

Implants with a team approach

Mark Haswell presents a case to illustrate the successful relationship between the implant surgical centre and the general practitioner in the provision of implant treatment

It has been encouraging to see that dental implants have become commonly employed for the restoration of our patients' missing teeth in the last 18 years that I have been involved with dental implants. Having been shown to be cost effective and predictable, dental implants are now the standard of care for the replacement of missing teeth (Bragger, 2005; Priest, 1999).

Over this period, dental implant technology has evolved, simplifying and accelerating the procedure for both patient and practitioner. We have also experienced a significant increase in demand both from patients and also our referring colleagues. In our first year we treated one patient with three implants. In 2007 we treated 265 patients with 520 implants.

While this growth is good, as a UK profession we are still lagging behind our European colleagues (see Figure 1). We can see that Switzerland uses 112 implants per 10,000 of the population, while here in the UK we use 11 implants per 10,000; this is a reflection on the uptake by the profession rather than patient demand.

Patients respond positively to dental implant prosthesis (Levi et al, 2003) and are excited about the prevention of damage to adjacent teeth, prevention of both bone loss and additional dental disease (Priest G, 1999). Unfortunately, there are too few dentists in the UK offering dental implants (Hansard, 2002). During the same parliamentary committee hearing, the expert report indicated that the skills shortage was unlikely to be overcome as a whole generation of dentists had limited knowledge of implants compared to their European counterparts.

The FGDG Training Standard in Dentistry has now defined the minimum requirements of training

to reach an acceptable level of knowledge. This has reduced the risk of the weekend course, followed by the Monday afternoon 'I'll have a go' scenario. Unfortunately, there are still too few opportunities for practitioners to gain the knowledge and skill required to undertake all aspects of implant treatment. How can we as a profession then help to overcome this mismatch in patient demand/need compared to our ability to deliver care?

It seems logical that we need to work together as partners in the care of our patients. This will need experienced surgeons/implant dentists to train motivated general practitioners in the restoration of dental implants. This will deal with the two main barriers to an improvement in the availability of implant based treatment.

Firstly the GDP will have an experienced surgeon/implant dentist to help with planning as well as providing the training and guidance in the restorative techniques. Secondly, the team approach will concentrate the surgical risks with an experienced team, reducing risk to patients and dentists (Gibson and Barclay). The patient will benefit from treatment by a team with state of the art skills and equipment. They will then be able to return the patient to the trained GDP ready for the restoration of the implants.

A review of the implant restorative procedure in *Dental Economics* shows the benefits of the procedure:

- a) Less time required
- b) Less stress to patient and dentist
- c) Increased profitability.

A further positive is that the patient benefits from being restored in their regular general dental environment, which is relatively comfortable to them. The GDP benefits from being able to offer implants to patients which should

have a positive reflection on their practice image.

What will the interested and motivated dentist have to do to commence working with dental implants?

1. Find a partnership practice to work with that is reasonably close, ideally not more than one hour away.
2. Undertake training with your partner practice in the restoration of implants. Ideally aim to work with the restoration of single implant supported crowns. These are the most routinely prescribed use for dental implants.
3. Check your indemnity cover, some insurers charge a premium for treatment that involves implants.
4. Educate your patients about the benefits of implants.
5. Refer a patient for implant treatment with the surgical treatment and the restorative portions split between surgical partner and GDP.

In an ideal situation the planning and costing will be provided by the surgical centre. This ensures that the patient is fully consented for the procedure and all its costs. The patient will then receive their treatment and be referred back with a copy of the control X-rays to demonstrate successful bone healing and hopefully all the necessary restorative components to undertake the restoration of the patient's implant.

Case illustration

Mrs X, 44-year-old, female, non-smoker has had a failed \square replaced with a Straumann RN Standard Plus implant (see Figures 3-14).

Conclusion

The illustrated protocol shows how working as a team, the educated general

Figure 1

No. of Implants per 10,000 Inhabitants

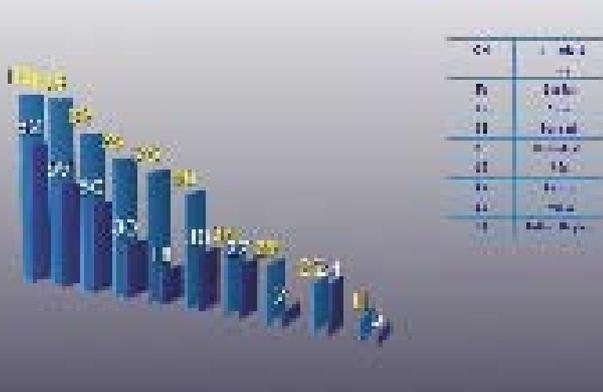


Figure 2

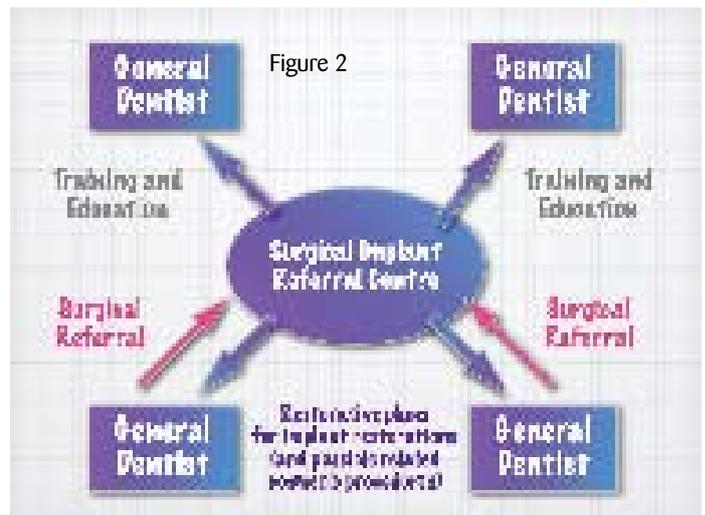


Figure 3



Figure 4



Figure 5



Figure 6

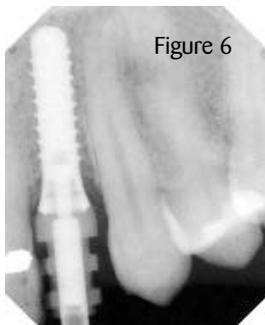


Figure 7



Figure 8



Figure 9

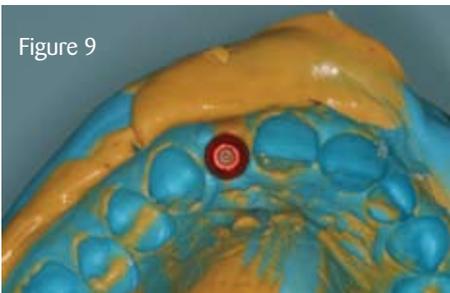


Figure 10a



Figure 10b



Figure 10c



Figure 1: Implant usage across Europe **Figure 2:** When the restoration of a single implant was compared to conventional bridgework (*Dental Economics*) **Figure 3:** Head of the implant **Figure 4:** Fixture head of Straumann RN Implant **Figure 5:** Open tray impression coping used to record the position of the implant and adjacent structures **Figure 6:** Control X-ray **Figure 7:** Open tray impression post protruding through the impression **Figure 8:** Model and custom Cares ceramic abutment **Figure 9:** Completed impression showing RN Straumann open tray impression coping **Figures 10a-c:** Screwdriver, all ceramic crown and abutment constructed by Mr Thomas Hardt (Ruebeling)



Figure 11



Figure 12



Figure 13



Figure 14a



Figure 14b

Figure 11: Tightening of abutment screws with torque wrench **Figure 12:** Packing of screw hole with PTFE tape prior to cementation **Figure 13:** Cares Abutment in situ **Figures 14a and b:** Final all ceramic crown in place on day of fitting. Restorative treatment - Mark Haswell

practitioner performs the final stages of the implant treatment. This frees the surgical implant centre to undertake treatment that they have unique skills for, thereby allowing more patients to benefit from treatment. The GDP benefits by restoring the case:

- Financially from the more profitable procedure
- Professionally by increasing his/her knowledge and number of treatment modalities
- Enhancing the practice profile.

The patient benefits from a reduced number of trips away from their regular dental practice as well as allowing a greater number of patients to be treated using a sensible division of workload and maximising the use of skills.

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Thomas R (2005) Open University. December, prepared January 2006 Training Standards in Implant dentistry for General Practitioners. Working Group for training standards in Implant Dentistry for General Dental Practitioners, December 2005 (www.fgdp.org.uk)

1. Hansard (2002) Since 1997-98 more dentists have joined than left. The number of GDS dentists has increased from 16,387 at March 1997 to 18,254 in March 2002, an increase of 1,867. Dentists are able to vary the amount of work they do in the GDS. 19 September 2002.
2. The scarcity of skills in the UK is associated with high prices. Costs quoted in the UK are typically £2,000 per implant upward compared with about £1,000 or less some other European countries. Costs are widely expected to fall with the development of supporting technologies. But because of the scarcity of implantologists in the UK falling costs can be expected to increase the difference between the high costs in the UK as compared with the low cost in other countries.
3. There are many things the NHS can do to raise knowledge and skills of

implantology among its own staff. But there is no obvious way of bringing a whole generation of dentists in the UK up to standard that seems common in other European countries. Such developments go beyond the scope of this submission and the role of the Health Committee. [PD](mailto:pd@fmc.co.uk)

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Mark Haswell BDS MSc (Implant Dentistry) is a specialist in prosthodontics. He qualified at King's College in 1987. After a short period at King's College and St George's undertaking oral surgery duties, he then commenced work in the general dental service. In 1991 Mark introduced implant procedures to Stradbroke Dental Centre, Tonbridge, Kent and subsequently he has travelled around Europe and to North America continuing his education and training. He also maintains a part-time teaching position at the Eastman Dental Institute. In 1997 Mark commenced the first implant masters programme at the Eastman Dental Institute qualifying in October 1998 and winning the Nobel Biocare prize. Mark's special interest is immediate loading and function. In the last few years he has built up a referral network for implant treatment, involving training a growing number of practitioners in the treatment of their own patients.