Editorial

When is a cavity a cavity?

When would *you* restore a virgin carious lesion? Replace an existing restoration? Change a restoration to a crown? Would your answer be the same for your own mouth as it is for a patient? Even if you had to pay your full fee to have the procedure done?

Restorative dentistry is the fundamental clinical activity of general dentists, but there is little consensus among us when the above questions are asked.[1] And the story can get a lot worse! Consider the infamous *Reader's Digest* article of February 1997.[2] The author reported a cost range from $500 to over $20,000 for treatment plans proposed by 50 random dentists from around the United States to treat the author's oral condition.

Historically, restorative dentistry has engaged in a cycle of restoration and replacement, with each replacement destroying more tooth structure.[3] Seventy percent of all restorations placed in a given year are replacements.[4] This means that what we restorative dentists mostly do is *not* a simple permanent solution to a carious lesion: recurrent caries eloquently and persistently reaffirms that "fillings" are inadequate therapies for controlling caries.[5]

We cannot escape our responsibilities by offering the standard dental reply to challenging questions: "Well, it works in *my* hands." Anecdotal and empirical opinions have little place in the increasingly competitive and accountable health sciences of 1998 and beyond. It will serve us well in our respective practices to base our therapies on proven solutions, when they exist.

The frequently used term for this approach to selecting appropriate therapies is the *evidence-based* system. In this approach, we look to the objective methods of science for documentation of the appropriateness of our treatment selections, based on the success of outcomes from that treatment. That is, are our patients provably better off *after* we have treated them than they were *before* we treated them?

Fortunately there are positive answers for us. Last year in our "It's all in the sequence" series we argued for patient-centered, comprehensive, sequential treatment of dental conditions. We argued that until the factors that contribute to oral disease are eliminated or controlled, definitive treatment should not progress beyond treatment of pain and infection and selected temporization. In this case, caries must be *controlled* and a healthy mouth *maintained* before final restorations are placed.

More importantly, there is growing evidence that an entirely new approach to the management of carious lesions may be warranted. In early 1997 the American Association of Dental Schools presented a symposium on the evidence-based management of initial carious lesions. Among the conclusions: practitioners should *(1)* routinely assess the caries risk of patients, *(2)* assist patients in behavior modification that reduces caries activity, *(3)* use remineralization compounds to stimulate self-repair of early lesions, *(4)* utilize appropriate antibacterial strategies to reduce *Streptococcus mutans* levels.[6]

Patient-centered treatment! When we act in the best interest of each individual patient, using therapies that are evidence-based, predictably successful outcomes become the norm and life is good—for all of us, attending doctor and patient alike!

Bill Wathen, DMD

William F. Wathen
Editor-in-Chief

Suggested readings

1. Elderton RJ. Variability in the decision-making process and implications for change toward a preventive philosophy. In: Anusavice K (ed). Quality Evaluation of Dental Restorations. Chicago: Quintessence, 1989:211–222.
2. Ecenbarger W. How dentists rip us off. Readers Digest 1997;Feb:50–56.
3. Brantley CF, Bader JD, Sugars DA, Nesbit SP. Does the cycle of rerestoration lead to larger restorations? J Am Dent Assoc 1995;126:1407–1413.
4. Mjör I. Amalgam and composite restorations: Longevity and reasons for replacement. In: Anusavice K (ed). Quality Evaluation of Dental Restorations. Chicago: Quintessence, 1989:61–68.
5. Sheiham P. The impact of dental treatment on the incidence of dental caries in children and adults. Community Dent Oral Epidemic 1997;25:104–112.
6. American Association of Dental Schools. Symposium: Practical evidence-based management of the initial caries lesion. J Dent Educ 1997;61:853–905.