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## Policy on Human Papilloma Virus Vaccinations

### Originating Council

Council on Clinical Affairs

### Adopted

2017

### Purpose

The American Academy of Pediatric Dentistry recognizes there is a link between Human Papilloma Virus and development of oral pharyngeal cancers. The purpose of this policy is to provide a perspective on dental provider's role in discussing oral cancers and connections to Human Papilloma Virus (HPV).

### Methods

This policy is a review of current dental and medical literature. An electronic search was conducted using the PubMed® electronic database with the following parameters: Terms: "HPV vaccines", and "HPV and oral cancer" "HPV and cancer" "Guardisil and prevention of cancer" Fields: all; Limits: within the last 10 years, humans, English, birth through age 99. Eighteen articles matched these criteria. Papers for review were chosen from this list and from the references within selected articles.

### Background

Human Papillomavirus (HPV) is associated with anogenital, skin, oral and oropharyngeal cancers (OOPC)<sup>1,2</sup>. The same virus is observed in oral squamous cell carcinoma, the most common type of oral OOPC<sup>2</sup>. Based on current epidemiological trends, 44,330 new cases and 9,350 deaths due to OOPC are expected to occur in 2016<sup>5</sup>. HPV is a critical factor with the HPV 16 strain being the most prevalent<sup>6</sup>. The association between HPV infection and OOPC may be responsible for the recent change epidemiology with the disease affecting younger population groups.

HPV infection is preventable through immunizations and vaccines have been available since 2006<sup>7</sup>. The Center for Disease Control (CDC) found that the prevalence of HPV infection decreased 56% among female teenagers since the vaccine was introduced<sup>8</sup>. HPV vaccine efficacy against anal and oral infection is high and similar to that against cervical infection<sup>9</sup>. Because the same virus strains are strongly associated with OOPC, it is reasonable to assume that HPV vaccines play an important role in oral

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pharyngeal cancer prevention. Although there are no studies showing that the HPV vaccine prevents the development of OOPC, it is reasonable to postulate the vaccine's potential since the vaccine has been shown to prevent HPV infection<sup>3</sup>. Despite the increased availability of the HPV vaccines, HPV-related OOPC incidence has continued to increase significantly.

The American Academy of Pediatrics recommends HPV vaccination for all 11-12 year old children and include females up to age 26 and males up to age 21 that have not been previously vaccinated. The vaccinations can be administered as early as 9 years of age<sup>10</sup>. Initially the AAP recommended a series of 3 vaccines over a six month period, with the second dose occurring 1-2 months following the first with the third dose 6 months following.<sup>11</sup> Low compliance rates for completion of the vaccination series are due to access, willingness of physicians to discuss with parents, and cost.<sup>12-15</sup> Recently the CDC Advisory Committee on Immunization Practices (ACIP) recommended a two-dose schedule for children younger than 15 years of age with both doses 6-12 months apart. For children older than 15 years, the three-dose schedule is still recommended.<sup>16</sup>

Adolescent patients have unique needs related to oral health care. Pediatric dentists typically provide tobacco and nutritional counseling to their adolescent patients.<sup>17</sup> Given that dental professionals are already involved in secondary and tertiary prevention and to a limited extent in the treatment of OOPC, offering primary prevention in dental clinics seems a logical and clinically appropriate approach. As adolescent patients tend to see the dentist twice yearly and more often than their medical doctor this is a window of opportunity for the dental professional to provide counseling to the patient and parent about the HPV vaccine and HPV's link to oral cancer.<sup>18</sup>

## Policy Statement

The AAPD supports measures that prevent OOPC, including the prevention of HPV infection, a critical factor in the development of oral squamous cell carcinoma.

The AAPD encourages oral health care providers to:

- Educate patients, parents, and guardians on the serious health consequences of OOPC and the relationship of HPV to OOPC.
- Counsel patients, parents, and guardians regarding the HPV vaccination, in accordance with CDC recommendations, as part of anticipatory guidance for adolescent patients (ages 10-18<sup>17</sup>).
- Routinely examine patients for oral signs of and changes consistent with OOPC.

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- Follow current literature and consider incorporating other approaches for HPV prevention in their practices so as to minimize the risk of disease transmission.

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