup>. Some topical fluoride gel and foam products are marketed with recommended treatment times of less than four minutes, but there are no clinical trials showing efficacy of shorter than four-minute application times <sup>28</sup>. There also is limited evidence that topical fluoride foams are efficacious in children <sup>2</sup>. Children at <del>increased</del> risk for caries <del>risk</del> should receive a professional fluoride treatment at least every six months 28. As the risk categories may change over time, the type and frequency of preventive interventions should be adjusted.

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Silver diamine fluoride (**SDF**; 5%F 44,800 ppm F) recently has been approved by the U.S. Food and Drug Administration and currently is used most frequently to arrest dentinal caries. SDF arrests caries by the antibacterial effect of silver and by remineralization of enamel and dentin <sup>9</sup>. Some clinical trials show a caries arrest rate greater than 80 percent <sup>7</sup>, but such studies have a high risk of bias and a wide variation of results, leading to conditional recommendations at this time <sup>29</sup>. Although the product is highly

concentrated, less than a drop is needed to treat several caries lesions. The only reported side effect of the

SDF is that caries lesions stain black after treatment, and will temporarily stain skin with contact. 124 125 Other topical fluoride products, such as 0.2 percent sodium fluoride (NaF) mouthrinse (900 ppm 126 F)(Torell; Horowitz; Heifetz) and brush on gels/pastes (e.g., 1.1 percent NaF; 5,000 ppm F) also have 127 been shown to be effective in reducing dental caries in permanent teeth. Home use of fluoride products 128 for children should focus on regimens that maximize topical contact, in lower-dose higher-frequency 129 approaches <sup>30</sup>. Meta-analyses of more than 70 randomized or quasi-randomized controlled clinical trials 130 131 show that fluoride toothpaste is efficacious in reducing prevalence of dental caries in permanent teeth, with the effect increased in children with higher baseline level of caries and by with higher concentration 132 of fluoride in the toothpaste, greater frequency of use, and supervision of brushing <sup>31,32</sup>. A meta-analysis 133 of eight clinical trials on caries increment in preschool children also shows that tooth brushing with 134 135 fluoridated toothpaste significantly reduces dental caries prevalence in the primary dentition <sup>6</sup>. Using no 136 more than a smear or rice-size amount of fluoridated toothpaste for children less than three years of age 137 may decrease risk of fluorosis. Using no more than a pea-size amount of fluoridated toothpaste is appropriate for children aged three to six 8 (see Figure). To maximize the beneficial effect of fluoride in 138 139 the toothpaste, teeth supervised toothbrushing should be brushed done twice a day, and rinsing after brushing should be kept to a minimum or eliminated altogether <sup>4</sup>. Other topical fluoride products (e.g., 140 prescription strength, home-use 0.5 percent fluoride gels and pastes; prescription-strength, home-use 0.09 141 142 percent fluoride mouthrinse have benefit in reducing dental caries in children six years or older <sup>2</sup>. 143

#### Recommendations

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- 1. There is confirmation from evidence-based reviews that fluoride use for the prevention and control of caries is both safe and highly effective in reducing dental caries prevalence.
- 2. There is evidence support from randomized clinical trials and evidence-based reviews that fluoride dietary supplements are effective in reducing dental caries and should be considered for children at caries risk who drink fluoride-deficient (less than 0.6 ppm) water.
- 3. There is evidence support from randomized controlled trials and meta-analyses evidence-based reviews that professionally applied topical fluoride treatments as five 2.26 percent NaFV or 1.23 percent F gel preparations are efficacious in reducing caries in children at caries risk.
- 4. There is evidence support from meta-analyses evidence-based reviews that fluoridated toothpaste is effective in reducing dental caries in children with the effect increased in children with higher

- baseline level of caries, higher concentration of fluoride in the toothpaste, greater frequency in use, and supervision. Using no more than a smear or rice-size amount of fluoridated toothpaste for children less than three years of age may decrease risk of fluorosis. Using no more than a peasize amount of fluoridated toothpaste is appropriate for children aged three to six.
- 5. There is evidence support from randomized clinical trials evidence-based reviews that prescription strength, home-use 0.5 percent fluoride gels and pastes and prescription-strength, home-use 0.09 percent fluoride mouthrinse 0.2 percent NaF mouthrinse and 1.1 percent NaF brush on gels/pastes also are effective in reducing dental caries in children.
- 6. There is support from evidence-based reviews to recommend the use of 38% silver diamine fluoride for the arrest of cavitated caries lesions in primary teeth as part of a comprehensive caries management program.



Figure. Comparison of a smear (left) with a pea-sized (right) amount of toothpaste.

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- Health and Human Services Panel on Community Water Fluoridation. U.S. Public Health Services
  recommendation for fluoride concentration in drinking water for the prevention of dental caries.
  Public Health Reports 2015;130(5):1-14.
- Weyant RJ, Tracy SL, Anselmo T, et al. Topical fluoride for caries prevention: Executive summary
   of the updated clinical recommendations and supporting systematic review. J Amer Dent Assoc
   2013:144(11):1279-91.
- Lenzi TL, Montagner A, Soares FLM, et al. Are topical fluorides effective for treating incipient of
   carious lesions: A systematic review and meta-analysis. J Am Dent Assoc 2016;147(2):84-92.e1.
- 4. Scottish Intercollegiate Guideline (SIGN) 138, Dental interventions to prevent caries in children.
   March 2014. Available at: "www.sign.ac.uk/assets/sign138.pdf". Accessed Oct. 10, 2017.
   (Archived by WebCite® at http://www.webcitation.org/6xE7Ay0oY).

- 5. Chou R, Cantor A, Zakher B, et al. Prevention of dental caries in children younger than 5 years old:
- Systematic review to update the U.S. Preventive Services Task Force Recommendation. AHRQ
- Publication No. 12-05170-EF-1, May 2014. Accessed at https://www.necbi.nlm.nih.gov/books.nbk
- 186 202090. Accessed Oct. 10, 2017 WEBCITE.
- 6. Santos APP, Nadanovsky P, Oliveira BH. A systematic review and meta-analysis of the effects of
- fluoride toothpaste on the prevention of dental caries in the primary dentition of preschool children.
- Community Dent Oral Epidemiol 2013;41(1):1-12.
- 190 <u>7. Gao SS, Zhao IS, Hiraishi N, et al., Clinical trials of silver diamine fluoride in arresting caries</u>
- among children: A systematic review. Int Amer Assoc Dent Res 2016;1(3):201-10.
- Wright JT, Hanson N, Ristic H, et al. Fluoride toothpaste efficacy and safety in children younger
- than 6 years. J Am Dent Assoc 2014;145(2):182-9.
- 9. Zhao IS, Gao SS, Hiraishi N, et al., Mechanisms of silver diamine fluoride on arresting caries: A
- 195 <u>literature review. Int Dent J 2017; May 21. doi: 10.1111/idj.12320.</u>
- 196 10. Buzalaf MA, Pessan JP, Honório HM, ten Cate JM. Mechanism of action of fluoride for caries
- 197 control. Monogr Oral Sci 2011;22:97-114.
- 198 11. Centers for Disease Control and Prevention. Recommendations for using fluoride to prevent and
- 199 control dental caries in the United States. MMWR Recomm Rep 2001;50(RR-14):1-42.
- 200 12. Tinanoff N. Use of fluoride In: Berg J, Slayton RA, eds, Early Childhood Oral Health, 2nd ed.
- 201 <u>Wiley-Blackwell, Hoboken, NJ, 2016;104-19.</u>
- 202 13. Div. of Oral Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.
- Achievements in public health, 1900-1999; Fluoridation of drinking water to prevent dental caries.
- 204 JAMA 2000;283(10):1283-6.
- 205 14. Dye BA, Tan S, Smith V, et al. Trends in oral health status, United States, 1988-1994 and 1999-
- 2004. Vital Health Stat. 2007;248:1-92.
- 207 <u>15. Bashash M, Thomas D, Hu H, et al. Prenatal fluoride exposure and cognitive outcomes in children at</u>
- 4 and 6–12 years of age in Mexico. Environmental Health Perspective, 2017, https://
- doi.org/10.1289/EHP655. Accessed Oct. 10, 2017. (Archived by WebCite® at
- 210 http://www.webcitation.org/6xE7OtaW3).
- 211 16. Broadbent JM, Thomson WM, Ramrakha S, et al. Community water fluoridation and intelligence:
- 212 Prospective study in New Zealand. Am J Public Health 2015:105:72-6.
- 213 17. Aggeborn L, Öhman M. The effects of fluoride in the drinking water. 2016. Available at:
- "https://sites.google.com/site/linuzaggeborn/aggeborn-ohman-20161103.pdf?attredirects=1".
- 215 Accessed Oct. 10, 2017. (Archived by WebCite® at http://www.webcitation.org/6xE7YwKhd).

- 216 <u>18. Beltrán-Aguilar ED, Barker L, Dye BA. Prevalence and severity of dental fluorosis in the United</u>
- 217 States, 1999-2004, NCHS Data Brief No. 53. 2010:1-8.
- 218 19. Rozier RG, Adair S, Graham F, et al. Evidence-based clinical recommendations on the prescription
- of dietary fluoride supplements for caries prevention: A report of the American Dental Association
- Council on Scientific Affairs. J Am Dent Assoc 2010;141(12):1480-9.
- 20. Heilman JR, Kiritsy MC, Levy SM, Wefel JS. Assessing fluoride levels of carbonated soft drinks. J
- 222 Am Dent Assoc 1999;130(11):1593-9.
- 223 21. Kiritsy MC, Levy SM, Warren JJ, et al. Assessing fluoride concentrations of juices and juice-
- flavored drinks. J Am Dent Assoc 1996;127(7):895-902.
- 22. Levy SM, Kohout FJ, Guha-Chowdhury N, et al. Infants' fluoride intake from drinking water alone,
- and from water added to formula, beverages, and food. J Dent Res 1995;74(7):1399-407.
- 227 23. Heilman JR, Kiritsy MC, Levy SM, Wefel JS. Fluoride concentrations of infant foods. J Am Dent
- 228 Assoc 1997;128(7):857-63.
- 229 24. Hujoel PP, Zina LG. Moimas SAS, Cunha-Cruz J. Infant formula and enamel fluorosis. A systematic
- 230 review. J Am Dent Assoc 2009;140(7):841-54.
- 25. Berg J, Gerweck C, Hujoel PP, et al. Evidence-based clinical recommendations regarding fluoride
- intake from reconstituted infant formula and enamel fluorosis. J Am Dent Assoc 2011;142(1):79-87.
- 26. Do LG, Levy SM, Spencer AJ. Association between infant formula feeding and dental fluorosis and
- 234 caries in Australian children. J Public Health Dent, 2012;72(2):112-21.
- 23. Marinho VC, Higgin JP, Logan, S, Sheiham A. Systematic review of controlled trials on the
- effectiveness of fluoride gels for the prevention of dental caries in children. J Dent Ed
- 237 2003;67(4):448-58.
- 28. Hunter JW, Chan JT, Featherstone DB, et al. Professionally-applied topical fluoride: Evidence-based
- clinical recommendations. J Am Dent Assoc 2006;137(8):1151-9.
- 29. American Academy of Pediatric Dentistry. Guideline on the use of silver diamine fluoride for dental
- 241 caries management in children, adolescents and individuals with special healthcare needs. Pediatr
- 242 Dent 2017;39(5):E135-E145.
- 30. Adair SM. Evidence-based use of fluoride in contemporary pediatric dental practice. Pediatr Dent
- 244 2006;28(2):133-42.
- 31. Marinho VC, Higgins JP, Logan S, Sheiham A. Fluoride toothpaste for preventing dental caries in
- children and adolescents. Cochrane Database of Systemic Reviews. 2003(1):CD002278.

247	32. Walsh T, Worthington HV, Glenny AM, et al. Fluoride toothpastes of different concentrations for
248	preventing dental caries in children and adolescents. Cochrane Database of Systemic Reviews.
249	2010(1):CD007868.
250	
251	
252	American Academy of Pediatric Dentistry. Caries risk assessment and management for infants, children
253	and adolescents. Pediatr Dent 2015; 37(6, Special Iss.):132-9.
254	American Dental Association Council on Scientific Affairs. Fluoride toothpaste use for young children.
255	Am Dent Assoc 2014;145(2):190-1.
256	Arruda AO, Senthamarai Kannan R, Inglehart MR, Rezende CT, Sohn W. Effect of 5% fluoride varnish
257	ap plication on caries among school children in rural Brazil: A randomized controlled trial.
258	Community Dent Oral Epidemiol 2012;40(3):267-76.
259	Autio Gold JT, Courts F. Assessing the effect of fluoride varnish on early enamel carious lesions in the
260	primary dentition. J Am Dent Assoc 2001;132(9):1247-53.
261	Beltrán-Aguilar ED, Barker LK, Canto MT, et al. Surveil-lance for dental caries, dental sealants, tooth
262	retention, edentulism, and enamel fluorosis United States, 1988-1994 and 1999-2002. MMWR
263	<del>2005;54(3):1-43.</del>
264	Bravo M, Garcia Anllo I, Baca P, Llodra JC. A 48-month survival analysis comparing scalant (Delton)
265	with fluoride varnish (Duraphat) in 6-to 8-year-old children. Community Dent Oral Epidemiol
266	<del>1997;25(3):247-50.</del>
267	Clark DC, Stamm JW, Robert G, Tessier C. Results of a 32 month fluoride varnish study in Sherbrooke
268	and Lac Megantic, Canada. J Am Dent Assoc 1985;111(6):949-53.
269	Department of Health and Human Services. Proposed HHS Recommendation for Fluoride Concentration
270	in Drinking Water for Prevention of Dental Caries. Federal Register 2011;76(9):2383-8.
271	Englander HR, Keyes PH, Gestwicki M, Sultz HA. Clinical anti-caries effect of repeated topical sodium
272	fluoride applications by mouthpiece. J Am Dent Assoc 1967;75(8):638-44.
273	Englander HR, Sherrill LT, Miller BG, Carlos JP, Mellberg JR, Senning RS. Increment rates of dental
274	caries after repeated topical sodium fluoride application in children with lifelong consumption of
275	fluoridated water. J Am Dent Assoc 1971;82(2):354-8.
276	Heifetz SB, Meyers R, Kingman A. A comparison of the anticaries effectiveness of daily and weekly
277	rinsing with sodium fluoride solutions: Findings after two years. Pediatr Dent 1981;3(1):17-20.
278	Holm AK. Effect of fluoride varnish (Duraphat) in preschool children. Community Dent Oral Epidemiol
279	<del>1979;7(5):241-5.</del>

280	Horowitz HS, Creighton WE, McClendon BJ. The effect on human dental caries of weekly oral rinsing
281	with a sodium fluoride mouthwash: A final report. Arch Oral Biol 1971;16(6):609-16.
282	Jiang H, Bian Z, Tai BJ, Du MQ, Peng B. The effect of a bi annual professional application of APF foam
283	on dental caries increment in primary teeth: 24-month clinical trial. J Dent Res 2005;84(3):265-8.
284	Jiang H, Tai B, Du M, Peng B. Effect of professional application of APF foam on caries reduction in
285	permanent first molars in 6-7-year-old children: 24-month clinical trial. J Dent 2005;33(6):469-73.
286	Sjögren K, Birkhed D. Factors related to fluoride retention after toothbrushing and possible connection to
287	caries activity. Caries Res 1993;27(6):474-7.Orthod Dentofacial Orthop 2007;131(3):311-20.
288	Tewari A, Chawla HS, Utreja A. Comparative evaluation of the role of NaF, APF & Duraphat topical
289	fluoride applications in the prevention of dental caries a 2 ./. years study. J Indian Soc Pedod Prev
290	<del>Dent 1991;8(1):28-35.</del>
291	Tinanoff N. Use of Fluorides. In: Berg J, Slayton RA, eds, Early Childhood Oral Health. Wiley-
292	Blackwell, Ames, Ia; 2009:92-109.

Best Practices on Use of Nitrous Oxide for Pediatric Dental Patients

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3	Review Council
4	Council on Clinical Affairs
5	Latest Revision
6	<del>2013</del> <u>2018</u>
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8	Purpose
9	The American Academy of Pediatric Dentistry (AAPD) recognizes nitrous oxide/oxygen inhalation as a
10	safe and effective technique to reduce anxiety, produce analgesia, and enhance effective communication
11	between a patient and health care provider. The need to diagnose and treat, as well as the safety of the
12	patient and practitioner, should be considered before using nitrous oxide. By producing this guideline, the
13	AAPD intends to assist the dental profession in developing appropriate practices in the use of nitrous
14	oxide/oxygen analgesia/anxiolysis for pediatric patients.
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16	Methods
17	This guideline was originally developed by the Council on Clinical Affairs Committee and adopted in
18	2005. This document is a revision of the previous version, last revised in 201309. The revision is based on
19	a review of the current dental and medical literature related to nitrous oxide use. An electronic search was
20	conducted using PubMed® with the terms: nitrous oxide, analgesia, anxiolysis, behavior management,
21	diffusion hypoxia, scavenging, occupational exposure, and dental treatment; fields: all; limits: within the
22	last 10 years, humans, English, and clinical trials. Forty articles met these criteria, and papers were added
23	to the references from the previous document. <u>Additionally, the American Dental Association Guideline</u>
24	for the use of sedation and general anesthesia by dentists and the American Dental Association Oral
25	<u>Health Topics – Nitrous oxide dental best practices for nitrous oxide-oxygen use were reviewed.</u> When
26	data did not appear sufficient or were inconclusive, recommendations were based upon expert and/or
27	consensus opinion by experienced researchers and clinicians.
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29	Background
30	Dentists have expertise in providing anxiety and pain control for their patients. While anxiety and pain
31	can be modified by psychological techniques, in many instances pharmacological approaches are
32	required <sup>1</sup> . Analgesia/anxiolysis is defined as diminution or elimination of pain and anxiety in a conscious

patient<sup>2</sup>. The patient responds normally to verbal commands. All vital signs are stable, there is no significant risk of losing protective reflexes, and the patient is able to return to pre-procedure mobility. In children, analgesia/anxiolysis may expedite the delivery of procedures that are not particularly uncomfortable, but require that the patient not move<sup>2</sup>. It also may allow the patient to tolerate unpleasant procedures by reducing or relieving anxiety, discomfort, or pain. The use of nitrous oxide increases reaction time, reduces pressure-induced pain, but does not affect pulpal sensitivity, as shown in a doubleblind, crossover study<sup>3</sup>. The outcome of pharmacological approaches is variable and depends upon each patient's response to various drugs. The clinical effect of nitrous oxide/oxygen inhalation, however, is more predictable among the majority of the population. Nitrous oxide is a colorless and virtually odorless gas with a faint, sweet smell. It is an effective analgesic/anxiolytic agent causing central nervous system (CNS) depression and euphoria with little effect on the respiratory system<sup>4,5</sup>. Nitrous oxide has multiple mechanisms of action. The analgesic effect of nitrous oxide appears to be initiated by neuronal release of endogeneous opioid peptides with subsequent activation of opioid receptors and descending Gamma-aminobutyric acid type A (GABAA) receptors and noradrenergic pathways that modulate nociceptive processing at the spinal level. The anxiolytic effect involves activation of the GABAA receptor either directly or indirectly through the benzodiazepine binding site<sup>6,7</sup>. Nitrous oxide has rapid uptake, being absorbed quickly from the alveoli and held in a simple solution in the serum. It is relatively insoluble, passing down a gradient into other tissues and cells in the body, such as the CNS. It is excreted quickly from the lungs. As nitrous oxide is 34 times more soluble than nitrogen in blood, diffusion hypoxia may occur. Studies (Patel et al 1994, Patel, Norden and Hannallah 1988, Kinouci et al 1992) have shown that children desaturate more rapidlythan adolescents, and administering 100 percent oxygen to the patient once the nitrous oxide in a closedsystem has been terminated is important (Patel et al 1994). Nitrous oxide causes minor depression in cardiac output while peripheral resistance is slightly increased, thereby maintaining the blood pressure<sup>4</sup>. This is of particular advantage in treating patients with cerebrovascular system disorders. Nitrous oxide is absorbed rapidly, allowing for both rapid onset and recovery (two to three minutes). It causes minimal impairment of any reflexes, thus protecting the cough reflex<sup>4</sup>. It exhibits a superior safety profile with no recorded fatalities or cases of serious morbidity when used within recommended concentrations<sup>8-11</sup> (Nathan 1989). Studies have reported negative outcomes associated with use of nitrousoxide greater than 50 percent and as an anesthetic during major surgery (Schmitt and Baum 2008, Zeirand Doescher 2010). Although rare, silent regurgitation and subsequent aspiration need to be considered

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- 66 with nitrous oxide/oxygen sedation. The concern lies in whether pharyngeal laryngeal reflexes remain-
- 67 intact. This problem can be avoided by not allowing the patient to go into an unconscious state (Hogue,
- 68 Ternisky and Iranour 1971). Side effects such as nausea and vomiting are more likely to be observed
- 69 when titration is not employed (Malamed and Clark 2003). As nitrous oxide is 34 times more soluble-
- 70 than nitrogen in blood, diffusion hypoxia may occur. This can be avoided by administering 100 percent
- 71 oxygen for five minutes once the nitrous oxide flow is terminated.

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- 73 The decision to use nitrous oxide/oxygen analgesia/anxiolysis must take into consideration alternative
- behavioral guidance modalities, the patient's dental needs, the effect on the quality of dental care, the
- patient's emotional development, and the patient's physical considerations. Nitrous oxide generally is
- 76 acceptable to children and can be titrated easily. Most children are enthusiastic about the administration of
- 77 nitrous oxide/oxygen; many children report feeling a tingling or warm sensation. Objectively, children
- may appear with their hands open, legs limp, and with a trancelike expression<sup>12</sup>. dreaming or being on a
- 79 "space-ride" (Hogue, Ternisky and Iranour 1971). For some patients, however, the feeling of "losing
- 80 control" may be troubling and children with claustrophobiae patients may find the nasal hood confining
- and unpleasant<sup>13</sup>.

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- Nitrous oxide has been associated with bioenvironmental concerns because of its contribution to the
- greenhouse effect<sup>14</sup>. Nitrous oxide is emitted naturally by bacteria in soils and oceans; it is produced by
- 85 humans through the burning of fossil fuels and forests and the agricultural practices of soil cultivation and
- 86 nitrogen fertilization. Altogether, nitrous oxide contributes about five percent to the greenhouse effect<sup>15,16</sup>.
- 87 Only a small fraction of this five percent (0.35 to two percent), however, is actually the result of
- 88 combined medical and dental applications of nitrous oxide gas<sup>16</sup>.

- 90 The objectives of nitrous oxide/oxygen inhalation include:
- 91 1. Reduce or eliminate anxiety.
- 92 2. Reduce untoward movement and reaction to dental treatment.
- 93 3. Enhance communication and patient cooperation.
- 94 4. Raise the pain reaction threshold.
- 95 5. Increase tolerance for longer appointments.
- 96 6. Aid in treatment of the mentally/physically disabled or medically compromised patient.
- 97 7. Reduce gagging.
- 98 8. Potentiate the effect of sedatives.

- Disadvantages of nitrous oxide/oxygen inhalation may include<sup>4</sup>:
- 101 1. Lack of potency.

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- 2. Dependant largely on psychological reassurance.
- 3. Interference of the nasal hood with injection to anterior maxillary region.
- 4. Patient must be able to breathe through the nose.
- 5. Nitrous oxide pollution and potential occupational exposure health hazards.

#### 107 Recommendations

- 108 Indications for use of nitrous oxide/oxygen analgesia/anxiolysis include:
- 1. A fearful, anxious, or obstreperous patient.
- 2. Certain patients with special health care needs.
- 3. A patient whose gag reflex interferes with dental care.
- 4. A patient for whom profound local anesthesia cannot be obtained.
- 5. A cooperative child undergoing a lengthy dental procedure.
- Review of the patient's medical history should be performed prior to the decision to use nitrous
- oxide/oxygen analgesia/anxiolysis. This assessment should include:
- 1. Allergies and previous allergic or adverse drug reactions.
- 118 2. Current medications including dose, time, route, and site of administration.
- 3. Diseases, disorders, or physical abnormalities and pregnancy status.
- 4. Previous hospitalization to include the date and purpose.
- 5. Recent illnesses (e.g., cold or congestion) that may compromise the airway.
- 123 Contraindications for use of nitrous oxide/oxygen inhalation may include:
- 124 1. Some chronic obstructive pulmonary diseases<sup>17</sup>.
- 2. Current upper respiratory tract infection<sup>18</sup>.
- 3. Recent middle ear disturbance/ surgery<sup>18</sup>.
- 4.2. Severe emotional disturbances or drug-related dependencies<sup>18</sup>.
- 128 5.3. First trimester of pregnancy<sup>19</sup>.
- 129 6.4. Treatment with bleomycin sulfate<sup>20</sup>.
- 130 <u>7.5.</u> Methylenetetrahydrofolate reductase deficiency<sup>21</sup>.
- 131 8.6. Cobalamin (Vit B12) deficiency<sup>7</sup>.

Whenever possible, appropriate medical specialists should be consulted before administering
analgesic/anxiolytic agents to patients with significant underlying medical conditions (e.g., severe
obstructive pulmonary disease, congestive heart failure, sickle cell disease<sup>22</sup>, acute otitis media, recent
tympanic membrane graft<sup>23</sup>, acute severe head injury<sup>24</sup>. In addition, consultation with the prenatal medical
provider should precede use of nitrous oxide/oxygen analgesia/ anxiolysis during pregnancy<sup>25</sup>.

### Technique of nitrous oxide/oxygen administration

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Nitrous oxide/oxygen must be administered only by appropriately licensed individuals, or under the direct supervision thereof, according to state law. The practitioner responsible for the treatment of the patient and/or the administration of analgesic/anxiolytic agents must be trained in the use of such agents and techniques and appropriate emergency response.

Selection of an appropriately sized nasal hood should be made. A flow rate of five to six L/min generally is acceptable to most patients. The flow rate can be adjusted after observation of the reservoir bag. The bag should pulsate gently with each breath and should not be either over- or underinflated. Introduction of 100 percent oxygen for one to two minutes followed by titration of nitrous oxide in 10 percent intervals is recommended. During nitrous oxide/oxygen analgesia/anxiolysis, the concentration of nitrous oxide should not routinely exceed 50 percent. Studies have demonstrated that gas concentrations dispensed by the flow meter vary significantly from the end-expired alveolar gas concentrations; it is the latter that is responsible for the clinical effects<sup>26,27</sup>. To achieve sedation, the scavenging vacuum should not be so strong as to prevent ad-equate ventilation of the lungs with nitrous oxide<sup>28</sup>. A review of records of patients undergoing nitrous oxide-oxygen inhalation sedation demonstrated that the typical patient requires from 30 to 40 percent nitrous oxide to achieve ideal sedation (Malamed and Clark 2003). Clinicians should keep patients' talking and mouth breathing to a minimum to prevent expired nitrous oxide from contaminating the operatory<sup>29</sup>. Nitrous oxide concentration may be decreased during easier procedures (e.g., restorations) and increased during more stimulating ones (e.g., extraction, injection of local anesthetic). One study found that there was no benefit to continuous administration of nitrous oxide after profound anesthesia had been achieved<sup>30</sup>. Side effects such as nausea and vomiting are more likelyto be observed when titration is not employed (Malamed and Clark 2003). During treatment, it is important to continue the visual monitoring of the patient's respiratory rate and level of consciousness. The effects of nitrous oxide largely are dependent on psychological reassurance. Therefore, it is important to continue traditional behavior guidance techniques during treatment. Once the nitrous oxide flow is

terminated, 100 percent oxygen should be administered until the patient has returned to pre-treatment status<sup>31</sup>. should be delivered for five minutes. The patient must return to pretreatment responsiveness before discharge.

#### Monitoring

The response of patients to commands during procedures performed with analgesia/anxiolysis serves as a guide to their level of consciousness. Clinical observation of the patient must be performed during any dental procedure. During nitrous oxide/oxygen analgesia/anxiolysis, continual clinical observation of the patient's responsiveness, color, and respiratory rate and rhythm must be performed. Spoken responses provide an indication that the patient is breathing<sup>2</sup>. If any other pharmacologic agent is used in addition to nitrous oxide/oxygen and a local anesthetic, monitoring guidelines for the appropriate level of sedation must be followed<sup>32</sup>.

### Adverse effects of nitrous oxide/oxygen inhalation

Nitrous oxide/oxygen analgesia/anxiolysis has an excellent safety record. When administered by trained personnel on carefully selected patients with appropriate equipment and technique, nitrous oxide is a safe and effective agent for providing pharmacological guidance of behavior in children. Acute and chronic adverse effects of nitrous oxide on the patient are rare<sup>33</sup>. Nausea and vomiting are the most common adverse effects, occurring in 0.5 <u>– 1.2</u> percent of patients<sup>34,35</sup>. A higher incidence is noted with longer administration of nitrous oxide/oxygen, fluctuations in nitrous oxide levels, and lack of titration, increased concentrations of nitrous oxide, and a heavy meal prior to administration of nitrous oxide<sup>4,28,29</sup>. Fasting is not required for patients undergoing nitrous oxide analgesia/anxiolysis. The practitioner, however, may recommend that only a light meal be consumed in the two hours prior to the administration of nitrous oxide<sup>36</sup>. Studies have reported negative outcomes associated with use of nitrous oxide greater than 50 percent and as an anesthetic during major surgery<sup>37,38</sup>. Although rare, silent regurgitation and subsequent aspiration need to be considered with nitrous oxide/oxygen sedation. The concern lies in whether pharyngeal-laryngeal reflexes remain intact. This problem can be avoided by not allowing the patient to go into an unconscious state<sup>39</sup>.

 As nitrous oxide is 34 times more soluble than nitrogen in blood, diffusion hypoxia may occur. Diffusion hypoxia can occur as a result of rapid release of nitrous oxide from the blood stream into the alveoli, thereby diluting the concentration of oxygen. This may lead to headache, and disorientation, and nausea and can be avoided by administering 100 percent oxygen once the nitrous oxide flow is terminated<sup>4</sup>...

Diffusion hypoxia can occur as a result of rapid release of nitrous oxide from the blood stream into the alveoli, thereby diluting the concentration of oxygen. This may lead to headache, and disorientation, and nausea and can be avoided by administering 100 percent oxygen after nitrous oxide has been discontinued (Paterson and Tahmassebi 2003). While the standard recommendation is to administer 100% oxygen at the end of the procedure, several studies have questioned the necessity for this step in nitrous oxide protocols in healthy patients 18,40-42.

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#### **Documentation**

Informed consent must be obtained from the parent and documented in the patient's record prior to administration of nitrous oxide/oxygen. The practitioner should provide instructions to the parent regarding pretreatment dietary precautions, if indicated. In addition, the patient's record should include indication for use of nitrous oxide/oxygen inhalation, nitrous oxide dosage (i.e., percent nitrous oxide/oxygen and/or flow rate), duration of the procedure, and post treatment oxygenation procedure.

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### Facilities/personnel/equipment

All newly installed facilities for delivering nitrous oxide/oxygen must be checked for proper gas delivery and fail-safe function prior to use. Inhalation equipment must have the capacity for delivering 100 percent, and never less than 30 percent, oxygen concentration at a flow rate appropriate to the child's size. Additionally, inhalation equipment must have a fail-safe system that is checked and calibrated regularly according to the practitioner's state laws and regulations<sup>38</sup>. The system components, including the reservoir bag, should be inspected routinely for cracks, wear, and tears. If detected, repairs should be made immediately. Pressure connections should be tested for leaks when delivery system is turned on and each time a tank is changed. Compressed gas tanks must be kept in a locked room. Consult state and federal guidelines regarding storage of compressed gas tanks. Additional locks at the tanks, or mixer/ delivery level are available from many manufacturers to deter individuals from accessing nitrous oxide inappropriately<sup>43</sup>. If nitrous oxide/oxygen delivery equipment capable of delivering more than 70 percent nitrous oxide and less than 30 percent oxygen is used, an inline oxygen analyzer must be used. The equipment must have an appropriate scavenging system to minimize room air contamination and occupational risk. The scavenging system should vent outside<sup>44</sup>. Additionally, it has been shown that the double-mask system is more effective than the single-mask system in the removal of waste nitrous oxide<sup>46,47</sup>.

The practitioner who utilizes nitrous oxide/oxygen analgesia/anxiolysis for a pediatric dental patient shall possess appropri-ate training and skills and have available the proper facilities, personnel, and equipment to manage any reasonably foresee-able emergency. The practitioner is responsible for managing the potential complications associated with the intended level of sedation and the next deeper level. Therefore, because moderate sedation may occur, practitioners should have the appropriate training and emergency equipment to manage this<sup>31</sup>. Training and certification in basic life support are required for all clinical personnel. These individuals should participate in periodic review of the office's emergency protocol, the emergency drug cart, and simulated exercises to assure proper emergency management response. An emergency cart (kit) must be readily accessible. Emergency equipment must be able to accommodate children of all ages and sizes. It should include equipment to resuscitate a non-breathing, unconscious patient and provide continuous support until trained emergency personnel arrive. A positive-pressure oxygen delivery system capable of administering greater than 90 percent oxygen at a 10 L/min flow for at least 60 minutes (650 L, "E" cylinder) must be available. When a self-inflating bag valve mask device is used for delivering posi-tive pressure oxygen, a 15 L/min flow is recommended. There should be documentation that all emergency equipment and drugs are checked and maintained on a regularly scheduled basis<sup>32</sup>. Where state law mandates equipment and facilities, such statutes should supersede this guideline<sup>32</sup>. **Occupational safety** In the medical literature, long-term exposure to nitrous oxide used as a general anesthetic has been linked to bone marrow suppression and reproductive system disturbances<sup>7,47-49</sup>. However, it has been shown that appropriate scavenging is effective in reducing these reproductive system effects<sup>19,50</sup>. In an effort to reduce occupational health hazards associated with nitrous oxide, the AAPD recommends exposure to ambient nitrous oxide be minimized through the use of effective scavenging systems and periodic evaluation and maintenance of the delivery and scavenging systems<sup>51-53</sup>. References 1. American Dental Association. Guideline for the use of sedation and general anesthesia by dentists. 200716. Available at "http://www.ada.org/sections/about/pdfs/anesthesia\_guidelines.pdf". http://www.ada.org/en/~/media/ADA/Education%20and%20Careers/Files/ADA Sedation Use Gu idelines". Accessed March 13, 2013 August 20, 2017.

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- 263 2. American Society of Anesthesiologists. Practice guidelines for sedation and analgesia by non-
- anesthesiologists: An updated report by the American Society of Anesthesiologists task force on
- sedation and analgesia by non-anesthesiologists. Anesthesiology 2002;96:1004-17.
- 3. Groenbaek A, Svensson P, Vaeth M, Hansen I, Poulsen S. A placebo-controlled, double-blind,
- 267 <u>crossover trial on analgesic effect of nitrous oxide-oxygen inhalation. Int J Paediatr Dent</u>
- 268 2014;24:69-75.
- 269 4. Paterson SA, Tahmassebi JF. Pediatric dentistry in the new millennium: Use of inhalation sedation
- 270 in pediatric dentistry. Dent Update 2003;30(7):350-6, 358.
- 5. Dock M, Creedon RL. Pharmacologic management of patient behavior. In: Dean JA, Avery DR,
- McDonald RE, eds. McDonald and Avery's Dentistry for the Child and Adolescent. 9th ed.
- 273 Maryland Heights, Mo: Mosby; 2011:261-4.
- Emmanouil DE, Quock RM. Advances in understanding the actions of nitrous oxide. Anesth Prog
- 275 2007;54(1):9-18.
- 276 7. Sanders RDB, Weimann J, Maze M. Biologic effects of nitrous oxide: A mechanistic and
- toxicologic review. Anesthesiology 2008;109(4):707-22.
- 8. Foley J. A prospective study of the use of nitrous oxide inhalation sedation for dental treatment in
- anxious children. Eur J Paediatr Dent 2005;6(3):21-7.
- 9. Holyroyd I. Conscious sedation in pediatric dentistry: short review of the current UK guidelines and
- the technique of inhalational sedation with nitrous oxide. Paediatr Anaesth 2008;18(1):13-7.
- 282 10. Lyratzopoulos G, Blain KM. Inhalation sedation with nitrous oxide as an alternative to dental
- general anesthesia for children. J Public Health Med 2003;25(4):303-12.
- 284 11. Wilson S, Gosnell E. Survey of American Academy of Pediatric Dentistry on nitrous oxide and
- 285 <u>sedation: 20 years later. Pediatr Dent 2016:38(5): 385-392.</u>
- 286 12. Houpt M, Limb R, Livingston R. Clinical effects of nitrous oxide conscious sedation in children.
- 287 Pediatr Dent 2004; 26 (1): 29-36.
- 288 13. Wilson S. Management of child patient behavior: quality of care, fear and anxiety, and the child
- 289 patient. J Endod 2013; 39(3s): S73-S77.
- 290 14. Yasny J, White J. Environmental implications of anesthetic gases. Anesth Prog 2012;59:154-158.
- 291 15. Levering NJ, Welie JVM. Current status of nitrous oxide as a behavior management practice
- routine in pediatric dentistry. J Dent Child 2011;78(1):24-30.
- 293 16. McGain F. Why anesthetists no longer use nitrous oxide. Anaesth Intensive Care 2007;35(5):808-9.
- 294 17. Duncan GH, Moore P. Nitrous oxide and the dental patient: A review of adverse reactions. J Am
- 295 Dent Assoc 1984;108(2):213-9.

- 296 <u>18. Clark MS, Brunick AL. Handbook of nitrous oxide and oxygen sedation.4<sup>th</sup> ed. St. Louis, Mo:</u>
- 297 <u>Mosby Elsevier; 2015:84-86;90-98.</u>
- 298 19. Rowland AS, Baird DD, Shore DL, Weinberg CR, Savitz DA, Wilcox AJ. Nitrous oxide and
- spontaneous abortion in female dental assistants. Am J Epidemiol 1995;141(6):531-7.
- 300 20. Fleming P, Walker PO, Priest JR. Bleomycin therapy: A contraindication to the use of nitrous
- oxide-oxygen psychosedation in the dental office. Pediatr Dent 1988;10(4):345-6.
- 302 21. Selzer R, Rosenblatt D, Laxova R, Hogan K. Adverse effect of nitrous oxide in a child with 5,10-
- methylene-tetrahydrofolate reductase deficiency. N Engl J Med 2003;349(1):45-50.
- 304 22. Ogundipe O, Pearson MW, Slater NG, Adepegba T, Westerdale N. Sickle cell disease and nitrous
- oxide-induced neuropathy. Clin Lab Haematol 1999;21(6):409-12.
- 306 23. Fish BM, Baneriee AR, Jennings CR, et al. Effect of anaesthetic agents on tympanometry and
- middle-ear effusions. J Laryngol Otol 2000;114(5):336-8.
- 308 24. Moss E, McDowall DG. ICP increase with 50% nitrous oxide in oxygen in severe head injuries
- during controlled ventilation. Br J Anaest 1979;51(8):757-61.
- 310 25. American Academy of Pediatric Dentistry. Best practices on oral healthcare for the pregnant
- 311 adolescent. Pediatr Dent 2017; 39(6):221-228.
- 312 26. Klein U, Robinson TJ, Allshouse A. End-expired nitrous oxide concentrations compared to
- flowmeter settings during operative dental treatment in children. Pediatr Dent 2011;33(1):56-62.
- 314 27. Klein U, Bucklin BA, Poulton TJ, Bozinov D. Nitrous oxide concentrations in the posterior
- asopharynx during administration by nasal mask. Pediatr Dent 2004;26(5):410-6.
- 316 28. Malamed SF. Sedation: A Guide to Patient Management. 5th ed. St. Louis, MO: Mosby Elsevier;
- 317 2010:248-59.
- 318 29. Malamed SF, Clark MS. Nitrous oxide-oxygen: A new look at a very old technique. J Calif Dent
- 319 Assoc 2003;31(5):397-403.
- 320 30. <u>Guelmann M, Brackett R, Beavers N, Primosch RE, Effect of continuous versus interrupted</u>
- administration of nitrous oxide-oxygen inhalation on behavior of anxious pediatric dental patients:
- 322 a pilot study. J Clin Pediatr Dent 2012 Fall;37(1):77-82.
- 323 31. Clark MS. Contemporary issues surrounding nitrous oxide. In: Malamed SF, ed. Sedation: A Guide
- to Patient Management. 5th ed. St. Louis, Mo: Mosby Elsevier; 2018:256.
- 32. American Academy of Pediatrics, American Academy of Pediatric Dentistry. Guidelines for
- monitoring and management of pediatric patients <u>before</u>, during and after sedation for diagnostic
- and therapeutic procedures: An uUpdate 2016. Pediatr Dent 2016; 38(6):216-245.06;28(suppl):115-
- 328 <del>32.</del>

- 329 33. Donaldson D, Meechan JG. The hazards of chronic exposure to nitrous oxide: An update. Br Dent J 1995;178(3):95-100.
- 331 34. Kupietzky A, Tal E, Shapira J, Ram D. Fasting state and episodes of vomiting in children receiving nitrous oxide for dental treatment. Pediatr Dent 2008;30(5):414-9.
- 33. Galeotti A, Garret ernardin A, D'Anto V, Ferrazzano GF, Gentile T, Viarani V, Cassabgi G, Cantile
- T. Inhalation Conscious Sedation with Nitrous Oxide and Oxygen as Alternative to General
- anesthesia in Precooperative, Fearful, and Disabled Pediatric DentalPatients: A Large Survey on
- 336 <u>688 Working Sessions. Biomed Res Int. 2016;7289310. Epub Sep 26.</u>
- 337 36. Hosey MT. UK National Clinical Guidelines in Paediatric Dentistry. Managing anxious children:
- The use of conscious sedation in paediatric dentistry. Int J Paediatr Dent 2002;12(5):359-72.
- 339 37. Schmitt EL, Baum VC. Nitrous oxide in pediatric anesthesia: Friend or foe? Curr Opin
- 340 Anaesthesiol 2008;21(2):356-9.
- 38. Zeir JL, Doescher JS. Seizures temporarily associated with nitrous oxide administration for
- pediatric procedural sedation. J Child Neurol 2010;25(12):1517-20.
- 343 39. Hogue D, Ternisky M, Iranour B. The response to nitrous oxide analgesia in children. ASDC J Dent
- 344 Child 1971;38(2):129-33.
- 345 <u>40.</u> Dunn-Russell T, Adair S, Sams DR, RussellCM, Barenie JT.Oxygen saturation and diffusion
- hypoxia in children following nitrous oxide sedation. Ped Dent 1993;16(2):88-92.
- 347 41. Quarnstrom FC, Milgrom P, BishopMJ, DeRouen TA. Clinical Study of Diffusion Hypoxia After
- Nitrous Oxide Analgesia. Anesth Prog 1991;38:21-23.
- 349 42. Khinda V, Bhuria P, Khinda P, Kallar S, Brar G. Comparative evaluation of diffusion hypoxia and
- psychomotor skills with or without postsedation oxygenation following administration of nitrous
- oxide in children undergoing dental procedures: a clinical study. J Indian Soc Pedod Prev Dent
- 352 <u>2016; 34(3): 217-222.</u>
- 353 43. Donaldson M, Donaldson D, Quarnstrom F. Nitrous oxide-oxygen administration: when safety
- features are no longer safe. JADA 2012;143(2):134-143.
- 355 44. American Dental Association. Oral Health Topics Nitrous Oxide Dental Best Practices for
- Nitrous Oxide-Oxygen Use 2017 Available at "http://www.ada.org/en/member-center/oral-health-
- 357 topics/nitrous-oxide". Accessed August 2017.
- 358 45. Chrysikopoulou A, Matheson p, Miles M, Shey Z, Houpt M, Effectiveness of Two Nitrous Oxide
- 359 <u>Scavenging Nasal Hoods During Routine Pediatric Dental Treatment. Ped Dent 2006, 28(3): 242-</u>
- 360 247.

361	46.	Freilich MM, Alexander L, Sandor GKB, Judd P,. Effectiveness of 2 Scavenger Mask Systems for	
362	Reducing Exposure to Nitrous Oxide in a Hospital=Based Pediatric Dental Clinic: A Pilot Study.		
363		JCDA 2007;73(7);615-615d	
364	47.	Corcetti M, Serwint JR. Inhalants. Pediatr Rev 2008;29(1):33-4.	
365	48.	8. Lehmberg J, Waldner M, Baethmann, Eberhard UHL. Inflammatory response to nitrous oxide in	
366		the central nervous system. Brain Res 2008;1246:88-95.	
367	49.	Luhmann JD, Kennedy RM. Nitrous oxide in the pediatric emergency department. Clin Pediatr	
368		Emerg Med 2000;1(4):285-9.	
369	50.	Rowland AS, Baird DD, Shore DL, Weinberg CR, Shore DL, Shy CM, Wilcox AJ. Reduced	
370		Fertility among Women Employed as Dental Assistants Exposed to High Levels of Nitrous Oxide.	
371		N EnglJ Med 1992;327:993-997.	
372	51.	American Academy of Pediatric Dentistry. Policy on minimizing occupational health hazards	
373		associated with nitrous oxide. Pediatr Dent 2013;35(special issue):80-1 38(6):92-93.	
374	52.	Rademaker AM, McGlothlin JD, Moenning JE, Bagnoli M, Carlson G, Griffin C. Evaluation of two	
375		nitrous oxide scavenging systems using infrared thermography to visualize and control emissions. J	
376		Am Dent Assoc 2009;140(2):190-9.	
377	53.	National Institute for Occupational Safety and Health (NIOSH). Control of nitrous oxide in dental	
378		operatories 1996. Available at, https://www.cdc.gov/niosh/docs/hazardcontrol/hc3.html. Accessed	
379		August 21, 2017.	
380			
381	Kinouci K, Tanigami H, Tashiro C, Nishimura M, Fukumitsu K, Takauchi Y. Duration of apnea in		
382		anesthetized infants and children required for desaturation of hemoglobin to 95%. Anesthesiology-	
383		<del>1992;77(6):1105-7.</del>	
384	Nath	Nathan JE. Management of the difficult child: A survey of pediatric dentists' use of restraints, sedation,	
385		and general anesthesia. J Dent Child 1989;54(4):291-301.	
386	Patel R, Lenczyk M, Hannallah RS, McGill WA. Age and onset of desaturation in apnoeic children. Can J		
387	Anaesth 1994;41(9):771-4.		
388	Patel R, Norden J, Hannallah RS. Oxygen administration prevents hypoxemia during post anesthesia		
389		transport in children. Anesthesiology 1988;69(4):616-8.	

Stach DJ. Nitrous oxide sedation: Understanding the benefit and risks. Am J Dent 1995;8(1):47-50.

- Best Practices on Use of Anesthesia Providers in the Administration of
- 2 Office-based Deep Sedation/General Anesthesia to the Pediatric Dental
- 3 Patient1
- 4
- 5 Review Council
- 6 Council on Clinical Affairs
- 7 Latest Revision
- 8 201<del>7</del>8\*
- 9 \*Revision limited to personnel section (line 129-154)
- 10
- 11 Purpose
- 12 The American Academy of Pediatric Dentistry (AAPD) recognizes that there are pediatric dental patients
- for whom routine dental care using nonpharmacological behavior guidance techniques is not a viable
- approach. The AAPD intends this guideline to assist the dental practitioner who elects to use a licensed
- anesthesia provider for the administration of deep sedation/general anesthesia for pediatric dental patients
- in a dental office or other facility outside of an accredited hospital or ambulatory surgical center. This
- document discusses personnel, facilities, documentation, and quality assurance mechanisms necessary to
- provide optimal and responsible patient care.
- 19
- 20 Methods
- 21 This guideline was originally developed by the Clinical Affairs Committee Sedation and General
- 22 Anesthesia Subcommittee and adopted in 2001. This document is a revision of the previous version, last
- revised in 2012. The revision of this guideline is based upon a review of current dental and medical
- literature pertaining to deep sedation/general anesthesia of dental patients, including a search of the
- 25 PubMed® /MEDLINE database using the terms: office-based general anesthesia, pediatric sedation, deep
- sedation, sleep dentistry, and dental sedation; fields: all; limits: humans, all children from birth through
- age 18, English, clinical trials, and literature reviews. The search returned 69 articles; the reviewers
- agreed upon the inclusion of 12 articles that met the defined criteria. When data did not appear sufficient

**AA**: Anesthesia assistant. **AAPD**: American Academy of Pediatric Dentistry. **ASA**: American Society of Anesthesiologists. **CO**<sub>2</sub>: Carbon dioxide. **CRNA**: Certified registered nurse anesthetist.

<sup>&</sup>lt;sup>1</sup> ABBREVIATIONS

or were inconclusive, recommendations were based upon expert and/or consensus opinion by experienced researchers and clinicians.

### Background

Pediatric dentists seek to provide oral health care to infants, children, adolescents, and persons with special health care needs in a manner that promotes excellence in quality of care and concurrently induces a positive attitude in the patient toward dental treatment. Behavior guidance techniques have allowed most pediatric dental patients to receive treatment in the dental office with minimal discomfort and without expressed fear. Minimal or moderate sedation has allowed others who are less compliant to receive treatment. Some children and individuals with special care needs who have extensive oral healthcare needs, acute situational anxiety, uncooperative age-appropriate behavior, immature cognitive functioning, disabilities, or medical conditions require deep sedation/general anesthesia to receive dental treatment in a safe and humane fashion.<sup>2</sup> Access to hospital-based anesthesia services may be limited for a variety of reasons, including restriction of coverage of by third-party payors.<sup>2,3</sup> Pediatric dentists and others who treat children can provide for the administration of deep sedation/general anesthesia by utilizing properly trained and currently licensed anesthesia providers in their offices or other facilities outside of the traditional surgical setting.

- 47 Office-based deep sedation/general anesthesia can provide benefits for the patient and the dental team.
- 48 Such benefits may include:
  - Improved access to care;
    - Improved ease and efficiency of scheduling;
- Decreased administrative procedures and facility fees when compared to a surgical center or hospital;
  - Minimized likelihood of patient's recall of procedures;
  - Decreased patient movement which may optimize quality of care; and
  - Use of traditional dental delivery systems with access to a full complement of dental equipment, instrumentation, supplies, and auxiliary personnel.

The use of licensed anesthesia providers to administer deep sedation/general anesthesia in the pediatric dental population is an accepted treatment modality.<sup>4-8</sup> Caution must be used in patients younger than two years of age. Practitioners must always be mindful of the increased risk associated with office- based deep

sedation/general anesthesia in the infant and toddler populations. This level of pharmacologic behavioral modification should only be used when the risk of orofacial disease outweighs the benefits of monitoring, interim therapeutic restoration, or arresting medicaments to slow or stop the progression of caries. The AAPD supports the provision of deep sedation/general anesthesia when clinical indications have been met and additional properly-trained and credentialed personnel and appropriate facilities are used. <sup>1,3,4</sup> In many cases, the patient may be treated in an appropriate outpatient facility (including the dental office) because the extensive medical resources of a hospital may not be deemed necessary for delivering routine health care.

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#### Recommendations

- 71 Clinicians may consider using deep sedation or general anesthesia in the office to facilitate the provision
- of oral health care. Practitioners choosing to use these modalities must be trained in rescue emergency
- 73 procedures and be familiar with their patient's medical history, as well as the regulatory and professional
- 74 liability insurance requirements needed to provide this level of pharmacologic behavior management.
- 75 This guideline does not supersede, nor is it to be used in deference to, federal, state, and local
- 76 credentialing and licensure laws, regulations, and codes.

78 Personnel

- 79 Deep sedation/general anesthesia techniques in the dental office require at least three individuals:
- Independently practicing and currently licensed anesthesia provider.
- Operating dentist.
- Support personnel.

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The anesthesia care provider's responsibilities are to administer drugs or direct their administration and to continuously monitor the patient's vital signs, airway patency, cardiovascular and neurological status, and adequacy of ventilation. Both the surgical and anesthesia teams are responsible for maintaining optimal patient positioning, such as keeping the head and neck aligned and supported while padding all pressure points. Additional attention should be placed on moving extremities during long procedures so as to avoid the possibility of complications secondary to prolonged immobility (e.g., peripheral neuropathy).

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91 92 It is the exclusive responsibility of treating practitioners, when employing anesthesia providers to administer deep sedation/general anesthesia, to verify and carefully review their credentials and

experience. Significant pediatric training, including anesthesia care of the very young, and experience in a dental setting are important considerations, especially when caring for young pediatric and special needs populations.

- In order to provide anesthesia services in an office-based setting:
  - The anesthesia care provider must be a licensed dental and/or medical practitioner with current state certification to independently administer deep sedation/general anesthesia in a dental office.
     He/She must be in compliance with state and local laws regarding anesthesia practices. Laws vary from state to state and may supersede any portion of this document.
  - If state law permits a certified registered nurse anesthetist (CRNA) or anesthesia assistant (AA) to function under the direct supervision of a dentist, the dentist is required to have completed training in deep sedation/general anesthesia and be licensed or permitted for that level of pharmacologic management, appropriate to state law. Furthermore, to maximize patient safety, the dentist supervising the CRNA or AA would not simultaneously be providing dental treatment. The CRNA or AA must be licensed with current state certification to administer deep sedation/general anesthesia in a dental office. He/She must be in compliance with state and local laws regarding anesthesia practices. Laws vary from state to state and may supersede any portion of this document.

The dentist and anesthesia care provider must be compliant with the American Academy of Pediatrics/AAPD's Guideline on Monitoring and Management of Pediatric Patients Before, During, and After Sedation for Diagnostic and Therapeutic Procedures: Update 2016<sup>4</sup> or other appropriate guideline(s) of the American Dental Association, American Society of Anesthesiologists (ASA), and other organizations with recognized professional expertise and stature. The recommendations in this document may be exceeded at any time if the change involves improved safety and/or is superseded by state law.

The dentist and licensed anesthesia provider must collaborate to enhance patient safety. Continuous and effective perioperative communication and appropriately timed interventions are essential in mitigating adverse events or outcomes. The dentist introduces the concept of deep sedation/general anesthesia to the parent, justifies its necessity, and provides appropriate preoperative instructions and informational materials. The dentist or his/her designee coordinates medical consultations when necessary and conveys pertinent information to the anesthesia care provider. The anesthesia care provider explains potential risks

and obtains informed consent for sedation/anesthesia. Office staff should understand their additional roles

and responsibilities and special considerations (e.g., loss of protective reflexes) associated with officebased deep sedation/general anesthesia. Advanced training in recognition and management of pediatric emergencies is critical in providing safe sedation and anesthetic care. During deep sedation/general anesthesia in the dental setting, there must be at least two individuals present with the skills in patient rescue and pediatric advanced life support (PALS) . One of the two must be an independent observer whose sole responsibility is to constantly person whose only responsibilities are to continuously monitor observe the patient's vital signs, levels of sedation, airway patency, and adequacy of ventilation. The independent observer must, at a minimum, be trained in PALS and capable of managing any emergency event. 4 to either administer drugs or direct their administration.<sup>4</sup> The independent observer must be capable of recognizing the depth of sedation as well as be skilled to establish intravenous access, draw up and administer rescue medications, An independent anesthesiologist often assumes this role. However, if this individual is not an anesthesiologist but is functioning under the supervision of a licensed and legally permitted practitioner, then this individual, at a minimum, must be trained in advanced pediatric life support (e.g., PALS) and capable of assisting with any emergency event. The supervisor must be physically present during the intraoperative period, free from surgical responsibilities, trained in and capable of providing advanced pediatric life support, and skilled to rescue a child with apnea, larvngospasm, and/or airway obstruction, have management skills to rescue the non-breathing child, a child with air way obstruction, a child with hypotension, anaphylaxis, or cardiorespiratory arrest including This provider must have the skills and the ability to open the airway, suction secretions, provide continuous positive airway pressure (CPAP), insert supraglottic devices (oral

ventilation, tracheal intubation, and cardiopulmonary resuscitation. The independent observer must be one of the following: (1) a physician anesthesiologist, (2) a dental anesthesiologist, (3) a certified

airway, nasal trumpet, laryngeal mask airway [LMA]), and perform successful bag-valve-mask

registered nurse anesthetist, (4) an oral and maxillofacial surgeon. Furthermore, at least one practitioner

skilled in obtaining vascular access in children must be immediately available. The second individual

who is responsible dental practitioner must be trained in and capable of providing pediatric advanced life

support and skilled in assisting the independent observer with the rescue of a child with any of the adverse

events described above.

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Personnel experienced in post anesthetic recovery care and trained in advanced resuscitative techniques (e.g., PALS) must be in attendance and provide continuous respiratory and cardiovascular monitoring during the recovery period.<sup>4</sup> The supervising anesthesia provider, not the operating dentist, shall determine when the patient exhibits respiratory and cardiovascular stability and appropriate discharge criteria<sup>4</sup> have been met. The operating dentist and his/her clinical staff must be well-versed in emergency recognition, rescue, and emergency protocols including maintaining cardiopulmonary resuscitation certification for healthcare providers.<sup>6</sup> In addition, it is highly recommended that the operating dentist be trained in advanced resuscitative techniques. Contact numbers for local emergency medical and ambulance services must be readily available, and a protocol for immediate access to back-up emergency services must be clearly outlined.<sup>4</sup> Emergency preparedness must be updated and practiced on a regular (e.g., semi-annual) basis [see Table 1], so as to keep all staff members up to date on established protocols.<sup>9</sup>

Facilities

A continuum exists that extends from wakefulness across all levels of sedation. Often these levels are not easily differentiated, and patients may drift among them. When anesthesia care providers are utilized for office-based administration of deep sedation or general anesthesia, the facilities in which the dentist practices must meet the guidelines and appropriate local, state, and federal codes for administration of the deepest possible level of sedation/anesthesia. Facilities must be in compliance with applicable laws, codes, and regulations pertaining to controlled drug storage, fire prevention, building construction and occupancy, accommodations for the disabled, occupational safety and health, and disposal of medical waste and hazardous waste. The treatment room must accommodate the dentist and auxiliaries, the patient, the anesthesia care provider, the dental equipment, and all necessary anesthesia delivery equipment along with appropriate monitors and emergency equipment. Expeditious access to the patient, anesthesia machine (if present), and monitoring equipment should be available at all times.

It is beyond the scope of this document to dictate equipment necessary for the provision of deep sedation/general anesthesia, but equipment must be appropriate for the technique used and consistent with the guidelines for anesthesia providers, in accordance with governmental rules and regulations. Because laws and codes vary from state to state, Guidelines for Monitoring and Management of Pediatric Patients Before, During, and After Sedation for Diagnostic and Therapeutic Procedures: Update 2016<sup>4</sup> should be followed as the minimum requirements.

For deep sedation/general anesthesia, there must be continuous monitoring of the patient's level of consciousness and responsiveness, heart rate, blood pressure, respiratory rate, expired carbon dioxide (CO<sub>2</sub>) values, and oxygen saturation.<sup>4</sup> When adequacy of ventilation is difficult to observe using capnography, use of an amplified, audible precordial stethoscope (e.g., Bluetooth technology) is encouraged.<sup>4</sup> In addition, an electrocardiographic monitor and a defibrillator capable of delivering an attenuated pediatric dose are required for deep sedation/general anesthesia.<sup>4</sup> Emergency equipment must be readily accessible and should include Yankauer suction, drugs necessary for rescue and resuscitation (including 100 percent oxygen capable of being delivered by positive pressure at appropriate flow rates for up to one hour), and age-/size-appropriate equipment to resuscitate and rescue a non-breathing and/or unconscious pediatric dental patient and provide continuous support while the patient is being transported to a medical facility.<sup>4,5</sup> The licensed practitioners are responsible for ensuring that medications, equipment, and protocols are available to treat malignant hyperthermia when triggering agents are used.<sup>11</sup> Recovery facilities must be available and suitably equipped. Backup power sufficient to ensure patient safety should be available in case of emergency power outage.<sup>4</sup>

#### **Documentation**

- Prior to delivery of deep sedation/general anesthesia, patient safety requires that appropriate documentation shall address rationale for sedation/general anesthesia, anesthesia and procedural informed consent, instructions to parent, dietary precautions, preoperative health evaluation, and any prescriptions along with the instructions given for their use.<sup>4</sup> Because laws and codes vary from state to state, Guidelines on Monitoring and Management of Pediatric Patients Before, During, and After Sedation for Diagnostic and Therapeutic Procedures: Update 2016<sup>4</sup> should be followed as minimum requirements for a time-based anesthesia record.
  - Vital signs: Pulse and respiratory rates, blood pressure, heart rhythm, oxygen saturation, and
    expired CO<sub>2</sub> must be continuously monitored and recorded on a time-based record throughout the
    procedure, initially every five minutes and then, as the patient awakens, at 10-15 minute intervals
    until the patient has met documented discharge criteria.<sup>4</sup>
  - Drugs: Name, dose, route, site, time of administration, and patient effects (e.g., level of
    consciousness, patient responsiveness) of all drugs, including local anesthesia, must be
    documented.<sup>4</sup> When anesthetic gases are administered, inspired concentration and duration of
    inhalation agents and oxygen shall be documented.<sup>4</sup>

Recovery: The condition of the patient, that discharge criteria have been met, time of discharge, and into whose care the discharge occurred must be documented. Requiring the signature of the responsible adult to whom the child has been discharged, verifying that he/she has received and understands the post-operative instructions, is encouraged.<sup>4</sup> Various business/legal arrangements may exist between the treating dentist and the anesthesia provider. Regardless, because services were provided in the dental facility, the dental staff must maintain all patient records, including time-based anesthesia records, so that they may be readily available for emergency or other needs. The dentist must assure that the anesthesia provider also maintains patient records and that they are readily available. Risk management and quality assurance Dentists who utilize office-based anesthesia care providers must take all necessary measures to minimize risk to patients. The dentist must be familiar with the ASA physical status classification. <sup>12</sup> Knowledge, preparation, and communication between professionals is essential. Prior to subjecting a patient to deep sedation/general anesthesia, the patient must undergo a pre-operative health evaluation by an appropriate and currently licensed medical or anesthesia provider. <sup>4,6</sup> High-risk patients should be treated in a facility properly equipped to provide and staffed for their care. <sup>4,6</sup> The dentist and anesthesia care provider must communicate during treatment to share concerns about the airway or other details of patient safety. Furthermore, they must work together to develop and document mechanisms of quality assurance. Untoward and unexpected outcomes must be documented and reviewed to monitor the quality of services provided. This will decrease risk, allow for open and frank discussions, document risk analysis and intervention, and improve the quality of care for the pediatric dental patient.<sup>4,5</sup> References American Academy of Pediatric Dentistry. Behavior guidance for the pediatric dental patient. Pediatr Dent 2017;39(6):246-59. Glassman P, Caputo A, Dougherty N, et al. Special Care Dentistry Association consensus 2. statement on sedation, anesthesia, and alternative techniques for people with special needs. Spec Care Dentist 2009;29(1):2-8; quiz 67-8. American Academy of Pediatric Dentistry. Policy on third- party reimbursement of medical fees

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- related to sedation/ general anesthesia for delivery of oral health care services. Pediatr Dent 2017;39(6):115-7.
- 4. Coté CJ, Wilson S. Guidelines for monitoring and management of pediatric patients before, during,
- and after sedation for diagnosis and therapeutic procedures: Update 2016. American Academy of
- Pediatric Dentistry, American Academy of Pediatrics. Pediatr Dent 2016;38 (special issue):216-45.
- 5. American Society of Anesthesiologists. Guidelines for office-based anesthesia. 2009. Reaffirmed
- 258 2014. Available at: "http://www.asahq.org/~/media/Sites/ASAHQ/Files/
- Public/Resources/standards-guidelines/guidelines-for-office-based-anesthesia.pdf". Accessed
- March 22, 2017. (Archived by WebCite® at "http://www.webcitation.org/6p9jMa4Aj")
- 261 6. American Dental Association. Guidelines for the use of sedation and general anesthesia by dentists.
- 262 2016. Available at:
- "http://www.ada.org/en/~/media/ADA/Advocacy/Files/anesthesia\_use\_guidelines". Accessed
- March 22, 2017. (Archived by WebCite® at "http://www.webcitation.org/6p9ddeDFJ")
- 7. Nick D, Thompson L, Anderson D, Trapp L. The use of general anesthesia to facilitate dental
- 266 treatment. Gen Dent 2003;51:464-8.
- 8. Wilson S. Pharmacologic behavior management for pediatric dental treatment. Pediatr Clinic North
- 268 Am 2000; 47(5):1159-73.
- 9. World Health Organization. Hospital and health facility emergency exercises. Guidance materials.
- WHO Press, 2010. Available at:
- "http://www.wpro.who.int/publications/PUB 9789290614791/en/". Accessed September 19, 2017.
- 272 (Archived by WebCite® at: "http://www.webcitation.org/6tb70x1pr")
- 273 10. Cravero JP, Beach ML, Blike GT, Gallagher SM, Hertzog JH, Pediatric Sedation Research
- 274 Consortium. The incidence and nature of adverse events during pediatric sedation/ anesthesia with
- propofol for procedures outside the operating room; A report from the Pediatric Sedation Re-
- search Consortium. Anesth Analg 2009;108(3):795-804.
- 277 11. Rosenberg, H. Succinylcholine dantrolene controversy: President's report. Malignant
- Hyperthermia Association of the United States. Available at: "http://www.mhaus.
- org/blog/post/a8177/succinylcholine-dantrolene-controversy". Accessed March 22, 2017.
- 280 (Archived by WebCite® at: "http://www.webcitation.org/6p9jqQ0WO").
- 281 12. American Society of Anesthesiologists. ASA physical status classification system. Available at:
- 282 "https://www. asahq.org/resources/clinical-information/asa-physical-status-classification-system".
- Accessed March 22, 2017. (Archived by WebCite® at: "http://www.webcitation.org/6p9jx3iGg")

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### TABLE 1

Table 1. CONSIDERATIONS IN FREQUENCY OF CONDUCTING EMERGENCY EXERCISES <sup>9</sup>			
Changes in plans	Changes in the emergency response plan need to be disseminated and practiced.		
Changes in personnel	New staff members need training in their emergency response roles.  Emergency roles left by former staff members need to be filled.		
Changes in property	Infrastructure changes can affect how the plan is implemented. New equipment may require training for their use.		
Foreseen problems	Protocols for newly identified problems must be established, practiced and implemented.		

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exercise basics, Page 4, Copyright © World Health Organization 2010.

Available at: "http://www.wpro.who.int/publications/PUB\_9789290614791/en/". Accessed September

291 19, 2017.

- 1 Best Practices for Pain Management in Infants, Children, Adolescents and
- 2 Individuals with Special Health Care Needs

3

- 4 Originating Council
- 5 Council on Clinical Affairs

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- 7 Adopted
- 8 2018

9

- 10 Purpose
- 11 The purpose of this document is to provide dental professionals and other stakeholders with current best
- 12 practices for pain management in pediatric dentistry.

13

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- Methods
- 15 This document was developed by the Council on Clinical Affairs and adopted in 2018. It is based on a
- review of current dental and medical literature pertaining to pain management in pediatric dental patients.
- 17 Review of existing Federal and professional pain management guidelines and consensus statements were
- used to assist with this document. An electronic search was conducted using PubMed® with the terms:
- dental pain management, pediatric pain assessment, preemptive analgesia, pediatric and acetaminophen,
- adolescent and acetaminophen, pediatric and NSAIDs, adolescent and NSAIDs, pediatric and opioids,
- adolescent and opioids, opioid risk, adolescent orofacial pain, pediatric and adolescent chronic pain, non-
- pharmacologic pain management; fields: all; limits: within the last 10 years, humans, English, and clinical
- trials. 1395 articles met these criteria. Papers for review were chosen from this list and from references
- 24 within selected articles. When data did not appear sufficient or were inconclusive, recommendations were
- based upon expert and/or consensus opinion by experienced researchers and clinicians.

- Background
- Pain is defined by the International Association of the Study of Pain (IASP) as "an unpleasant sensory
- and emotional experience associated with actual or potential tissue damage or described in terms of such
- 30 damage." Pain management includes both pharmacologic and nonpharmacologic strategies to treat both
- acute and chronic pain, and professional and educational requirements are being reviewed at multiple
- 32 levels.<sup>2,3,4,5</sup>. This document discusses pain processing, pain assessment, pain categories, pre-emptive

33 analgesia, non-pharmacologic pain management, pharmacologic pain management, and best practices for 34 prescribing opioids. 35 36 Pain processing 37 Understanding pain processing is essential for the management of pain. Pain experience in childhood may 38 shape future pain experiences in adulthood.<sup>6</sup> Dental pain is an inflammatory condition resulting from 39 invasive treatment, tissue damage, or infection. Swelling, hyperthermia, and activation of biochemical 40 cascades are hallmarks of inflammatory pain. 7.8 Thermal, mechanical, and chemical stimuli activate free 41 nerve endings. 9,10 Sensory signals travel along afferent trigeminal nerve fibers and relay information to 42 the brainstem and higher structures involved with the perception of pain. 11 Under normal conditions the 43 perception of pain persists until the stimulus is removed. 44 45 Peripheral sensitization 46 Terminal nerve endings at the site of tissue injury exhibit an enhanced neuronal response.<sup>9</sup> This local 47 increase in nerve membrane excitability is referred to as peripheral sensitization.<sup>12</sup>. The exaggerated 48 response to stimuli in the region of tissue damage is called primary hyperalgesia. 11. 49 50 Central sensitization 51 Central sensitization refers to enhanced functional status of pain circuits and pain processing at the level of the central nervous system (CNS).<sup>8, 12, 13</sup> Both secondary hyperalgesia, which is an increase in pain 52 53 intensity to noxious stimuli outside of the area of tissue damage, and allodynia, which refers to pain 54 perception following innocuous stimuli such as light touch, are characteristics of central sensitization.<sup>13</sup> 55 56 Pain modulation 57 Modulation of pain pathways occurs through CNS excitatory and inhibitory processes. Ascending 58 facilitating and descending inhibitory processes enhance or suppress the pain experience, respectively.<sup>12</sup> 59 Both pharmacologic and nonpharmacologic methods target these processes to alter pain processing 14, 15. 60 61 Pain assessment 62 Ethnic, cultural, and language factors may influence expression and assessment of pain. <sup>16</sup> Pain is assessed 63 using self-report, behavioral (vocalization, facial expression, body movement) and biological measures 64 (heart rate, transcutaneous oxygen, sweating, stress response). <sup>17</sup> Direct questioning or a structured, comprehensive pain assessment can be clinically beneficial for pediatric and adolescent patients. 17,18 65

- 66 Conducting a structured interview begins with asking specific questions regarding pain onset, provoking 67 factors, palliative factors, quality or character, region or location, severity or intensity, timing or duration, 68 and impact on daily activities. Obtaining information through self-report can be aided by asking the child 69 to make comparisons, using temporal anchors and facilitating communication through objects or 70 gestures. <sup>17</sup> Assessing behavioral reactions and physiological reactions to pain are required in non-verbal 71 and young patients.<sup>17</sup> Patients 4-12 years old can likely quantify pain based on a series of faces.<sup>19</sup> 72 Patients older than seven should be able to mark pain using a Visual Analogue Scale (VAS) or numeric 73 scale. 19, 20. Validated instruments such as Faces Pain Scale (Revised), Visual Analogue Scale (VAS), 74 numeric rating scale, Faces, Legs, Activity, Cry, and Consolability score (FLACC), Faces, Legs, Activity, 75 Cry and Consolability, and the McGill Pain Questionnaire are available for assessing pain in verbal or nonverbal patients. 19,21,22 76 77 78 Pain categories 79 Pain may be divided into diagnostic categories as somatic, visceral and neuropathic.<sup>23,24,25,26</sup> Pain
- encountered in dentistry is typically inflammatory and categorized as somatic (i.e. periodontal, alveolar, mucosal) or visceral (i.e. pulpal) pain.<sup>27</sup>
  - Pain may be categorized as acute or chronic. Acute pain that fails to respond to treatment may become chronic over time.<sup>28</sup> Chronic pain refers to pain that is dysfunctional and persists beyond the time for typical tissue healing.<sup>29,30,31,32</sup> Temporomandibular disorder (TMD) is an example of a chronic pain condition encountered in dentistry.<sup>33</sup>

#### Pain management

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- 89 Pre-emptive pain management
- 90 Pre-emptive pain management refers to administration of an anesthetic agent, medication, or technique 91 prior to a surgical event with the goal of decreasing pain. Goals of pre-emptive pain management include: 92 attenuating central sensitization, decreasing postoperative pain, improving recovery, and reducing 93 postoperative analgesic consumption. 11,15 Postoperative pain management in pediatric patients has been 94 suboptimal in large part because of the misconception that children do not feel pain as severely as adults 95 do<sup>34</sup> and the fear of adverse events.<sup>35</sup>. It has been shown that nearly 50% of patients undergoing dental 96 rehabilitation describe moderate to severe pain<sup>36</sup> and there is data to support pre-emptive measures to 97 optimize pain control for a variety of dental and surgical procedures.<sup>37</sup> However, level of evidence is low

due to sparse well-controlled trials. 38,39,40

99 100 Achieving profound anesthesia prior to initiating treatment decreases central sensitization<sup>37</sup>. Topical 101 anesthetics are used in a dentistry to minimize pain; however, these medicaments alone may not be 102 sufficient for dental procedures. 41,42 Other factors that may contribute to a patient's pain experience are 103 the anesthetic properties and the needle used during the injection. 43 Distraction techniques made at the 104 time of the injection such as jiggling the patient's cheek take advantage of Aß fiber signal dominance and 105 can significantly reduce the intensity of pain-related C-fiber signaling.<sup>43</sup> Buffering or decreasing acidity 106 of local anesthetic using sodium bicarbonate can decrease injection site pain and postoperative discomfort 107 by increasing the pH of the anesthetic. This is a well-accepted technique in medicine but has not been 108 commonly used in dentistry. 43,44 Finally, decreasing anesthetic delivery rate has also demonstrated pain 109 reduction during injection.<sup>45</sup> 110 111 In a study by Shivani, the use of pre-emptive analgesics in conjunction with local anesthetics increased 112 the ability to achieve pulpal anesthesia in patients with irreversible pulpitis when compared with 113 placebo. 46. The pre-emptive analgesics most commonly used in dentistry are nonsteroidal anti-114 inflammatory drugs (NSAIDS) and acetaminophen either alone or in combination.<sup>47</sup> Analgesics with 115 sedative properties are often administered during the pre, peri, and postoperative periods when moderate to severe pain is anticipated. 48,49,50,51 116 117 118 Use of local anesthesia during general anesthesia 119 Although pain is not experienced during general anesthesia, central sensitization occurs when peripheral 120 nerves are stimulated. 37,52,53. Operating without local anesthesia may result in "priming" of CNS neurons 121 and increased future pain sensitivity. 6. Central sensitization is minimized with pre-emptive analgesia or 122 anesthesia. For this reason, regional block or infiltration anesthesia is commonly performed prior to surgical procedures to decrease postoperative pain. 11,54,55 However, pharmacologic and cardiac 123 124 considerations along with avoiding the numb sensation and potential for self-inflicted oral trauma are 125 reasons providers may choose not to provide local anesthesia during general anesthesia. 55,56 126 127 Non-pharmacologic approaches to pain management 128 Studies suggest that nonpharmacologic interventions may be effective alone or as adjuncts to 129 pharmacological interventions in managing procedure related pain, anxiety and distress with minimal risk of adverse effects. 9,57,58,59. Fear and anxiety activate circuits within the CNS that facilitate pain. 29 Creating 130 a safe, friendly environment may help a child feel more comfortable and less stressed. 58,60 The American 131

Academy of Pediatrics and the American Pain Society recommend that providers reduce distressproducing stimulation and provide a calm environment for procedures to improve pain management.<sup>3</sup> Emotional support is a key component in creating a comfortable environment.<sup>61</sup> Although there is no evidence that the presence of parents decreases pain, there is data to support that it may decrease the child's anxiety and distress. 60 Conversely, parental catastrophizing has been associated with poor outcomes for pediatric pain management.<sup>62</sup> The American Academy of Pediatrics and American Pain Society jointly advise expectation management for parents along with preparation for comforting their children when pain is anticipated.<sup>3</sup>. Individual studies have shown the efficacy of psychologic techniques, including preparation and information, parent coaching or training, suggestion, memory alteration or change, and coping self-statements. 63,64,65 However, a 2013 Cochrane review concluded that there is no strong evidence available to support the efficacy of preparation and information, combined cognitive or behavioral strategies, parent coaching plus distraction, or suggestion for reducing needle-related pain and distress.66 Distraction and Imagery Distraction is an effective method of pain management in the pediatric population. 16,67 It can be cognitive (counting, nonprocedural talk) or behavioral (videos, games), both of which aim to shift attention away from pain. Distraction techniques such as bubbles, counting, conversation, music, television, toys and video games may be used by health care providers or the child's caregiver. 58,60 There is strong evidence supporting the efficacy of distraction techniques for needle-related pain and distress in children and adolescents. 66 Distraction has been shown to be significantly effective when measuring pulse rates, respiratory rates, and self-reported pain.<sup>3,60</sup> Additionally, distraction intervention has been shown to lower the perception of pain distress in younger children as reported by parents<sup>-61</sup> Distraction techniques may be of great use with patients with special needs that have shortened attention spans and are unable to understand verbal reasoning or reassurance.<sup>63</sup> Imagery guides the child's attention away from the procedure by harnessing imagination and story-telling. Imagery in combination with distraction have been shown to be helpful in decreasing postoperative pain in children.<sup>67,68</sup>. This technique requires the active cooperation of the patient and is most effective when used for children over 8 years old.<sup>57</sup> Hypnosis

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Hypnotherapy aims to alter sensory experiences and dissociate from pain experiences, and hypnosis is best for school aged or older children.<sup>26</sup> There is strong evidence that hypnosis is effective in reducing needle-related pain and distress in children and adolescents.<sup>66,69</sup> There is no evidence that hypnosis alone is capable of producing an anesthetic effect for dental procedures; therefore, it should always be combined with good local anesthetic techniques.<sup>69</sup> *Other Techniques* Studies have shown efficacies for pediatric pain management with other techniques such as relaxation and breathing exercises, transcutaneous electrical nerve stimulation, acupuncture, counterstimulation, virtual reality, and music therapies. 65, 67,70-75. Additional research is need on these interventions to measure their effectiveness. **Pharmacologic Agents** Management of pain in children is changing rapidly as a result of improvements in the appreciation of pediatric pain and pharmacologic knowledge; however randomized controlled trials are lacking in children so the use of many pain medications are still considered "off label." The American Academy of Pediatrics consensus statement on the assessment and management of pain in children recommends acetaminophen, ibuprofen and opioids as the top three medication choices for the treatment of acute pain in children.<sup>3,16</sup> Non-opioid analgesics *Nonsteroidal anti-inflammatory drugs (NSAIDS):* NSAIDS are among the most commonly used class of drugs and have anti-inflammatory, analgesic, antipyretic and antiplatelet properties.<sup>78</sup> They inhibit prostaglandin synthesis; with specific action on cyclooxygenase (COX).<sup>50</sup> Representatives of the major categories of NSAIDS are: Salicylic acids: aspirin; Acetic acids: Toradol; Proprionic acids: ibuprofen, naproxen; and Cyclooxygenase 2 selective: Celebrex. Ibuprofen in oral or IV form is a commonly used analgesic and antipyretic agent used in pediatrics.<sup>78</sup> Ketorolac, an IV or intranasal NSAID is useful in treating moderate to severe acute pain in patients unable or unwilling to swallow oral NSAIDS. 26,54,79 Some of the adverse effects associated with NSAIDS include: inhibition of bone growth and healing, gastritis with pain and bleeding, decreased renal

blood flow, inhibition of platelet function, and increased incidence of cardiovascular events.<sup>26</sup> A specific

concern with NSAIDS is the potential to exacerbate asthma due to a shift in leukotrienes.<sup>76</sup> Due to shared

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196 pathways NSAIDS and steroidal anti-inflammatory medications should not routinely be co-197 administered.81 198 199 Acetaminophen (APAP, paracetamol): 200 Acetaminophen is an analgesic with efficacy for mild to moderate pain and is an antipyretic.<sup>81</sup> Unlike 201 NSAIDS, acetaminophen is centrally-acting and does not have effects on gastric mucosal lining or 202 platelets.<sup>81</sup> The mechanism of action of acetaminophen is the blockade of prostaglandin and substance P 203 production; and is administered in tablets, capsules, liquid but also available as oral disintegrating tablets 204 (ODT) and oral disintegrating films (ODF), rectal and IV forms.<sup>50</sup> Studies have shown that rectal 205 administration has somewhat higher bioavailability and faster onset than the oral route since it partially bypasses hepatic metabolism.<sup>80</sup> Pain control can be optimized when acetaminophen and NSAIDs are 206 207 alternated or staggered which is known as multi-modal therapy. 76,81,82 208 209 Opioid analgesics 210 Opioid analgesics have been used for many years to produce profound pain relief in all age groups. 211 Opioid analgesics are considered for acute moderate to severe pain refractory to other therapies. Common use in pediatric patients include: cancer pain, sickle cell crises, osteogenesis imperfecta pain, 212 213 epidermolysis bullosa pain, and pain related to neuromuscular disease. 83,84,85 Limited studies are available 214 regarding postoperative opioid use in pediatric dentistry, but it is also rare that pediatric dental patients should require opioid analysesics following dental treatment.<sup>50</sup> Major concerns of opioid analysesics in the 215 216 pediatric population are: efficacy, safety, misuse, and accidental deaths. 77,86,87 217 218 Opioids interact differentially with mu, kappa, and delta receptors in the central nervous system. Opioid 219 agonists act on receptors located in the brain, spinal cord and digestive tract. Pathways of opioid receptor 220 signaling are multiple and include G-protein receptor coupling, cyclic adenosine monophosphate 221 inhibition and calcium channel inhibition.<sup>50</sup> Activation of opioid receptors can cause respiratory depression, pupil constriction (miosis), euphoria, sedation, physical dependence, endocrine disruption, 222 223 and suppression of opiate withdrawal.<sup>26</sup> Pruritus (itching) may also occur due to histamine release that 224 accompanies some opioid analgesics. 48 Naloxone is a mu opioid receptor competitive antagonist usually 225 administered parenterally to counter opioid overdose. 50 If patients are actively prescribed opioids for 226 cancer or non-cancer pain, providers should choose another agent for analgesia or consult with specialty provider regarding opioid dosing.<sup>77</sup> 227 228

Opioids with active metabolites Codeine, tramadol, and hydrocodone are opioids that are broken down in the liver to active metabolites by highly variable cytochrome enzyme CYP2D6.<sup>22,81,88</sup> These drugs are ineffective in some children due to poor drug metabolism.<sup>9</sup> Yet other patients known as "hyper-metabolizers" break these prodrugs to their active forms too quickly potentially resulting in overdose, respiratory depression, and even death. 88 The FDA and European Medicines Agency (EMA) have issued warnings and contradiction statements over the past few years on codeine and tramadol because of this. <sup>88,89</sup> Hydrocodone also relies on cytochrome p450 metabolism and has potential for similar adverse effects. Although systematic reviews have demonstrated that these medications might provide appropriate analgesia when compared to placebo, evidence is not convincing and safety concerns exist<sup>90,91</sup>. In 2017, the FDA issued a warning specifically for codeine and tramadol in all patients less than 12 years of age, stating they are no longer considered safe to use in this age group.<sup>88</sup> Deaths have occurred in children using these medicines for post tonsillectomy and/or adenoidectomy pain management, general pain, sore or strep throat pain, and cold and cough.<sup>88</sup> The FDA warns that in the 12-17-year age group, these medications should not be used in high-risk patients (obesity, OSA, lung tissue disease).<sup>88</sup>. Furthermore, tramadol and codeine should not be used if breastfeeding since active metabolites are present in breastmilk.<sup>88</sup> Opioids without active metabolites Inactive metabolites refer to metabolites that do not have a noticeable effect on the CNS. Naturallyoccurring morphine and the synthetics oxycodone and fentanyl do not have CYP2D6 considerations since they do not contain active metabolites.<sup>81</sup>. Potency of all opioids is compared to morphine. Morphine provides rapid relief of severe pain for 2-3 hours and is associated with histamine release and respiratory depression. Fentanyl is 100X more potent than morphine, is ultra-short acting, and is used for invasive procedures and sedations. 26 Chest wall rigidity is a well-known adverse reaction to fentanyl. 26 Rapidlyacting oxycodone has a longer half-life than morphine and is more potent. Oxycodone is available as a single agent or is combined with aspirin, ibuprofen or acetaminophen. It comes in tabs, caps, oral solution and oral concentrate and use is considered off label in children 12 years of age and younger.<sup>50</sup> *Opioid concerns and CDC recommendations:* Trends in opioid overdose, opioid misuse, and concerns for opioid addiction prompted the CDC to issue guidelines for prescribing opioids for chronic pain.<sup>30</sup> The guideline aims to improve prescribing practices to ultimately benefit patient health and quality of life. 93 Although the guidance is specific for adults with chronic pain, all prescribers should be mindful of high-risk prescribing practices. 83 The guideline

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recommends limiting opioids for moderate to severe pain, restricting prescription to three days, and

providing concurrent pharmacologic and non-pharmacologic therapy.<sup>30</sup> The guideline also advises 263 against overlapping benzodiazepines and opioids prescriptions.<sup>30</sup> Dentists can have a role in decreasing 264 265 the overall availability of opioids for nonmedical use and abuse in the home and community.<sup>95</sup> 266 267 Deaths due to opioid overdoses are at record highs prompting the CDC to declare an opioid epidemic in 268 2011.87,95 Poisoning deaths of opioids nearly quadrupled from 1999 to 2011 with the most recent data at 269 5.4 per 100,000 individuals. The study also demonstrated a trend towards increased pediatric emergency 270 department (ED) visits due to opioid ingestion and a greater than 5-fold increase in overdose death rates 271 in the 15-24-year age group. 95 Since commercial opioids are often combined with acetaminophen; the 272 potential for hepatic failure from toxic levels of acetaminophen must also be considered. As previously 273 stated, providers treating pediatric and adolescent populations should avoid prescribing opioid analgesics 274 when patients are using benzodiazepines.<sup>30</sup> 275 276 Risky use of opioids among children and adolescents is a growing trend and the concern for opioid use disorder (OUD) in adolescents is significant. 96,97 In 2016, the American Academy of Pediatrics released a 277 278 policy statement that recommended timely intervention to curb opioid use disorder with the goal of 279 eliminating long-term medical, psychiatric and social consequences of ongoing substance abuse. 98 280 281 Risk mitigation begins with understanding how to recognize drug seeking behavior.<sup>2</sup> To address the 282 potential risk of opioid use/abuse in pediatric patients, the CDC recommends that practitioners use 283 screening tools. Unfortunately, there is no common standard for adolescent patients. Therefore, the 284 practitioner should, at least, perform a thorough review of medical history including analgesics used in 285 the past before prescribing.<sup>77</sup>. It is also known that children of parents that abuse opioids are at an 286 increased risk for neglect and often suffer from parental instability and lack of structure in the home 287 setting.<sup>99</sup> Therefore, behavioral health support may be required for emotional disturbances such as drug 288 abuse, depression, or PTSD.<sup>99</sup> Although, screening of parents is recommended by the American Academy of Pediatrics, this is not a common standard practice. 99,100 Nonetheless, screening is essential 289 290 for identifying children at risk of opioid exposure in the home. 291 292 For professionals that suspect patients have use / abuse issues, the Federal Drug Administration (FDA), 293 National Institute of Health (NIH), National Institute on Drug Abuse (NIDA), the American Dental 294 Association (ADA), and state prescription drug monitoring programs have resources available to review

the history of controlled substance prescriptions, as well as controlling the diversion of controlled substances. Nich, 101,102,103 Risk mitigation begins with understanding how to recognize drug seeking behavior. Screening patients prior to prescribing opioids should be standard practice. Screening is commonly performed with adult patients using a variety of screening tools. Most agree some screening should be done for adolescents, however there is no common standard. Transparent discussion of medication use with teens is important. Info

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### Recommendations

- Pain assessment should be considered for all patients.
- Minimize tissue damage and use careful technique when providing dental treatment.
- Achieve profound anesthesia prior to invasive treatment.
- Consider use of pre-emptive analgesia when postoperative pain is anticipated.
- Nonpharmacologic techniques (i.e. distraction) should be carefully considered as potentially
   valuable interventions for pain management
  - Use of APAP/NSAIDS as first line pharmacologic therapy for pain management.
  - Use of opioids should be rare for pain management for pediatric dental patients.
  - Screening of parent and patient is recommended when prescribing opioid analysesics.
- Proper disposal measures for all medications is recommended.
- Provider should be knowledgeable of risks associated with analgesic medications prescribed and anticipate and manage adverse effects (asthma and NSAIDS, sedation and opioids, etc.)
  - Consider seeking expert consultation for patients with chronic pain or other complicated pain condition
    - Providers should be familiar with analgesic properties of agents used during sedation or general anesthesia
      - Avoid prescribing opioid analgesics if patient is using benzodiazepines
  - Synergistic effect from multiple medications (multi-modal analgesia) may be considered

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#### 322 References

- 1. International Association for the Study of Pain. Accessed: 2017-11-24. (Archived by WebCite® at http://www.webcitation.org/6vDlQh5Vw)
- 325 2. Shaefer J, Barreveld AM, Arnstein P, Kulich RJ. Interprofessional education for the dentist in managing acute and chronic pain. Dental Clinics of North America 2016; 825–42.

- 327 3. American Academy of Pediatrics, American Pain Society. The assessment and management of acute pain in infants, children and adolescents. Pediatrics 2001;108(3):793-7.
- 329 4. Association of Paediatric Anaesthetists of Great Britain and Ireland. Good practice in
- postoperative and procedural pain management, 2nd edition. Paediatr Anaesth 2012; 22(Suppl 331 1):1–79.
- 5. Pogatzki-Zahn EM., Zahn PK, Brennan TJ. Postoperative pain-clinical implications of basic research. Best practice & research clinical anaesthesiology 2007; 21, 3-13.
- 334 6. Baccei ML, Fitzgerald M. Development of pain pathways and mechanisms. In Wall and Melzack's Textbook of Pain 6<sup>th</sup> ed. 2013.
- Drew S. Best Practices for Management of Pain, Swelling, Nausea, and Vomiting in
   Dentoalveolar Surgery. Oral Maxillofacial Surg Clin N Am 2015; 27: 393-404.
- Brennan, TJ. Pathophysiology of postoperative pain. Pain 2011;152: S33.
- 339 9. Dostrovsky JO. Inflammatory and cancer-related orofacial pain mechanisms: insight from animal
- models. Orofacial Pain: Recent Advancements in Assessment, Management, and Understanding
- of Mechanisms. 2014.
- Dawes MM, Andersson DA, Bennett DLH, Bevan S, McMahon SB. Inflammatory mediators and modulators of pain. Wall and Melzack's Textbook of Pain 6<sup>th</sup> ed. 2013.
- 344 11. Kaufman E, Epstein JB, Gorsky M, Jackson DL, Kadari A. Preemptive analgesia and local anesthesia as a supplement to general anesthesia: a review, Anesth Prog 2005; 52: 29–38.
- Latremoliere A, Woolf CJ. Central sensitization: a generator of pain hypersensitivity by central neural plasticity. 2009; J Pain 10(9): 895–926.
- Woolf CJ. Central sensitization: Implications for the diagnosis and treatment of pain. 2011; PAIN 152(3 Suppl): S2–15.
- 350 14. Stinson J, Connelly M, Kamper SJ. Models of care for addressing chronic musculoskeletal pain and health in children and adolescents. Best Practice & Research Clinical Rheumatology 2016;
- 352 30: 468-82.
- 353 15. Buvanendran A, Lubenow TR, Krooni JS. Postoperative pain and its management. In Wall and Melzack's Textbook of Pain 6<sup>th</sup> ed. 2013.
- Lee GY, Yamada J, Kyolo O, Shorkey A, Stevens B. Pediatric clinical practice guidelines for acute procedural pain: a systematic review. Pediatrics 2014; 133(3): 500-15.
- 357 17. McGrath PJ, Unruh AM. Measurement and assessment of pediatric pain. Wall and Melzack's 358 Textbook of Pain 6<sup>th</sup> ed. 2013.

- 359 18. Gouri AJ, Jaju RA, Tate A. The practice and perception of pain assessment in US pediatric dentistry residency programs Pediatric Dentistry. 2010; 32(7) 546-50.
- 361 19. McGrath PJ, Walco GA, Turk DC, et al.. Core outcome domains and measures from Pediatric
- Acute and Chronic/Recurrent Pain Clinical Trials: PedIMMPACT recommendations The Journal
- 363 of Pain 2008; 9(9): 771-83.
- 364 20. Hauer J, Jones BL Evaluation and management of pain in children. May 3 2017 Official reprint
- from UpToDate www.uptodate.com.
- 366 21. Jain, A, Yeluri, R, Munshi, AK. Measurement and assessment of pain in children. The Journal of
- 367 Clinical Pediatric Dentistry 2012; 37(20):125-36.
- 368 22. American Academy of Pediatric Dentistry. Oral Health Policy on Acute Pediatric Dental Pain
- 369 Management. Pediatr Dent 2017; 39(6):99-101.
- 370 23. Kent ML, Tighe PJ, Belfer I et.al. The ACTTION–APS–AAPM Pain Taxonomy (AAAPT)
- multidimensional approach to classifying acute pain conditions. The Journal of Pain 2017; 18(5):
- 372 479-89.
- 373 24. Fillinghim RB, Bruehl S, Dworkin RH, et al. The ACTTION-American Pain Society Pain
- Taxonomy (AAPT): An evidence-based and multidimensional approach to classifying chronic
- pain conditions. J Pain 2014; 15:241-9.
- 376 25. Betsch TA, Gorodzinsky AY, Finley GA, Sangster M, Chorney J. What's in a name? health care
- providers' perceptions of pediatric pain patients based on diagnostic labels. Clinical Journal of
- 378 Pain 2017; 38(8) 694-8.
- 26. Zeltzer LK, Krane EJ, Palermo TM. Pediatric Pain Management. Nelson's Textbook of Pediatrics
- 380 20<sup>th</sup> ed. 2016.
- 381 27. De Leeuw R, Klasser G. American Academy of Orofacial Pain: Guidelines for Assessment,
- Diagnosis and Management. Quintessence Publishing 2013.
- 383 28. Batoz H, Semjen F, Bordes-Demolis M, Bénard A, Nouette-Gaulain K. Chronic postsurgical pain
- in children: prevalence and risk factors. A prospective observational study. Br J Anaesth 2016;
- 385 117:489–96.
- 386 29. Palmero T, Eccleston C, Goldschneider K et. al. Assessment and management of children with
- chronic pain: Position Statement from the American Pain Society. 2012.
- 388 30. CDC Guideline for Prescribing Opioids for Chronic Pain United States, 2016 US Department
- of Health and Human Services/Centers for Disease Control and Prevention.
- 390 31. Grégoire MC, Finley GR. Drugs for chronic pain in children: A commentary on clinical practice
- and the absence of evidence. Pain Res Management 2013; 19(1): 47-50.

- 392 32. Sessel B. The societal, political, educational, scientific, and clinical context of orofacial pain.
- 393 Orofacial Pain: Recent Advancements in Assessment, Management, and Understanding of
- Mechanisms. 2014.
- 395 33. American Academy of Pediatric Dentistry. Best Practices for Acquired Temporomandibular
- Disorders in Infants, Children and Adolescents. 2017; 39(6): 354-60.
- 397 34. Kankkunen P, Vehviläinen-Julkunen K, Pietilä AM, Kokki H, Halonen P. Parents perception and
- use of analysis at home after day surgery. Pediatr Anesthes 2003; 13(2) 132-40.
- 399 35. Finley GA, Franck LS, Grunau RE, von Baeyer CL. Why children's pain matters. Pain: Clinical
- 400 Updates 2005;13(4):1-6.
- Wong M, Copp PE, Haas DA. Postoperative pain in children after dentistry under general
- 402 anesthesia. Anesth Prog 2015; 62:140-52.
- 403 37. Chou, R, Gordon, DB, de Leon-Cassola, OA, et al. Guidelines on the management of
- postoperative pain: a clinical practice guideline from the American Pain Society, American
- Society of Regional Anesthesia and Pain Medicine, American Society of Anesthesiologists'
- 406 Committee on Regional Anesthesia, Executive Committee, and Administrative Counsel. The
- 407 Journal of Pain 2016; 17(2): 131-57.
- 408 38. Shirvani A, Shamszadeh S, Egbal MJ Asgary S. The efficacy of non-narcotic analgesics on post-
- operative endodontic pain: A systematic review and meta-analysis: The efficacy of non-steroidal
- anti-inflammatory drugs and/or paracetamol on post-operative endodontic pain. Jour of Oral
- 411 Rehab 2017: 44(9):709-21.
- 412 39. Ashley PF, Parekh S, Moles DR, Anand P, MacDonald LC. Preoperative analgesics for additional
- 413 pain relief in children and adolescents having dental treatment. Cochrane Database of Systematic
- 414 Reviews 2016; Issue 8. Art. No.: CD008392.
- 415 40. Kaye AD, Helander EM, Vadivelu N, et al. Consensus statement for clinical pathway
- development or perioperative pain management and pain transitions. Pain Therapy 2017 6(2):
- 417 129-41.
- 418 41. Boyce RA. Kirpalani T, Mohan N. Updates of topical and local anesthesia agents. Dental Clinics
- 419 of North America 2016; 60: 445-71.
- 420 42. Shavit I, Peri-Front Y, Rosen-Walther A, et al. A randomized trial to evaluate the effect of two
- 421 topical anesthetics on pain response during frenotomy in young infants. Pain Med. 2017;
- 422 18(2):356-62.

- 423 43. Glass JS, Hardy CL, Meeks NM, Carrol BT. Acute pain management in dermatology:risk
- assessment and treatment. Journal of the American Academy of Dermatology 2015; 73(4): 543-
- 425 60.
- 426 44. Malamed SF, Tavana S, Falkel M. Faster onset and more comfortable injection with alkalinized
- 427 2% lidocaine with epinephrine 1:100,000. Compend Contin Educ Dent 2013; 34(1): 10-20.
- 428 45. Garret-Bernardin A, Cantile T, D'Antò V. Pain experience and behavior management inpediatric
- dentistry: a comparison between traditional local anesthesia and the wand computerized delivery
- 430 system. Pain Research and Management 2017; Epub 2017 Feb 15: 1-6.
- 431 46. Shirvani A, Shamszadeh S, Engbal MJ, Marvasti LA, Asgary S. Effect of preoperative oral
- analgesics on pulpal anesthesia in patients with irreversible pulpitis-a systematic review and
- meta-analysis. Clin Oral Investig. 2017;21(1):43-52.
- 434 47. Baygin O, Tuzuner T, Isik B. Comparison of pre-emptive ibuprofen, paracetamol, and placebo
- administration in reducing post-operative pain in primary tooth extraction. International Journal
- 436 of Paediatric Dentistry 2011; 21(4): 306-13.
- 437 48. Pacheco GS, Ferayorni A. Pediatric procedural sedation and analgesia. Emerg Med Clin N Am
- 438 2013; 31: 831-52.
- 439 49. American Academy of Pediatric Dentistry. Best practices on the use of nitrous oxide for pediatric
- dental patients. Pediatric Dentistry; 39(6): 2017.
- 441 50. Laskarides, C. Update on analgesic medication for adult and pediatric dental patientsDent Clin N
- 442 Am 2016; 60: 347–66.
- 443 51. Conner ER, Musser ED, Colpitts KM, Laochamroonvorapongse DL, Koh JL. Perioperative
- opioid administration in children with and without developmental delay undergoing outpatient
- dental surgery. Journal of Clinical Anesthesia 2017; 37: 92-6.
- Needleman HL, Harpayat S, Wu S, Allred EN, Berde C. Postoperative pain and other sequelae of
- dental rehabilitations performed on children under general anesthesia. Pediatr Dent 2008;
- 448 30(2):111-21.
- Keles S, Kocaturk O. Immediate postoperative pain and recovery time after pulpotomy performed
- 450 under general anaesthesia in young children pain. Pain Research and Management 2017; Epub
- 451 2017 Jun 8: 1-6.
- Townsend JA, Ganzberg S, Thikkurissy S. The effect of local anesthetic on quality of recovery
- characteristics following dental rehabilitation under general anesthesia in children. Anesth Prog.
- 454 2009; 56(4): 115-22.

- 455 55. American Academy of Pediatric Dentistry Best practices on the use of local anesthesia for pediatric dental patients. Pediatr Dent 2017; 39(6): 266-272.
- 457 56. Parekh S, Gardener C, Ashley PF, Walsh T. Does local anesthetic injection in children and young
- people having general anesthesia reduce pain after treatment? Cochrane Database of Systematic
- 459 Reviews 2014; Issue 12 No.:CD009742.
- 460 57. Landier WN, Tse A. Use of complementary and alternative medical interventions for the
- 461 management of procedure-related pain, anxiety, and distress in pediatric oncology: an integrative
- 462 review. J of Pediatr Nursing. 2010; 25: 566-79.
- 463 58. Fein A, Zempsky WT, Cravero JP. Relief of pain and anxiety in pediatric patient in emergency
- 464 medical systems. Pediatrics 2012;130(5):1391-1405.
- Lewin D, Dahl R. Importance of sleep in the management of pediatric pain. Journal of
- Developmental & Behavioral Pediatrics 1999;20(4):244-52.
- 467 60. Ruest S, Anderson A. Management of acute pediatric pain in the emergency department. Curr
- 468 Opin Pediatr 2016;28(3): 298-304.
- 469 61. Sinha M, Christopher NC, Fenn R, Reeves L. Evaluation of nonpharmacologic methods of pain
- and anxiety management for laceration repair in the pediatric emergency department. Pediatrics
- 471 2006;117(4):1162-1168.
- 472 62. Rabbitts J, Fisher E, Rosenbloom BN. Prevalence and Predictors of Chronic Postsurgical Painin
- 473 Children: A Systematic Review and Meta-Analysis. The Journal of Pain 2017; 18(6); 605-14.
- 474 63. Lyons RA, Understanding basic behavioral support techniques as an alternative to sedation and
- anesthesia. Special Care Dentistry 2009; 29(1): 39-50.
- 476 64. Uman LS, Chambers CT, McGrath PJ, et al. Psychological interventions for needle-related
- 477 procedural pain and distress in children and adolescents. Cochrane Database Systematic Reviews
- 478 2007; Issue. 3 Art. No. CD005179.
- 479 65. Goettems ML, Zborowski EJ, Costa FC, et al. Nonpharmacologic intervention on the prevention
- of pain and anxiety during pediatric dental care: a systematic review. Academic Pediatrics. 2017;
- 481 17(2): 110-19.
- 482 66. Uman LS, Birnie KA, Noel M, et al. Psychological interventions for needle-related procedural
- pain and distress in children and adolescents. Cochrane Database Systematic Reviews 2013; Issue
- 484 Art. No.: CD005179.
- 485 67. Davidson F, Snow S, Haydenc J, Chorney J Psychological interventions in managing
- postoperative pain in children: a systematic review PAIN 2016; 157: 1872-86.

- Bukola IM, Paula D, The effectiveness of distraction as procedural pain management technique in paediatric oncology patients: a meta-analysis and systematic review. Journal of Pain and Symptom Management 2017; 54(4): 589-600.
- 490 69. Ramirez-Carrasco A, Butron-Tellez GironC, Sanchez-Armass O, Pierdant-Perez M. Effectiveness 491 of hypnosis in combination with conventional techniques of behavior management in 492 anxiety/pain reduction during dental anesthetic infiltration. Pain Res Manag 2017; Epub 2017 493 Apr 1: 1-5.
- 494 70. Eccleston C, Palmero TM, Williams ACDC et al. Psychological therapies for the management of 495 chronic and recurrent pain in children and adolescents. Cochrane Database of Systematic 496 Reviews 2014; Issue 5 Art. No.: CD003968.
- 497 71. Brown ML, Rojas E, Gouda S. A mind–body approach to pediatric pain management, Children 498 2017: 4, E50.
- Munshi AK, Hegde AM, Girdhar D. Clinical evaluation of electronic dental anesthesia for various procedures in pediatric dentistry. J Clin Pediatr Dent. 2000;24:199-204.
- Kasat V, Gupta A, Ladd R, Kathariya M, Saluja H, Farooqui AA. Transcutaneous electric nerve
   stimulation(TENS) in dentistry- A review. J Clin Exp Dent. 2014;6(5):562-568
- 503 74. Aminabadi NA, Farahani RMZ, Balayi GE. The efficacy of distraction and counterstimulation in the reduction of pain reaction to intraoral injection by pediatric patients. J Contemp Dent Pract 2008; 9: 33-40.
- 506 75. Klassen JA, Liang Y, Tjosvold L, et al. Music for pain and anxiety in children undergoing 507 medical procedures: a systematic review of randomized controlled trials. Ambul Pediatr. 508 2008;8:117-28.
- Hartling L, Ali S, Dryden DM et al. How safe Are common analgesics for the treatment of acute
   pain for children? a systematic review. Pain Research and Management 2016; Article ID
   5346819, 1-15.
- Walco GA, Jennifer NG, Phillips J et al Opioid Analgesics Administered for Pain in the Inpatient
   Pediatric Setting. The Journal of Pain 2017;18(10): 1270-1276.
- 514 78. Kokki H. Nonsteroidal anti-inflammatory drugs for postoperative pain: a focus on children.
  515 Pediatr Drugs 2003;5(2): 102-23.
- Neri E, Maestro A, Minen F, et al. Sublingual ketorolac versus sublingual tramadol for moderate to severe post-traumatic bone pain in children: a double-blind, randomized, controlled trial Arch Dis Child 2013; 98:721-24.

- 519 80. Shah R, Sawardekar A, Suresh A, Pediatric Acute Pain Management. In Practical Management of Pain: 5<sup>th</sup> ed. Elsevier Inc: 304-311.
- 521 81. Becker DE. Pain management: part 1: Managing acute and postoperative dental pain. Anesth Prog 2010;57(2):67-79.
- 523 82. Ong CK, Seymour RA, Lirk P, et al. Combining paracetamol (acetaminophen) with nonsteroidal anti-inflammatory drugs: a qualitative systematic review of analgesic efficacy for acute postoperative pain. Anesth Analg. 2010; 110(4):1170-9.
- 526 83. Schechter JL, Waldo GA. The potential impact on children of the CDC guidelines for prescribing opioids for chronic pain: above all, do no harm. Pediatrics 2016 170(5) 425-426.
- 528 84. Cooper TE, Wiffen PJ, Heathcote LC et al. Antiepileptic drugs for chronic non-cancer pain in 529 children and adolescents. Cochrane Database of Systematic Reviews 2017; Issue 8. Art. No.:
- 530 CD012536.
- 531 85. Fortuna RJ, Robbins BW, Cajola E et al. Prescribing of controlled medications to adolescents and young adults in the United States. Pediatrics. 2010; 126(6): 1108-1116.
- Van Cleve, WC, Grigg EB Variability in opioid prescribing for children undergoing ambulatory surgery in the United States. Journal of Clinical Anesthesia 2017; 41:16–20.
- 87. Rudd RA, Seth P, David F, Scholl L. Increases in drug and opioid-involved overdose deaths United States, 2010-2015. Morb Mortal Wkly Rep. 2016;65(5051):1445-1452.
- Food and Drug Administration Drug Safety Communication: FDA restricts use of prescription codeine pain and cough medicines and tramadol pain medicines in children; recommends against use in breastfeeding women. Accessed: 2018-02-25. (Archived by WebCite® at
- 540 http://www.webcitation.org/6xVGnS3vO)
- 541 89. European Medicines Agencies Position on Codeine. Coordination Group for Mutual Recognition 542 and Decentralised Procedures. Accessed: 2018-02-25. (Archived by WebCite® at
- 543 http://www.webcitation.org/6xVFwOyz8)
- Schnabel A, Reichl SU, Meyer-Frießem C, Zahn PK, Pogatzki-Zahn E. Tramadol for
   postoperative pain treatment in children. Cochrane Database Systematic Review 2015; Issue 3
   Art No.:CD009574.
- 547 91. Dancel R, Liles EA, Fiore D. 2017; Acute pain management in hospitalized children. Rev Recent Clin Trials. 12(4): 277-83.
- 549 92. US Department of Health and Human Services Center for Disease Control and Prevention.
- Document on calculating total daily dose of opioids for safer dosage. Accessed: 2018-02-25.
- (Archived by WebCite® at http://www.webcitation.org/6xV2QBafv)

- Tompkins Providing chronic pain management in the 5<sup>th</sup> vital sign era: historical and treatment perspectives in a modern day medical dilemma. Drug and alcohol dependence 2017; 173: S11-21.
- 554 94. Shueb SS, Nixdorf DR, John MT, Alonso BF, Durham J. What is the impact of acute and chronic orofacial pain on quality of life? Journal of Dentistry 2015; 43: 1203-1210.
- 556 95. DePhillips M, Watts J, Lowry J, Dowy MD. Opioid prescribing practices in pediatric acute care settings. Pediatric Emergency Care 2017: Epub ahead of print. 1-6.
- 558 96. Allareddy V, Rampa S, Allareddy V. Opioid abuse in children: an emerging public health crisisin 559 the United States! Pediatric Research 2017; 82 (4): 562-3.
- McCabe SE, West BT, Veliz P, et al. Trends in medical and nonmedical use of prescription opioids among US adolescents: 1976–2015. Pediatrics 2017; 139(4): 1-9.
- 562 98. Bagley SM, Hadland SE, Carney BL, Saitz R. Addressing stigma in medication treatment of adolescents with opioid use disorder. Journal of Addiction Medicine 2017; 11(6) 415-6.
- 564 99. Spehr MK, Coddington J, Azza H, Jones E. Parental opioid abuse: barriers to care, policy, and implications for primary care pediatric providers. Jour Pediatr Healthcare; 6 695-702..
- Lane WG, Dubowitz H, Feigelman S, et al. Screening for parental substance abuse in pediatric primary care. Ambulatory Pediatrics 2007; 7: 458-62.
- National Institute of Health. National Institute on Drug Abuse. URL:https://www.drugabuse.gov/.

  Accessed: 2018-02-25. (Archived by WebCite® at http://www.webcitation.org/6xV4BfzAb)
- 570 102. O'Neil M. The ADA Practical Guide to Substance Use Disorders and Safe Prescribing. Wiley Blackwell 2015.
- 572 103. US Dept of Health and Human Services. About the opioid epidemic.
- https://www.hhs.gov/opioids/about-the-epidemic/. Accessed 2018-03-02. (Archived by WebCite®at http://www.webcitation.org/6xc3REvBU).
- 575 104. Smith SM, Paillard F, McKeown A, Instruments to identify prescription medication misuse,
- abuse, and related events in clinical trials: an ACTTION systematic review. The Journal of Pain 2015; 16(5): 389-411.
- 578 105. American Academy of Pediatrics Committee on Psychosocial Aspects of Child and Family
- Health and American Pain Society Task Force on Pain in Infants, Children, and Adolescents. The
- Assessment and Management of Acute Pain in Infants, Children, and Adolescents. Pediatrics
- 581 2001;108(3): 793-797.
- 582 106. American Academy of Pediatric Dentistry Policy on Substance Abuse in Adolescent Patients. Pediatr 583 Dent 2017; 39(6): 77-80.

- Policy for Selecting Anesthesia Providers for the Delivery of Office-Based
- 2 General Anesthesia

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- 4 Originating Council
- 5 AAPD Board of Trustees, Council on Clinical Affairs
- 6 Review Council
- 7 Council on Clinical Affairs
- 8 Adopted
- 9 2018

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- 11 Purpose
- 12 The purpose of this policy is to guide dental professionals in selecting a qualified anesthesia provider for
- the delivery of deep sedation/general anesthesia in an office-based setting, specifically for pediatric and
- special healthcare needs populations. It is not the intent of this policy to suggest that any individual group
- of anesthesia provider is more qualified than another.

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- 17 Methods
- 18 This policy was developed by the Council on Clinical Affairs, adopted in 2018, and is based on a review
- of current dental and medical literature pertaining to the education and training accreditation requirements
- of potential anesthesia providers.

- 22 Background
- Pediatric patients and patients with special healthcare needs who are unable to accept dental care using a
- 24 customary approach due to a lack of cooperation may have dental treatment accomplished by deeper
- forms of sedation or general anesthesia. Historically, these levels of care were provided in a surgical
- center or hospital-based setting by an anesthesiologist selected and vetted by the facility or institution.
- 27 The dental surgeon had little, if any, choice as to who would provide these services. Current trends find
- an increasing number of dental providers electing to complete such care in the confines of their personal
- 29 office using the services of a mobile anesthesia provider. Over the last decade, office-based deep
- sedation/general anesthesia in the dental office has proven to be safe and effective when delivered by a

highly competent and attentive individual. Substantial societal cost savings associated with the delivery of cases outside of a surgical center or hospital setting have also been well documented. In an effort to establish the safest care possible, the American Academy of Pediatric Dentistry (AAPD) wishes to assist its members in screening potential anesthesia providers. The following document shall serve to help guide members during the screening process associated with selecting a competent and experienced anesthesia provider for the delivery of office-based care for the pediatric and special needs populations. With the use of office-based deep sedation/general anesthesia, the primary dental provider takes on the significant responsibility of creating a team of highly qualified professionals to deliver care in an optimal and safe fashion. No other responsibility is more important than identifying an anesthesia provider that is meticulous and highly competent. Dentists collaborate closely with mobile anesthesia providers to expand the field of dental medicine, provide access to care, establish an enhanced level of patient cooperation, improve surgical quality, and offer an elevated level of patient safety during the delivery of dental care. It is important to acknowledge that not all anesthesia providers have equal training and experience delivering care during procedures performed within and around the oral cavity, especially in the pediatric or special healthcare needs patient populations or on a mobile basis. With this, we offer a summary of the advanced training and certifying credentials associated with the anesthesia providers that most commonly provide mobile anesthesia care in an office-based dental setting. Anesthesia Assistant (AA). A non-physician, dentist or nurse who practices anesthesia under the medical direction of a licensed practitioner. To attain AA credentials, one must complete a 24-28 month, Master's level program, accredited by the Commission for the Accreditation of Allied Health Educational Programs (CAAHEP) and pass the National Commission for the Certification of Anesthesiologist Assistants (NCCAA) examination administered and graded by the National Board of Medical Examiners. AA clinical training includes the completion of approximately 600 administered anesthetics.<sup>2</sup> After completion of a formal anesthesia assistant educational program, AA's commonly work within the profession under the direct supervision of a licensed medical or dental anesthesia provider in hospital and ambulatory surgical centers, as mobile anesthesiologists, in office-based settings, and as anesthesia faculty in AA academic institutions.

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64 There are societies within medicine that offer resources to learn more about the anesthesia training **65** provided to AAs including the American Academy of Anesthesiologist Assistants (www.anesthestist.org). 66 67 Certified Registered Nurse Anesthetist (CRNA) or nurse anesthetist is a licensed professional nurse 68 who is trained to provide the same anesthesia services as a physician anesthesiologist. Once a licensed 69 registered nurse, a CRNA must first complete one year of critical care experience followed by graduation 70 from an accredited 2-3 year nurse anesthesia educational program. Graduates may then sit for the 71 National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA) certifying 72 examination.<sup>3</sup> (CRNA educational reference?) 73 CRNA's commonly work under the supervision of a licensed anesthesia provider within the profession as 74 anesthesia providers in hospital and ambulatory surgical centers, mobile anesthesiologists in office-based 75 settings, and as anesthesia faculty in CRNA, medical and/or dental academic institutions. Certain states 76 and rural facilities within the United States allow CRNA's to provide anesthesia services void of the 77 presence of a medical or dental licensed anesthesia provider. 78 There are societies within medicine that offer resources to learn more about the anesthesia training 79 provided to CRNAs, such as the American Association of Nurse Anesthetists (www.aana.com), National 80 Board of Certified and Recertification for Nurse Anesthetists (www.nbcrna.com), International 81 Federation of Nurse Anesthetists (www.ifna.site). 82 83 **Dentist anesthesiologists** (DA) are anesthesia providers dedicated to providing services exclusively for 84 patients undergoing orofacial and dental procedures. They receive post-graduate specialty training 85 following dental school during a 3-year anesthesia residency program outlined by the Commission on 86 Dental Accreditation (CODA) standards. A dental anesthesia residency clinical curriculum typically 87 consists of emergency rescue, advanced airway management, internal medicine, emergency medicine, 88 cardiology, general/internal medicine, pain medicine, pediatrics, pulmonary medicine, and intensive care 89 rotations. DA residents participate alongside their physician colleagues performing anesthesia during 90 general surgery, ENT, ophthalmic, complex oral surgery, cosmetic and body contouring, orthopedic, 91 obstetric, trauma and organ transplant surgeries. Clinical training includes a minimum requirement of 92 completing 800 total anesthetic cases, 125 pediatric cases on children 7-years old and under, as well as 75 93 patients with special needs. DA training programs also provide residents with experience providing 94 mobile office-based sedation and anesthesia care during the delivery of pediatric, special healthcare needs 95 and adult dental procedures. DAs are obligated to maintain current BLS, ACLS and/or PALS

96 certifications, based on state board and permitting requirements. 97 98 The practice of dental anesthesiology is recognized by the American Dental Association and has recently 99 gained specialty status in select states, with other states expected to follow. Subsequent to the successful 100 completion of a residency program, graduates are eligible to sit for the written and oral examination of the 101 American Board of Dental Anesthesiology (ABDA) and the written certifying examination of the 102 National Dental Board of Anesthesiology (NDBA). 103 104 Dentist anesthesiologists work within the profession as mobile anesthesia providers in office-based dental 105 and medical settings, hospital anesthesiologists for medical and dental cases, anesthesiologists in 106 ambulatory surgical centers, and anesthesia faculty in medical and dental academic institutions. 107 There are societies within dental medicine that offer resources to learn more about dentist 108 anesthesiologists, such as the American Society of Dentist Anesthesiologists (www.asdahq.org), 109 American Dental Society of Anesthesiology (www.adsahome.org), American Board of Dental 110 Anesthesiology (www.adba.org), National Dental Board of Anesthesiology (www.ndbahome.org), and 111 the International Federation of Dental Anesthesiology Societies (www.ifdas.org). 112 **Physician anesthesiologists** provide anesthetic services for medical and dental procedures. They receive 113 post-graduate anesthesia training during a 3-year residency following medical or osteopathy school and a 114 year of hospital internship. Traditional medical anesthesia training provides exposure to a minimum of 115 100 total pediatric patients under the age of 12-years old; 20 of which must be younger than 3 years of age, including five patients under 3-months old.<sup>5</sup> Though there are no prescribed requirements for the 116 117 delivery of anesthesia care specifically for dental and oral surgical procedures, most physician 118 anesthesiologists will obtain some exposure to these populations while providing care in a hospital 119 setting. Few physician anesthesiologists, however, obtain experience providing mobile or office-based 120 anesthetic care outside a hospital or ambulatory surgical setting during their formal anesthesia training 121 program. 122 123 After residency, anesthesiologists have the option to complete an additional 1-2 year fellowship in areas 124 such as pain management, cardiac anesthesiology, pediatric anesthesiology, neuro-anesthesiology, 125 obstetric anesthesiology or critical care medicine. During an advanced fellowship in pediatric 126 anesthesiology, the doctor gains more in-depth experience providing care for both healthy and sick 127 pediatric populations within a hospital setting.

129 Following successful completion of an anesthesiology residency program, graduates are eligible to sit for 130 the American Board of Anesthesiology (ABA) written and oral examinations. All anesthesiologists must 131 be licensed to practice medicine in their given state and are required to maintain ACLS and/or PALS 132 certification. Additional certifications are available from the ABA in critical care and pain management. 133 Physician anesthesiologists commonly work within the profession as anesthesia providers in hospital and 134 ambulatory surgical centers, as mobile anesthesiologists in office-based medical and dental settings, and as anesthesia faculty in medical and/or dental academic institutions. 135 136 There are societies within medicine that offer resources to learn more about physician anesthesiologists, 137 such as the American Society of Anesthesiologists (www.asahq.org), American Dental Society of 138 Anesthesiology (www.adsahome.org), American Board of Anesthesiology (www.theaba.org), Society for 139 Ambulatory Anesthesia (www.sambahq.org), and the Society for Pediatric Anesthesia 140 (www.pedsanesthesia.org). 141 Oral and Maxillofacial Surgeons (OMFS) are dental specialists with specialty training in the diagnosis, 142 surgical and adjunctive treatment of diseases, injuries and defects involving both the functional and 143 esthetic aspects of the hard and soft tissues of the oral and maxillofacial regions. Following dental school 144 training, oral and maxillofacial residents enter a 4-6 year specialty training program which includes a 145 minimum of 5 consecutive months of anesthesia training alongside their medical and dental anesthesia 146 counterparts. During this training, OMFS residents perform anesthesia care during general surgery, ENT, 147 ophthalmic, complex oral surgery, cosmetic and body contouring, orthopedic, obstetric, trauma and organ 148 transplant surgeries. During these 5-months of exclusive training in anesthesia, one month must be 149 dedicated solely to pediatrics, which may include rotations in a PICU or NICU setting and/or through 150 direct delivery providing pediatric anesthesia in a hospital or ambulatory setting. The cumulative 151 anesthetic experience of each graduating resident must include administration of general anesthesia/deep 152 sedation to a minimum of 300 total patients. At least 150 of these cases must be ambulatory anesthetics 153 during oral and maxillofacial surgeries. A minimum of 50 patients must be pediatric (OMFS defines a 154 pediatric patient as 18 years of age or younger). Both ACLS and PALS training is required prior to the 155 completion of OMFS training.<sup>6</sup> Those successfully completing an OMFS specialty training program are 156 eligible to take the National Dental Board of Anesthesiology (NDBA) written examination.

157 Oral and maxillofacial surgeons commonly work within the profession as an operator-anesthetist in a 158 private office environment, as a surgeon in a hospital setting, providing mobile anesthesia within dental 159 facilities, and as faculty in medical and/or dental academic institutions.

160 There are societies within dental medicine that offer resources to learn more about the anesthesia training provided to oral and maxillofacial surgeons, such as the American Academy of Oral and Maxillofacial 162 Surgeons (AAOMS) (www.aaoms.org) or the National Dental Board of Anesthesiology

163 (www.ndbahome.org).

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#### Anesthesia Training Comparison<sup>1</sup> Table 1.

Anesthesia Provider	Able to Function As An Independent Anesthesia Provider	Minimum Length of Focused Anesthesia Training	Minimum Number of DS/GA Cases	Minimum Number of Pediatric DS/GA Cases	Definition of Pediatric Patient	Minimum Number of Special Needs DS/GA Cases	Graduate Qualifies for Anesthesia Board Certification with the
Anesthesia Assistant	No	24 mon <sup>2</sup>	600	N/A	N/A	N/A	None
Certified Registered Nurse Anesthetist	No	24 mon <sup>2</sup>	600	40	≤12 yrs	N/A	NBCRNA
Dentist Anesthesiologist	Yes	36 mon <sup>2</sup>	800	125	≤7 yrs	75	ABDA NBDA
Medical Anesthesiologist	Yes	36 mon <sup>2</sup>	N/A	100	≤12 yrs	N/A	ABA
Oral and Maxillofacial Surgeon	Yes	5 mon <sup>3</sup>	300	50	≤18 yrs	N/A	NBDA

165 <sup>1</sup>Abbreviations:

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166 DS/GA – Deep Sedation/General Anesthesia

167 ABDA – American Board of Dental Anesthesiology

168 NBDA – National Board of Dental Anesthesiology

169 ABA – American Board of Anesthesiology

NBCRNA – National Board of Certified Registered Nurse Anesthetists

<sup>2</sup>Please note that this period includes hospital-based rotations under non-anesthesia services.

 $^3$ Includes 1 month of dedicated pediatric anesthesia, however, this period may contain informal

173 anesthesia experiences in a PICU and/or NICU setting.

175 It is important for operating dentists to appreciate the diversity in anesthesia education among potential 176 providers, and if appropriate, further investigate an individual's training and experience. A candid 177 discussion with a potential anesthesia provider to establish the individual's comfort and experience with

- unique patient populations (special needs, infants and toddlers, certain comorbidities, etc.) is extremely
- important, especially if it is anticipated that this will represent a large portion of a dental practice's
- anesthesia focus. Lastly, dentists must recognize the additional exposure to potential liability issues
- associated with the delivery of deep sedation/general anesthesia within their personal office and establish
- a rigorous vetting strategy to help mitigate this risk. Selection of a skilled and knowledgeable anesthesia
- provider is paramount in providing patients with the safest care possible.

### 184185

### 20 QUESTIONS TO ASK A POTENTIAL ANETHESIA PROVIDER

- 186 1. What is your experience with providing mobile deep sedation/general anesthesia care?
- What is your experience with pediatric patient populations? ...special healthcare needs populations?
- How did your training prepare you for the delivery of anesthesia on a mobile basis?
- What is your experience with providing anesthesia for dental cases?
- 191 5. How long have you provided mobile dental anesthesia care for pediatric patients? ...special192 needs patients?
- Explain how you evaluate a dental facility and staff prior to initiating mobile anesthesia services.
- What expectations and requirements do you have for the dentist, auxiliary staff and facility?
- 195 8. What equipment and/or medications should be maintained by the dental facility?
- 196 9. How would you manage a medical emergency?
- 197 10. What are some potential emergencies associated with the delivery of deep sedation/general anesthesia?
- 199 11. What is the role of the dentist and auxiliary staff during a medical emergency?
- How do you prepare the dentist, auxiliary staff and facility for the possibility of a medical emergency?
- 202 13. Explain how you prepare a patient for office-based deep sedation/general anesthesia?
- 203 14. What is the office's role in preparing a patient for office-based deep sedation/general anesthesia?
- What is your discharge criteria and follow-up protocol for patients who receive office-based deep sedation/general anesthesia on an outpatient basis?
- 206 16. Explain a typical general anesthesia case from start to finish.
- What is your protocol for ordering, storing and recording controlled substances for deepsedation/general anesthesia cases?
- Do you have any specific patient criteria (ie: age, weight, comorbidities, etc.) in identifying
   potential candidates for office-based deep sedation/general anesthesia?

- 211 19. What are the patient costs associated with the deep sedation/general anesthesia services?
- 212 20. What are the long and short-term effects of anesthetic agents on neurologic development in young patients?

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### References

- Rashewsky S, Parameswaran A, Sloane C, et al, Time and Cost Analysis: Pediatric Dental
   Rehabilitation with General Anesthesia in the Office and the Hospital Settings. *Anesthesia*
- 218 *Progress.* 2012 Winter; 59(4):147-158.
- Commission on Accreditation of Allied Health Education Programs. Standards and guidelines for
   the accreditation of educational programs for the anesthesiologist assistant. Approved 1987,
- **221** revised 2009.
- 222 3. CRNA educational reference (need to find a formal reference source listing CRNA educational
   223 requirements)
- 224 4. Commission on Dental Accreditation. Accreditation Standards for Advanced General Dentistry
   225 Education in Dental Anesthesiology, 2017.
- 5. Accreditation Council for Graduate Medical Education Program Requirements for Graduate
   Education in Anesthesiology, July 1, 2017.
- Commission on Dental Accreditation. Accreditation Standards for Advanced Specialty Educational
   Programs in Oral and Maxillofacial Surgery, 2017.

### Council on Clinical Affairs, Committee on Behavior Guidance 2017-2018

Edward L. Rick, NC District, **Chair**Paula Coates, Board Liaison **Staff Liaison**John S. Rutkauskas, Chief Executive Officer

### **Standing Charge**

### Charge 1

Respond to requests of the Board of Trustees on issues pertaining to behavior guidance in the dental treatment setting.

Background and Intent: This is a standing charge to the committee. It is the intent of the Board to maintain a committee capable of advising them on issues pertaining to and surrounding behavioral guidance in the dental environment.

### **Progress Report**

The Council continues to review all AAPD Policies and Guidelines as they apply to behavior guidance.

In 2018, in harmony with the new AAPD Strategic Plan, the Committee on Behavior Guidance will be dissolved and its charge incorporated into those of the parent council, the Council on Clinical Affairs.

### Council on Clinical Affairs, Committee on the Adolescent 2017-2018

Edward L. Rick, NC District, **Chair**Paula Coates, Board Liaison **Staff Liaison**John S. Rutkauskas, Chief Executive Officer

### **Standing Charge**

### Charge 1

Prepare annually for publication in Pediatric Dentistry Today a summary of issues and activities relevant to adolescent oral health, including other health topics that may impact adolescent oral health.

Background and Intent: This is a standing charge to the committee. It is the intent of the Board to maintain a committee capable of advising them on issues pertaining to and surrounding adolescent oral health and well-being.

### **Progress Report**

The Council continues to review all AAPD Policies and Guidelines as they apply to adolescent oral health.

In 2018, in harmony with the new AAPD Strategic Plan, the Committee on the Adolescent will be dissolved and its charge incorporated into those of the parent council, the Council on Clinical Affairs.

### Council on Clinical Affairs, Committee on Perinatal Oral Health Care 2017-2018

Edward L. Rick, NC District, **Chair**Paula Coates, Board Liaison **Staff Liaison**John S. Rutkauskas, Chief Executive Officer

### **Standing Charge**

### Charge 1

Participate with the Council on Clinical Affairs in the periodic review of all AAPD Policies and Guidelines as they apply to perinatal and infant oral health care. Background and Intent: This is a standing charge to the Committee. It is the intent of the Board to maintain a committee capable of advising them on issues pertaining to and surrounding the establishment of the dental home by twelve months of age.

### **Progress Report**

The Committee stands ready to review all AAPD Policies and Guidelines as they apply to perinatal oral health.

In 2018, in harmony with the new AAPD Strategic Plan, the Committee on Perinatal Oral Health Care will be dissolved and its charge incorporated into those of the parent council, the Council on Clinical Affairs.

### Council on Clinical Affairs, Committee on Sedation and Anesthesia 2017-2018

John R. Liu, W District, **Chair** Bruce Weiner, Board Liaison **Members** 

Paul S. Casamassimo Joseph P. Cravero, MD Kevin J. Donly John Unkel. Carrie Shrader, Affiliate Member

Carrie Shrader, Allillate Membe

**Consultants** 

James E. Jones
Travis Nelson
Man Wai Ng
Sarat (Bobby) Thikkurissy, Consultant
Ronald W. Kosinski, Expert Consultant
Richard F. Stafford, Expert Consultant
Stephen Wilson, Expert Consultant

Staff Liaison

Scott Dalhouse, Educational Affairs Manager

Vision Duties

The duties of the Council on Clinical Affairs, Committee on Sedation and Anesthesia, as listed in the *AAPD Administrative Policy and Procedure Manual*, are to: 1) provide technical assistance to state licensing boards drafting or modifying sedation or general anesthesia legislation or regulation; 2) review AAPD Guidelines and Policies on sedation and anesthesia for scientific and clinical accuracy and make recommendations for updates; 3) maintain information on state statutes and regulations concerning the administration of sedation and general anesthesia in the dental office; 4) perform such other duties as assigned by the President or the Board of Trustees.

Council on Clinical Affairs, Committee on Sedation and Anesthesia, 2017-2018

### **Standing Charges**

### Charge 1

Assist individual members, state units and district organizations in providing input and expertise to state licensing boards drafting or modifying sedation or general anesthesia legislation or regulation.

Background and Intent: This is a standing charge to the committee. State sedation and general anesthesia regulations and statutes impact the delivery and access of oral health care services to infants, young children and patients with special healthcare and developmental needs. It is important such regulations and statutes preserve patient safety, be based upon sound scientific and clinical principles, and not impose unnecessary or false barriers to the delivery of care.

### **Progress Report**

This is an ongoing charge handled on a case-by-case basis.

### Charge 2

Annually review AAPD Guidelines and Policies on sedation and anesthesia for scientific and clinical validity and adherence to best practice principles, supported by current literature, primacy of patient safety, and implications on accessibility of services. Make recommendations to the Board of Trustees and to the Council on Clinical Affairs for modification to our Policies or Guidelines as appropriate.

Background and Intent: This is a standing charge to the committee. It is the intent of the Board that a report of the Committee be submitted at least annually, with recommendations for Policy and Guideline modification as appropriate.

### **Progress Report**

The Council on Clinical Affairs met in November 2017 and will transmit any guidelines and policies pertaining requiring review from the Committee on Sedation and Anesthesia.

### Charge 3

Maintain liaison, work with, assist, and otherwise be proactive in providing input and expertise in the drafting or modification of guidelines, policies, standards or other parameters of care concerning sedation and general anesthesia of the minor dental patient or dental patient with special healthcare or developmental needs by allied healthcare organizations. Provide at least annually a report to the Board concerning committee efforts in this area, specifically addressing targeted organizations. Background and Intent: This is a standing charge to the committee. As the recognized experts in pharmacologic management of the minor dental patient in the office environment, we should endeavor to provide expertise when other healthcare organizations are attempting to draft parameters of care in this arena. This may be achieved by assuming and maintaining liaison or appointment to appropriate committees or other bodies of such organizations as the American Dental Society of Anesthesiology, American Dental Association, American Academy of Oral and Maxillofacial Surgeons, American Society of Anesthesiologists and the American Academy of Pediatrics.

### **Progress Report**

Committee chair, Dr. John Liu, has been appointed to serve as the AAPD representative to the ADA CDEL Anesthesia Committee.

Council on Clinical Affairs, Committee on Sedation and Anesthesia, 2017-2018

### Charge 4

As needed, identify and train media spokespersons expert and conversant in areas of sedation and anesthesia.

Background and Intent: This is a standing charge to the committee. The Academy maintains a cadre of trained spokespersons to address many areas of pediatric dental care, prevention and public education, but these individuals do not possess the expertise to address serious media interest in sedation and general anesthesia of the minor dental patient or patient with special healthcare or developmental needs in the dental office. In the event of an unexpected and adverse outcome, there may be public and membership benefit in having specific designated spokespersons available to the media.

### **Progress Report**

This is an ongoing charge.

### Charge 5

Review all aspects of the clinical content and organization of the sedation and anesthesia courses provided by the Academy.

Background and Intent: This is a standing charge to the committee. The Anesthesia and Sedation Committee developed a course in contemporary sedation for the membership based on the need for education specific to our practices. The content, layout, and organization must be continually updated because of changes in drugs and techniques. Reviews by attendees have been used to modify existing course content.

### **Progress Report**

The committee reviews *Safe and Effective Sedation of the Pediatric Dental Patient* course evaluations usually during its annual meeting in May and monitors its content on an ongoing basis.

### Charge 6

Assist the Council on Post-Doctoral Education with its biennial review the AAPD Core Curriculum Reading List; make recommendations for additions and/or deletions to the list on the topic of "sedation". The Committee will provide this information to the Council in time for the Council to report to the Board of Trustees at the relevant Winter Meeting. Background and Intent: The Committee on Sedation and Anesthesia has the knowledge and resources to make the best recommendations for modifications and updates in the Core Curriculum Reading List.

#### **Progress Report**

Various committee members were tasked with reviewing the AAPD Core Curriculum Reading List as it pertains to sedation and anesthesia. The committee is waiting for instructions from the Council on Postdoctoral Education to again review the articles as the Core Curriculum Reading List will be updated in 2019. This remains as a Standing Charge.

Council on Clinical Affairs, Committee on Sedation and Anesthesia, 2017-2018

### **Project Charges**

### Charge 7

Develop plans for a workgroup to examine sedation-related morbidity and mortality associated with pediatric sedation.

Background and Intent: Currently, no data exists to support morbidity and mortality claims for pediatric dental treatment; medical data is usually quoted for these claims. With the new CODA standards requiring a set number of sedations, it is essential that relevant data be used to evaluate outcomes. This workgroup is a prelude to collection of that data. The composition of the workgroup should include at least 4 pediatric sedation experts and 1 dental anesthesiologist.

### **Progress Report**

An ad hoc committee was formed for this project, consisting of Drs. John Liu, Travis Nelson, Man Wai Ng, Alexander Olea, Bobby Thikkurissy and Joe Cravero. The committee has finished testing the data collection system and has provided feedback to Dartmouth informatics. It is anticipated that data collection from the pilot residency programs will be implemented during the summer of 2018.

### Council on Clinical Affairs, Committee on Special Health Care Needs 2017-2018

Jessica R. De Bord, Chair Kerry Maguire, Board Liaison **Members** Sheldon M. Bernick Maria C. Cordero-Ricardo Elizabeth Gosnell Martha Ann Keels Amy Luedemann-Lazar Mitali Patel David A. Tesini LaQuia A. Vinson Snehlata Kulhari, Affiliate Member Consultants Paul S. Casamassimo Neva Eklund Emily Hahn Staff Liaisons John S. Rutkauskas, Chief Executive Officer

Scott Dalhouse, Educational Affairs Manager

Vision

#### **Duties**

The duties of the Council on Clinical Affairs, Committee on Special Health Care Needs, as listed in the AAPD Administrative Policy and Procedure Manual, are to: 1) develop recommendations for future AAPD action based on the Symposium on Lifetime Oral Health Care for Patients with Special Needs; 2) review AAPD policies and guidelines related to patients with special health care needs, and make recommendations for updates and revisions; 3) regularly review scientific literature in this area; 4) perform such other duties as assigned by the President or the Board of Trustees.

Council on Clinical Affairs, Committee on Special Health Care Needs, 2017-2018

### **Standing Charges**

### Charge 1

Assist the Council on Post-Doctoral Education with its biennial review the AAPD Core Curriculum Reading List; make recommendations for additions and/or deletions to the list on the topic of "care for special needs patients". The Committee will provide this information to the Council in time for the Council to report to the Board of Trustees at the relevant Winter Meeting.

Background and Intent: The Committee on Special Health Care Needs has the knowledge and resources to make the best recommendations for modifications and updates in the Core Curriculum Reading List.

### **Progress Report**

Various committee members were tasked with reviewing the AAPD Core Curriculum Reading List as it pertains to special healthcare needs. The committee is waiting for instructions from the Council on Postdoctoral Education to again review the articles as the Core Curriculum Reading List will be updated in 2019. This remains as a Standing Charge.

### Charge 2

Collaborate within and outside of AAPD to advocate for increased pre-doctoral education and clinical experience with people with developmental disabilities.

Background and Intent: Access to dental care for adults with developmental disabilities continues to be a challenge. A major barrier is having inadequate general dentists to care for the adults and for pediatric dentists to transition patients to. Increasing predoctoral experience with patients with developmental disabilities will increase the number of general dentists willing and able to care for adults with special needs.

### **Progress Report**

Letters from the National Council on Disability to ADA to request that they include people with disabilities in the code of ethics and to CODA requesting that training in the care of people with disabilities be added as a CODA standard have been submitted for review by the AAPD board to determine if the AAPD would like to sign onto these letters.

### Charge 3

Facilitate education in the care of patients with special needs to post-doctoral residents and practicing pediatric dentists.

Background and Intent: The shortage of adequately trained pediatric dentists to care for the growing number of patients with special health care needs is contributing to a crisis of access. The Committee on Special Health Care Needs will provide recommendations and assistance in developing and providing high quality post-doctoral and continuing educating on treating persons with special health care needs.

### **Progress Report**

A proposal for a pre-conference course on special health care needs to be offered at the 2020 annual session was prepared for consideration and submitted to the Council on Continuing Education and the Scientific Program Committee during 2018 Winter Planning Meeting.

### Council on Continuing Education 2017-2018

D. Cody Mast, SE District, Chair Bruce Weiner, Board Liaison

#### Members

Kavita Kohli, NE District J. Miles Mazzawi, SE District David Avenetti, NC District Scott D. Smith, SW District Ronald H. Hsu, W District Trang Ngo, Affiliate Member **Consultants** 

Oshmi Dutta Patricia McClory Nanda Adesegun O. Tewogbade

### Staff Liaisons

Kristi Casale, Meeting Services Director Tonya Almond, Vice President for Meetings and Continuing Education

### Vision

### Duties

The duties of the Council on Continuing Education, as listed in the AAPD Administrative Policy and Procedure Manual, are to: 1) monitor member needs and desires regarding continuing education courses sponsored by AAPD; 2) plan and implement AAPD continuing education courses in collaboration with the Headquarters Office; 3) make recommendations to the Board of Trustees regarding the continuing education activities of AAPD; 4) recommend faculty for continuing education courses; 5) perform such other duties as assigned by the President or the Board of Trustees.

### **Standing Charges**

### Charge 1

Develop and plan new and unique continuing education courses aligned with the Strategic Plan and the needs and desires of the membership. Propose at least annually to the Board of Trustees such courses. Monitor member and allied dental professional needs and desires regarding AAPD continuing education, on which a report is to be presented to the Board of Trustees, along with the Council's recommendations for specific course offerings, at the Winter meeting of the Board of Trustees. Background and Intent: This is a standing charge to the Council, based on future membership needs assessment surveys. It is the Academy's desire to regularly offer

### Council on Continuing Education, 2017-2018

continuing education opportunities of unique content. This is a membership benefit as well as a potential source of non-dues revenue. The Council on Continuing Education will develop questions to be utilized in electronic surveys and other sources to measure the needs and desires of our members.

### **Progress Report**

Upcoming courses:

September 6, 2018: Oral Exam Review

September 7-9, 2018: Comprehensive Review of Pediatric Dentistry

October 26-28, 2018: Safe and Effective Sedation of the Pediatric Dental Patient

October 26-27, 2018: Dental Assistant Sedation Course

### Charge 2

Make recommendations to the Board and headquarters office staff for marketing courses to the Affiliate membership and to other general dentists. If appropriate, recommend to the Board of Trustees proposals for courses dedicate solely to the general practitioner.

Background and Intent: This is an ongoing charge to the Council. There is a demand for general dentists to obtain evidence-based knowledge of pediatric dentistry. As more general dentists treat children, and increased knowledge of behavior management is needed, it is necessary for the Academy to sponsor CE for the general dentist.

### **Progress Report**

No plans for a stand-alone course in the future. Constantly including and encouraging GPs and Affiliate members to attend our CE courses and online opportunities. All but one CE course is open to non-members (Oral Exam Review), most notably the Comprehensive Review is now open to members (including affiliates) and non-members alike.

### Charge 3

Plan and conduct the Pediatric Medicine Update course every two years beginning in the fall of 2017.

Background and Intent: There is a continued need for our members and their staff to obtain evidence-based knowledge and updates on the more common disorders and diseases most frequently encountered in a pediatric dental practice. Course participants should be provided the latest medical treatment in the management of these diseases and disorders as part of the curriculum.

#### **Progress Report**

Most recent course was in March of 2017 and the next will be in 2019.

### Charge 4

Continue to populate the digital speaker's bureau that will remain available to the public, including Districts, States seeking to identify experts and speakers in pediatric dentistry. The submission process is available online and the Speakers Bureau Committee maintains the current list of speakers and updates the list on an ongoing basis. Background and Intent: This is a standing charge to the Council. There is an open call to the membership requesting applications. Those who apply must be a member in good

### Council on Continuing Education, 2017-2018

standing and must speak to the AAPD Guidelines. Speakers will be evaluated on an annual basis through a vetting process.

### **Progress Report**

The submission process is available online and the Speakers Bureau Committee will maintain the current list of speakers and update the list on an ongoing basis. Currently there are 72 completed submissions with 51 submissions accepted.

### **Project Charges**

### Charge 5

Create a curriculum designed specifically as a board preparation course for candidates taking the ABPD Qualifying Examination. Course to take place no sooner than 2018 when the evaluations from the ABPD practice analysis and consultation are complete and analyzed.

Background and Intent: Based on the number of members who are diplomates maintaining their certification, it is important to provide the tools they need to study for the exam and maintain their diplomate status.

### **Progress Report**

AAPD headquarters staff has worked with the Executive Committee to appoint the task force to develop the course outline and curriculum. Some of them will also be selected to be faculty of the new course. The following names are being confirmed:

Clarice Law Juan Yepes Rebecca Slayton Paul Casamassimo Jenny Ison Stigers

The workgroup members have been invited and a face-to-face meeting has been scheduled for April 25, 2018.

### Charge 6

Plan and conduct a series of podcasts on topics of interest to our members and their staff. The Council on Continuing Education will solicit the input of Councils on Clinical Affairs and Scientific Affairs as needed.

Background and Intent: Currently, a majority of pediatric dental residents receive a portion of their training electronically. Younger dentists communicate electronically for a majority of their professional and non-professional encounters. The Academy needs to be prepared to engage this group professionally through electronic continuing education.

### **Progress Report**

Pedo Teeth Talk was launched in April 2017. Summary of downloads:

- Ep.001 SDF: Game Changer? If So, How Do I Change My Game? 3,351 views
- Ep.002 Pulp Fiction: Can We Regenerate a Pulp Following Dental Trauma? 2,854 views
- Ep.003 Practice Management: They Didn't Teach Me That in Dental School 1,674 views
- Ep.004 Resin Infiltration: Using ICON to Halt Caries Lesion Progression 1,713 views
- Ep. 005 Are You Using Your Dental Materials for Children Correctly? 1,308 views

### Council on Continuing Education, 2017-2018

### Future podcasts:

- Anu Tate—Update on Clinical Guidelines/EBD
- Rob Delarosa—Practice management
- Nestor Cohenca—Getting up to date in pulp therapy for young permanent teeth
- Jeanette Maclean—Managing dental caries in a busy practice: combining restorative and SDF
- Jim Shealy—Dental Service Organizations
- Travis Nelson—Decision making in Pediatric Restorative Dentistry

### Council on Continuing Education, Journal-Based Continuing Education Committee 2017-2018

Homa Amini, Chair
Bruce Weiner, Board Liaison
Members
James R. Boynton
Amy L. Goodwin
Catherine H. Hong
Sam Malcheff
Vijay Prakash Mathur
Staff Liaison
Scott Dalhouse, Educational Affairs Manager

Vision

### **Duties**

The duties of the Council on Continuing Education, Journal-Based Continuing Education Committee, as listed in the AAPD Administrative Policy and Procedure Manual, are to:
1) develop, monitor, implement and evaluate the Journal-Based Continuing Education Program; 2) promote participation in the Journal-Based Continuing Education Program by AAPD members; 3) perform such other duties as assigned by the President or the Board of Trustees.

### **Standing Charges**

### Charge 1

Develop a Journal-based Continuing Education program to meet the needs of membership in addition to the traditional CE venues. Monitor and report utilization rate to the Board of Trustee annually. Promote the program through various AAPD marketing approaches.

Background and Intent: This is a standing charge to the committee, based on membership needs. It is the Academy's desire to regularly offer continuing education opportunities of unique content through various venues including self-guided CE based on the current literature published in *Pediatric Dentistry*. This is a membership benefit as well as a potential source of non-dues revenue.

Council on Continuing Education, Journal-Based Continuing Education Committee, 2017-2018

### **Progress Report**

This is an ongoing charge. The chair reviews each issue of *Pediatric Dentistry* prior to publication and selects three articles for CE designation. CE questions are developed for designated articles and made available to the membership. Four to six questions for each of the articles are written and distributed to the subscribers in order to earn continuing education credits. The program is being promoted via various AAPD resources including the E-news.

The procedure to develop and distribute post-test questions was revised last year. When manuscripts are confirmed for publication (typically a few months prior to actual release date), they are distributed to the committee at time rather than waiting until the publication date. Questions are then developed and delivered almost simultaneously at the time of the journal mailing. This has ensured a more timely delivery of the posttest and awarding CE credit.

In addition, a new process is in place for a secondary review of the questions. Primary author submits the questions and all questions are reviewed and edited by a second committee member. This has resulted in better quality of the items written. The chair has monitored the feedback from the membership indicating improvement.

Staff has been testing with Survey Monkey to moving Journal-based CE to electronic platform. This will be piloted with the March/April 2018 edition of the Journal.

In 2017, 378 members subscribed to the Journal-based CE program with net revenue of \$34,020. This is an increase as compared to 2016 (last year collection: \$20,430).

The program is being promoted via various AAPD resources including the E-news.

### Council on Continuing Education, Speakers Bureau Committee 2017-2018

Carlos A. Bertot, Chair
Bruce Weiner, Board Liaison
Members
Courtney Alexander
Scott D Goodman
Janice A. Townsend
Santos Cortez
Ex Officio Member
D. Cody Mast, Chair, Council on Continuing Education
Staff Liaison
Kristi Casale, Meeting Services Director
Tonya Almond, Vice President for Meetings and Continuing Education

### Vision

#### **Duties**

The duties of the Council on Continuing Education, , Speakers Bureau Committee, as listed in the AAPD Administrative Policy and Procedure Manual, are to: 1) identify and recruit the most competent content area experts to meet the needs of AAPD and district and state chapters for exceptional continuing education program speakers; 2) maintain an AAPD Speakers Bureau listing that is conveniently accessible by AAPD, district and state chapter leadership, with periodic updates; and 3) manage an ongoing process for speaker evaluation, recruitment, and monitoring.

### **Progress Report**

Submissions to Speakers Bureau are ongoing. There are currently 51 approved submissions for lectures.

The committee continues to evolve from an administrative standpoint. Since the recent implementation of three separate deadlines within the calendar year for both candidate submissions and corresponding committee review, the committee has easily and effectively met its obligation and the candidates have been informed of a decision in a timely manner. Communication with the candidates themselves is also evolving as adjustments to our correspondence have been made.

The editing/updating of the Cadmium site for the speaker candidate review process is our main goal this year.

Eric D. Hodges, NC District, Chair

Tegwyn H. Brickhouse, Board Liaison

### **Members**

Courtney Chinn, NE District

Patrice B. Wunsch, SE District

Matthew K. Geneser, NC District

Jason Zimmerman, SW District

BJ Larson, W District

Nick Rogers, Affiliate Member

#### **Consultants**

Stuart D. Blumenthal

John A. Bogert

James J. Crall

Keri Discepolo

John T. Fales

Douglas B. Keck

Shari C. Kohn

Jessica Y. Lee

J. Miles Mazzawi

Kara M. Morris

Jessica L. Robertson

#### **Ex-Officio Members**

Jennifer L. Cully, (Chair, Council on Membership and Membership

Services, New Pediatric Dentist Committee)

Paul Reggiardo, Ex Officio (Interim Chair, Committee on Dental Benefit Programs)

Scott W. Cashion, Ex Officio (Chair, Pediatric Dental Medicaid and CHIP Advisory Committee)

Heber Simmons, Jr., Ex Officio (Congressional Liaison)

Amr M. Moursi, Ex Officio (Liaison to AAP)

### Staff Liaisons

C. Scott Litch, Chief Operating Officer and General Counsel

John S. Rutkauskas, Chief Executive Officer

### Vision

The vision of the Council on Government Affairs is that all children have access to quality dental care within the dental home. To attain this vision the Council will educate membership and advocate on the national level for fair and equitable treatment for all children.

#### Duties

The duties of the Council on Government Affairs, as listed in the AAPD Administrative Policy and Procedure Manual, are to: 1) monitor legislative and regulatory activities at the national level that may affect the health of children and make recommendations to the Board of Trustees regarding AAPD policy on these matters; 2) collaborate with related organizations on legislative and/or regulatory matters of mutual interest, including the ADA's legislative offices in Washington, D.C. and Chicago; 3) provide information to district organizations and state units that would be of benefit in their regional and local legislative and regulatory efforts; 4) make recommendations to the Board of Trustees concerning the Academy's legislative and regulatory priorities and additionally recommend activities related to these priorities; 5) perform such other duties as assigned by the President or the Board of Trustees.

### **Standing Charges**

### Charge 1

Annually develop, and recommend to the Board of Trustees at the Winter Planning Meeting, AAPD Legislative and Regulatory priorities for the ensuing calendar year, and coordinate all elements of advocacy resources to support these priorities. Background and Intent: This is a standing charge to the council.

### **Progress Report**

CGA developed priorities for 2018 that were approved by the Board of Trustees on Jan. 12, 2018 and are available at:

http://www.aapd.org/aapd\_2018\_legislative\_and\_regulatory\_priorities/

### Charge 2

Continue workforce expansion and enhancement efforts by promoting funding for pediatric dentistry training through:

- a. Primary care dental training authority under the Affordable Care Act (ACA), which includes faculty loan repayment.
- b. Identification and implementation of state faculty loan repayment programs
- c. AAPD membership support for workforce efforts, including national, state and local legislative initiatives and collaboration with local dental education programs.
- d. Technical assistance for program directors concerning funding of pediatric dental training including Title VII applications and awards, and Medicare/Medicaid GME and Children's Hospitals GME. Provide alerts and reminders to ensure a robust response to the HRSA FY 2016 new grant cycle for faculty loan repayment.

Background and Intent: This charge recognizes that efforts to grow the pediatric dental workforce require multiple efforts and technical assistance as requested by current and potential training sites.

### **Progress Report**

Item 2 d) related to dental faculty loan repayment was achieved via HRSA making 10 FY 2017 awards, all of which received the funding preference for pediatric dental faculty. See: <a href="http://www.aapd.org/hrsa">http://www.aapd.org/hrsa</a> announces 10 pediatric dental faculty loan repayment award s /

Recipients will be featured in upcoming issues of PDT and highlighted in 2018 AAPD advocacy materials. See the CEO's Annual Report for more details. Also see the University of Tennessee faculty profile featured in the 2018 Title VII Pediatric Dentistry appropriations fact sheet:

http://www.aapd.org/assets/1/7/Fact\_Sheet\_1-HRSA.pdf

### Charge 3

Promote and support fair and equitable access to oral health services for all segments of the population by:

- a. Promoting enhanced public funding of pediatric oral health services through:
  - 1. Federal legislators and regulators for Medicaid and CHIP
  - 2. State legislators and regulators for Medicaid and CHIP, highlighting "model" programs such as the Michigan Healthy Kids Dental Program, and reforms resulting from litigation settlements in Connecticut and Texas.
- b. Encouraging federal and state health agencies to remove non-financial barriers to children's oral health care. "Non-financial barriers" mean administrative and regulatory burdens and communications problems that discourage provider and/or patient participation in these programs.
- c. Facilitating dissemination of information through the Pediatric Oral Health Research and Policy Center and AAPD website on the status of state dental Medicaid programs, utilizing expertise of the Council's Pediatric Dental Medicaid and SCHIP Advisory Committee.
- d. Promoting state adoption of EPSDT dental periodicity schedules based on AAPD guidelines, and disseminating such schedules.
- e. Continuing to provide technical assistance on Medicaid pediatric dental reimbursement to states and on-site consulting service on this topic and/or general anesthesia legislation to state units.

Background and Intent: The intent is to continue to support efforts to improve Medicaid for children's oral health and have successful implementation of a pediatric oral health component of CHIP.

### **Progress Report**

Protection of the EPSDT children's dental guarantee in any Medicaid reform remains a key AAPD priority. The POHRPC has developed several Medicaid technical briefs and related resources. In early 2018 Congress reauthorized CHIP for 10 years. See the CEO's Annual Report for more details.

### Charge 4

Continue to monitor and influence the implementation of the Affordable Care Act (ACA) pediatric oral health benefits and work closely with the Committee on Dental Benefit Programs (CDBP) on educating membership.

Background and Intent: This change has the potential to bring more children into the oral health care system. It is the intent of this charge to update members about national and state changes and positively influence implementation. Both the Council on Government Affairs (CGA) and CDBP will utilize the ACA Rapid Response Team. CGA will focus on influence and implementation; CDBP will focus on educating members and the insurance industry.

### **Progress Report**

To date Congress has been unable to reform, replace, or repeal the ACA. However, there have been several ACA regulatory developments of importance. See the CEO's Annual Report for more details.

### Charge 5

Develop and maintain an effective AAPD advocates structure.

- a. Periodically conduct advocacy forums during the annual session, including basic advocacy training refresher courses as appropriate.
   Background and Intent: The intent is to continue education and dialogue with our growing "advocacy network".
- b. Encourage membership participation in our advocacy and legislative training programs. Utilize the New Pediatric Dentist Committee in recruitment efforts, and encourage these committee members to attend.
  Background and Intent: This charge relates to the continuing effectiveness and improvement of AAPD Advocacy Training Workshops.
- c. Present Advanced Legislative Workshops or webinars as necessary, focused on a specific advocacy issue critical to AAPD's priorities. Background and Intent: This charge builds upon the success of the fall 2010 advanced workshop focused on mid-level/non-dentist provider issues and the fall 2011 webinar on state insurance exchanges and essential benefits under the Affordable Care Act. Moving forward, basic advocacy training will be offered as needed at either the Annual Session or Lobby Days, rather than as a free-standing workshop.
- d. Encourage states to develop and increase their advocacy infrastructure, through mechanisms such as a public policy advocate, including liaison and partnership with their state dental association. Mentor, monitor, and supervise the PPAs.

### **Progress Report**

The New Dentist program at the 2018 Annual Session will include Dr. Beverly Largent discussing advocacy opportunities. See the CEO's Annual Report for more details (and photos) about the highly successful 2018 Public Policy Advocacy Conference in Washington, D.C.

### Charge 6

Maintain a close collaboration with the AAPD Political Action Committee related to evaluating candidates for AAPD PAC support, taking into account the advice of AAPD's Washington lobbyist. CGA will present a report to the PAC Steering Committee in election years to facilitate recommendations for candidate financial support. Background and Intent: The PAC has two functions: to raise money and to disburse it. This charge creates a formal mechanism for the Academy to identify those seeking office

it wishes to support utilizing the Council most familiar with issues that are deemed important for children's oral health. This will include a written CGA report for each Congressional election cycle.

### **Progress Report**

CGA prepared a written report for the PAC in advance of the PAC Steering Committee's meeting on March 4, 2018. This report recommended that AAPD PAC support be provided to all 38 members of the House who signed onto the FY 2019 Title VII Pediatric Dentistry *Dear Colleague* Letter generated by Congresswoman Julia Brownley (D-Calif. 26th) and Congressman Gregg Harper (R-Miss. 3rd).

### Charge 7

Working closely with the PPAs, monitor state legislative activities related to AAPD legislative and regulatory priorities. Provide PPAs with important analysis and reports developed by the Pediatric Oral Health Research and Policy Center that will assist in their advocacy efforts. Expand reporting on state legislative news in AAPD publications, including website. CGA will monitor their activities, including procuring and reviewing an annual written report form each PPA. Based on results from the 2016 PPA survey, propose additional training/refreshers courses for PPAs as warranted. Background and Intent: While the CGA deals primarily with national concerns, there are many issues that arise in the states that may influence national legislation. In addition, the same issue may arise in several states and communication between them could be of paramount importance.

By the district members of the Council monitoring activities within their states and reporting back to the Staff Liaison and Board of Trustees, our members will have the opportunity to learn what is happening throughout the country and thus be more efficient and effective within their own locales.

### **Progress Report**

The next PPA refresher course/workshop will be integrated into the 2018 Ad Interim Board of Trustees meeting schedule, and will take place on September 29, 2018 in Chicago. There are now PPAs in 44 states plus the District of Columbia. See the CEO's Annual Report for a listing of new PPA additions and replacements. CGA also hosts quarterly PPA conference calls for information sharing and strategizing.

PPA written reports are appended to this report.

### Charge 8

Monitor activity and assist state units and state unit Public Policy Advocates in achieving universal reimbursement for medically necessary general anesthesia and related facility fees under health care plans and programs when oral health services are provided under general anesthesia. Report annually to the Board on progress in this field. Utilize general anesthesia strategy document to advise PPAs in states lacking general anesthesia coverage laws. The approach might change depending on the outcome of ACA repeal and replace efforts.

Background and Intent: This is a standing charge to the Council. The Academy's goal is to secure the passage of universal state legislation to ensure coverage for medically-

necessary anesthesia and related hospital charges when dental treatment is provided under general anesthesia. This charge takes into account barriers to passage of state insurance mandates enacted after December 31, 2011, which would require under the Affordable Care Act that states, not the insurer, pay for these benefits in subsidized health plans sold in the state Insurance Exchanges.

### **Progress Report**

Further push was on hold pending the outcome on ACA repeal and replace legislation. Given that failure, CGA will continue to discuss with PPAs the AAPD's 2016 general anesthesia (GA) coverage strategy analysis/white paper. Essentially, so long as the ACA remains in place, rather than pursue a state insurance mandate law, a better approach for PPAs and other pediatric dentistry advocates is to ensure that their state adopts only those benchmark plans which include GA coverage.

# Reporting Form for AAPD State Public Policy Advocates

### 2018 Annual Reports to AAPD Membership

**PPA Name** 

Jessica Robertson

**State Chapter Name** 

Arizona

PPA's practice or teaching location (city or town)

Flagstaff, AZ

Key state legislative and/or regulatory issues worked on during the past year

Dental Therapy bill, State Medicaid committee Meetings

### Specific outcomes of note

Continue to meet with the dental director for State Medicaid and insurance plans to work through provider issues (credentialing, payments, audits, etc.). These meetings are on going and although many promises to decrease credentialing time to 90 days, many providers report longer time frames or denials based on plans having enough providers

Dental Therapy bill failed to pass the house health committee but was recently resurrected through a strike all amendment in the senate government committee, which it passed. It will now go to the house for a vote. Our dental association offered significant amendments when it was heard in the senate education committee (must be hygienist first, increase the hours from 200 to 1000 prior to being able to work without direct supervision) and those were included in the new bill that was passed in the government committee. Our members are still hard at work contacting their representatives, but the bill initially started with over 30 cosponsors.

### Biggest challenges

Political maneuvers of the PEW foundation and their endless amounts of money. The governor recently appointed an additional member to the dental board. This

additional person is a supporter of PEW and dental therapy. He is an owner of one of the DSO companies in Arizona. The governor will sign the dental therapy bill when it is passed.

Also I was very disappointed by a comment by one of the other state PPA's that Kansas leadership caved in with the dental therapy bill. After fighting this battle in Arizona, I don't know how PEW can be stopped. Our state leaders in Arizona spent lots of time at the capital. We had four committee hearings and state capitol day in addition to multiple planning meetings and conference calls. Politics is very time consuming.

### Joint efforts with state dental association (including dental lobby day)

I sit on our state CGA. All of our call to action are sent to our members. Not all members of the Arizona Academy of Pediatric Dentistry are members of the AzDA.

### Plans for 2018-19

Recovery! Just kidding. I hope to get a disclosure bill through our legislature. The disclosure bill would have health professionals disclose their level of training to the patients that they are treating.

# Reporting Form for AAPD State Public Policy Advocates 2018 Annual Reports to AAPD Membership

### PPA Name Anupama Rao Tate

### State Chapter (full name) District of Columbia

### PPA's practice location

Children's National Health systems Dept of Dentistry 111 Michigan Ave, NW Washington, DC 20010

### Key state legislative and/or regulatory issues worked on in the past year

No significant issues came up in the District of Columbia regarding Pediatric Oral Health this past year.

### Specific outcomes/activities of note

Along with students from Howard University, we meet with Congress person Holmes-Norton's health liaison.

### Status of relationship with state dental association lobbying team Member of State Dental Association with good working relationship.

### Biggest challenges

Obtain base line Data for DC's kids. Caries risk, caries prevalence. DC does minimal reporting to National agencies.

### Joint efforts with state dental association (including dental lobby day)

Along with students from Howard University, we meet with Congress person Holmes- Norton's health liaison.

I am serving as president for the DC AAPD Chapter. Co-Director of the DC Pediatric Oral Health Coalition.

### Plans for 2018-19

Continue to form broader and deeper relationships with organized Dentistry in DC. The DC Chapter of the AAPD had been successful in collecting dues through the AAPD!

# Reporting Form for AAPD State Public Policy Advocates 2018 Annual Reports to AAPD Membership

PPA Name Dr. Manav Malik

State Chapter (full name) Florida

PPA's practice location Sarasota, FL

### Key state legislative and/or regulatory issues worked on in the past year

- faculty loan repayment program
- title VII funding for pediatric dentistry
- dental student loan repayment program in underserved areas
- dental therapy bill
- school-based sealant program in South Florida
- lack of representation of pediatric dentistry on FL board of dentistry.

### Specific outcomes/activities of note

- Dr. Nick White (pediatric dentist in Lake Mary, FL) was recently appointed by Gov. Rick Scott to serve on the Florida Board of Dentistry. His term ends 10/31/21. Dr. White is the first pediatric dentist in 30 years to sit on the FL BOD.
- The Florida House and Senate voted in favor of creating a loan repayment plan for dentists who practice in underserved areas. Under the proposed legislation, participating dentists could "receive up to \$50,000 per year to help repay" their student loans, and they could "serve in this program for up to five years."
- FL HB 683 and SB1498 (both related to dental therapy) died in the Health Care Appropriations Subcommittee and Health Policy, respectively, on Saturday, March 10, 2018. The Florida Academy of Pediatric Dentistry supported the Florida Dental Association in opposition to the bill as originally proposed

### Status of relationship with state dental association lobbying team

### Biggest challenges

- Push for dental therapists in our state the battle continues for the next several years
- Original bill would have allowed dental therapists to perform 80% of pediatric dentistry procedures (including but not limited to: evaluating radiographs, pulpotomies on primary teeth, administering nitrous oxide, extraction of primary teeth, placement of space maintainers).

# Joint efforts with state dental association (including dental lobby day)

#### Plans for 2018-19

- continue to stay actively engaged on the topic of dental therapy
- support and collaborate with the Florida Dental Association (FDA) on dental therapy
- participate in state dental lobby day in 2019

## **2018 Annual Reports to AAPD Membership**

PPA Name: Lynn K Fujimoto DMD

**State Chapter Name:** Hawaii Academy of Pediatric Dentistry

PPA's practice or teaching location (city or town): Honolulu, Hawaii

# Key state legislative and/or regulatory issues worked on during the past year

#### **Ethics CE:**

The Hawaii Dental Association continues to support HB 2149 and SB 2931. These bills add needed flexibility to dentists meeting the continuing education ethics requirements. Dentists would be allowed to take six hours of ethics credits over a two-year period instead of having to complete three-hours each year.

#### **Dental Assistant Regulation:**

There are a couple of bills related to dental assistant regulations. <u>HDA supports HB 2207</u> which would allow the Board of Dental Examiners to create a tiered regulatory framework for dental assistants. But <u>HDA opposes SB 2926</u>which does not adequately transition dental assistants already in the workplace and creates a hardship for new dental assistants, particularly on the neighbor islands to meet new requirements.

#### **Licensing Restrictions:**

HDA, the Board of Dental Examiners and others <u>oppose SB 2638</u> which relates to various boards including the Board of Dental Examiners and restricts them from regulating duties deemed to be "overlapping" with regulated professionals.

#### Specific outcomes of note

#### Biggest challenges

Licensure issues.

Hawaii Academy of Pediatric Dentistry has been in support of expanded duties for dental assistants including coronal polishing. HB 2207 would allow for a tiered framework for dental assistants but is receiving much opposition.

# Joint efforts with state dental association (including dental lobby day)

Legislative Breakfast with Hawaii Dental Association

Plans for 2018-19

None

## 2018 Annual Reports to AAPD Membership

#### **PPA Name**

Matt Geneser

#### **State Chapter Name**

Iowa Academy of Pediatric Dentistry (IAPD)

#### PPA's practice or teaching location (city or town)

Full time academics at University of Iowa College of Dentistry (Iowa City, IA)

# Key state legislative and/or regulatory issues worked on during the past year

Iowa Dental Board is moving toward total deregulation of advertising in response to potential legal challenges from the ABDS. This has been the primary concern in Iowa, otherwise things have been pretty calm.

#### Specific outcomes of note

The advertising decision is still in the works, we have submitted a letter to the IDB, which was drafted by Scott Litch.

### **Biggest challenges**

The continuing battle with the Iowa Dental Board over advertising. Next meeting is set for April 6, 2018 and this issue has dominated the discussion in our state.

# Joint efforts with state dental association (including dental lobby day)

Attended the Chapter Leadership Orientation and PPA Refresher Course in April 2017 along with Mike Stufflebeam, President of the IAPD.

#### Plans for 2018-19

- Continue to work with Mike Stufflebeam on the advertising issue.
- Attend the Advocacy Day in March 2018 completed
- Attend the PPA Refresher Course in Chicago in September 2018
- Monitor the IDB activity on issues such as SDF (recently expanded the use of SDF to include dental hygienists with indirect supervision)
- Monitor insurance changes regarding coverage of SDF Delta Dental of Iowa (CHIP provider) is considering a change in billing procedures.

## 2018 Annual Reports to AAPD Membership

#### **PPA Name**

Stephen C Mills, DDS

#### **State Chapter Name**

Maine Society of Pediatric Dentistry

#### PPA's practice or teaching location (city or town)

Scarborough, Maine

# Key state legislative and/or regulatory issues worked on during the past year

Most of the legislative initiatives here have focused on the opioid crisis. Most have to do with prescribing practices but this past year has invoked mandatory opioid awareness training for anyone prescribing these medications. The Maine Dental Association and the University of New England have made these training classes available widely at no cost.

Dental Therapist issues are continually possible but until one finds his or herself locating in Maine, it has been a non-issue. The direct supervision clause might be part of the reason as well as no one from the Minnesota training sites probably has thought of coming here yet.

In sedation areas, this summer will see mandatory capnography for in office sedations.

#### Specific outcomes of note

The newly formed "Partnership for Children's Oral Health". is holding a multi-group brainstorming session on Silver Diamine Fluoride at the end of March. This group will discuss what the requirements will be for acceptable usage and qualified users, Medicaid coverage for the procedure, ongoing education and awareness focusing on dental professionals, and the use by non-dental personnel such as medical providers. This will be a first step in creating a statewide protocol.

## 2018 Annual Reports to AAPD Membership

PPA Name: Shari C. Kohn

State Chapter Name: Maryland Academy of Pediatric Dentistry MdAPD

#### PPA's practice or teaching location (city or town)

Practice: Dentistry for Kids Hunt Valley, MD 21152

Teaching: University of Maryland, Baltimore MD 21201

Key state legislative and/or regulatory issues worked on during the past year: Dental Therapists were most important to Pediatric Dentists. See attached documents

**Specific outcomes of note: U**nknown at this time – still waiting for votes and hearings

**Biggest challenges:** Pew and Kellogg – they have so much money and keep introducing the bill through a terrible state senator – Conway – she hates dentists and last year blamed all of us at the hearing for the death of Deamonte Driver.

Joint efforts with state dental association (including dental lobby day): All our efforts are joint. Unfortunately, we have some members of MdAPD that are corporate and we have division within our group and within our state.

Plans for 2018-19: We assume the Dental Therapists (Advanced Dental Hygiene) Bill will be introduced again.



#### Myth/Fact about Dentistry in Maryland and Advanced Practice Dental Hygienists and Dental Therapists

MYTH: There aren't enough dentists to care for everybody in Maryland.

FACT: Maryland has the 8<sup>th</sup> highest number of dentists per capita in the United States. In addition, there are 125 new dentists graduating from the University of Maryland School of Dentistry every year.

MYTH: Dental care is too expensive, Low-income Marylanders simply can't afford it.

FACT: Dentists across Maryland provide care through venues of all sorts. In fact, 97 percent of all children enrolled in Healthy Smiles live within 15 minutes of a Medicaid dentist. Many dentists see patients in their offices at low or no cost, participate in Mission of Mercy events at 4 locations across the state just this year, have regular visits in elderly care facilities, and provide donated care through the Maryland Foundation of Dentistry for the Handicapped.

MYTH: Dental therapists will provide less expensive care for the same procedures.

FACT: Procedures cost the same amount to the patient—and the state—no matter who performs them. The problem is inadequate insurance coverage and a tattered safety net that fails to serve the population in need.

MYTH: It's completely safe for non-dentists to pull a tooth.

FACT: Pulling a tooth is an irreversible surgery, and is not always a simple procedure. A tooth extraction can become an emergency in seconds. Dentists are doctors with comprehensive training best suited to safely treat patients with other complex issues. Advanced practice dental hygienist will not have the same high level of training.

MYTH: Dental therapists can allow dentists to work on more complicated cases.

FACT: Many, if not most, of the patients who may see an advanced practice dental hygienist have some of the most complex cases because of their lack of dental care over a period of time. A dental therapist wouldn't be able to treat many of these cases, and patients would be relegated to a lesser standard of care than they need.

MYTH: Dentists won't take Medicaid patients, so we need to find an alternative way to help.

FACT: The infrastructure is already in place as 97 percent of children enrolled in the Healthy Smiles program in Maryland live within 15 minutes of a Medicaid dentist. In addition, Maryland dentists provide millions of dollars in free or discounted care each year at their own practices, at events like the Mission of Mercy programs across the state, and through the Maryland Foundation of Dentistry for the Handicapped.

MYTH: Dental therapists are having success in other states and countries.

FACT: Dental therapists, or advanced practice dental hygienists, have failed to make measurable improvements to oral health in underserved communities. Some dentists found them to be unprepared to treat patients. Less than 40 percent of Medicaid children in Minnesota, where dental therapists have been working for nearly ten years had a dental visit last year. Minnesota adults are still seeking dental treatment in emergency rooms, costing taxpayers an estimated \$148 million over the most recent three years for which information is available.

MYTH: Maryland dentists don't have any solutions.

FACT: Maryland dentists are already pioneering some of the most innovative ideas in the country. A Western Maryland program utilizing Community Dental Health Coordinators (CDHC), or Community Health Workers as they are often referred, has produced real results, providing patients access to fully trained dentists and saving millions of dollars over 5 years-without creating a second-tier provider. The CDHC works with the local emergency department to help ensure appropriate and cost-effective care for low-income patients who visit emergency rooms for tooth pain, helps coordinate a continuum of care for the patient to avoid future emergency room visits, and helps patients understand procedures and the importance of oral health care.



#### Legislation Tracking List

Support SB 284 - Maryland Medical Assistance Program - Dental Coverage for Adults. Sponsor Senator Middleton. This bill would support reinstatement of Adult Dental Medicaid Benefits. The Maryland Healthy Smiles Program has worked wonders for children across the state. In 2015, 69% of Maryland's Medicaid enrolled children obtained dental treatment in the prior 12 months, much better than the national average. This bill would extend dental Medicaid benefits to the neediest adults in Maryland. Passage and implementation of this bill would greatly reduce wasted Medicaid dollars being spent on Emergency Department visits for dental pain. This would also reduce the number of opioids being prescribed to manage this dental pain.

Support HB 438 - State Board of Dental Examiners - Ownership, Management or Operation of a Dental Practice. Sponsor Delegate West. This bill would ensure continuation of existing law that protects the dentist/patient relationship from outside/non-dentist equity interference. This bill would continue to allow Maryland dentists to hire outside firms to do managerial tasks, and to provide consulting services such as accounting, payroll, staff training. However, it prohibits the practice of "fee splitting" and "revenue sharing" (a violation of the ADA Code of Ethical Conduct) and interference with clinical decisions and treatment.

Support HB 652 - Health Occupations - Violations of the Maryland Dentistry Act - Penalties and Cease and Desist Orders. Sponsor Delegate West, The Maryland State Board of Dental Examiners (MSBDE) has had issues stopping suspended dentists, dental labs, and non-licensed individuals from practicing dentistry or dental hygiene. This bill would increase the penalties for practicing without a dental license and allow the MSBDE authority to issue a cease and desist order.

Support - HB 800/SB 934 - State Board of Dental Examiners - Licensure - Faculty Members at University of Maryland School of Dentistry. House Sponsor HB 800 - Delegate Pena-Melnyk, Senate Sponsor SB 934 - Senator Nathan-Pulliam. These bills would allow paid full-time dental school faculty at the University of Maryland who have a teaching license, to obtain a full dental license after: 1) teaching seven years at the Dental School; 2) passing the national ADEX examination; and 3) receiving board certification within their specialty of dental practice. This bill is consistent with MSDA House of Delegates Resolution 11-110RC.

Oppose HB 70 - Maryland Dentistry Act - Scope of Practice and Penalties for Violations. Sponsor Delegate Angel. This bill is being proposed by the Dental Service Organizations (non-dentist owned or controlled dental practices) and would allow non-dentists to control, manage and share in revenues of dental practices in Maryland. For the reasons listed above in HB 438, we oppose this bill.

Oppose HB 879/SB 544 - Health Occupations - Advanced Practice Dental Hygiene. House Sponsor HB 879 Delegate Cullison and Senate Sponsor SB 544 Senator Conway. This bill would set up a two-tiered dental healthcare system with those with the most need obtaining dental care from the least trained individuals (Advanced Practice Dental Hygienists/Dental Therapists). Passage of this bill will not decrease the cost of care as dental fees are set by procedure code, not by who provides the care. This bill would further increase the cost of dental education and place the Maryland State Board of Dental Examiners in the nearly impossible position of determining educational requirements for a mid-level provider program for which there is no national accreditation. The Board would also have to approve examinations when there are none offered by a national or regional testing agency.





## 2018 Annual Reports to AAPD Membership

PPA Name John Deppen

State Chapter Name Michigan Academy of Pediatric Dentistry

#### PPA's practice or teaching location (city or town)

Semi-retired. Working part-time in Kalamazoo area.

# Key state legislative and/or regulatory issues worked on during the past year

- (1) Healthy Kids Dental re-bid process employed as MCNA consultant
- (2) Dental Therapist Bill (currently in House Health Committee)

### Specific outcomes of note

HKD-Contract award: (1) Delta Dental (2) BCBS (DentaQuest)

Implementation date: 10/1/2018

### **Biggest challenges**

Dental Therapist Bill

# Joint efforts with state dental association (including dental lobby day)

I am in constant contact with Bill Sullivan JD, at MDA regarding legislative/insurance matters.

#### Plans for 2018-19

Monitor implementation of HKD, especially DentaQuest administration.

## 2018 Annual Reports to AAPD Membership

**PPA Name:** Elise Sarvas

**State Chapter Name:** Minnesota Academy of Pediatric Dentistry

PPA's practice or teaching location (city or town): Minneapolis, MN

Key state legislative and/or regulatory issues worked on during the past year/Specific outcomes of note

 Sedation committee wanted to put excess note keeping requirements for nitrous oxide inhalation beyond AAPD guidelines (e.g. respiratory rate, pre and post op blood pressure, height and weight). PPA and other pediatric dentists successfully had recommendations mirror the AAPD guidelines for nitrous oxide inhalation instead.

Biggest challenges: Low Medicaid reimbursement rate in the state

# Joint efforts with state dental association (including dental lobby day):

- Joint fundraising event with Rep. Erik Paulsen April 23<sup>rd</sup>. PAC Contribution
- AAPD PAC Contribution to Rep. Betty McCollum February 21st
- Dental Lobby Day March 2, 2018
- AAPD Public Policy Advocacy Conference Five residents

#### Plans for 2018-19

- Continue to work for higher Medicaid reimbursement rates for state
- Continued work with sedation committee to ensure record keeping mirrors AAPD guidelines

## 2018 Annual Reports to AAPD Membership

#### **PPA Name**

Holly Portwood-Randone

#### **State Chapter Name**

Nebraska

### PPA's practice or teaching location (city or town)

Hastings & Grand Island

# Key state legislative and/or regulatory issues worked on during the past year

Got EFDA bill passed.

#### Specific outcomes of note

#### **Biggest challenges**

Our state has switched over to MCNA to manage our state Medicaid. I have been working with them to tweak the manual, as much of our Medicaid manual had very ambiguous wording prior to them taking over.

# Joint efforts with state dental association (including dental lobby day)

Legislative reception with NDA that discussed bills regarding opioid abuse.

#### Plans for 2018-19

- 1. Work on getting the Board of Dentistry to overturn ruling that a Dental Hygienist can place SDF without supervision of a licensed dentist. These patient have no follow-up required, and a diagnosis of decay has to be made, which is out of their scope of practice.
- 2. Work closely with MCNA to continue to improve Medicaid program in state I will be chairing the Dental Advisory Committee.

### 2018 Annual Reports to AAPD Membership

**PPA Name** Lindsay Row

State Chapter Name Nevada Academy of Pediatric Dentistry

#### PPA's practice or teaching location (city or town)

Las Vegas, NV

# Key state legislative and/or regulatory issues worked on during the past year

This was my first "year" as PPA as I just officially joined in January 2018. I know Medicaid in NV underwent a big structural change as far as combining into one general Medicaid plan and has since decreased the fee schedule. Also, not all counties in NV are fluoridated which always comes up in legislation.

#### Specific outcomes of note

Many counties in NV are still non-fluoridated as legislation to fluoridate did not pass in 2017. NV Medicaid consolidated into one MCO under Liberty instead of multiple Medicaid policies for dental.

### Biggest challenges

Rural areas in NV are against water fluoridation. Medicaid combined into one MCO and fees are dropping thus having more pediatric dentists opt out.

# Joint efforts with state dental association (including dental lobby day)

I'm working with Cody Hughes who is on the NDA legislative committee and will attend meetings to try and stay up to date with the NDA.

#### Plans for 2018-19

I plan to become more involved on the state level and continue to work with Cody Hughes who is on the NDA legislative committee and Jade Miller on many of these issues.

## 2018 Annual Reports to AAPD Membership

PPA Name: Roger Achong, DMD

State Chapter Name: New Hampshire Academy of Pediatric Dentistry

#### PPA's practice or teaching location (city or town)

Concord, New Hampshire

# Key state legislative and/or regulatory issues worked on during the past year

There is the NH Dental Medicaid Advisory Committee which is a committee of the NH Dental Society and I also a member of that committee. We have done our quarterly meetings in 2017 however I feel we have done a lot of talking and getting no more results. I feel there is no action since NH SB 193 was championed by NH State Senator Jeb Bradley in 2015 / 2016. The NH Dental Society and the NH Academy of Pediatric Dentistry worked together and were very successful against the PEW foundation. However there had been absolute no action and changes since the bill was addressed. There has been no increase in Medicaid reimbursement for at least the past 15 to 16 years and it does not appear that will happen in the near future even though SB 193 had promised there will be one.

NH represented at the AAPD Annual PPA conference in Washington DC.

Specific outcomes of note

None

Biggest challenges

None

Joint efforts with state dental association (including dental lobby day)

#### Plans for 2018-19

Address a NH SB asking for much more restrictive in office anesthesia conscious sedation stuff. The bill is driven by the grandmother of a child who recently passed away due to a tragic dental sedation incident in California in 2017. The grandmother lived in NH.

Address NH SB 377. The part of the bill the NH Academy of Pediatric Dentistry is interested in is

16 Advertising; Specialists. Amend RSA 317-A:31 to read as follows:

317-A:31 Advertising; Specialists. All advertisements of dental services shall contain the name of the dentist whose services are being advertised and shall state whether each dentist is [a general dentist or, if] qualified[,] as a specialist in the named area or specialization. This shall include dental practices operating under a trade name. The dentist's name and designation as a [general dentist or] specialist shall be stated prominently in the advertisement.

There is talk of the dental therapist issue coming back. Also the is suspicion that the anti-fluoride folks are regrouping.

There is a belief that dental assistants may have to register with the state of NH in the near future.

Address Silver D Fluoride with the NH dental board and the state Medicaid and private insurances.

## 2018 Annual Reports to AAPD Membership

PPA Name: Rajesh Adhia

**State Chapter Name** 

**NYAPD** 

PPA's practice or teaching location (city or town)

Brooklyn, NY

Key state legislative and/or regulatory issues worked on during the past year

AAPD Advocacy DC

Specific outcomes of note

### **Biggest challenges**

Time Commitment

Joint efforts with state dental association (including dental lobby day)

#### Plans for 2018-19

Support NYC rule change for toothbrushing in school, Establish a Pediatric dentist in each district that would be willing to support lobbying in DC and inform of local issues that may come up, Partner with advocates in other dental associations in the state to work collaboratively on issues.

## 2018 Annual Reports to AAPD Membership

PPA Name: Dr. Beau Meyer and Dr. Kerry Dove

**State Chapter Name:** North Carolina Academy of Pediatric

Dentistry (NCAPD)

#### PPA's practice or teaching location (city or town):

Dr. Beau Meyer is a full-time faculty member at UNC Chapel Hill. Dr. Kerry Dove is a full-time private practitioner and owner of Concord Pediatric Dentistry in Concord, NC.

# Key state legislative and/or regulatory issues worked on during the past year:

Dr. Meyer has worked with NC Medicaid to help set reimbursement for SDF (D1354) in NC which is now a covered service, effective May 1, 2017 retroactive to January 1, 2017. SDF could be reimbursed once every 6 months up to 4 times before the child turns 6 years old, regardless of the number of teeth treated. The rate for 2017 was \$24.18 per visit. When the 2018 CDT manual became effective, D1354 changed from per visit to per tooth, the rate and policy limits were similarly adjusted. The new rate is tiered like periapical radiographs; D1354 is now reimbursed \$10 for the first tooth and \$5 for each subsequent tooth up to 4 teeth for a maximum of \$25 per visit.

#### **Specific outcomes of note:**

Corporate Dentistry continues to be kept out of NC, with the requirement of a dentist to be the owner of the practice (an issue always on our minds though).

Dentistry continues to be kept out of managed care in the NC Medicaid model; however, it seems to always come up for re-consideration each time. The North Carolina Dental Society has an exceptional lobbying team that keeps these proposals from leaving committee.

North Carolina's first dental-specific ambulatory surgical center is set to open (tomorrow) March 26, 2018 in Fayetteville, NC. Four Certificates Of

Need (CONs) were awarded for this purpose and plan to open soon. The next one slated to open is in Greensboro, NC in June 2018.

**Biggest challenges:** While we do have some pediatric dentists involved with the NCDS, the climate between NCDS and NCAPD is not at its highest potential. This will be an area for us to continue to work towards a more unified voice and we believe will improve with our help over the upcoming years.

Dr. Bert Jones (a dentist from the Greensboro area) will not be running for office again this year. He is a dentist who has been a huge advocate for us during his tenure in the General Assembly. He will be missed (by us and the NCDS lobbyists) on the floor for sure.

Joint efforts with state dental association (including dental lobby day): The joint efforts of NCAPD has had in the past with lobby efforts has actually been with the state chapter of the AAP. So we need to help unify messages as well as lobbying efforts with the NCDS (which usually holds a lobby day during the long session). We will continue to reach out and try our best to attend any NCDS state lobby days that may come up.

#### Plans for 2018-19:

This year, similar to last, we will participate in the "White Coat Day" with AAP (on May 30, 2018) at the capitol in Raleigh, NC. One of our biggest goals for the upcoming year is to strategize and implement our own NCAPD Lobby Day in order to address and meet with the congressmen of our respective areas and be able to expand the opportunity to all pediatric dentists in the state.

East Carolina University (ECU) recently opened a pediatric dental residency program based in Greenville, NC, but did not have any attendees to PPAC this year. We would like to reach out to see how we can make this feasible and sustainable for them in the future.

## 2018 Annual Reports to AAPD Membership

#### **PPA Name**

Homa Amini

#### **State Chapter Name**

Ohio Academy of Pediatric Dentistry

### PPA's practice or teaching location (city or town)

Columbus, Ohio

# Key state legislative and/or regulatory issues worked on during the past year

#### Dental Therapists - Senate Bill 98

**Status:** Senate Bill 98 was introduced in the Ohio Senate by Sens. Peggy Lehner and Cecil Thomas, and has been referred to the Senate Health, Human Services and Medicaid Committee.

#### Ohio Dental Care Optimization Act – House Bill 184

This comprehensive legislation was developed with the input of various interested parties, including representatives from the ODA, The Ohio State University College of Dentistry, Case Western Reserve University School of Dental Medicine, and Nationwide Children's Hospital. House Bill 184 would update Ohio's dental laws to allow for the use of tele-dentistry to extend care into underserved areas of Ohio; double the capacity of the Ohio Dentist Loan Repayment Program, which provides incentives for dentists to practice in designated underserved areas in Ohio; and enhance the ability of dental auxiliaries to provide preventive dental services in schools and other public health settings

**Status:** Reps. Theresa Gavarone and Anthony DeVitis introduced House Bill 184 – the Ohio Dental Care Optimization Act of 2017 – and the bill passed unanimously out of the House Health Committee in September. On Oct. 11, the Ohio House of Representatives passed House Bill 184 by a 91-6 vote. The bill now goes to the Senate for consideration.

#### Non-Covered Services - Senate Bill 87 and House Bill 367

Dental insurance plans are now dictating fees for dental services that the insurance company does not even cover for enrollees. This practice is fundamentally unfair and unnecessarily interferes with the patient-dentist relationship

**Status:** Legislation is pending in both the House and Senate. Senate Bill 87 was introduced in the Ohio Senate by Sens. Bob Hackett and Matt Huffman, and has been referred to the Senate Insurance Committee. House Bill 367 was introduced in the Ohio House by Rep. Anthony DeVitis along with 11 co- sponsors.

#### **Dental Medicaid Reimbursements**

**Position:** The Ohio Dental Association urges members of the General Assembly to support increasing dental Medicaid reimbursements after 15 years of neglect.

#### **Medicaid Reimbursement for SDF**

It is expected to go to effect in July of 2018, with 6 applications for lifetime and about \$20 reimbursement per application.

#### **Ohio State Dental Board**

Ohio State Dental Board passed a motion at the March 7, 2018, meeting to temporarily suspend the enforcement of the Board's specialty designation (4715-5-04) and advertising (4715-13-05) rules until such time that the Board has amended said rules. Please note that **not any dentist may claim to be a specialist** and advertise as such. The only dentists that may advertise as specialists are diplomates of a national certifying board of a specialty recognized by the American Dental Association (ADA) or a diplomate of a certifying board currently recognized by the American Board of Dental Specialties (ABDS) until the Board revises said rules and the revisions become effective. To further clarify, **a general dentist who is not currently a diplomate** of any of the aforementioned certifying boards recognized by the ADA or ABDS **is not permitted to advertise as a specialist**.

# Joint efforts with state dental association (including dental lobby day)

Attendance at Ohio Dental Association meetings, including member of Council on Access to Care and Public Service, Dental Education and Licensure Committee, attended ODA Day at the State House and ODA Leadership Conference, and attended/member of Ohio Oral Health Coalition

## 2018 Annual Reports to AAPD Membership

PPA Name: Dr. C. Ashley Orynich

**State Chapter Name:** 

Oklahoma Association of Pediatric Dentists (OAPD)

#### PPA's practice or teaching location (city or town):

Practicing with On the Cusp Pediatric Dentistry in Tulsa, OK; Adjunct Faculty at Texas A&M Baylor College of Dentistry in Dallas, TX.

## Key state legislative and/or regulatory issues worked on during the past year:

- 1. Provider reimbursement rates
- 2. Hospital fee reimbursement for general anesthesia
- 3. Non-covered services insurance loophole fix
- 4. Medicaid Audit reform bill

#### **Specific outcomes of note:**

- 1. Preserved provider reimbursement rates
- 2. Raised hospital fee reimbursement rates
- 3. TBD
- 4. Bill did not pass

### **Biggest challenges:**

Organizing pediatric dentists within the OAPD through adequate communication channels; Determining process and facilitating change to an AAPD-affiliated OAPD; Assisting collaboration between ODA and OAPD; creating By-laws and Constitution for the OAPD with the help of currently residing president

Joint efforts with state dental association (including dental lobby day):

Feb 20, 2018 attendance at ODA's Dentist Day at the Capitol Breakfast was well attended at the Governor's Mansion by ODA members, however few pediatric specialists were present. ODA was very receptive to hosting OAPD events at their corporate Oklahoma City office. OAPD members' interest in strengthening ties to the ODA is difficult to measure and requires awareness.

#### Plans for 2018-19:

Attend the OAPD's jointly hosted Pediatric Honors Day at the O.U. College of Dentistry in April 2018. Assist current president of the OAPD with creation of new By-Laws and Constitution. Establish OAPD as affiliated with the AAPD. Create an electronic communication chain (ie. Social media, list-serve, etc.) with updated name/email of every pediatric dentist in Oklahoma.

## 2018 Annual Reports to AAPD Membership

#### **PPA Name**

Natasha Bramley

### **State Chapter Name**

Oregon

#### PPA's practice or teaching location (city or town)

Portland, OR

#### Plans for 2018-19

Working closely with the Oregon Dental Association and assisting them in the regulatory oversight of the dental health aide therapist pilot program

## **2018 Annual Reports to AAPD Membership**

PPA	Name	4
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Brent J Bradley DDS

**State Chapter Name** 

South Dakota (not official chapter)

PPA's practice or teaching location (city or town)

Rapid City, SD

Key state legislative and/or regulatory issues worked on during the past year

No legislative issues this year affecting pediatric dentistry

Specific outcomes of note

NA

Joint efforts with state dental association (including dental lobby day)

NA

Plans for 2018-19

### 2018 Annual Reports to AAPD Membership

**PPA Name** 

**Brian Collins** 

**State Chapter Name** 

Vermont

PPA's practice or teaching location (city or town)

Middlebury, Vermont

Key state legislative and/or regulatory issues worked on during the past year

Board of Dental Examiners Subcommittee on Conscious Sedation and General Anesthesia

#### **Specific outcomes of note**

Incorporating the AAPD guidelines as the standard of care for pediatric sedation. **Biggest challenges** 

The weather. Four committee meetings cancelled due to heavy snow.

Joint efforts with state dental association (including dental lobby day)

Monitoring events related to dental therapist training in Vermont.

#### Plans for 2018-19

Continue to monitor the dental therapist effort. The training program is still not up and running. (I was offered a chance to head up the program, but pointed out that since I was strongly opposed to it, that was probably not appropriate.)

## **2018 Annual Reports to AAPD Membership**

PPA Name: Patrice Wunsch

State Chapter Name: Virginia Society of Pediatric Dentistry

PPA's practice or teaching location: Richmond, VA

## Key state legislative and/or regulatory issues worked on during the past year:

Spotsylvania water fluoridation issue. I did not attend the Board of Supervisors meeting on Tuesday, January 23, but a representative from the Virginia Oral Health Coalition and two representatives from VCU School of Dentistry attended. Those opposed to water fluoridation claimed that fluoride was linked to Alzheimer's disease, infertility and many other adverse health outcomes. Because of this event, on March 20-21, I attended the American Academy of Pediatrics meeting on "Building Effective Statewide Teams for Fluoridation" in Itasca, IL.

### Specific outcomes of note:

Anti-fluoridation attempt was defeated in Spotsylvania.

AAP Fluoridation meeting was very insightful, learned more about water fluoridation, what other states have had to face in in regards to anti-water fluoridation movements and the methods that worked or did not work for them. Able to network with a number of community health care providers or dental champions from various states.

#### Biggest challenges:

Implementation of structure and leadership within the Virginia Society of Pediatric Dentistry.

Getting people to switch from drinking non-fluoridated bottled water (some acidic) to using more filtered tap water (that is fluoridated).

# Joint efforts with state dental association (including dental lobby day)

Allow dentists to provide the Influenza Vaccine to patients.

- Committee formed to develop a proposal to send to the VDA Board of Directors
- Committee Members: Dr. Sabatero, chair, Dr. Lee, Dr. Palmer, Dr. Talifero and me

I attended the Virginia Dental Association Legislative Day on the Hill with four first-year pediatric dentistry residents. We were able to meet with five different

members of the Virginia government: two delegates from the Virginia House of Delegates, one senator from the Senate of Virginia, and two legislative assistants for state senators.

As a legislative team, we were able to spend time discussing Mission of Mercy (MOM) and Donated Dental Services (DDS) and Give Kids a Smile (GKAS) programs. We also had the opportunity to discuss other issues such as the extension of Medicaid coverage for underserved healthy adults, but we stressed the importance of prioritizing this coverage for the adult patients with special health care needs (SHCN).

#### Plans for 2018-19:

- 1 Work more closely with the Virginia Oral Health Coalition on various dental health issues to include water fluoridation.
- 2 Develop new district trustee positions throughout the state for the VSPD, and work with them to network and build relationships within their district. Arrange annual meetings for the VSPD Board of Directors and District Trustees in an effort to improve communication between the board and general membership throughout the state.

## 2018 Annual Reports to AAPD Membership

PPA Name John L Gibbons

**State Chapter Name** Washington State Academy of Pediatric Dentistry (WSAPD)

#### PPA's practice or teaching location (city or town)

Tacoma and Silverdale Washington

### Key state legislative and/or regulatory issues worked on during the past year

- 1) The Washington State Academy of Pediatric put forth a resolution to the Washington State Medical Association's House of Delegates to support Dental Therapist in Washington State.
  - The WSDA was allowed to speak at the WSMA Reference Committee in opposition of the resolution and submit letters of opposition from the AAPD and the ADA. The resolution was defeated.
- 2) Washington State's Dental Quality Assurance Commission is currently looking at specialty recognition.
  - The AAPD and WSAPD have submitted a joint letter of concern.
- 3) The WSDA supported a bill to expand our ABCD program to include children with disabilities up to age 13. I was able to testify in favor of the bill in both the Senate and the House

The Bill SS 6549 was passed unanimously and signed into law by the Governor.

4) Washington is moving to a Managed Care Organization (MCO) system to administer dental Medicaid in our state.

To prepare for this the WSDA convened a taskforce to study MCOs which I Chaired. We talked to providers from 7 different states to learn from their experiences. I want to thank my fellow PPAs who participated in our interviewed.

In WSDA's behalf I have met with our Health Care Authority three times to address the RFP they are writing. We have met with four different potential MCO bidders. I have also had the opportunity to speak to the members at various meeting of the coming changes that Managed Care will bring.

Specific outcomes of note are listed above

**Biggest challenges** Preparing for Manage Care in our State

# Joint efforts with state dental association (including dental lobby day)

I am now on the WSDA's Board of Directors and am on their Legislative Committee. As such I attend all of their Board meeting as well as our Dental Action Day.

Chair of a WSDA Taskforce on Manage Care.

Represent the WSDA on a State project to improve our state's Prescription Monitoring Program (PMP)

Attend all of the WSAPD Board meetings as their PPA

Attended the AAPD's PPA conference in DC

Plans for 2018-19

Try to do my best as WSAPD's PPA

## **2018 Annual Reports to AAPD Membership**

**PPA Name: Colleen Greene DMD MPH** 

**State Chapter Name: Wisconsin Academy of Pediatric Dentistry** 

PPA's practice/teaching location: Milwaukee, WI

Key state legislative and/or regulatory issues worked on during the past year

-The Wisconsin Dental Association has worked hard to introduce **EFDA** legislation in this session, however, it was recently announced that while it passed our State Assembly (House) unanimously on a voice vote, the State Senate will *not* be introducing it on the floor for a vote, so it will 'die' this session. The problem is that **dental therapist legislation** has been recently introduced with similar cosponsors to our EFDA bill, and both are expected to fail to get a vote.

-WDA has also championed a bill to **prohibit insurance network rental** without disclosure to dentist, but this *also* will die before the end of our legislative session (any day now) after passing unanimously in the Assembly but failing to get a vote in the Senate.

#### Specific outcomes of note

-A legislative victory near and dear to my heart is a bill that is awaiting the Governor's signature any day now to standardize how children in foster care obtain dental care with **consenting rights now given to foster parents for all operative work and nitrous oxide anxiolysis**. Legal guardians/biological parents will still have to give consent for non-emergent restraint, sedation and general anesthesia. I gave testimony on this bill at the state Capitol on Thursday January 25 2018 (!), as a pediatric dentist and foster parent. My hope is that simplifying the way foster children can obtain routine care may be a nice case to increase provider enrollment in Medicaid since this most vulnerable and deserving population is universally covered with Medicaid insurance...

### Biggest challenges

-It is anticipated that the stakeholder groups supporting dental therapy this session will return with full force next session (starting January 2019). EFDAs will also be pushed again by WDA. In terms of challenges within our AAPD chapter,

there is a core group of a half dozen pediatric dentists deeply involved in advocacy but otherwise not significant engagement legislatively.

# Joint efforts with state dental association (including dental lobby day)

-Everything listed above is in close conjunction with and generally led by WDA. Our state Dental Legislative Day was Thursday January 25 2018 in Madison, WI. It was great to see pediatric dentists attend who have never been at the event before (e.g. WAPD President Dr. Shane Fisher and fellow full-time CHW faculty member Dr. Jamie Bass). Attendance goals were reached with over 100 statewide dentists present and also the entire D2 and D3 classes of Marquette University School of Dentistry (all 200 of them are bussed from Milwaukee in each year).

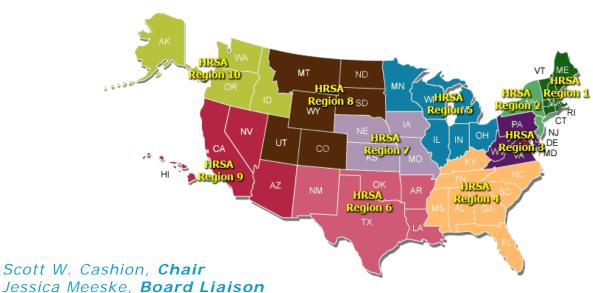
-I am fortunate to be able to take all residents in our program (8 total) to Madison at least once during their 2 years with us, whether for a WDA Legislative Advocacy Committee meeting or the annual WDA Legislative Day. They have rated this a very favorable experience in their education. It is aligned with the CODA standard for Advocacy education which was enacted for pediatric in 2013.

#### **Plans for 2018-19**

-In Wisconsin we are seeking data on the outcomes of our 2015-2017 state budget **Medicaid pilot program** to increase reimbursements in four counties so as to boost provider enrollment and patient utilization. We were told at Legislative Day in January 2018 that data on enrollment increases might be available by August 2018. There is a push in the current state budget to allow any surplus funding not spent within the 4-county pilot program to be expanded to additional counties. TBD.

-I expect a serious struggle in the legislature between **dental therapist legislation and EFDA legislation**... WDA is already planning for this battle.

# Council on Government Affairs, Pediatric Dental Medicaid and CHIP **Advisory Committee** 2016-2017



Jessica Meeske, Board Liaison

Douglas Keck (HRSA Region 1, AAPD NE District)

Courtney H. Chinn (HRSA Region 2, AAPD NE District)

Ross M. Wezmar (HRSA Region 3, AAPD NE District)

Scott W. Cashion (HRSA Region 4, AAPD SE District)

Charles S. Czerepak (HRSA Region 5, AAPD NC District)

Dietmar Kennel (HRSA Region 6, AAPD SW District)

Jessica A. Meeske (HRSA Region 7, AAPD NC District)

Jeffrey A. Kahl (HRSA Region 8, AAPD SW District)

Francisco J. Ramos-Gomez (HRSA Region 9, AAPD W District)

Joseph R. Wilson (HRSA Region 10, AAPD W District)

James J. Crall, Expert Consultant

Beau D. Meyer, Expert Consultant

Mary Essling, Dental Benefits Director, Staff Liaison

Robin Wright, Director, Research and Policy Center, Staff Liaison

MSDA had its seventh annual symposium June 4-June 6, 2017. The meeting was held in Washington DC at the Omni Shoreham hotel. The meeting was well attended and good information was received and the AAPD Pediatric Dental Medicaid and CHIP Advisory

Council on Government Affairs, Pediatric Dental Medicaid and CHIP Advisory Committee, 2017-2018

Committee (PDMCAC) members were there to ask great questions and correct misinformation about dentistry. I served on the planning committee for the symposium.

The PDMCAC members and two AAPD staff members (Robin Wright and Mary Essling) were able to attend the meeting. We held a meeting prior to the symposium at the hotel to go over talking points with Medicaid/CHIP dental Medicaid directors. The PDMCAC members had materials they could share as well. All members were able to network with the state dental Medicaid directors and other state and federal Medicaid officials. The Chief Dental Officer for CMS, Dr. Lynn Mouden, was in attendance at the symposium. On Monday night of the meeting the committee hosted a dinner and invited state and federal Medicaid directors. This was an informal time to talk about Medicaid issues on a state and federal level.

The PDMCAC is a committed group who strive to keep oral health issues and especially as they relate to children in forefront of the HSRA regions they represent. Our presence at this meeting continues to be very valuable. The key stakeholders recognize us and know that we are there to give the perspective on children's oral health especially from the provider perspective. In many ways we are the most consistent group who attends the meeting. As more and more dental MCOs run state Medicaid programs it is important for AAPD to be present at this meeting that they also attend to be sure the provider and the patients they serve do not get lost. Cost savings must not take the place of a child receiving optimal oral care. Because of the networking opportunities at the MSDA symposium and the relationships that develop as a result, this message is conveyed by our group.

At the symposium in June 2017, I was elected vice president of the MSDA board. I continue to also serve on the planning committee for the symposium. Dr. Sid Whitman continues to serve on the MSDA board as well. He is the chair of the ADA Medicaid Provider Advisory Committee and brings the ADA perspective on Medicaid. It is great to have Dr. Whitman as another Pediatric Dentist on the MSDA Board.

I continue to be on the monthly conference calls of the MSDA board. These calls are very well organized and productive. Mary Foley, the Executive director and President Sarah Finne keep the calls on time and efficient.

In early summer of 2017, the AAPD sent the State Medicaid Dental Directors a copy of the AAPD reference manual, the Medicaid Tool Kit, the guideline on Silver Diamine Fluoride (SDF), and the Medicaid Fact Sheet on SDF. In addition, the letter sent included reference materials produced by the AAPD Policy Center. State Dental directors are always appreciative of this information and it helps remind them, when making policy decisions this information is a good reference. They always appreciate receiving the manual.

In my report to the membership last May, I mentioned the AAPD had teamed up with MSDA on a grant application to HRSA/MCHB for the National MCH Center for Oral Health Integration and Improvement (COHSII). In June it was announced the National Oral Health Center received the award. Although disappointing, MSDA and AAPD should be proud of the effort.

Also, Dr. Lynn Mouden announced he was retiring as the Chief Dental Officer as of September 30, 2017. We thank Dr. Mouden for his work as the Chief Dental Officer. The timing on filling his position is to be determined because there continues to be a hiring freeze. We continue to follow this and the AAPD and ADA have sent a letter encouraging this position be filled.

Council on Government Affairs, Pediatric Dental Medicaid and CHIP Advisory Committee, 2017-2018

The 2018 MSDA Symposium will be June 3-5, 2018. The title of this year's Symposium is **Demonstrating Value in Medicaid Dental Programs**. This year the symposium returns to the Marriott Wardman Park. A dinner will be planned with the committee members and other state and Federal attendees of the meeting.

As always, I appreciate the opportunity to serve the AAPD on this Committee and the MSDA Board.

# Council on Government Affairs, Committee on Dental Benefit Programs 2017-2018

Paul A. Reggiardo, W District, **Chair** Jessica A. Meeske, **Board Liaison** 

**Members** 

Warren A. Brill Santos Cortez, Jr. Sara L. Filstrup Michael A. Ignelzi, Jr. William D. Steinhauer

**Consultants** 

James D. Nickman

Staff Liaison

Mary E. Essling, Dental Benefits Manager

#### Vision

The vision of the Council on Dental Benefit Programs is that all infants, children, and adolescents have access to meaningful dental benefits, thereby affording them the opportunity of lifetime optimal oral health.

#### Mission

The mission of the Council on Dental Benefit Programs is to maintain and expand access to oral health services for infants, children and adolescents through the support and promotion of robust and equitable third party payment systems. We accomplish this by enabling our members to assist their patients in obtaining dental benefits to which they are entitled and by working with other professional organizations and the dental benefits industry to continually improve dental benefit programs.

#### **Duties**

The duties of the Committee on Dental Benefit Programs as listed in the AAPD Administrative Policy and Procedure Manual are to: 1) formulate and recommend official AAPD policies to the Board of Trustees related to pediatric oral health care in various health care insurance programs for children and SHCN patients and reimbursement mechanisms; 2) monitor and investigate developing trends impacting pediatric oral health in health care programs and reimbursement mechanisms; 3) provide review and feedback to AAPD staff assisting individual members with third party insurance matters; 4) provide review and feedback to the AAPD's CMC representative on all matters related to dental coding, including development of code proposals by the AAPD and review of code proposals submitted by other organizations; 5) Serve in a support capacity or as faculty for AAPD coding workshops offered at the state level or during the annual session; 6) Closely coordinate all activities

#### Council on Government Affairs, Committee on Dental Benefit Programs, 2017-2018

related to publicly subsidized health insurance programs (such as Medicaid, CHIP, and ACA) and government regulated private health insurance programs, with the Council on Government Affairs; 7) perform such other duties as assigned by the President or the Board of Trustees.

#### **Standing Charges**

### Charge 1

Act as a liaison between the AAPD and the ADA Council on Dental Benefit Programs and the ADA Code Maintenance Committee (CMC). Provide, with the approval of the Board of Trustees, a voting representative from AAPD to the annual meeting of the CMC. Prior to the meeting, review the submitted Code Revision Requests and, through a report to the Board, formulate voting positions in so far as possible. Generate and submit to the CMC, as authorized by the Board of Trustees, Code Revision Requests reflecting membership interests and changes in pediatric dental practice. Act also to monitor the dental benefit program activities and concerns of the other ADA-recognized specialty organizations, and those of other professional organizations, keeping informed the Board of Trustees and interacting as appropriate.

Background and Intent: This is a standing charge to the Council. The Academy's goal is to protect and advance patient interests in dental benefit programs. Chief among these activities is full participation in the ADA procedure code revision process.

#### **Progress Report**

The ADA Code Maintenance Committee (CMC) met March 15-16 in Chicago to consider 66 substantive actions requests and two editorial changes to the CDT code set. Among those submissions was the request from AAPD which would establish a single prophylaxis code across all ages instead of the current adult (D1110) and child (D1120) codes. The descriptors for both these codes state the procedure is applicable to the transitional dentition, which means two codes exist by which to describe the same service. That ambiguity creates confusion among providers as well as third party benefit carriers. The request, however, was not accepted, the CMC reasoning that proposed action was not a workable solution to the problems created by the ambiguity. Previous submissions in each of the past two years to either established an age-based cutoff between the two codes or to place the transitional dentition as solely a part of the child prophylaxis were equally unsuccessful. It is likely the AAPD will submit for the consideration of the CMC in 2019 a proposal to establish three prophylaxis codes, one each for the primary, transitional and adult dentitions.

Fifteen new codes, three revisions, and four deletions were approved for CDT 2019. Those changes pertinent to pediatric dental care delivery include:

- The fixed and removable bilateral space maintainer codes were each broken down into two new codes, one for the maxillary and the other for the mandibular arch.
- The descriptor for CDT code D7283 that previously defined the procedure as the placement of "an orthodontic bracket, band or other devise" on an unerupted tooth to aid in its eruption was modified to now describe only "an attachment". This change is intended to make clearer that the procedure is a surgical service and not an orthodontic service.

#### Council on Government Affairs, Committee on Dental Benefit Programs, 2017-2018

- A code was added for the Infiltration of a sustained release pharmacologic agent for long-acting post-operative surgical site pain control (used to reduce or eliminate opioid prescription).
- Code D9219, which previously identified the pretreatment evaluation of a patient for deep sedation or general anesthesia was modified to include the pre-operative assessment prior to moderate sedation as well.
- Addition of a per visit code for certified translation or sign language services.
- Addition of a code to document the duplication/copy patient records.

### Charge 2

Respond to membership inquiries and concerns regarding third party reimbursement issues through the Dental Benefits Manager in the Headquarters Office. Support the Dental Benefits Manager in third party issues as appropriate. Report annually to the Board of Trustees on third party reimbursement issues and activities. Background and Intent: This is a standing charge to the Council. The Board desires that the Academy maintain the ability to respond to individual member inquiries regarding third party reimbursement actions or policies. When appropriate, the Council will respond on behalf of the Academy or on behalf of the member on individual issues.

### **Progress Report**

Mary Essling, Dental Benefits Manager, continues as part of her responsibilities to respond to individual member requests and inquiries concerning dental benefits issues. She reports receiving between 5 to 10 calls per week. In addition, she communicates third party reimbursement issues to membership through her "Behind the Code" articles appearing in each issue of *Pediatric Dentistry Today*.

Of particular concern to many of our members this year was the change in administration of the TriCare Dental Program (TDP) (which serves military dependents and retirees) from MetLife to United Concordia Companies Inc (UCCI). While the programmatic change included several enhancements for military families (lower monthly premiums, increased annual benefit maximum from \$1,300 to \$1,500 per enrollee, no sealant co-pay and autoenrollment at age one instead of age four), a dramatically lower provider reimbursement raised concerns regarding network adequacy and access to care by pediatric dentists and other specialty providers. Protracted conversations with the Defense Health Agency (DHA) which monitors Tricare access failed to provide assurances of network adequacy and of specific specialty standards in the new TDP contract, claiming these standards are proprietary information and may not be released. Accordingly, with the authorization of the Board of Trustees, the CDBP through the office of the Chief Operating Officer and General Counsel C. Scott Litch, in September filed a Freedom of Information Request with the DHA. To date, no response has been forthcoming.

### Charge 3

Assist the Dental Benefits Manager to provide and annually review AAPD website content regarding coding and dental benefits issues.

Background and Intent: This is a standing charge to the Council. The Board desires that the membership have a source of relevant, contemporary, and reliable information specific to their interests and needs in this area. The CDBP will continually update CDT code information and other dental benefits issues on the website.

#### **Progress Report**

The Committee works with the Dental Benefits Manager and Website Editor to monitor and modify content and to develop a mechanism for regular review, maintenance, and update of the material contained therein. The AAPD Website now features a distinct and easily located members-only section on **Dental Coding and Insurance** as a subset of the **Practice Management** tab under the **Resource Center** heading. The section contains information on the ADA CDT code set impacting pediatric dental practice, claim submission information, Medicaid compliance issues, and the related activities of the AAPD Committee on Dental Benefit Programs. The section is updated weekly and now includes an archive of "Behind the Code" *PDT* articles written each issue by Benefits Manager Mary Essling.

#### Charge 4

Assist the Dental Benefits Manager in preparing and presenting a Dental Benefits Workshop at each Annual Session reporting on CDT code revisions as well as commercial and public sector (Medicaid and CHIP) benefit program issues.

Background and Intent: CDT procedure codes are revised annually, which require changes in practice management administration and billing systems to ensure that correct billing codes are submitted to third party payers. The coding portion of the workshops will explain the code revision process and delineate the changes taking effect that year. The balance of the workshop will spotlight a topic or topics pertinent to understanding and negotiating commercial and public sector benefit programs and the changing dental benefits landscape.

#### **Progress Report**

Dr. Ignelzi conceived and planned the 2017 Dental Benefits Workshop—"The Future of Dental Benefits and Your Coding Questions Answered"—in Washington DC in conjunction with the 2017 annual session. Dr. David Preble, Vice-President of the ADA Practice Institute, presented ADA data on changes occurring in dental benefit plan design and the market forces driving these changes. The second speaker, Dr. Shannon Mills, lead author of the ADA Technical Brief "Essential Characteristics of Digital Oral Health Assessment Resources" and a leading proponent of risk-based benefit design spoke on how digital risk assessment technology has the potential to transform dental benefit plans from the traditional "one-size-fits-all" model to individualized benefits. Mary Essling, AAPD Dental Benefits Manager concluded the session with CDT 2017 coding changes and other hands-on billing and claims information. The symposium was moderately well-attended (approximately 175 attendees down from about 225 the previous year) and well-received according to the CE survey.

The 2018 Workshop in Hawaii will be scaled back from three hours to two and will feature, in addition to Ms. Essling, Mr. John Schaak, President of Scion Dental Benefit Administrators, speaking on dental provider network development.

Looking ahead to the 2019 Chicago annual session, the Committee will be considering a proposal to host two concurrent or possibly consecutive Dental Benefit Workshops, one directed to coding and related issues primarily for the information of dental office staff and the other aimed at an audience of dentists and practice decision makers addressing dental benefit program policy matters. This is based on the observation that the existing Dental Benefits Workshops seem to attract two different audiences.

In November, Dr. Jessica Meeske, Board consultant to this committee, conducted for the ADA Council on Advocacy for Access and Prevention a one-hour webinar, "Medicaid

Compliance with a Pediatric Dental Practice: Utilizing a Self-Audit." The presentation, designed to help dentists understand why a **Medicaid Compliance Plan** is needed in offices providing Medicaid services and how one can be designed and implemented, would be a suitable part of the 2019 workshop.

#### Charge 5

Working with the Dental Benefits Manager, coordinate, oversee, and promote state and regional Coding and Insurance Workshops.

Background and Intent: This is an ongoing charge to the council. In 2010 the CDBP began offering a Coding and Insurance Workshop developed for AAPD state units and district organizations. These regional workshops, presented by AAPD Benefits Manager Mary Essling, each approximately three hours in length, encompass CDT coding issues, claims processing information, documentation requirement specific to pediatric dentistry, medical cross-coding to CPT procedure codes and ICD-9 diagnostic codes, instructions on developing meaningful narratives, and guidelines for successful appeal of claim denials. Included also was information on state Medicaid reimbursement and 2011-2012 CDT code revisions effective January 1, 2011. The workshops are provided without cost to the AAPD state unit or regional organization, other than reimbursement of the travel expenses of the presenter. It is the intent of the Board of Trustees to encourage and promote these regional workshops as a membership benefit and as service to our state units and regional organizations.

#### **Progress Report**

Regional Coding and Insurance Workshops have been presented to the Nebraska Society of Pediatric Dentistry, West Virginia Academy of Pediatric Dentistry, Indiana Society of Pediatric Dentistry, Connecticut Society of Pediatric Dentists, Southeast Society of Pediatric Dentistry, California Society of Pediatric Dentistry, Western Society of Pediatric Dentistry, Kentucky Pediatric Dental Society and Massachusetts Academy of Pediatric Dentistry. 2016 Regional Coding Workshops were presented in January to the Texas Academy of Pediatric Dentistry, in April to the Indiana Society of Pediatric Dentistry, and in November to the Wisconsin Society of Pediatric Dentistry. The CDBP continues to solicit interest through announcements in PDT and web posting.

#### Charge 6

Assist the Dental Benefits Manager in annually updating the AAPD Coding and Insurance Manual now offered by digital transmission so long as the Council and the Board determine the continued production of the manual.

Background and Intent: This is a standing charge to the council. This manual meets member needs for assistance on coding, claims, and related third party reimbursement issues and can serve as a source of non-dues revenue.

#### **Progress Report**

Prior to this year, the Academy through the Committee on Dental Benefit Programs produced annually a *Coding and Insurance Manual* to assist members in dealing with third party payers. The Manual, which was initially made available for sale in a paper format, was offered beginning in 2015 in a downloadable pdf format at a cost ranging from \$19.99 to \$29.95. The manual catalogues annually all relevant new and revised CDT codes pertinent to pediatric dental delivery, explains the ADA Claim and CMS 1500 Medical Claim Forms and

lists CPT medical procedure codes relevant to pediatric dentistry for medical cross-coding, and offers coding tips for common and uncommon procedures.

In 2017, the *Manual* returned to a paper format and was **distributed without cost to our 7,500 Active and Life Members as an AAPD membership benefit**. Through the efforts of Benefits Manager Mary Essling, the \$20,000 expense of producing and mailing the *2017 AAPD Coding and Insurance Manual* was underwritten by four corporate sponsors—Avesis, Delta Dental Plan of California, Liberty Dental and MCNA. The Committee expresses its gratitude to these corporate partners making this valuable benefit, which shipped in November of 2016, available to our members. In 2017 and 2018 an addendum to the *Coding and Insurance Manual* (reflecting CDT 2018 and CDT 2019 changes) is being made available without cost to members in a downloadable pdf format under the existing corporate underwriting. The 2019 addendum should be available in November.

#### Charge 7

Report no less than annually to the Board of Trustees on options and opportunities to communicate with the dental benefits industry and major dental benefit purchasers our perspective on appropriate oral health benefits for children and concerns with third party reimbursement programs. Explore and report to the Board the options, logistics, and feasibility of convening a pediatric dental benefits industry summit meeting on an annual or biannual basis in conjunction with one of the major dental benefits meetings (i.e. the American Association of Dental Consultants, the National Association of Dental Plans, America's Health Insurance Plans, or the annual ADA Dental Benefits Conference in Chicago).

Background and Intent: This is an ongoing effort to reflect and resolve member concerns with third party reimbursement coverage This meets members' needs by educating and influencing third party carriers concerning pertinent pediatric dentistry issues.

#### **Progress Report**

Mary Essling, Dental Benefits Manager, continues to coordinate and arrange these meeting contacts, which she attends with the chair or other members of the Committee as appropriate.

The CDBP continues to interact and attend the meetings on a regular basis of the American Association of Dental Consultants (AADC), National Association of Dental Plans (NADP) and America's Health Insurance Plans (AHIP).

Dental Benefits Manager Mary Essling and Dental Benefits chair Paul Reggiardo represented AAPD at the September 2017 meeting of the National Association of Dental Plans in Atlanta, Georgia.

Last May, AAPD was represented by Chair Paul Reggiardo and Benefits Manager Mary Essling at the Annual Spring Workshop of the American Association of Dental Consultants (AADC) in Orlando, Florida. At that meeting, Dr. Reggiardo was an invited speaker, addressing dental plan administrators and consultants on "Big Ideas on Coding for Little Teeth."

The 2018 AADC Spring Workshop will be held in Scottsdale, Arizona May 2-5. At that meeting AAPD will co-host with the American Academy of Orthodontics and the American Association of Endodontists, a luncheon and *Open Forum for Dental Benefit Directors*. The forum is an informal meeting with approximately 15 representatives of the major dental benefit carriers that allows a presentation and open dialogue on claim and benefit issues concerning pediatric dental care delivery. Issues concerning silver diamine fluoride application indications, protocols, efficacy, coding, and billing will highlight this session.

The Committee declined in 2017 to accept the invitation of the AHIP Dental Committee to meet with them as part of their national conference in Washington, DC, because of a schedule conflict. AAPD presentations were made in 2010, 2011, and 2014.

Meetings under consideration or under commitment for 2019 include the AHIP national conference in Washington DC in March 2019, the aforementioned Annual Spring Workshop of the AADC May 2018, The NADP Annual Converge Meeting September 2018 in Denver, and the National Conference of Insurance Legislators in the fall of 2018.

#### Charge 8

Monitor the commercial products and delivery systems offered in the Health Benefit Exchanges and Small Employer Health Options Programs (SHOP) under the Affordable Care Act (ACA) and a report as necessary to the membership and AAPD leadership on these issues.

Background and Intent: By most reliable estimates, almost nine million children currently lacking dental benefits could gain coverage through the ACA by 2018. This expansion will be almost evenly split among Medicaid expansion (3.2 million children), health insurance exchanges and commercial marketplaces (3.0 million), and employer-sponsored programs (2.5 million). Pediatric dentists should be familiar with the dental products offered inside and outside of the health benefit exchanges and be able to help parents navigate the complexities of selecting a dental plan which best suits their children's dental needs and their pocketbook.

#### **Progress Report**

The 2018 report on ACA issues was presented at the State Public Policy Advocates Conference in Washington DC in March and was reported in *Pediatric Dentistry Today*. Janice Kupiec, Manager of Legislation and Regulatory Policy for the ADA made the presentation. This is an excellent venue for dissemination of this information. A similar presentation is anticipated for the 2019 PPA Conference.

### Council on Membership and Membership Services 2017-2018

Shari Kohn, NE District, Chair J.C. Shirley, Board Liaison

#### **Members**

Derek S. Zurn, NE District Erica A. Brecher, SE District Matthew Schieber, NC District Carlen Palmer Blume, SW District Jonathon E. Lee, W District Perry Francis, Affiliate Member

#### Consultants

Paula Coates Craig E. Elice Tanesha M. Francis Kaitlin Jennison Oshmi Dutta, International Consultant

Staff Liaison

Suzanne A. Wester, Membership and Marketing Director

#### Vision

The vision of the Council on Membership and Membership Services is to evaluate, address and support the needs of the membership and to promote the growth and longevity of the Academy.

#### **Duties**

The duties of the Council on Membership and Membership Services, as listed in the AAPD Administrative Policy and Procedure Manual, are to: 1) monitor membership trends; 2) make recommendations to the Board of Trustees regarding mechanisms for recruiting and retaining members; 3) perform such other duties as assigned by the President or the Board of Trustees.

#### **Standing Charges**

#### Charge 1

Provide an ongoing review and evaluation of AAPD membership benefits and services, including the proposal of new or additional benefits and services, including the online and printed membership directory reporting to the Board of Trustees on an annual basis, using the data from the current Member Needs Assessment. Provide an annual report on the current value and benefits of Academy membership along with a statement

#### Council on Membership and Membership Services, 2017-2018

regarding the anticipated need for any unusual increase in funds necessary to maintain or increase those services.

Background and Intent: This is a standing charge to the Council. Recognizing that 92 - 94% of eligible pediatric dentists belong to the Academy, the council should focus on membership retention and maintenance of active status after conversion of student membership. Membership benefits and services are important to this effort. The Council will develop mechanisms for tracking demographics of membership benefits and include this information in its annual report to the Board.

#### **Progress Report**

Benefit List has been placed on the website under the Become a Member Section. Working with the new website team to try to have them implement member benefits online – i.e. integrate with software better for retaining and updating information. SoFi continues to be successful. Fellowship Certificates sent out. Continue monitoring membership numbers and keep them high. Advocacy Conference is a great benefit to residents and encourages them to become members upon graduation. Good and current benefits help keep membership numbers high.

#### Charge 2

Encourage and support the development of new pre-doctoral chapters, with the assistance and advice of the Council on Pre-Doctoral Education. Create the "Predoctoral Tool Kit" as outlined by the Task for Enhancing the Value of General Dentists Membership. Report annually to the Board at the May meeting on these pre-doctoral chapters as to their numbers and activities.

Background and Intent: This is a standing charge to the Council. Increasing numbers of pediatric dental training positions require an increasing pool of qualified applicants. Predoctoral membership in AAPD serves to increase student interest and awareness of the pleasures, rewards and opportunities of treating children, whether as a general dentist or specialist. It also offers opportunities for contact and mentoring with pediatric dentists early in the educational process.

#### **Progress Report**

Pre-doctoral handbook is being re-written. Oshmi Dutta working with the Council on Predoctoral Education to complete this. This may be able to be incorporated into the new website as a download instead of an actual book or available on a flash drive. Continue supporting Predoctoral chapters.

#### Charge 3

In conjunction with the Committee on Interprofessional Relations, review the marketing plan on an ongoing basis to increase membership in the International Membership and International Colleague categories including strategies to improve retention and attendance at Annual Session Report to the Board at its May meeting. Background and Intent: Attracting International members to the AAPD will strengthen

Background and Intent: Attracting International members to the AAPD will strengthen our pediatric dental organizational representation on a more global level. New leadership of IAPD may be open to developing increased ties to AAPD. This may be the first step to foster this relationship and also increase the international membership of AAPD.

#### Council on Membership and Membership Services, 2017-2018

#### **Progress Report**

Continue to try and figure out what members are active in other organizations. This has been discussed as a series of questions on membership renewal notifications so that we can use this information to have more members on this committee and to have influence on other organizations. Needs fine tuning and a better way to keep track of members other committee involvement.

#### Charge 4

With assistance from the New Dentist Committee, Communication Committee and Pediatric Dental Resident Committee review regularly and make recommendations on the www.aapd.org and www.mychildrensteeth.org websites.

Background and Intent: The website needs to be reviewed regularly. It is important that it remains up to date and members are able to find information easily.

#### **Progress Report**

As the new website is being developed, information and opinions/suggestions can be solicited from the members of the Early Career Dentists Committee. Input needs to be obtained to make this new website user friendly and millennial friendly. Website needs to be updated and this new company seems to understand the millennials well.

#### **Project Charges**

#### Charge 5

Explore modalities to disseminate brief descriptions of the AAPD councils and committees to new pediatric dentists and residents prior to the Annual Session, upon registration, so that they may have an opportunity to plan to visit any meeting in which they may be interested in becoming involved.

Background and Intent: Many new pediatric dentists and residents want to become involved in the AAPD but do not know where to begin. This would, in one place, briefly explain councils and committees and their meeting time and location at each Annual Session. This would not only allow early opportunities for the millennials to identify when they would want to become involved but would also allow councils and committees to identify younger talents. This would increase member benefit by showing millennials "their" AAPD at work.

#### **Progress Report**

We are trying to encourage members to get involved in the councils and committees. Early career dentists especially, but any member who is interested. We are not sure what the turn out will be in Hawaii so Chicago may be a better way to reach a greater number of members. We have listed attending meetings in the program book. We have blurbs about it in the communications about the annual session. We are still thinking of ways to get people to attend the committee and council meetings – We are considering a sign at registration where interested members can come by and find out what and where the meetings will be held. We can man this area with committee members.

#### Charge 6

To begin expansion of the current Clinical Photo Library, the Chair of Council on Membership and Membership Services shall appoint photo editors from the New Dentist

#### Council on Membership and Membership Services, 2017-2018

Committee to collect new photos. The editors must gather high resolution images and categorize each image with keywords and ICD-10 codes consistent with the current photos. The photos will be reviewed by the CCA, CSA, and Dental Benefits Director before uploading.

#### **Progress Report**

We are waiting for the website to see if this is something that we can implement. We will need a virtual "curator" to vet the photos from members and make sure that the library is updated and organized.

Jennifer L. Cully, NE District, **Chair** J.C. Shirley, **Board Liaison** 

#### **Members**

Jacqueline Dikansky, NE District
D. Kennon Curtis, Jr., SE District
Juan Yepes, NC District
David Mitchell Glass, SW District
Erin Hinze, SW District
Catherine Ashley Orynich, SW District
Joseph C. Creech, III, W District
Theresa Vuskovich, Affiliate Member

#### **Consultants**

Courtney Alexander
Danielle Goldstein
Christine L. Hammer
Elsa K. Hui-Derksen
D. Harvey Lee
Tehemina Gagrat Richardson
Matthew D. Schieber
Scott B. Schwartz
Hassam Sultan
Harlyn Susarla
Erin R. Wilson

#### Ex Officio Members

Shari Kohn (Chair, Council on Membership and Membership Services) Aaron Bumann/Nidhi Taneja (Chair, Pediatric Dental Residents Committee)

#### Staff Liaison

Suzanne A. Wester, Membership and Marketing Director

#### Vision

#### Duties

The duties of the Council on Membership and Membership Services, New Pediatric Dentist Committee, as listed in the AAPD Administrative Policy and Procedure Manual, are to: 1)

encourage the participation of new pediatric dentists in AAPD activities; 2) make recommendations to the Board of Trustees regarding issues of interest to new pediatric dentists; 3) perform such other duties as assigned by the President or the Board of Trustees.

#### **Standing Charges**

#### Charge 1

In conjunction with the Councils on the Annual Session and Continuing Education, provide planning and execution for a continuing education course directed to the new pediatric dentist. Present the programming details and proposed speakers for the Annual Session to the Board of Trustees no later than its Ad Interim meeting. Maintain a three year plan of proposed topics and speakers for future meetings.

Background and Intent: This is a standing charge to the Committee. The intent of this charge is to attract young pediatric dentists to the annual session and to AAPD membership.

#### **Progress Report**

The 2017 New Dentist Lecture at Annual session was very successful. In 2017, the number of members attending the New Dentist Lecture ranged from 97 – 171 members, varying by session. In 2017 our lecture time slot moved from Friday to Saturday. Based off of the numbers from this year's attendance, keeping the lecture on a Saturday is reasonable. The additional signage helped in guiding members to the different speakers.

Our format will change slightly for the 2018 New Dentist Lecture due to changes in lecture times. We will have three 25 minute sessions this year, with 5 minutes to rotate in between speakers.

We have invited eight speakers for this year's lecture covering both clinical and non-clinical topics.

One piece of feedback we received from the speakers was that there needed to be better communication about the lecture in terms of format, audio-visual needs, and timing of each session. We will work with AAPD staff and the Annual Session planning committee to increase communication on logistics of the lecture with our speakers.

We recommend updating and continuing with this charge for 2018. We will continue to make recommendations to the Councils on Annual Session and Continuing Education for speakers for the New Dentist Lecture at AAPD Annual Session.

#### Charge 2

In conjunction with the Council on the Annual Session, review annually the "New Dentists Reception" and the "Family Friendly" section at the Welcome Reception in conjunction with the Annual meeting of the Academy. Present to the Board of Trustees at its Ad Interim meeting a report on the reception, including attendance figures and other pertinent information.

Background and Intent: This is a standing charge to the Committee. It is the intent of the Board to encourage membership in the Academy beyond the years of graduate education and to build a sense of "community" with the Academy and with pediatric

dental colleagues. A social occasion for post-doctoral students at the annual session can provide recognition of the importance we place on our future colleagues and leaders. It is important to provide a structure to the occasion which emphasizes the elements of active Academy membership, attendance at our annual meetings, and the inclusiveness of our organization.

#### **Progress Report**

Please see the following review of the 2017 New Dentist Happy Hour and Welcome Reception.

#### New Dentist Happy Hour

This year's Happy Hour was a great success. We had 310 new dentist members attend the Happy Hour. Many attendees were surprised to find that it was an open bar, and in comparison to previous two drink ticket events. In addition, there was a great selection of food. The location was beautiful, providing waterfront views of Alexandria VA and Washington DC. Many attendees took advantage of the slow-motion camera booth. This year we included a running slideshow of AAPD facts.

One concern raised by the committee through a Basecamp discussion was the possibility that some dentists were using the Happy Hour event as a recruitment event. Although we don't feel that we could discourage this behavior, there were concerns raised about corporations possibly using the Happy Hour to recruit dentists. The overall feeling of the committee was that we would not want attendees to feel uncomfortable or have the Happy Hour develop a reputation for being a recruiting event.

Overall it was a great event in a beautiful space.

#### Welcome Reception

Overall, most would agree that the 2017 Annual Session Welcome Reception was a success. Transportation to the event was smooth and provided easy access to the venue. Once at the venue, obtaining food and drink was simple enough, though the food options and quality varied from one station to another, particularly as the night continued. Additionally, some of the feedback indicated that the types of food (mini corn-dogs, macaroni and cheese) did not match the \$200 fee for entry. In general, people were pleased with the entertainment provided and felt that there was enough to do. An apparent minority of individuals felt that the entertainment was sub-par compared to other Welcome Receptions, particularly San Antonio. After observing and discussing the event, those with families expressed that it was a family friendly affair, despite some complaints regarding adults who perhaps imbibed too much. In sum, short of an improved menu, the main components of the 2017 Welcome Reception were a success.

We will continue to provide input to the Council on Annual Session and AAPD staff to enhance the experience of events specific for early career pediatric dentists at AAPD Annual Session.

#### **Project Charges**

#### Charge 3

Evaluate the success of the reducing the registration fees for first and second year active members. Report to the Board by its Ad Interim meeting.

Background and Intent: Residents attend the annual session because the program pays the fees. After graduation, new dentists may face financial issues such as loan repayment, board fees, review courses, travel expenses, etc. The intent of this charge is to determine if there is a need to adjust fees to increase new graduate attendance, to support the personal issues of new pediatric dentists, and to encourage them to attend the annual session and become involved in the Academy.

#### **Progress Report**

Our data evaluates the number and percentage of recently graduated dentists (1-2 yrs) attending Annual Session each year. This year the percentage of 2016 graduates attending Annual Session was 28%, and the percentage of 2015 graduates attending was 50%. These numbers are both increased from the 2016 meeting in San Antonio. Only 22% of 2015 graduates attended the meeting in San Antonio in 2016. In addition, a new statistic we looked at was when New Dentists checked-in at Registration. Of the 1545 new dentists that attended 2017 Annual Session, approximately 42% of them checked in on Thursday and 51% on Friday. We feel that these numbers further support having the New Dentist Lecture on Saturday so that as many new dentists as possible can attend.

We recommend continuing with the reduced fee for Annual Session for newly graduated dentists.

#### Charge 4

Develop talking points and "How to Navigate the AAPD" for post-doctoral and young pediatric dentist members regarding membership/membership services and the perceived value of their AAPD membership in an effort to increase conversion and retention rates of these groups. Evaluate conversion rate of post-doctoral members to new active members and retention rate of young active members and make these rates available to the board of trustees annually. Recommend methods of gathering information on the professional needs and expectations of these groups in an effort better meet their perceived needs and make them aware that addressing their needs are important to the Academy.

Background and Intent: In an effort to keep the conversion and retention rates of the young pediatric dentists at optimal values it is important not only to be aware of their needs and desires if we are to address them but also to have readily available talking points to educate these groups on the value of an AAPD membership for their lifetime.

#### **Progress Report**

One way we feel that we are connected to the new dentist membership is through the New Dentist lecture. It is important to our committee to choose topics that are relevant to the new dentist.

In addition, we will be working on a revision of the New Dentist Handbook. We hope to complete this by developing a workgroup. We have also discussed updating the New Dentist webpage that is part of the AAPD.org

We recommend continuing with this charge for 2018 with the addition of identifying and developing a workgroup to revise the New Dentist Handbook.

#### Charge 5

Develop an application for new pediatric dentists to apply to become members of the New Dentist Committee. These applications would be reviewed by the New Dentist Committee, with recommendations forwarded to the Executive Committee. Background and Intent: The New Dentist Committee recognizes that there may be new dentists in the AAPD who wish to become involved in organized dentistry and serve on a committee. We recognized that it is sometimes difficult to navigate the AAPD and become a member of a committee or council. This will allow all new dentists the opportunity to submit their name for consideration to serve on the New Dentist committee without being nominated by another member.

#### **Progress Report**

We will work in conjunction with the Leadership Development Committee of the AAPD to successfully complete this task. Until then, there is an email link on aapd.org under "Volunteering in AAPD" where members can send an email to let the AAPD know of their interest in serving on a committee or council. In addition, Suzanne Wester posted description/duties of all the committees and councils on that same page. This will be helpful to many new members who may not know what the responsibilities are of each of the AAPD's committees and councils.

For 2018, we recommend updating this charge to reflect that we will work with the Leadership Development Committee to encourage involvement in the AAPD by early career pediatric dentists.

#### Addendum

It is our recommendation that the name, New Dentist Committee, be changed to the Committee on Early Career Pediatric Dentists. The definition of an early career pediatric dentist would remain the same (0–10 years post-residency.) This is consistent with the naming style of other committees and councils of the AAPD. Furthermore, there are many pediatric dentists that are not new dentists, but are new to pediatric dentistry. This name change better suits dentists that have recently begun a career in pediatric dentistry and are new to the profession of pediatric dentistry. We would also recommend that it be considered that events using the name "New Dentist(s)" in the title be changed to "Early Career Pediatric Dentist(s)."

#### Chairs:

Aaron M. Bumann, NE District (2016) – October 2016 – October 2017 Nidhi Taneja, NE District (2017) – October 2017 – October 2018 Deven Shroff, **Board Liaison** 

#### **Members**

Kelly M. Lipp, NC District (Ohio State University, 2018) Nicholas B. Gordon, NE District (Boston University, 2018) Samantha R. Mize, SE District (Medical University of South Carolina, 2018)

Kellie McGinley, SW District (University of Colorado, 2018)

#### Freshman Consultants

Gurjote Dhaliwal, NE District (Lutheran Medical Center, Maryland, 2019) Sofia Kennel, W District (Lutheran Medical Center, Arizona, 2019) Alina O'Brien, NE District (New York Presbyterian-Columbia, 2019) Katelyn Olenich, NC District (University of Nebraska Medical Center, 2019)

Benjamin Werner, SW District (Texas A&M-Baylor, 2019) Brian Po Lee, W District (University of Southern California, 2019)

#### Senior Consultants

Jacqueline Dikansky Meredith Dugoni Caroline Beitel Megan Elisa Miller Katie Curtis Windham

#### Ex Officio Member

Shari Kohn (Chair, Council on Membership and Membership Services) **Staff Liaison** 

Suzanne A. Wester, Membership and Marketing Director

#### Vision

The vision of the Resident Committee is to evaluate, address, and support the needs and desires of residents in order to establish a lifelong relationship with the AAPD.

#### Duties

The duties of the Council on Membership and Membership Services, Pediatric Dental Resident Committee, as listed in the AAPD Administrative Policy and Procedure Manual, are

to: 1) provide a forum for residents' issues and a communications mechanism to link residents across the country; 2) facilitate opportunities for residents to contribute to AAPD activities and initiatives; 3) assist residents' education about the AAPD as well as current issues facing pediatric dentistry on a local, national, and global level; and 4) cultivate future pediatric dentistry leaders.

#### **Standing Charges**

#### Charge 1

Evaluate every two (2) years the results of the two surveys distributed to new residents in the first year and to graduating residents, that would address what residents are looking for that would promote continued membership. Present to the Board at its Winter meeting.

Background and Intent: The intent of this charge is to gain information from incoming and outgoing residents about needs specific to the pediatric dental resident.

#### **Progress Report**

The surveys have been collected and evaluations are being made.

#### Charge 2

Evaluate residents' resources on the AAPD website, print and in email communications; and advise and suggest content.

Background and Intent: The intent of this charge is to promote greater awareness of and interest in using the AAPD website and the residents' community page.

#### **Progress Report**

Articles have been published in PDT highlighting life after residency and how to be involved in the AAPD and the profession. New welcome packet and resources have been developed and sent to the individual programs.

#### **Project Charges**

#### Charge 3

Present a list of interested first year residents to the Board of Trustees every October for approval to be members of the Residents Committee. Members must understand that this a two to three year commitment. Continue to review and update as necessary methods to increase continuity and improve participation.

Background and Intent: The intent of this charge is to maintain higher levels of productivity within the constantly changing Residents Committee make-up so that residents are adequately represented within the AAPD.

#### **Progress Report**

Six new members (freshmen consultants) were selected in October 2017.

#### Charge 4

Coordinate and evaluate solicitation by residents of brief articles featuring residents doing innovative and interesting activities in their training programs for the Residents Recognition Award. Up to four awards will be given each year. The winners will published on the AAPD website and in PDT on a quarterly basis. Present guidelines for article submission and scoring criteria to the Board of Trustees annually in May. Background and Intent: The intent of this charge is to promote greater awareness of and interest in using the AAPD website and residents' community page.

#### **Progress Report**

Applications have been received and are being evaluated.

# Council on Membership and Membership Services, Committee on Communications 2017-2018

Elizabeth J. Berry, SE District, Chair J.C. Shirley, Board Liaison

#### **Members**

Matthew R. Lahair, NE District Reza Ardalan, SE District Teresa Fong, NC District Ryan Roberts, SW District Felicity Hardwick, W District Tory McFarlin, Affiliate Member

#### **Consultants**

Lisa B. Bienstock Mary Elizabeth Bisese Cesar D. Gonzalez Kristoffer A. Norbo

#### Ex Officio Member

Shari Kohn (Chair, Council on Membership and Membership Services)

#### Staff Liaisons

Cynthia Hansen, Publications Director Erika Hoeft, Public Relations Senior Manager

#### Vision

The vision of the Committee of Communications is to interact as an advisory body to the AAPD staff and serve as consultants when required.

Duties

The duties of the Council on Membership and Membership Services, Committee on Communications, as listed in the *AAPD Administrative Policy and Procedure Manual*, are to: 1) periodically review communications concerning AAPD member services and make recommendations for enhancement of such communications; 2) periodically review PDT (Pediatric Dentistry Today) and assist with the development of reader surveys and other feedback mechanisms to enhance the magazine's quality-- with an ultimate goal of making PDT the premier magazine for children's oral health care issues; 3) make recommendations and justifications regarding the need for the development of new AAPD publications, including books; 4) perform such other duties as assigned by the President or the Board of Trustees.

Council on Membership and Membership Services, Committee on Communications, 2017-2018

#### **Standing Charges**

#### Charge 1

Interact as an advisory body to the staff in charge of all publications (including online presence) and serve as consultants when required or at the request of the staff. Background and Intent: This is a standing charge to the committee.

#### **Progress Report**

No requests have been received from the staff since the last report.

#### Charge 2

Suggest relevant topics for articles for publication in *Pediatric Dentistry Today* per the request of the staff.

Background and Intent: This is a standing charge to the committee. The Board desires that relevant oral clinical topics including adolescent oral health and well-being receive a greater awareness and appreciation in the pediatric dental community.

#### **Progress Report**

Silver diamine fluoride utilization in practice have been incorporated into the PDT. The committee has composed 3 pieces to be published.

#### Charge 3

Review and assess sales for all topic sheets every 3 years; update and discuss combining, eliminating or creating new as needed.

Background and Intent: Topic cards need to be modernized and streamlined.

#### **Progress Report**

The cards are now ready for formatting with the staff, pictures are needed to complete.

#### **Project Charges**

#### Charge 4

Support the staff with content ideas for the next edition of the *Pediatric Handbook* 

#### **Progress Report**

Committee members were emailed about assisting with this on another committee but as of now there has not been a volunteer for this position. Liz Berry offered to assist with the handbook.

# Council on Membership and Membership Services, Committee on Interprofessional Relations 2017-2018

K. Jean Beauchamp, **Chair** Deven V. Shroff, **Board Liaison** 

#### **Members**

Kerry Maguire, Affiliate Member Trustee

Amr M. Moursi, Liaison to the American Academy of Pediatrics

Scott W. Cashion, Liaison to the American Dental Association

Nick Rogers, Liaison to the AAPD Affiliate Members

K. Jean Beauchamp, Liaison to the Academy of General Dentistry

Francisco J. Ramos-Gomez, Liaison to the American Association of Public Health Dentistry

Arielle Faden, Liaison to the American Student Dental Association and AAPD Resident Members

Mario E. Ramos, Liaison to the Hispanic Dental Association

Paula L. Coates, Liaison to the National Dental Association

Ruth W. Bol, Liaison to the Society of American Indian Dentists

David Krol, Liaison from the American Academy of Pediatrics Section on Oral Health

Lisa Jacob, Liaison to the American Cleft Palate-Craniofacial Association Andrew Spadinger, Liaison to the Academy of Sports Dentistry Joel H. Berg, Liaison to the International Academy of Pediatric Dentistry Scott Cashion, Liaison to the Medicaid CHIP State Dental Association Steve Wilson, Liaison to the International Committee for the Advancement of Procedural Sedation

William O. Dahlke, Liaison to the American Dental Education Association Cynthia K. Y. Yiu, Liaison to the IADR/AADR

#### Ex Officio Member

Shari Kohn, Chair, Council on Membership and Membership Services

Staff Liaison

Suzanne A. Wester, Membership and Marketing Director

#### Vision

Many professional organizations comment upon and have policies related to children's oral health. It is the intent of the Committee on Interprofessional Relations to identify and support AAPD or other members within these organizations who can promote children's oral health.

#### Council on Membership and Membership Services, Committee on Interprofessional Relations, 2017-2018

#### Duties

The duties of the Council on Membership and Membership Services, Committee on Communications, as listed in the AAPD Administrative Policy and Procedure Manual, are to:
1) identify AAPD members who are boundary spanners, i.e., members of organizations that the AAPD targets for extending and enhancing our influence; 2) provide a forum for these boundary spanners to discuss key AAPD initiatives and how these initiatives can be introduced into the organizations they represent; 3) develop programs and action steps to get AAPD members involved, recognized, encouraged and educated to participate in such organizations and seek areas of collaboration; 4) write an annual report on the issues facing the identified organizations; and 5) write an annual report on the status of the AAPD initiatives within the targeted organizations which the AAPD Board of Trustees has authorized.

#### **Standing Charges**

#### Charge 1

Identify AAPD members who are active in other groups and organizations working towards promoting children oral health.

Background and Intent: AAPD recognizes that many members are active in promoting children oral health thorough other interprofessional groups and organizations. It is the intent of the committee through this charge to identify and collaborate with these organizations.

#### **Progress Report**

More than 1000 members have given AAPD their membership profile with their involvements. Staff will continue to check for new information, monitor and update it with the new website. We will promote more participation in self reporting.

#### Charge 2

Identify and develop strategies to engage existing interprofessional groups that AAPD and its members can work collaboratively with to promote children's oral health including but not limited to international, domestic, dental and non-dental groups of all sizes.

Background and Intent: AAPD recognizes that many interprofessional groups and organizations are promoting children's oral health issues. It is the intent of this charge to the committee to identify such key groups and organizations.

#### **Progress Report**

The committee has identified current key groups to engage with that would be mutually beneficial. The committee has not reached out to them yet.

#### Charge 3

Develop a strategy to exchange best practice information between professional organizations.

Background and Intent: AAPD recognizes that there are many interprofessional groups that they are key partners in promoting children's oral health issues. It is the intent of this committee to identify them with the intent to collaborate.

Council on Membership and Membership Services, Committee on Interprofessional Relations, 2017-2018

#### **Progress Report**

The committee is working on ways to share evidence bases information with other organizations.

#### Charge 4

Provide updates on AAPD activities and solicit updates from represented organizations at committee meetings and through electronic and telephone communications. Background and Intent: The Committee will inform and educate its members on activities of the Academy. The Committee members will inform the Committee on activities relevant to children's oral health.

#### **Progress Report**

See charge #3 above.

#### Charge 5

Assist in evaluation of completed RFP forms as requested by staff and Executive Committee.

Background and Intent: The Committee will evaluate according to the criteria of interaction plans. This will be a standing charge to the Committee.

#### **Progress Report**

The Committee helped with the development of this form and is willing to help with any evaluations needed.

### Council on Membership and Membership Services, Affiliate Advisory Committee 2017-2018

#### Chairs:

Kerry Maguire, Chair and Board Liaison

#### **Members**

Clemencia Vargas, NE District

Gianna M. DeSimone, SE District

Vacharee Peterson, NC District

Twana Duncan, SW District

John Blake, W District

Jane Gillette, Immediate Past Affiliate Trustee

#### Consultant

Nick Rogers

#### **Council Liaisons**

Matthew Geneser (Council on Annual Session, Scientific Program Committee)

Ronald H. Hsu (Council on Continuing Education)

Neva Penton Eklund (Council on Pre-Doctoral Education)

#### Ex Officio Member

Shari Kohn (Chair, Council on Membership and Membership Services) **Staff Liaison** 

Suzanne A. Wester, Membership and Marketing Director

#### Mission

To develop, strengthen and promote the complimentary roles of general dentist and specialist members as trusted colleagues in caring for children and persons with special needs, in congruence with the vision of the American Academy of Pediatric Dentistry.

#### Vision

To advance optimal oral health for children and persons with special needs in partnership with all members of the American Academy of Pediatric Dentistry.

#### Duties

The duties of the Council on Membership and Membership Services, Pediatric Dental Resident Committee, as listed in the AAPD Administrative Policy and Procedure Manual, are to: 1) identify Affiliate members interested in participating in councils and committees of the AAPD, and convey this information to the President-elect for consideration during the appointments process; 2) identify and inform the Council on Membership and Membership Services on issues and concerns of Affiliate members, and make appropriate

#### Council on Membership and Membership Services, Affiliate Advisory Committee, 2017-2018

recommendations; 3) implement marketing strategies for maintaining and growing Affiliate membership, based on recommendations of the 2015 Affiliate Task Force Report per the timeline approved by the Board of Trustees; 4) assist in the content development of any annual session or other CE programming targeted to Affiliate members; and 5) assist in support of Predoctoral Student Chapters, in collaboration with the Council on Predoctoral Education.

#### **Standing Charges**

#### Charge 1

Identify and develop Affiliate members for participation in AAPD Councils and Committees and at all levels of volunteer leadership. Report to the Board at its May meeting.

Background and Intent: The Affiliate Advisory Committee provides category infrastructure and leadership for Affiliate members nationwide. Affiliate member participation across AAPD Councils and Committees develops leadership potential, promotes diversity in member participation and builds relationships between general dentist and specialist colleagues.

#### **Progress Report**

18 AAPD Affiliate members currently serve on Councils and Committees. The annual request for interested volunteers was sent December 20, 2017. To date, five Affiliate members have put forth their names, three new two returning volunteers.

#### Charge 2

Create robust avenues of communication across the membership category to identify Affiliate concerns. Inform and make recommendations to the Council on Membership and Membership Services to address issues and improve member relations. Report to the Board at its May meeting

Background and Intent: The "virtual" nature and nationwide (versus District) distribution of the Affiliate member category necessitates multiple avenues for communication.

#### **Progress Report**

Affiliate District representative and District Trustees were introduced by email in August 2017. AAC District representatives now receive notification when new Affiliates in their geographic area join AAPD. As a more personal gesture, a letter of introduction from District reps to their Affiliates in was sent in January 2018..

#### Charge 3

Develop, implement and regularly review the Affiliate marketing plan to build the membership category, including strategies to improve retention. Report to the Board at its May meeting.

Background and Intent: General dentists provide dental care for the majority of children in the United States. In order to achieve the AAPD vision of optimal pediatric oral health, a solid alliance with general dentists is essential. Continuous improvement of Affiliate membership benefits will help grow the category and promote a common standard of high quality pediatric dental care.

Council on Membership and Membership Services, Affiliate Advisory Committee, 2017-2018

#### **Progress Report**

Specifics of an Affiliate marketing plan will be based on recommendations put forth in the Report of the Task Force for Enhancing the Value of General Dentist Membership and acted upon at the discretion of the Board.

#### Charge 4

Collaborate with the Scientific Program Committee of the Council on Annual Session and the Council on Continuing Education to develop course material targeted to Affiliate members. Report to the Board at its May meeting

Background and Intent: The AAPD is the recognized authority in oral care for children. AAPD-sponsored continuing education programs geared to the general dentist that incorporate emerging evidenced –based practices is a valued member benefit.

#### **Progress Report**

Standing charge, reviewed and modified annually. No outstanding issues at this time.

#### Charge 5

Work in collaboration with the Council on Pre-Doctoral Education to build interest in and advocacy for children's dental health during dental school. Promote the benefits of involvement with the AAPD through Student Chapter activities and subsequent conversion to Affiliate membership post-graduation. Report to the Board at its May meeting.

Background and Intent: Outreach activities at many dental schools are often focused on children's oral health, and hold broad appeal for students interested in general, pediatric and public health dentistry. Every dental student planning a career in general dentistry is a potential AAPD Affiliate member. Because the majority of U.S. children receive care from a family dentist, the AAPD is a key resource for general practitioners throughout their careers.

#### **Progress Report**

At the 2017 Ad Interim meeting, the Board approved a modified dues structure for newly graduated general dentists who wish to join AAPD as Affiliate members.

# Council on Post-Doctoral Education 2017-2018

Thomas Tanbonliong, Jr., W District, Chair

Amr M. Moursi, Board Liaison

#### **Members**

Vineet Dhar, NE District

Janice G. Jackson, SE District

David Avenetti, NC District

Maria-Jose Cervantes Mendez, SW District

Jessica R. De Bord, W District

#### Consultants

Stephen K. Brandt

Paul S. Casamassimo

Janice Townsend

#### **Ex-Officio Members**

Suzanne Fournier, Ex-Officio, Co-Chairs, Society of Post-Doctoral Program Directors

#### Staff Liaison

Scott Dalhouse, Educational Affairs Manager

#### Vision

To assist, support, and provide resources for post-doctoral pediatric dentistry programs to help assure that all advanced education students in pediatric dentistry receive optimal didactic and clinical education.

#### **Duties**

The duties of the Council on Post-Doctoral Education, as listed in the AAPD Administrative Policy and Procedure Manual, are to: 1) recommend criteria for establishment of acceptable training for the current practice of pediatric dentistry; 2) monitor and recommend to the Board of Trustees activities concerning workforce issues; 3) perform such other duties as assigned by the President or the Board of Trustees.

#### **Standing Charges**

#### Charge 1

Working with the Society of Post-Doctoral Program Directors (SPPD), plan and implement the Program Directors' Symposium (Academic Day) at the Annual Session. Background and Intent: This is a standing charge to the Council to facilitate the meeting of the program directors in conjunction with the Annual Session. As the SPPD is an independent body, the charge from the Board of Trustees must be made to the Council on Post-Doctoral Education.

Council on Post-Doctoral Education, 2017-2018

#### **Progress Report**

The program directors will meet on Thursday, May 24, 2018 in Honolulu. The agenda includes a presentation by Drs. Vineet Dhar and Glenn Canares as well as updates from the American Board of Pediatric Dentistry and the In-Service Exam Committee. Planning for the 2018 Joint Academic Day has been completed for 2018. In the future, the Council will work with the SPPD to develop and deliver the program for the Society of Postdoctoral Program Directors meeting being held in May 2019 in Chicago.

#### Charge 2

Continue in efforts to assist the Society of Post-Doctoral Program Directors (SPPD) in developing a mentoring program for new Program Directors. Report annually to the Board on progress in this endeavor.

Background and Intent: This charge grows out of an earlier charge to the council to develop an academic resource panel to assist the academic community in efforts to initiate new training programs and expand the capacity of existing ones. The SPPD has established four workgroups to develop substantial resources (e.g., handbooks, manuals, and mentoring programs) that will provide substantial support to new and expanded programs. The Council has requested that this charge be an annual charge.

#### **Progress Report**

Collect relevant information from various sources to share with program directors. Post this information to the AAPD website or E-News where appropriate.

#### Charge 3

Assist the Council on Government Affairs with advocating for sufficient federal funding of Title VII grant funds for faculty loan repayment, publicizing the availability of such grants, encouraging applications, and documenting faculty beneficiaries and the long-term impact of such funding on recruitment and retention of pediatric dental faculty. Background and Intent: Resources are needed to address the earning discrepancy between contemporary private practice and academics. It is vital to develop ways to ease the financial burden of those entering academic careers. One critical method is to advocate for sufficient federal funding of this program and help document its successful impact.

#### **Progress Report**

Programs are provided information as received.

#### Charge 4

Prepare and present to the Board of Trustees a biennially updated "core bibliography" of historical and contemporary literature citations appropriate for distribution to post-doctoral pediatric dental education programs and general membership. Background and Intent: This list is updated every two years. The Council will seek out subject experts from the Committee on Sedation and Anesthesia and the Committee on Special Health Care Needs for input relative to those sections of the bibliography. It is the intent of the Council to disseminate this information via the AAPD website and post-doctoral director's list serve.

Council on Post-Doctoral Education, 2017-2018

#### **Progress Report**

The Core Curriculum Reading List is due to be reviewed and revised in 2019. At the May 2018 Council meeting, members volunteered to review the 2017 bibliography and suggest changes and/or additions. The 2019 version should be available for purchase at the annual meeting in Chicago. Currently this remains as a standing charge so the Council on Postdoctoral Education may ask for the Committees listed above for their assistance.

#### **Project Charges**

#### Charge 5

Develop a plan to educate membership on the critical level and vital nature of the academic workforce crisis and present the plan to the Board of Trustees by May 2017. Implement the plan as directed by the Board of Trustees.

Background and Intent: It is important the membership gain understanding of the nature and potential impact of the academic workforce shortage and the potential impact of this crisis on the existence of our specialty, using the specific data developed in 2002 by the Task Force. Information should be gathered at the state level on faculty shortages of specific programs. Communication should flow from Academy leadership and commence through the journals and newsletter, through an annual editorial from the AAPD president on workforce shortage. This communication campaign should be expanded to engage the creative ideas and the resources of our membership in identifying solutions to the crisis.

#### **Progress Report**

An article is currently in the cycle to be published in *Pediatric Dentistry* later in 2018.

#### Charge 6

Work with the Council on Clinical Affairs, Committee on Special Health Care Needs and Committee on Sedation and Anesthesia, to review the AAPD Core Curriculum Reading List for the topics of "care for special needs patients" and "sedation" and make recommendations for additions and/or deletions to the list. The Committees will provide this information to the Council in time for the Council to report to the Board of Trustees every two years at its Winter Meeting.

Background and Intent: The Committee on Special Health Care Needs and the Committee on Sedation and Anesthesia have the knowledge and resources to make the best recommendations for modifications and updates in the Core Curriculum Reading List.

#### **Progress Report**

See Charge 4, above.

#### Charge 7

Develop guidelines for reviewing literature to be included in the Core Curriculum Reading List.

Background and Intent: This will provide assurance that citations selected are evidence-based and a combination of classic and latest (within the last 5 years) citations.

Council on Post-Doctoral Education, 2017-2018

#### **Progress Report**

This charge has been completed and is incorporated into Charge 4, above.

## Council on Post-Doctoral Education, Post-Doctoral Inservice Examination Committee 2017-2018

Clarice Law, **Chair** Amr M. Moursi, Board Liaison **Members** 

Fall and Spring Writers:

Eileen M. Studders Jillian A. Wallen

Fall Writers:

Homa Amini

Brenda S. Bohaty

Ann L. Greenwell

**Spring Writers:** 

Lori R. Barbeau

Lina M. Cardenas

Jennifer Hill

Stuart D. Josell

Staff Liaison

Scott Dalhouse, Educational Affairs Manager

#### Vision

To support advanced education programs in Pediatric Dentistry by providing outcome measures for post-doctoral students which enable graduates to meet the oral health needs of infants, children, adolescents and those with special health care needs.

#### Duties

The duties of the Council on Post-Doctoral Education, Post-Doctoral In-Service Examination Committee, as listed in the *AAPD Administrative Policy and Procedure Manual*, are to: 1) develop, monitor, implement and evaluate the Post-doctoral In-service Examination; 2) promote participation in the Post-doctoral In-service Examination among program directors; 3) perform such other duties as assigned by the President or the Board of Trustees.

Council on Post-Doctoral Education, Post-Doctoral Inservice Examination Committee, 2017-2018

#### **Standing Charges**

#### Charge 1

In conjunction with the AAPD Headquarters Office Staff, continue management and oversight of the standardized examination for students in pediatric dentistry post-doctoral training.

Background and Intent: A survey of program directors indicated strong support for the development of a standardized examination to be administered to entering and exiting post-doctoral students. Such a tool is necessary for outcomes measurements required by CODA and is beneficial for program self-evaluation relative to a national standard. An examination was developed by the Inservice Examination Subcommittee of the Council on Education and administered for the first time in 1999. The intent of this charge is to direct the subcommittee to continue to oversee the administration and grading of the exam, the assessment of exam validity, the communication with program directors, and the continual updating of the examination.

#### **Progress Report**

The committee met with Scott Dalhouse in attendance during the AAPD Annual Session in May 2017 to discuss issues regarding administration of the outgoing resident exam (given in February 2017). Committee chair, Clarice Law, gave a presentation during Joint Academic Day to the residency program directors regarding resident performance as a whole.

The committee was restructured for the 2018-19 exam to address two cycles of activity. In the fall, the test construction subcommittee will focus on reviewing exam statistics, recommending content areas requiring approved test items and constructing the exam for the upcoming exam cycle. In the spring, the item writing subcommittee will focus on revising items with poor exam statistics and developing new test items to address content areas with increased relevance in pediatric dentistry.

One committee member, Linda Nelson, announced her retirement in May 2017 and the committee recommended not recruiting a replacement, remaining at 10 members. Another committee member, Homa Amini, announced her departure from the committee in February 2018. David Avenetti was nominated by Homa Amini and Committee Chair, Clarice Law, as a replacement.

#### Charge 2

Review the results of the examination, in conjunction with the National Board of Osteopathic Medical Examiners (NBOME), the AAPD Headquarters Office Staff, and make recommendations for improvement. Report annually to the Board.

Background and Intent: It is imperative that the examination provides an accurate measure of the knowledge base of incoming and outgoing pediatric dental postdoctoral students, so that:

- 1) The student has an outcome measure of their education
- 2) The program has an outcome measure of their students relative to the resident group as a whole.

#### **Progress Report**

The 2018 exam cycle began with the outgoing (graduating) residents' exam scheduled from February 12 – 23, 2018.

### Council on Post-Doctoral Education, Post-Doctoral Inservice Examination Committee, 2017-2018

The fall test construction subcommittee met in Chicago at the NBOME office in September 2017. Exam statistics for both groups of test takers (incoming students/residents and graduating students/residents) were reviewed and items were deleted from the question bank or flagged for review by the item writing subcommittee. The 2018 exam was finalized using the 2015 exam as the basic blueprint. Committee members made suggestions on proposed item content areas to be addressed by the item writing subcommittee.

#### Charge 3

Maintain, update and expand a question bank to be used for future examinations. Background and Intent: To support a valid outcome measure for the pediatric postdoctoral program and students there must be a sufficient question bank for the examination.

#### **Progress Report**

The committee will meet in-person with NBOME staff in April 2018 for the purposes of reviewing items deleted from the 2018 outgoing resident exam through the key validation process, revising items deleted from the 2017 exam, validating previously submitted items in the item bank never reviewed, and developing new items to address the evolving evidence base.

### Council on Pre-Doctoral Education 2017-2018

James R. Boynton, NC District, Chair Kerry Maguire, Board Liaison

#### Members

Diana M. Capobianco, NE District Rocio Quiñonez, SE District Julio E. Sotillo, NC District Elva Jordan, SW District Neda Modaresi, W District Joan Kowolik, Affiliate Member

#### **Consultants**

Neva Penton Eklund Alton G. McWhorter Randall Niederkohr Deborah Studen-Pavlovich John B. Thornton, Jr. Adriana Modesto Vieira Brenda S. Bohaty, Expert Consultant Staff Liaison Scott Dalhouse, Educational Affairs Manager

#### Vision

To promote the oral health of children by supporting pre-doctoral pediatric dental education to assure that graduating general dentists can provide the highest level of pediatric dental care.

#### **Duties**

The duties of the Council on Pre-Doctoral Education, as listed in the AAPD Administrative Policy and Procedure Manual, are to: 1) monitor and recommend to the Board of Trustees activities concerning pre-doctoral pediatric dentistry education; 2) perform such other duties as assigned by the President or the Board of Trustees.

#### **Standing Charges**

#### Charge 1

Facilitate the meeting of pediatric pre-doctoral program directors at the AAPD Annual Session. Report on the agenda and other particulars of the previous meeting to the Board of Trustees at its Ad Interim meeting and on plans for the following meeting as developed.

#### Council on Pre-Doctoral Education, 2017-2018

Background and Intent: The pediatric pre-doctoral program directors will serve as an intellectual resource for the Council on Pre-Doctoral Education. This meeting will serve as a vehicle for collaborative information exchange.

#### **Progress Report**

The Society of Predoctoral Program Directors will meet in Honolulu on May 24, 2018. This is an ongoing charge to the Council.

#### Charge 2

Distribute to pre-doctoral directors in the Departments of Pediatric Dentistry or their academic counterparts the advisory list of integral experiences that constitute a pre-doctoral pediatric dental education meeting or exceeding the basic requirements for clinical competency. Review and make modifications as necessary to the list at least bi-annually. Prepare a report for the Board at least annually.

Background and Intent: Competent and qualified general dental practitioners are integral to the AAPD's vision to provide the highest level of care to all children. The development of an advisory list of competency experiences for the pre-doctoral dental student is instrumental in our workforce goals.

#### **Progress Report**

The last revision of the integral experiences was cross-referenced to the CODA accreditation standards. The list is currently being reviewed by the Council for updates. Any changes or updates will be discussed during the Council's 2018 meeting. After all updates have been approved, a revised list will be circulated to predoctoral program directors.

#### Charge 3

Facilitate ongoing development and dissemination of the AAPD Pre-Doctoral Literature Review List. Review and make modifications as necessary to the list at least bi-annually. Prepare a report for the Board at least annually.

Background and Intent: It is the intent of this charge to develop a dynamic literature review list in pediatric dentistry to which pre-doctoral dental students should be exposed during their education. It is the intent of the Council to disseminate this information via the AAPD website and pre-doctoral directors' list serve.

#### **Progress Report**

Continuation of the Literature Review List was discussed by Council members at their last meeting in May 2017. The list was updated and circulated in 2017/2018 and will be discussed for approval by the Council at the May 2018 meeting. A revised list will be sent to predoctoral program directors.

#### Charge 4

In conjunction with the Council on Membership and Membership Services, promote and encourage development of new AAPD student chapters and recognize current chapters demonstrating excellence in providing community service, innovative projects or advancing predoctoral pediatric dentistry education at all dental schools. Report annually to the Board at the May meeting on these pre-doctoral chapters as to their numbers and activities.

#### Council on Pre-Doctoral Education, 2017-2018

Background and Intent: Pre-doctoral membership in AAPD serves to increase student interest and awareness of the pleasures, rewards and opportunities of treating children, whether as a general dentist or specialist. It also offers opportunities for contact and mentoring with pediatric dentists early in the educational process.

#### **Progress Report**

The goal is to develop a toolkit that addresses student chapter membership/outreach/advocacy/treatment/scholarly activities geared towards the general dentistry student and potential pediatric dentistry residents. The toolkit is under development.

## Council on Scientific Affairs 2017-2018

Donald L. Chi, W District, Chair

Tegwyn H. Brickhouse i, Board Liaison

#### Members

Christel Haberland, NE District

Kimon Divaris, SE District

Kaaren Vargas, NC District

Anne R. Wilson, SW District

James C. Cannava, W District

Matina V. Angelopoulou, Affiliate Member

#### **Consultants**

Homa Amini

Soraya M. Beiraghi

Anna Jung-Wei Chen

Yasmi O. Crystal

Vineet Dhar

Gajanan Kulkarni

Naomi Lane

Jessica Y. Lee

Man Wai Ng

Kimberly Kay Patterson

Rocio Quinonez

Francisco J. Ramos-Gomez

R. Glenn Rosivack

Julio E. Sotillo

John Timothy Wright

Anne C. O'Connell, International Consultant

Natalia Chalmers, Expert Consultant

#### **Ex-Officio Members**

Rebecca L. Slayton, Ex-Officio (Chair, Scientific Program Committee)

#### Staff Liaisons

Robin Wright, Health Policy Center Assistant Director

Scott Dalhouse, Educational Affairs Manager

#### Mission

The mission of the AAPD's Council on Scientific Affairs (CSA) is to ensure that the organization's policies, guidelines and programs are evidenced based and supported by the most recent and up to date science. The CSA also sets AAPD Research Agenda, which is used for allocation of research funding support.

#### **Duties**

The duties of the Council on Scientific Affairs, as listed in the AAPD Administrative Policy and Procedure Manual, are to: 1) investigate research activities appropriate for AAPD

involvement and make recommendations to the Board of Trustees; 2) administer the Graduate Student Research Competition; 3) plan and conduct the Contemporary Clinical Issues Workshop at the AAPD annual session in collaboration with the Scientific Program Committee; and 4) perform such other duties as assigned by the President or the Board of Trustees.

#### **Standing Charges**

#### Charge 1

Annually update and affirm the AAPD research agenda. Select the two or three highest ranked topic areas for concentrated investigation and report annually to the Board. Background and Intent: This is a standing charge to the Council. The Council on Scientific Affairs' list of research topics of relevance reflects areas of clinical inquiry of significance across the broad spectrum of the specialty of pediatric dentistry. The research agenda is to be shared annually with interested parties and HSHC as it develops its priorities for funding.

#### **Progress Report**

This has been assigned to a CSA subcommittee and will be reported to the CSA at its May meeting.

#### Charge 2

Annually submit to the Scientific Program Committee a list of potential topics for a contemporary clinical issues program to be presented at the Annual Session. Background and Intent: This is a standing charge to the Council, updated yearly, that uses the Council's expertise in planning a portion of the Annual Session. It was the feeling of the both the Council on Scientific Affairs and the Scientific Program Committee that the potential topics for this kind of course should come from the Council on Scientific Affairs but planning and execution of this course should come from the Scientific Program Committee.

#### **Progress Report**

To be completed at the July planning meeting.

#### Charge 3

Review research awards to include, but not be limited to, the GSRA competitions. Additionally the Chair will review each application for appropriate and relevant content prior to release for Council review.

Background and Intent: This is a standing charge to the Council. This charge calls upon the Council's scientific expertise reviewing the AAPD's research awards.

#### **Progress Report**

The GSRA Judging Committee is composed of 6 members: Homa Amini, Soraya Beiraghi, Donald Chi, Yasmi Crystal, Glenn Rosivack, Rebecca Slayton. The Committee is the process of selecting the 8 GSRA Finalists (out of 10). The SunStar Award Judging Committee is composed of 3 members: Natalia Chalmers, Noel Childers, and Karin Weber-Gasparoni. The Committee is in the process of identifying the Award Finalists (out of 3 submissions).

# Charge 4

Assist the Council on Clinical Affairs in identifying relevant scientific evidence to inform the policies and guidelines developed for the AAPD Reference Manual.

Background and Intent: This is a standing charge to the Council. The Council on Scientific Affairs will be asked to provide input to the Council on Clinical Affairs as the council revises the policies and guidelines each year. Ad hoc advisors to the Council on Scientific Affairs, with specific expertise on particular areas under development, will be asked to work early on with the Council on Clinical Affairs as these policies and guidelines are developed or revised. This input will help to ensure that the guidelines and policies in the Reference Manual are supported by current science. Council on Scientific Affairs as a body will be asked to review the final drafts of policy and guidelines for comment before submission to the Board of Trustees.

### **Progress Report**

All Council members participated in the review process. Four CSA members attended the CCA working meeting in Chicago, November 3-4, 2017.

# Charge 5

Identify and review topics for clinical guideline development using evidence-based approaches and make recommendations to the Evidence-Based Dentistry Committee. Background and Intent: This is a standing charge to the Council. The Council on Scientific Affairs will be asked to solicit input clinical relevant topics from other councils and general membership for consideration. The Council will then rank topics to be considered for evidence-based guideline development based on evidence available.

### **Progress Report**

Behavior management guideline recommended (review and adoption of existing systematic review). Awaiting other ideas from EBDC.

# Charge 6

Using evidence based dentistry approaches; the Council on Scientific Affairs will participate in the development of evidence-based clinical guidelines, in conjunction with the Council on Clinical Affairs, under the direction of the Evidence-Based Dentistry Committee.

Background and Intent: This is a standing charge to the Council. Working with the Evidence-Based Dentistry Committee, the councils contribute to the development of evidence-based guidelines.

### **Progress Report**

Work in progress.

# Charge 7

Provide recommendations to the Board of Trustees concerning the scientific validity of all communications, endorsements and publications sponsored by the Academy, in conjunction with other councils and committees.

Background and Intent: This is a standing charge to ensure that the publications and promotional and educational materials offered to our members, other professionals, and the public are supported by scientific basis and accuracy.

### **Progress Report**

Review of silver diamine fluoride brochure and pulp therapy brochures.

# Charge 8

Review the medical and dental literature to identify emerging products, practices, therapeutics, interventions, treatments, strategies, philosophies and trends applicable to pediatric oral health care. Based on this review, recommend to the Board of Trustees no later than May of each year any policy or guideline that needs to be developed or updated.

Background and Intent: This is a standing charge to the Council. This charge results from a recommendation of the January 2004 Planning Session that the Academy take the initiative in anticipating changes in clinical practice, including "off-label" use of pharmaceuticals and advances in diagnostic technology. With the development of new products and procedures in pediatric dentistry, it is imperative that the Academy take the initiative to anticipate changes in clinical practice and develop appropriate clinical quidelines.

### **Progress Report**

Ongoing.

# Charge 9

Maintain and update as necessary a list of individuals actively engaged in research activity which closely parallels our research agenda. Specify how the work being done by these groups and individuals parallels the AAPD research priorities. Recommend ways by which the AAPD and the Pediatric Oral Health Research and Policy Center can collaborate and establish partnerships with these groups and individuals.

Background and Intent: This is a standing charge to the Council. Forming partnerships with other organizations would afford AAPD greater visibility in these efforts and would help leverage limited resources.

### **Progress Report**

Ongoing.

# Charge 10

Collaborate with international pediatric dental organizations to develop mechanisms for scientific partnerships. Report to the Board on an annual basis.

Background and Intent: This is a standing charge to the Council. The Academy seeks to enhance its membership through, among other approaches, the international research and knowledge base. Outreach to international dental societies can be the starting point. For example, the European Dental Society Academy of Pediatric Dentistry is known for its research. Welcoming these members would enhance AAPD members' research and practice, and recognize them as part of the global dental community.

### **Progress Report**

Ongoing.

# Charge 11

Provide support of a Pediatric Oral Health Research (POHR) group within the International Association of Dental Research (IADR).

Background and Intent: This is an ongoing charge to the Council. The Academy seeks to enhance its research presence with other groups in organized dentistry on a national and international basis.

### **Progress Report**

2018 AADR meeting in Fort Lauderdale, FL was a success. 2018 IADR meeting to be held in London In July 2018 – will co-sponsor 7 symposia proposals and 1 Lunch & Learn proposal.

# Charge 12

In conjunction with the Council on Clinical Affairs, identify and submit to the Evidence-Based Dentistry Committee those guidelines that may contain sufficient evidence to be considered for an evidence-based clinical guideline.

Background and Intent: This is a standing charge to the Councils to ensure that any guideline that has sufficient evidence is evaluated by the Evidence-Based Dentistry Committee for inclusion in the evidence-based process.

### **Progress Report**

Work in progress.

# **Project Charges**

# Charge 13

Develop a methodology for input and collaboration on proposed pediatric research projects using the National Practice Based Network.

Background and Intent: NIDCR has announced the funding of a National Practice Based Research Network. The clinical pediatric dentist offers an untapped opportunity to address and capture the wealth of information and patients advance research. The AAPD would like to encourage principle investigators to engage the National PBRN and to assist with this effort will support scientifically sound clinical research endeavors.

# **Progress Report**

No pediatric dentistry-related PBRN projects at this time.

# Charge 14

At the request of the Council on Continuing Education and with the assistance of the Council on Clinical Affairs, assist the Council on Continuing Education to plan and conduct a series of podcasts on pertinent clinical guideline updates and practical reviews.

Background and Intent: Currently, a majority of pediatric dental residents receive a portion of their training electronically. Younger dentists communicate electronically for a

### Council on Scientific Affairs, 2017-2018

majority of their professional and non-professional encounters. The Academy needs to be prepared to engage this group professionally through electronic continuing education.

# **Progress Report**

### Recommendations:

• Difficult topics in pediatric dentistry (in conjunction with POHRC)

# Council on Scientific Affairs, Consumer Review Committee 2017-2018

Anupama R. Tate, Chair
Kerry Maguire, Board Liaison
David K. Curtis
Indru C. Punwani
David A. Tesini
John B. Thornton, Jr.
Staff Liaison
Robin Wright, Director, Research and Policy Center

Mission

### **Duties**

The duties of the Council on Scientific Affairs, Consumer Review Committee, as listed in the AAPD Administrative Policy and Procedure Manual, are to: 1) develop a protocol, consistent with the Principles for Interaction with Industry and Other Organizations described in Section 13.K, for determining whether the AAPD should review or develop scientifically accurate consumer messaging that is adjunct to the marketing of a consumer product and or included in a commercial print or electronic publication intended for consumers; 2) based on the developed protocol, determine when the AAPD logo should accompany such messaging, and ensure that in all cases the following phrase should be included in a prominent location immediately adjacent to the AAPD logo:

"The information presented in this \_\_\_\_\_\_ has been reviewed [or provided] by the American Academy of Pediatric Dentistry and is consistent with the current science related to oral health care for children. This does not represent any endorsement by the AAPD of the product [or service or publication]."

3) implement licensing agreements with such organizations permitting use of the AAPD logo as indicated in paragraph 2, in exchange for an appropriate organization commitment to Healthy Smiles, Healthy Children; 4) regularly report to the Board of Trustees concerning such reviews; and 5) perform such other duties as assigned by the President or Board of Trustees

Assigned to: All Consumer Review Committee Members

Status: Up to Date

### **Progress Report**

Thus far in 2017-2018 we have not received any documents for review.

# AAPD Political Action Committee (PAC) Steering Committee 2017-2018

### K. Jean Beauchamp, Chair (2018)

Warren A. Brill, Vice Chair (2018)

John S. Rutkauskas, Treasurer

Clifford R. Hartmann, Assistant Treasurer (2018)

C. Scott Litch, Secretary

Stephen C. Mills (NE) (2018)

Chad S. Eslinger (SE) (2020)

James D. Nickman (NC) (2019)

Philip H. Hunke (SW) (2018)

Jade A. Miller (W) (2018)

Deven V. Shroff, Board Liaison

### 2017 PAC Receipts

I want to thank the 1,058 members who donated to the AAPD PAC in 2017, which represents an 18 percent increase in members giving over the previous year! Overall, \$229,792 was raised by the AAPD PAC in 2017.

### **PAC Annual Report**

For the third straight year, with the assistance of the firm Sagac Public Affairs, a detailed AAPD PAC Annual Report was prepared and will be mailed to eligible member donors (Active, Life, Affiliate, and Postdoctoral). This will include a listing of all 2017 donors, charts of PAC finances, lists of policy achievements, and photos of your PAC in action. Also note that 2017 PAC donors are listed in the May 2018 *PDT*.

### PAC Reception in Hawaii

All PAC donors are invited to attend (and bring a guest) to the PAC Reception on Saturday, May 26, 2018 from 4:00 to 5:00 pm during the AAPD Annual Session in Hawaii. An e-invite was sent to all PAC donors. Individual donors at the Patriot Level will be recognized along with the district chapters that had the most donors and total hard dollar collections in 2017.

### 2018 Congressional Elections

The AAPD PAC Steering Committee met in Washington, D.C. on March 4, 2018 to finalize candidate contribution decisions for the mid-term elections this fall. In total, the AAPD PAC plans to support 13 Senate candidates and over 90 House candidates. Many AAPD leaders, including Steering Committee members and state Public Policy Advocates, will be coordinating PAC check deliveries. We also rely upon Congressional Liaison Dr. Heber Simmons Jr. and the firm of Hogan Lovells, as some deliveries are made at candidate fund-raisers in Washington, D.C.

### AAPD Political Action Committee Steering Committee, 2017-2018

In addition to supporting the four dentists currently serving in Congress (Drs. Brian Babin of Texas, Drew Ferguson of Georgia, Paul Gosar of Arizona, and Mike Simpson of Idaho) the AAPD PAC is also supporting state senator (and dentist) Jeff Van Drew, who is running for an open seat in New Jersey's 2<sup>nd</sup> Congressional district.

# AAPD PAC Fund-Raiser in Washington, D.C.

As part of the 2018 AAPD Public Policy Advocacy Conference, on March 5, 2018 the AAPD PAC hosted a fundraiser for **Congressman Tom Cole (R-Okla.-4th)**, chair of the House Appropriations Subcommittee on Labor, Health and Human Services, and Education. Mr. Cole is a fifth generation Oklahoman and an enrolled

member of the Chickasaw Nation. He is one of only two tribal members currently serving in Congress. The event, co-sponsored with ADPAC, AAOMS PAC and Hogan Lovells PAC, raised over \$15,000. See above photo (I-r AAPD CEO Dr. John Rutkauskas, Congressman Cole, AAPD Congressional Liaison Dr. Heber Simmons, Jr., and AAPD President Dr. Jim Nickman).



It has been my distinct honor to serve as your PAC Chair this past year. I look forward to our PAC's ongoing growth and success! While I am moving over to the AAPD Executive Committee, the PAC will be in the capable hands of current Vice Chair and incoming Chair Dr. Warren Brill.

7,097



# 2018 Report to the American Academy of Pediatric Dentistry Board of Trustees

**ABPD Mission Statement** To certify pediatric dentists through a voluntary examination process that continuously validates their knowledge, skills and experience for delivering quality patient outcomes.

- Leads to high-quality oral health care for infants and children through adolescence, including those with special health care needs.
- Provides assurance to the public that a board certified pediatric dentist has successfully completed accredited specialty training.

**ABPD Vision Statement** Every pediatric dentist is inspired to provide high quality oral health care to all children and maximize patient outcomes through continuous participation in the certification process.

### 2017-2018 ABPD Board of Directors

Jeffrey Mabry President
Man Wai Ng Vice President
Leila Younger Secretary

William Greenhill Immediate Past President

LaRee Johnson Director Dorothy Pang Director

Jeffrey Dean Chief Executive Officer

**Total Active AAPD Pediatric Dentist Members** 

### Diplomate, Candidate, and Applicant Statistics as of April 1, 2018

Active Time-Limited Diplomates	4,948
Active Unlimited Diplomates	311
Active Unlimited Diplomates voluntarily in the ROC P	15
Active Life Diplomates	302
<b>Total Number of Active Diplomates</b>	5,566
Active Candidates 762	
Active Applicants 600	
From the AAPD Membership:	
Active Pediatric Dentist Members	6,566
Active Pediatric Dentist Life Members	531

# Therefore, 78.4 % of Eligible AAPD Members are ABPD Board Certified Pediatric Dentists. (5,566 ABPD Diplomates /7,097 AAPD Members)

# Significant accomplishments in 2017:

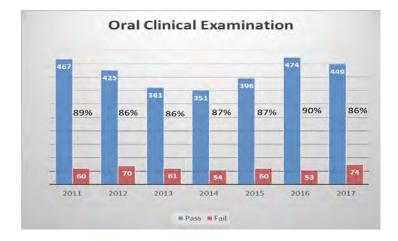
- 1. 2014 2017 Strategic Plan- this plan was wrapped up the end of 2017 and the board utilized a significant part of its Fall 2017 Ad Interim meeting to develop a 2018 2021 Strategic Plan. It is being finalized and will be released Spring of 2018.
- 2. ABPD History Project- the writing of the history of the board from 1970 to the present by Ms. Linda Sojka is going well and nearing completion. We were fortunate to recruit Dr. Robert Primosch to review and edit the manuscript with Linda and hope to release it later this year.
- 3. ROCP-LLC Partnership- the partnership agreement between Informatics, Inc, and ABPD's subsidiary board, Competency Based Pediatric Dentistry (CBPD) was signed in 2017, and ROCP-LLC now has signed three board certification clients on to their software membership management platform contract. The partnership is off to a good start and looks forwarded to successfully onboarding these 3 boards while actively pursuing additional clients.
- 4. Saudi Board of Pediatric Dentistry- As a compliment to the success of our board certification process, the Saudi Board invited Dr. Jeffrey Mabry to attend and review their examinations in the Fall of 2017. He enjoyed the opportunity, was impressed with their process and offered construction comments where appropriate.

### **Examinations Update**

Qualifying Examination (QE) - The 2018 QE is scheduled at PearsonVue testing centers on May 7, 2018. We have 508 individuals scheduled to take the examination (May 2017 we had 503 take the exam, with a pass rate of 95%).

<u>Oral Clinical Examination (OCE)</u> - The 2018 OCE will be administered in Dallas, Texas, October 15-18, 2018, with 550 individuals scheduled to take the examination (504 Candidates participated in the 2017 examination with a pass rate of 86 %).





Renewal of Certification Process (ROC-P)- Of our 5,172 active Diplomates, the majority are enrolled in the ROC-P (4,537 or 86%). We are pleased to report a 99.6 % success rate for 2017 ROC-P requirements. Our participation rates for these two exams, as well as the renewal process, continue to be at an all-time high.

### **Finances**

We are pleased to report our financial status remains stable. We closed out with a healthy 2017 and our budget for 2018 is sound. The financial review was completed in the summer of 2017 and forwarded to AAPD headquarters for your information.

### <u>AAPD</u>

ABPD is thankful to have such a strong relationship with AAPD, our sponsoring organization. We look forward to the President Elect of AAPD attending our annual meeting later in April and hope that an AAPD officer will be able to attend this year's OCE in Dallas. We certainly benefit from the additional perspective and hope that the visits are beneficial to the AAPD leadership.

As always, AAPD staff continues to be responsive to and supportive of ABPD's requests. We appreciate the opportunity to include information in AAPD's blast e-mails to the membership and in *Pediatric Dentistry Today*. We appreciate the continued support of AAPD staff in assisting us in preparations for ABPD functions at the AAPD Annual Session. Thanks so much to everyone for the teamwork and spirit of cooperation!

Respectfully Submitted,

Jeffrey Mabry, President

American Board of Pediatric Dentistry

American Board of Pediatric Dentistry – 2017-2018

April 1, 2018



Strategic Plan: 2014-2017

#### MISSION

To certify pediatric dentists through a voluntary examination process that continuously validates their knowledge, skills and experience for delivering quality patient outcomes.

### VISION

Every pediatric dentist is inspired to provide high quality oral health care to all children and maximize patient outcomes through continuous participation in the certification process.

#### **CORE VALUES**

- Excellence in Pediatric Oral Health Care ABPD values the provision of the highest quality oral health care for children. Such care is thoughtful, careful, ethical and based on the current scientific evidence. It takes into account the best interest of the patient and is respectful of the patient and his/her
- A Fair and Valid Examination ABPD values a fair and valid testing process for board certification and renewal of certification in Pediatric Dentistry. Such a testing process is based on the current knowledge in professional and educational testing. The process is evaluated continuously to insure that it is of the highest quality and accurately assesses the candidate's knowledge, skill and judgment. A fair and valid examination requires skilled, committed and adequately trained examiners.
- A Commitment to Lifelong Learning ABPD values a health professional's commitment to lifelong learning. ABPD values candidates' and Diplomates' desire to practice pediatric dentistry at the highest level and their commitment to constantly reevaluate their practices in light of the most recent scientific evidence. ABPD recognizes the value of renewal of certification and continuing education for health professionals.
- Quality Improvement in Health Care ABPD values quality improvement in health care through objective assessment of outcomes and process. It supports efforts to provide optimal health care to children.
- Leadership ABPD embraces integrity and accountability in guiding and empowering pediatric dentists to engage in continuous competency.
- Collaboration ABPD values working with internal and external stakeholders to achieve a unified vision.
- Effective Stewards ABPD is committed to being an effective steward of its entrusted resources and accountable to Diplomates and American Academy of Pediatric Dentistry.

STRATEGIC GOALS		
Collaboration/Relationships	High-Quality Certification Process	Effective and Sustainable Organization
Increase collaboration and relationship-building with related organizations, boards and other stakeholders.  Improve external communications and collaboration with "allied" boards, quality improvement leaders (COD, DQA, ADA) and key stakeholders to promote the value of certification, renewal of certification and competency.  Improve internal stakeholders' (Diplomates and AAPD) understanding of the value of continual competency assessment.  Increase public awareness of the value of board certification.	Ensure the credibility and integrity of the continuous certification process.  Stay at the forefront of continuing competency. Evaluate and strengthen the certification and recertification process.  Utilize technology best practices and make technology more accessible, seamless and user friendly.	Strengthen the efficiency and effectiveness of ABPD and its governance.  Implement and enhance ongoing board development.  Restructure and empower the Examination Subcommittees.  Effectively manage and utilize reserve funds.

Full Strategic Plan posted to www.abpd.org effective September 1, 2014