

# Ethics case: Advertising and marketing lasers in dentistry.



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## CASE SCENARIO

### Enquiry from a dental clinician

As a general dental practitioner, I have been reading about the advantages of owning a dental laser. From the advertisements it seems that purchasing a dental laser would place my practice in an "ideal position" to be on the "forefront of dentistry". After reading the safety regulations for Class 3b and 4 lasers set out by the Department of Health, Directorate Radiation Control,<sup>1</sup> I completed the necessary training to safely operate this dental laser. I have now purchased a unit and wish to announce the availability of this "new service" at my practice with a series of advertisements in the local newspaper and on social media, using some of the following statements:

"Pain- free dentistry without injections guaranteed, come and experience it with lasers."

"Get treated by the best laser dentist in town."

"Dr X offers dentistry with lasers. With Dr X you can step into the future of dentistry."

Please advise me of any ethical issues that might arise from this course of action and the proposed advertising.

## COMMENTARY

The adoption of any new technology in health care brings several ethical and technical challenges. It has been suggested that the ethical issues are divided into five major groups: (1) Media, marketing and advertising; (2) economic outcomes; (3) user training; (4) user-patient relationship and (5) other issues.<sup>2</sup> In addressing the issues posed by this ethical case scenario, the evidence for the efficacy and safety of the laser must be critically evaluated together with a consideration of the precise clinical circumstances in which it can be used. Further factors to be assessed include the process of communicating, marketing and delivering this technology to potential recipients.

## EVIDENCE BASE

The attraction to adopt "new" technology may supersede the collation of good evidence that the laser does in fact deliver on the promises made by manufacturer and retailer. It can take years for trials adequate to confirm the efficacy of new technology.<sup>3</sup> Lasers have been integrated into general and specialist dental practice for a wide variety of procedures.<sup>4</sup> Systematic reviews published in reputable journals and testing the evidence of tangible health gain

or superior treatment efficacy of dental lasers over conventional techniques, are still quite limited. Evidence on the safety of dental lasers in the short to medium term has not revealed any major patient risk, when the instrument is used according to stated instructions.<sup>5</sup> The practitioner should carefully consider whether the laser is imperative to the success of the planned procedure.<sup>6</sup>

## PERVERSE INCENTIVES

Literature on other health technologies such as the CAT scan, CBCT and MRI, has shown that their wider availability can induce the very real risk of over-treatment. It has been suggested that in the introduction of new technologies, the surgeon could follow continuous evidence-based decision-making and that there should be discussion with the patient, prior to the use of the equipment.<sup>7</sup> While some of this may reflect legitimate use that adds value to existing diagnostic and treatment regimes, it is nevertheless hard to ignore the possibility of over-use driven by an economic imperative. There is a real temptation to increase the use of a technology to more quickly recover the massive capital cost incurred in its purchase.<sup>2,8</sup>

This is referred to in the Introduction to Booklet 5 of the Health Professions Council of South Africa (HPCSA) which states: "The ownership and use of high technology equipment creates a special problem, not only because of its inappropriate use by health care practitioners who are not properly qualified, but also due to over-servicing by appropriately qualified health care professionals".<sup>9</sup> A practitioner may be offered a temptingly attractive scheme to use or buy high technology equipment. The definition of perverse incentives (2.9, page 3, HPCSA Booklet 5) indicates that "Improper financial gain or other valuable consideration" i.e. money or any other form of compensation, payment, reward or benefit could be viewed by the HPCSA as a perverse incentive". The practitioner who accepts such an incentive could face additional legal action under the Corruption Act (Act No. 94 of 1992).<sup>9</sup> The introduction of new and innovative technologies like lasers will be facilitated if companies take into consideration the perspective of how ethics could become an integral component of the discourse about technological and organisational progress.<sup>10</sup>

### Patient information and advertising

Central to Patient Rights<sup>11,12</sup> and the Ethical Principles of Care<sup>13</sup> is the imperative to provide patients and potential clients with enough information for them to make an informed decision regarding the treatment to which they may consent. Dental lasers are still "new" technologies, and users may be unable (at this stage) to provide good evidence of the longer term implications of their use. In addition, realistic treatment predictions may differ from patient expectations which have been elevated by inflated promises in product advertising.

HPCSA Booklet 5 (page 5, rule 3.3) states that advertising "shall not advertise or endorse or encourage the use of any medical device in a manner that unfairly promotes the practice of a particular health care practitioner or a health care facility for the purpose of financial gain or other valuable consideration".<sup>9</sup>

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Advertising services should not be misleading to the public and make them believe that a superior service will be rendered with the use of high technology equipment.

Another pitfall addressed in HPCSA Booklet 2 (page 9 no. 3) warns practitioners not to allow canvassing or touting for patients to be done on the practitioners' behalf.<sup>11</sup> When purchasing a dental laser there might be a contract of sale in which the practitioner is approached to register on the company website to increase visibility for the laser services offered. The professional must be careful not to overstep the canvassing or touting rule by allowing the laser company to "advertise" on their behalf. The practitioner might find that he or she is presented on the company website as having superior knowledge or skill over another non-laser practitioner.

There seems to be a very thin line between good product information and persuasive medical product marketing. The statements suggested above by our enquiring practitioner clearly stray into the realm of persuasion and marketing, rather than providing sound evidence-based information to patients.

## CONCLUSIONS

To ensure adherence to best practice guidelines in both clinical and ethical terms, practitioners need to constantly review the evidence base of any new technologies they adopt and to consider the ethical requirements of providing this background to patients.

It remains the responsibility of the practitioner to ensure that all aspects of patient care, safety and practice administration are addressed. Familiarity with the guidelines of the HPCSA and of the Directorate Radiation Control, Department of Health, is strongly encouraged.

Good evidence on the risks and benefits of laser dentistry must be communicated to patients so they are able to make an autonomous, informed decision to consent or not to its use. Informed consent must always be obtained from the patient when the use of a laser is considered as an adjunct to conventional treatment or in lieu of conventional treatment.

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