

Faculty of Dental Surgery
Briefing for House of Lords debate on dental implants and periodontal checks
Grand Committee, 23 July 2014

The Faculty of Dental Surgery believe that it is vital that patients undergoing complex dental treatment, such as implant surgery, are treated by a suitably qualified professional who has achieved appropriate standards of education and training. We highlight the following key recommendations:

- Patients must be given adequate information about the risks of implant surgery and alternative options for treatment in order to provide informed consent, as well as the need for continued support following completion of treatment.
- Patients should be aware that periodontal/peri-implant checks are essential to ensure that problems are detected early and diseases, such as peri-implantitis, that threaten the stability of the implant can be prevented.
- The GDC should consider ensuring that peri-implant assessment and maintenance is part of the undergraduate curricula. There should be an explicit duty of care on those who provide implant treatment to ensure long term assessment and maintenance of implants, and implant-retained restorations, is undertaken. The GDC should also introduce minimum standards of education and training for complex dental treatment, such as implants, to ensure patients are treated by a suitably qualified professional.
- The Law Commission's proposals to give regulators the power to annotate their register and indicate specialisms or other qualifications should be taken forward. This would place responsibility on dentists to meet the required standards of education and training, thereby helping to safeguard patients.

The following briefing sets out the background to dental implants, their benefits and risks and how we believe that dental professionals providing implant dentistry should be regulated.

Overview

A dental implant is usually a titanium screw that is inserted into the jaw under a controlled protocol and when fused with the bone forms an artificial tooth root. This provides the foundation for long-term support of crowns, bridges and dentures for patients who may have lost teeth as a result of disease or injury. They may also be used to hold prosthesis in place for those who have undertaken jaw or facial surgery for cancer and trauma.

The use of dental implants has grown rapidly across the UK in the last few years and despite the initial relatively high cost, they are now often considered the treatment of choice for replacing missing teeth. According to the latest Adult Dental Health Survey, half a million adults have at least one dental implant.¹ However, alongside the rise in implant surgery, the General Dental Council (GDC) has seen an increasing number of complaints, particularly regarding the lack of informed consent for treatment; damage to the tissue and bone surrounding the implant; and failures.²

Patients must be given adequate information about the risks of implant surgery and alternative options for treatment. In particular, patients should be aware that implants require long-term care and regular periodontal/peri-implant checks are necessary to identify serious diseases such as peri-implantitis, a disease that causes loss of bone supporting the implant and often implant loss. Implant surgery, in specific sites, also carries a risk of nerve damage, which can significantly affect someone's

quality of life. Corrective treatment for an implant, which is failing, may have significant financial costs for the patient and/or the NHS and is currently not guaranteed to be successful.

The Faculty of Dental Surgery is a professional body committed to enabling general dentists and specialists to provide patients with the highest possible standards of practice and care. It is vital that patients undergoing complex dental treatment, such as implant surgery, are treated by a suitably qualified professional who has achieved appropriate standards of education and training. Currently this can only be achieved by reference to specialist lists that show which dentists, as part of their verified training, have demonstrated that they have the appropriate skills and knowledge, e.g restorative dentistry, prosthodontics, oral surgery and periodontics. We were disappointed that the Law Commission's recent draft Bill to give professional regulators the power to annotate their register and indicate specialisms or other qualifications will no longer be advanced. This would have improved the regulation of specialists and those who wish to provide complex dental care; and helped to safeguard patients by raising standards in areas such as implantology. We hope any future Government after the general election in 2015 will prioritise this legislation.

Why periodontal checks are necessary

Like natural teeth, poor oral hygiene can cause plaque and bacteria to build-up on the gum around implants. Over time the bacteria can irritate the gum tissue and cause a common and treatable inflammatory disease called peri-implant mucositis. However if left undetected or untreated, it can develop in some patients into a more serious disease called peri-implantitis, which is the deterioration of supporting bone around the implant. Eventually, if left untreated, the implant may become loose and has to be removed. Studies have suggested that one third of implant patients may be affected by peri-implantitis.

Certain patients are at greater risk of developing peri-implantitis, making careful patient selection imperative for successful implant treatment. Research shows that a previous history of periodontitis makes a patient up to four times more likely to develop peri-implantitis;³ so the existence of periodontitis should be addressed in advance of any implant treatment and regular periodontal checks undertaken.⁴ Smoking also compromises treatment success and peri-implantitis is approximately twice as high in smokers. In addition, patients with diabetes, cardiovascular disease, hepatitis and systemic conditions associated with altered bone physiology or impaired immune function are considered at a greater risk of peri-implantitis than otherwise healthy individuals.⁵

Evidence shows that regular periodontal and peri-implant checks are essential to ensure that problems are detected early and diseases that threaten the stability of the implant can be prevented.⁶ Those patients at a higher risk of developing peri-implantitis should attend maintenance appointments more frequently. However the Faculty of Dental Surgery understands there is often no follow-up and maintenance of patients with dental implants. We suggest the Government should encourage closer monitoring of patients with implants by raising awareness of the benefit of regular periodontal/peri-implant checks, along with the emotional and financial burden of corrective implant failure. Periodontal screening is a requirement for every dental examination carried out in NHS primary care and a core standard expected by the GDC for all dentists. In NHS primary care, periodontal/peri-implant assessments are quality assured through contract compliance monitoring. However many practitioners are not comfortable assessing peri-implant tissues. In addition many individuals who place implants may not provide long-term support for the patients – discharging them back to their general dental practitioner.

As such, the GDC should consider ensuring that peri-implant assessment and maintenance is part of the undergraduate curricula. There should also be an explicit duty of care on those who provide

implant treatment to ensure long term assessment and maintenance of implants, and implant-retained restorations, is undertaken.

Risk of nerve damage

Nerve injuries caused by dental work have increased as a result of the recent rise in dental implant surgery. There are approximately 10,000 mandibular (lower jaw) dental implant procedures carried out each year in the UK, and an estimated 100 reported chronic nerve injuries resulting from these procedures per year.⁷ These injuries generally occur during implant placement and can be harmful for patients and very costly to resolve. Some of these injuries can profoundly affect someone's quality of life, causing problems with pain, speech, eating and kissing; which can lead to psychological distress.

Many nerve injuries can be prevented through better planning and execution of procedures; and thorough post-operative follow-up to ensure that any problems are treated as early as possible. Nevertheless patients must be fully informed about the risks of nerve damage before providing consent for implant treatment.

Regulation of dental specialists

The Faculty of Dental Surgery was disappointed that the Law Commission's recent draft Bill⁸ to maintain the regulation of specialists through a new power to annotate registers according to specialisms and qualifications was not taken forward. This could have placed responsibility on dentists to meet the required standards of education and training to acquire either specialist qualifications or robust training to deliver complex care such as implants, thereby helping to safeguard patients. It would have also enabled patients and professionals to easily identify and check the status of a dentist when considering procedures such as implants. Currently the GDC does not quality assure any postgraduate training or education other than those leading to entry onto specialist lists.

We are also very concerned by the GDC's recent review of the specialist lists for dentistry and urge them to be maintained in order to protect the public and maintain standards in dentistry. The low public awareness of the lists suggests the GDC should instead play a leadership role in their promotion, aiding patient choice. The regulator could also help the public by explaining what dentists on the specialist lists are expected to know or be able to do, compared with dentists who are not on the lists. The Faculty of Dental Surgery's full response to the GDC consultation can be found online.⁹

Next Steps

The Faculty of Dental Surgery believes that a much wider debate regarding all aspects of dental implant provision is required to address patient safety issues. We welcome the GDC's recent scoping meeting on this topic and will continue to be involved in the group's discussions.

In the interests of patient safety, we believe the GDC should introduce appropriate standards of education and training for those who wish to provide complex dental treatment such as implants. Moreover the Government should take forward the Law Commission's proposals to allow the GDC to annotate its register and indicate specialisms or other qualifications. At the very least, the GDC must retain specialist lists for dentistry and promote these to the public. This will provide reassurance to patients when choosing dentists for specialist procedures such as implants. Currently those on a

number of specialist lists have the necessary validated and robust training to provide quality implant care, e.g restorative dentistry, prosthodontics, oral surgery and periodontics.

¹ 'Adult Dental Health Survey 2009', Health and Social Care Information Centre, published 24 March 2011

² 'Guidelines for selecting appropriate patients to receive treatment with dental implants: priorities for the NHS', Faculty of Dental Surgery, Royal College of Surgeons, 2012

³ Heitz-Mayfield LJ, 'Peri-implant diseases: diagnosis and risk factors', *Journal of Clinical Periodontology*, September 2008;35(8 Suppl):292-304

⁴ Alani A, Bishop K, Djemal S, *British Dental Journal*, 2011 February 26;210(4):E4

⁵ Dvorak G, Arnhart C, Heuberer S, Huber CD, Watzek G, Gruber R, 'Peri-implantitis and late implant failures in postmenopausal women: a cross-sectional study', *Journal of Clinical Periodontology*, 2011 October ;38(10):950-5. doi: 10.1111/j.1600-051X.2011.01772.x. Epub 2011 Jul 21;

⁶ Costa FO, Takenaka-Martinez S, Cota LO, Ferreira SD, Silva GL, Costa JE, 'Peri-implant disease in subjects with and without preventive maintenance: a 5-year follow-up', *Journal of Clinical Periodontology*, 2012;39:173-181

⁷ Renton T, A. Dawood, A. Shah, L. Searson & Z. Yilmaz, 'Post-implant neuropathy of the trigeminal nerve. A case series', *British Dental Journal*, 08 June 2012

⁸ See: <http://lawcommission.justice.gov.uk/publications/Healthcare-professions.htm>

⁹ See: <http://www.rcseng.ac.uk/fds/news/fds-response-review-of-the-gdc2019s-role-in-regulating-the-dental-specialties>