

Pieces of the puzzle and crossing roads: integrating information for health care

Rosemary S. A. Shinkai
Editor-in-Chief

Any scientific approach to health care is complex considering the biological, mental, and social aspects of human beings *per se* and their interaction with the environmental conditions. Because of the internet venture and other contemporary sources used to get answers to specific questions, scattered pieces of information – a huge amount of information indeed – can be accessed instantaneously at our fingertips. Considering only the information available from specialized journals, academic institutions, Government sections, official organizations, and professional associations, the search for sound information is a hard and time-consuming endeavor. Moreover, specific skills are required to read and interpret clinical and epidemiological articles, retrieve useful patient-oriented scientific information, and build clinical knowledge to be applied to real life. Evidence-based practice and translational science – from the bench to the clinics and vice-versa – are hot topics in academics nowadays aiming to reduce the gap between science production and effective incorporation of the resulting knowledge in the ultimate health care delivery to the patient (1,2).

In a recent editorial Dr Zbys Fedorowicz discussed the leading role of Cochrane systematic reviews and meta-analysis to respond to focused clinical questions (3). Although Cochrane systematic reviews may be the present platinum standard to summarize relevant data from intervention studies, the availability and quality of the primary studies often are the bottleneck. One should be aware of the limitations of the present scientific evidences for the decision-making process and distinguish between fallacy and evidence. This does not exclude openness to new ideas and possible directions, *i.e.*, to balance innovation versus established framework taking into account the ethical considerations. As we learn in the early

lessons of Oral Radiology, many levels of grey exist from black to white. Clinical decision is subjective, and outcomes may vary with the patient and the professional.

In this context, scientific peer-reviewed journals with multidisciplinary scope attempt to disseminate high quality and meaningful research papers written by experts in their fields but in a language that can be understood across disciplines. For example, this issue brings a review and a case report on the use of bisphosphonates and its impact on oral health and dental care, illustrating the intersection of Biology, Medicine, and Dentistry in medically-compromised subjects. The challenge is to assemble the pieces of clinical information and scientific evidences from related and not so close-related areas so that the puzzle makes clinical sense.

Certainly this discussion falls far beyond the access to published information and necessarily involves the improvement of scientific and clinical standards in the dental curriculum and continuing education programs. The Brazilian Association for Dental Education (ABENO – Associação Brasileira de Ensino Odontológico) promotes regular seminars and workshops to debate professional formation with excellence in dental training and a broad view of the individuals and populations in their social and political context. The Revista Odonto Ciência (Journal of Dental Science) also is committed to fostering dental education in synergy with other fields to empower dentists to be an active and responsible part of the teamwork force in health care, teaching, and research. Upcoming editorials in 2010 will discuss science transfer from the academic setting to the clinical community and some initiatives and strategies developed to improve dental education with focus on evidence-based practice.

References

1. Glasziou P, Haynes B. The paths from research to improved health outcomes. *ACP J Club* 2005;142:A8-10.
2. Zerhouni EA. Translational and clinical science – time for a new vision. *N Engl J Med* 2005;353:1621-3.
3. Fedorowicz Z. The Cochrane systematic review: a platinum standard of effectiveness in healthcare interventions. *Rev Odonto Ciênc* 2009;24:229-30.

Websites of interest:

- <http://www.cebm.net/>
- <http://www.cochrane.org/>
- <http://cochrane.bvsalud.org/portal/php/index.php>
- <http://ebd.ada.org/>
- <http://nihroadmap.nih.gov/clinicalresearch/overview-translational.asp>