

Lessons Learned from Scottsdale

By Casey Hein, BSDH, MBA†

This issue of *Grand Rounds in Oral-Systemic Medicine*™ is accompanied by a special supplement that features a landmark document entitled the *Report of the Independent Panel of Experts of 'The Scottsdale Project'*. The first of its kind, this report explores the exciting new frontier of medical-dental collaboration in guidelines development for intervention of diabetes, cardiovascular disease (CVD) and periodontal disease.

Consider the promise medical-dental collaboration might hold in reversing the pandemic trends in these interrelated chronic diseases. In the past decade, there has been substantial investigation of the potential interrelationship between oral and systemic diseases. Mounting evidence suggests there is a relationship between chronic inflammation associated with periodontal disease and increased risk for various systemic diseases. In spite of this evolving body of evidence, multiple institutional and attitudinal obstacles interfere with the diffusion of this body of science into contemporary healthcare. These hurdles have created a large and growing gap between what we know with reasonable certainty about oral-systemic connections, and what we actually do in the clinical practice of dentistry and medicine. This is precisely what the independent panel of experts from *The Scottsdale Project* sought to address in the report.



The independent panel of experts who served on *The Scottsdale Project*, and representatives from Colgate. Left to right: Walter Cohen, DDS; Casey Hein BSDH, MBA; Maurizio Trevisan, MD; Foti Panagakos, DMD, PhD (Colgate); M \acute{o} ise Desvarieux, MD, PhD; Robert Ostfeld, MD, MS; Evanthia Lalla, DDS, MS; Louis Rose, DDS, MD; Shailesh Patel, BM, ChB, DPhil, FRCP; Maria Ryan, DDS, PhD; Steven Offenbacher, DDS, PhD, MMSc; Karen Williams, RDH, PhD; Anthony Iacopino, DMD, PhD; Lynnae Millar, MD; Charles Cobb, DDS, PhD; David Paquette, DDS, MPH, DMSc; Sheila Garris, MD, FACP; Sen Souvik, MD, MS, FAHA; Marsha Butler, DDS (Colgate); Carolyn Herrick, MBA (Colgate). Expert not pictured: Brian Mealey, DDS, MS.

For medical and dental practitioners who rely on the most progressive evidence-based decision making to guide their clinical practice, the *Report of the Independent Panel of Experts of 'The Scottsdale Project'* is required reading. This report discusses the scientific methodology, decision process, and compelling rationale for recommendations born out of three days of intense proceedings which brought together the panel of 18 experts from research, academia, and clinical medicine and dentistry. Their task was to determine whether there is sufficient evidence to recommend the development of guidelines for the clinical practice of dentistry and medicine to assist practitioners in identifying and cross-referring patients who either have or who may be at risk for having periodontal disease, CVD, and diabetes.

The Scottsdale Project was modeled after effective public policy think tanks, and as such, it was not anticipated that the proceedings would generate a single answer to any single question. The hope was that the proceedings would elicit expert opinion that was not constrained by conventionality, social pressure of majority opinion, or determination to stand by a professional opinion previously expressed which may no longer be supported by science. In recognizing that opinions that are less accepted or more controversial today often become crystallized as accepted science at some point in the future, we sought and promoted a spread of opinion. The first day of the proceedings began as somewhat of a debate, which mimicked the schism that has historically divided medicine and dentistry. Experts were urged to look upon differences of opinion as natural, and to view initial agreements as suspect. Interestingly, by the third day, minority opinions seemed to blend into more homogeneous thinking relative to the conclusions of the panel.

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On the final day of the proceedings, the panel of experts was asked to reflect on whether they had any preconceived expectations of the process, and to offer their general observations of the unique challenges inherent to bringing together medical and dental experts to debate the level of evidence to support oral-systemic relationships for the first time. Their comments proved to be invaluable in providing insight relative to the hurdles that must be addressed in order for the medical community to adopt and embrace this evolving body of science. I call their comments, “lessons learned from Scottsdale”:

- Periodontal disease’s contribution to systemic diseases will undoubtedly be challenged by the medical profession. In order for the medical profession to accept that periodontal disease may pose a threat to systemic health, scientific evidence of such a relationship must reach a high threshold, a level of evidence that is fairly rigorous according to commonly accepted criteria for grading evidence, e.g., the Oxford criteria.
- In considering whether it is appropriate to develop clinical guidelines that would be useful in diagnosis and treatment, it may be counterproductive to insist on Level 1 evidence to support guideline development. Although the best evidence to support recommendations for guidelines is Oxford Level 1a, (e.g., systematic reviews of randomized clinical trials), it is important to consider other evidence that may not meet this top threshold. Numerous organizations such as the American Diabetes Association and the American Stroke Association have developed certain guidelines which are supported by lower levels of evidence such as consensus opinion of experts and evidence that is conflicting albeit with the weight of evidence supporting the recommendation. The level of evidence to support certain periodontal-systemic relationships actually exceeds the level of evidence used to support many guidelines formulated by various professional organizations.
- Regardless of its growing acceptance within the dental community, it cannot be assumed that the medical community is aware of the research to support the effect of periodontal disease on local and systemic inflammation. If early studies (classic literature) are excluded from the literature search, there is a great likelihood that medical professionals will not be exposed to some of the most important groundbreaking research, and that medical professionals will not have the opportunity to learn about fundamental concepts related to oral-systemic medicine which were originally established in the late 1980s and early 1990s and are requisite to understanding.
- The credibility associated with an independent panel of experts in formulating recommendations for guideline development is essential to ensure that there are no biases, and that the outcome is optimal. It is critical that the independent panel be comprised of experts who are not influenced by political affiliation. Diversity of opinion is also key and best accomplished by recruiting a depth and breadth of experts from varied experiences in academia, research and clinical practice. This creates an environment that fosters cross education and interprofessional insights which may be forfeited unless these conditions are met.
- Experts from the research community may be more concerned with substantiating evidence; experts from clinical practice may be more concerned with translating research into clinical care. Bringing both the researcher and private practitioner communities together increases the likelihood that guidelines are substantiated by scientific rationale while simultaneously ensuring that the guidelines are grounded in realistic effective strategies that can be widely implemented into private practice medicine and dentistry at a primary care level and public health setting. *The Scottsdale Project* is an exemplar of the balance that can be achieved by joining research and practitioner communities.
- To bring about the depth of discussion necessary to formulate recommendations on guideline development, it is critical that a high quality review of the literature and evidence summaries be conducted and distributed to experts in enough time that the experts are properly prepared to participate in specific discussions. The literature review conducted for *The Scottsdale Project* was considered by the participating experts to be of high scientific quality, an excellent framework for discussions during the conference, and sufficient to formulate recommendations for certain guidelines for clinical medicine and dentistry which are worthy of adoption by professional organizations.
- Assuming the medical community adopts the recommendations coming out of the *Report of the Independent Panel of Experts of ‘The Scottsdale Project’*, it is vital that the dental community be prepared to work in collaboration with medical providers.

I gratefully acknowledge the generous educational grant Colgate provided to fund *The Scottsdale Project*, including the pre-conference planning committee meeting, the extensive literature search and summaries of evidence, the conference proceedings which took place in April in Scottsdale, and finally, the long awaited publication of the *Report of the Independent Panel of Experts of ‘The Scottsdale Project’*.