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## **What are Systematic Reviews?**

Systematic reviews are peer-reviewed research publications that analyze all available evidence on a topic. Authors evaluate and critically appraise all available evidence and apply a predetermined and scientifically sound methodology to select RCTs for inclusion in study. The systematic review may also include a quantitative pooling of data, called a meta-analysis.<sup>1</sup> All systematic reviews provide information on the quality of evidence available about the issue under discussion. Many systematic reviews also include evidence tables that provide an easy way for the reader to determine the effectiveness of the interventions under discussion.

Systematic reviews are done to determine the efficacy of therapies. For example: the systematic review, “Treatment of periodontitis as a manifestation of neutropenia with or without systemic antibiotics: a systematic review,”<sup>2</sup> found that “scaling and root planing, in combination with systemic antibiotics to supplement therapy for the underlying disease, have been successful in most cases.”

Systematic reviews are considered gold-standard evidence because the findings in them have been pooled to provide a greater level of certainty than a single study. Please note: Not all systematic reviews are of high quality, so it is important to vet them. Instructions for vetting clinical articles are available on the EBD Web page.<sup>3</sup>

All evidence-based guidelines are based on a systematic review of the literature. AAPD’s evidence-based guidelines are being produced in accordance with standards created by Institute of Medicine and mandated by the National Guideline Clearinghouse<sup>4</sup> an initiative of the Agency for Healthcare Research and Quality (AHRQ). Both the sealant (co-sponsored by ADA) and pulp therapy systematic reviews will be the basis for the new AAPD guidelines. Systematic reviews provide a thorough review and synthesis of data found, but they are not prescriptive. The guidelines based on these systematic reviews will provide practitioners with easy to understand evidence-based guidance.

For further information, please contact AAPD Policy Center EBD Manager Laurel Graham at (312) 337-2169 or [lgraham@aapd.org](mailto:lgraham@aapd.org).

<sup>1</sup>Agency for Healthcare Research and Quality definition

<sup>2</sup>Free full-text here: *Pediatr Dent.* 2013 Mar-Apr;35(2):E54-63

<sup>3</sup>[http://www.aapd.org/policy\\_center/evidence\\_based\\_dentistry/](http://www.aapd.org/policy_center/evidence_based_dentistry/)

<sup>4</sup>The NGC’s mission is to provide an accessible resource for obtaining objective, detailed information on clinical practice guidelines and to further their dissemination, implementation, and use.

**“Huge volumes of data may be compelling at first glance, but without an interpretive structure they are meaningless.”**

—Tom Boellstorff

“Ethnography and Virtual Worlds: A Handbook of Method”