



Faculty of General Dental Practice (UK)
The Royal College of Surgeons of England

TRAINING STANDARDS IN IMPLANT DENTISTRY

2008

Document to be revisited in 2010

GDC statement on implant dentistry

Placing dental implants is a surgical procedure which should only be carried out by a dentist. As with any surgical procedure, it is essential that the dentist carrying out this work has received suitable training, and has been assessed as competent to do it. This will normally involve that dentist taking a postgraduate training course in implant dentistry. This document describes the standards which such a training course in the United Kingdom needs to meet.

A dental implant can be used, instead of a denture, to replace one or more missing teeth. The procedure involves placing a small rod of metal or ceramic (the 'implant') into the patient's jawbone, and attaching a false tooth or teeth on to it. For some patients, the jawbone may need strengthening with a bone graft before the implant is placed. When properly placed and maintained, dental implants should remain trouble-free for many years. It is essential that any patient considering having dental implants placed should receive a thorough assessment and treatment plan before undergoing this procedure.

The General Dental Council (GDC) is the organisation which regulates dental professionals in the United Kingdom. The Council supports these Training Standards in Implant Dentistry and expects educational providers, and dentists who wish to practise implant dentistry, to refer to these standards as the authoritative source of training standards for implant dentistry for dentists in the UK.

Introduction

The General Dental Council (GDC) convened a small working group in December 2005 to consider training standards for dental teams who wish to practise implant dentistry. The document produced by this original group has been revisited and updated in 2008 and the membership of the current working group is included as *Annex A*.

The remit of these groups, which were independent of any organisation, was to consider what standards of training would be required by the dental team before practising implant dentistry. These standards should be published and then periodically reviewed in light of developments in implant dentistry. Such standards should be used by the dental team and the providers of training, to ensure consistency. The GDC will also refer to the standards in the consideration of patient complaints against dentists who, allegedly, practise implant dentistry beyond the limits of their competence.

It is to be emphasised that the intention of this document is not to limit the practice of implant dentistry, which is seen as an important part of the treatment options for patients. The GDC and working groups recognise the necessity to ensure patient protection by establishing and maintaining standards of training in implant dentistry.

It is recognised that training in implant dentistry can be obtained from a variety of sources including University, Royal Colleges or hospital-based training, as well as courses run by individuals and commercial groups. The purpose in setting standards for such training is to ensure that dental teams who practise implant dentistry are competent to do this work and that patients are protected.

THE STANDARDS

The scope of implant dentistry

Implant dentistry encompasses a variety of different techniques and procedures, but it can broadly be divided into two levels:

1. Restoration of the dentition involving the straightforward placement of implants; and
2. Restoration of the dentition involving the complex placement of implants.

See Annex B: 'Guidance for 'Straightforward' and 'Complex' cases.

Restoration of the dentition involving the straightforward placement of implants

Before undertaking implant treatment, a dentist should be familiar with the procedures involved in clinical assessment, treatment planning, and the placement and restoration of implants in conjunction with an experienced implant clinician acting as a mentor, as part of a training course in implant dentistry. In particular, the dentist should have detailed knowledge and understanding of:

1. Surgical anatomy of the maxilla and the mandible.
2. Pathological processes that occur in the maxilla and mandible.
3. Healing processes that occur following surgery, and how to deal with post-operative complications.
4. Radiology and radiography of the mandible and the maxilla, and how to interpret the findings from radiological examinations.
5. Clinical assessment of a patient's suitability for implants, and the medical conditions that could preclude a patient from implant techniques or complicate surgery.
6. Infection control; they will also have been trained in practical surgical aseptic techniques as applied to implant dentistry.
7. Techniques involved in harvesting bone from oral sites for minor augmentation during implant placement.
8. The use of exogenous bone or bone substitutes for minor augmentation in the placement of implants.

9. The use of appropriate pharmaceutical agents in relation to implant dentistry.
10. The main implant options available and their indications and contraindications for certain patient groups.
11. Patient consent and how to obtain it prior to implant placement.
12. Clinical and laboratory techniques used to restore implants, including:
 - i. Proficiency in the clinical techniques for conventional advanced restorative procedures.
 - ii. An understanding of the laboratory stages and techniques used to construct implant supported restorations.
 - iii. The ability to demonstrate experience and understanding of the restorative procedures involved in straightforward implant supported restorations.
 - iv. Recognition of technical and cosmetic limitations of implant dentistry.
13. Long-term maintenance of implants.
14. The need to document and audit all clinical activity.

The level of general dental knowledge should be equivalent to that expected by the dental faculties' membership examinations.

Restoration of the dentition involving the complex placement of implants

A dentist must be competent and experienced in the placement and/or restoration of implants, as described above, before progressing onto this type of complex treatment. It is likely that the planning and treatment of complex cases will require a team approach and that different aspects of care may be undertaken by appropriately experienced members of the dental team.

The prosthodontic team should be familiar with and be competent in managing changes to the vertical dimension and position of teeth and how these interact with the existing dentition (if present) and the jaw relationships. Providing complex implant prosthodontic treatment demands a training and competence in advanced prosthodontics and occlusion that should have been obtained from a suitably experienced mentor.

The placement of implants with complex bone augmentation demands a high level of surgical experience and the ability of the dentist to care for such patients. A suitably competent and experienced individual should have mentored them in an appropriate structured training programme. The dentist must also have attended courses that specifically train in these techniques and be competent to deal with any immediate and long-term complications of the treatment provided.

Training standards for all members of the dental implant team

The training standards above are applicable to all members of the dental team but it is recognised that there are individuals who are already experienced in implant dentistry. They will have gained their training in a variety of different ways.

It is recommended that all members of the dental team should keep a detailed portfolio of their training, the courses they have attended, all mentoring that they have received, and the implants they have placed. It would be expected that their implant activity outcomes would have been audited. Such portfolios could be used in any dispute as to competence in implant dentistry, including those before the GDC.

All dentists need to be appropriately indemnified against medico-legal disputes involving implants.

Maintenance of training standards

It is recognised that the practice of implant dentistry changes as new materials and techniques are developed. Whilst the GDC has initiated the development of the standards document, it is not a GDC document. The standards document is a shared publication of the group who developed it. In undertaking this work, the group will review the training standards for the dental team every two years and, if necessary, modify them.

Annex A

Members of the Training Standards in Implant Dentistry working group

- Richard Hayward, Chair
- David Bartlett, Representative of the Association of Consultants and Specialists in Restorative Dentistry
- Ravi Saravanamuttu, Representative of the Faculty of Dental Surgery, Royal College of Surgeons of England
- Naresh Sharma, Representative of the Faculty of General Dental Practice (UK), Royal College of Surgeons of England
- Kevin Jennings, Representative of the Dental Faculty, Royal College of Physicians and Surgeons of Glasgow
- Paul Stone, Representative of the Faculty of Dental Surgery, Royal College of Surgeons of Edinburgh
- P J Byrne, Representative of the Faculty of Dentistry, Royal College of Surgeons in Ireland
- Ian Brook, University of Sheffield
- Anthony Bendkowski, Representative of the Association of Dental Implantology
- Mike Martin, Representative of the General Dental Council
- Lesley Kant, GDC Lay member
- Sharon Drake, Deputy Registrar, Faculty of General Dental Practice (UK)
- Pravat Bhattacharyya, Quality Assurance Manager, General Dental Council

Annex B

Guidance for 'Straightforward' and 'Complex' Cases

Perception of Case

Straightforward: You can easily visualise the end result and the treatment stages are predictable.

Complex: The end result cannot be easily visualised without extensive diagnostic and planning techniques and will include multiple stages to achieve the desired outcome. Complications are to be expected.

Tooth Position

Straightforward: The teeth to be replaced conform to the existing arch form and the adjacent teeth easily determine the optimal prosthetic tooth position.

Complex: There are no adjacent teeth, or those present are in an unsuitable position and there is a need to carry out extensive diagnostic procedures to determine the optimal tooth position for aesthetics and function.

Implant Surgery

Straightforward: The implant surgery procedure is without anatomically related risks and can be carried out without the need for significant hard tissue grafting (this includes onlay bone grafting and sinus grafting) and can be performed by an appropriately trained dentist.

Complex: The implant surgery is a more difficult procedure, with anatomically related risks and might require significant hard tissue grafting (this includes onlay bone grafting and sinus grafting). It should be performed by a surgically experienced dentist or oral surgeon.

Soft Tissue

Straightforward: There is no need for minor augmentation or alteration of the position of the peri-implant mucosa. Such intervention would not require significant grafting of hard/soft tissue.

Complex: There is a need to augment or significantly alter the position the peri-implant mucosa requiring significant amounts of hard/soft tissue.

Occlusion

Straightforward: The teeth can be replaced conforming to the existing occlusal scheme and at the same vertical dimension

Complex: There is a need to substantially change the existing occlusal scheme or the occlusal vertical dimension.

Aesthetics

Straightforward: The aesthetic requirements of the case are not high.

Complex: The aesthetic requirements of the case are high, as are the expectations of the patient.

It is acknowledged that few treatment episodes will fall exactly into either category, but it is anticipated that the above definitions should help to guide members of the dental team with the selection of appropriate cases.