#### & OPINION

# When it Comes to New Technologies, Are You Fulfilling Your Professional Mandate?

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For citation purposes, the electronic version is the definitive version of this article: www.cda-adc.ca/jcda/vol-74/issue-7/627.html

t is no secret that the Canadian population is greying. While health care services have been rapidly adapting to accommodate this demographic shift, one wonders if the same can be said for dentistry. Has the dental profession modified its techniques or adapted new ones to cater to the changing needs of the aging population? Some would argue that the extensive studies conducted by university researchers and the aggressive development of new and improved products by dental manufacturers translate into better services and treatment options for the public. But are these efforts actually helping older Canadians as optimally as they could?

As an example, let us consider dental implants and the rate at which they are being incorporated into the daily practice of Canadian dentists. It seems reasonable to assume that implant use would depend on the prevalence of missing teeth in a population and on the acceptance of implant treatment options by the dental profession and patients. In 2003, 9% of Canadians 15 years or older were edentulous and 30% of those 65 and older had this condition. These figures highlight the importance of providing comfortable and long-term solutions to a large number of Canadians with permanent oral problems.

Dental implants have undergone tremendous improvements over the past decade to increase their success rate, minimize the level

of complexity of use for dentists, and reduce procedure time and cost. Furthermore, because of its predictably successful long-term outcome, the use of oral implants to restore single and multiple teeth, or to support full dentures, has been widely promoted.

Globally, the field of implantology has been developing at a rapid pace. Nationally, sales in the Canadian dental implant market approached \$70 million in 2006,² almost double the amount in 2002.³ Paralleling this rise in implant sales is an increase in public awareness of and demand for implants. Naturally, one would expect more general dentists to consider the provision of implants as a treatment option.

Research, however, has shown that fewer Canadian dentists are actually placing and restoring dental implants than expected.<sup>3</sup> Could there be a lack of available information for Canadian dentists on dental implants? If that were the case, then it would minimize patients' chances of being offered the treatment option. This trend might even be more evident in dental clinics situated in rural areas.

It is important that dentists in Canada have access to a wide variety of sources of information to assist them in understanding and providing implant therapy. Since we were unable to find any published data on this issue, we decided to investigate the type and amount of material available to Canadian dentists that could increase their knowledge and skills regarding implant interventions. We contacted 4 groups that serve as main sources of dental information to practising Canadian dentists: implant manufacturers, university dental faculties, dental associations and dental regulatory bodies. In particular, we wished to know whether dentists were offered articles about implant treatment, including scientific evidence to support this intervention; courses in which they could receive information on the rationale for this treatment, as well as clinical training to improve their skills in implant care; and any additional information or assistance to bring this new technology into their practices in the 2006 calendar year.

Based on our findings, we determined that there was an abundant amount of information on dental implants available to Canadian dentists in 2006, more than we had initially anticipated. The information was made available through continuing dental education or Internet-based courses, visits by sales representatives of dental companies, publications in Canadian journals and newsletters, presentations at dental conferences and meetings, brochures, emails, dentistry faculty websites, flyers and direct mailing and advertisements in dental journals and alumni magazines. The large amount of information disseminated suggests a high probability that all dentists have been exposed to implant-related information, regardless of geographic location.

Most of the information on implants was made available by implant manufacturers, who earmark considerable resources for marketing and education. However, many courses on dental implants were also made available by dental schools, dental associations and at least one dental regulatory agency. This shows that dentists have access to a wide range of reliable sources of information that should, at the very least, assure them that dental implant therapy or technology is scientifically supported.

The availability of continuing dental education courses on implants by dental schools, regulatory agencies and associations suggests that implant treatment has been accepted as a reliable, scientifically supported mode of therapy. Therefore, practising dentists who currently do not offer dental implants as a treatment modality to their edentulous patients are advised to investigate the field and inform their patients of these treatment

options. Since dental implant therapy is a scientifically substantiated treatment, it is the responsibility of dentists to learn about this technology. It would be wise for dentists not currently offering this treatment modality to their edentulous patients to consider taking continuing education courses in order to educate themselves on the topic, since they are ethically and legally obligated to inform their patients about implants as an alternative to standard treatments. Not all dentists currently do so, which contravenes the principle of informed consent. Advances in technology within dentistry will continue, and new technologies that are improvements to current practice should be rapidly transferred to patients.

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The views expressed are those of the authors and do not necessarily reflect the opinions or official policies of the Canadian Dental Association.

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