

## Technology: Our link to the past

Former US President Harry S. Truman is often quoted as saying that there is not much new in the world, but there is a huge amount of history that we have not yet discovered.

As one looks at the historic dental literature on which many of today's "best practices" are based, that truth becomes starkly evident. The fabric of evidence-based clinical practice is woven of the threads of knowledge that extend back into time. This developmental sequence of affirmed knowledge is the basis for predictability, and predictability is the basis for recommended dental therapies.<sup>1-5</sup>

This link to the past also takes the form of references included at the end of papers submitted to scientific journals. Very few of us ever conceive totally original ideas. The raw material of our intellect comprises all our past experiences and readings. How we assemble those materials into useful applications is the result of our personal critical thinking and clinical decision-making strategies. References to the existing knowledge base affirm our impressions and allow the reader to evaluate our ideas within the context of past findings. Even those findings that contradict current evidence offer value—they form the framework for continued discussion and debate.

What's the point? Simply, if we don't pay attention to the quality of the articles we read, we risk choosing unproved or inappropriate techniques for our patients. In very rough numbers, about 1,000 journals worldwide are devoted to dentistry. Assuming that each publishes 8 articles per month, there are about 100,000 new articles published each year. Are they all of equal value?

Sorting out the valuable from the less valuable is what evidence-based approaches to the dental literature are all about. The strength of an article rests on the presence or absence of several factors. Drs Peter Neilson and Michael Newman describe such objective criteria in their contributions to QI's December 1998 Current Concepts on evidence-based dentistry.<sup>2,4</sup>

The Internet is rapidly becoming one of the most useful tools available to clinicians, especially those who work at a distance from dental schools, because it of-

fers a simple and quick method of finding research on a desired topic. MEDLINE allows easy access to nearly every article published in refereed journals and provides details on each. There are many ways to get into MEDLINE, beginning with the Grateful Med interface at the US National Library of Medicine (<http://igm.nlm.nih.gov>). Another easy-to-use entry is the HealthGate site (<http://healthgate.com/medline/>).

The Grateful Med search screen, as well as others, allows one to limit a search to those articles that meet evidence-based criteria. For a step-by-step example of how to use this method, see Dr Richard Niederman's contribution to the Current Concepts feature cited above.<sup>5</sup> This function alone gives responsible practitioners a quick and easy way to separate weaker articles from those that fulfill the evidence-based criteria, and this in turn allows us to treat our patients with a more certain degree of success.

Careful, critical thinking, verification of validity and reliability, and technology that allows us to confirm statements more easily. Everybody wins in the new age of information technology!

*Bill Wathen, DMD*

William F. Wathen, DMD  
Editor-in-Chief

### References

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