

Treatment scheduling, tips and longer-term maintenance

INTERNATIONAL IMPLANT COURSE

02 May 2018

RICHARD MILLHOUSE BDS MFGDP(UK) MSc
Cavendish House Implant Centre
Cambridge

- Mentoring
- Treatment scheduling
- Finance
- Long-term maintenance
- Review of crown types
- General tips
- Clinical photography

2

Mentoring

- To submit cases for the course, you and mentor must comply with the course standards/regulations
 - planning
 - consent
 - records
 - volumetric analysis – CBCT
 - face bow

3

Mentoring

- if missing, will not pass case competency
- misconduct charges raised on mentors and referring dentists, so mentors have a degree of liability

4

Treatment timings

- completed case
- 4 - 5 months for a simple single tooth?
- 9 - 12+ months if grafting involved?
- time from first seeing patient to starting treatment, on average 3-4 weeks?
 - elective procedure so patient should be given time to consider options and consent

5

Treatment timings

- straightforward case may have planning, surgery, impressions and fit
- more complex cases may have several pre op sessions, wax-ups, surgery, multiple reviews, verification jigs, framework try-ins, porcelain trys, etc

6

Treatment scheduling

1. **Initial discussion** - 30 minutes?
 - initial examination
 - basic x-rays: pa, bws?
 - discussion of ALL treatment options with pros/cons
 - potential costs and staged payments?
 - timings
 - number of appointments
 - potential problems / risks / aesthetic limitations
 - show some photos?

Treatment scheduling

2. **Full planning session** – 45-60 minutes?
 - detailed exam of teeth/restorations
 - perio: 6 point pocket chart and oh assessment
 - occlusal assessment
 - TMJ and muscles of mastication
 - vitality tests
 - smile line
 - ridge shape

Treatment scheduling

2. Full planning session – cont'

- radiographs: OPT, bws, pas of area and other heavily restored teeth
- clinical photographs: full face, retracted frontal/lateral, upper and lower occlusal
- impressions for study models
- face bow transfer to articulate casts

Treatment scheduling

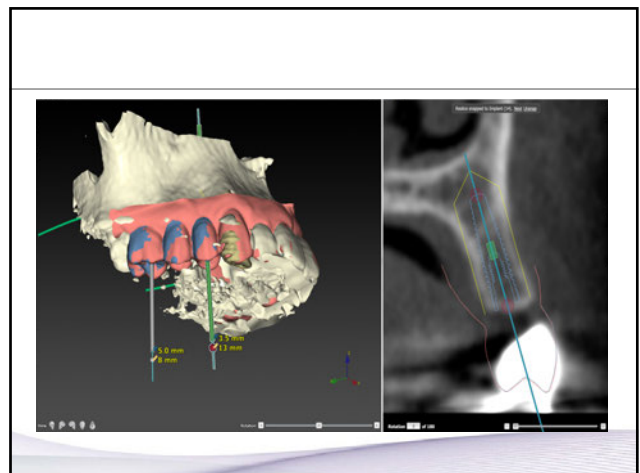
2. Full planning session – cont'

- DIAGNOSIS: specific, perio, occlusal, general
- detailed discussion of the results of the exam/diagnosis
- consent process
- potential problems of having/not having the treatment
- confirm expected costs
- explain prognosis
- discussion of other tmt needs
- short and longer term needs/risks

Treatment scheduling

3. Further planning and investigations

- diagnostic wax-up – real or virtual
- further investigations: CT scan +/- radiographic stent?
- surgical guide: vacuum or stereolithic?
- generation of consent letter
- production of provisional prosthesis



Treatment scheduling

Charge for this time!

- £x for initial 30 minute appointment
- £xxx for the 60 minute planning, including models
 - additional for wax-ups, etc
 - ? offer to credit this towards the cost of the treatment if concerned about pre-surgical costs?

Treatment scheduling

Charge for this time!

- additional lab costs for CBCT scan, radiographic stents, etc
 - lab fees £60 vacuum stent, £150 wax up/2G Procera scan, c£200 Nobel drill stereolithic drill guide, provisional prosthesis, etc?

Treatment timings

Delayed placement

- personal preference
 - extract, scan at 6-8 weeks then graft, or place & graft
 - extract and graft at same time
 - extract, graft and place at same time
 - extract, leave 3-6/12

Treatment timings

Delayed placement

- 6-12 weeks from extraction to implant placement
 - 6-8 weeks, soft tissue and primary bone healing
 - 12 weeks, bony healing
 - 6 months + if alveolar ridge preservation graft
 - take a new, post-extraction pa?
 - CBCT after healing has occurred?

Treatment scheduling

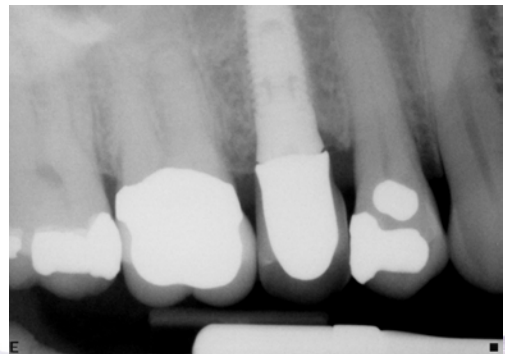
4. **Implant placement appointment** (single)
 - no extraction – 1.5-2 hours, including surgery prep time
 - extraction - >2 hours?
 - charge £xxx
5. **Review #1** @ 1-2 weeks, 15 minutes
6. **Review #2** @ 3-6 months, 15 minutes if just a review, 30-45 minutes if uncovering a fixture?

Treatment scheduling

7. **Impression appointment**
 - both arches, face bow, shade, shade photos, occlusal records, shimstock holding contacts
 - not sectional trays
 - Impregum Penta in metal tray/rigid tray/special tray?
 - radiograph to check impression coping is seated?
 - 60 minutes
 - charge £xxx

Treatment scheduling

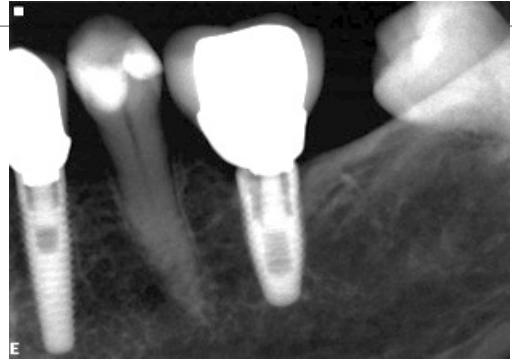
8. **Fit appointment: cement-retained**
 - wash area chlorhexidine, dry with paper points
 - fit abutment
 - try in crown and adjust occlusion.
 - Radiograph before and after cementing?
 - Block screw hole with PTFE tape. Cement. Recheck occlusion. CARE WITH CEMENT EXCESS
 - 60 minutes
 - charge £xxx



Treatment scheduling

8. Fit appointment: screw-retained

- wash area chlorhexidine, dry with paper points
- fit crown and torque-tighten
- radiograph to check seating
- adjust occlusion
- PTFE tape to cover the screw head and restore access cavity with composite. Recheck occlusion
- 60 minutes
- charge £xx



Long term review and maintenance

9. **Review #3** @ 1 month, recheck occlusion, pt satisfaction?, post-op photos
10. **Review #4** @ 12 months
11. Annual review for referred patients first 3-4 years

If working with referred patients make sure the GDP knows what to look for if you stop reviewing the patient over time. Best to formalise in writing with the GDP

Long term review and maintenance

GDC charge:

You did not provide an adequate standard of care to Patient A in that you did not adequately advise and/or record any advice relating to aftercare or provide written aftercare advice

Long term review and maintenance

Implants are not "fit and forget"

- survival rate of implants in implant-supported FPDs of 95.4% after 5 years and 92.8% after 10 yrs. *PJETURSSON, B. E., TAN, K., LANG, N. P., BRAGGER, U., EGGER, M. & ZWAHLEN, M. (2004). Clinical Oral Implants Research, 15, 625-642*
- 39% of patients had some complications after 5 years
- recent study showing up to 56% of patients developing peri-implantitis

Long term review and maintenance

Implants are not "fit and forget"

- unwise not to formalise/advice on the review and maintenance requirements before starting treatment
 - forms part of consent
- include expectations on maintenance, both a requirement to attend and also cost implications, in the consent letter/process
- a patient could claim that they were not properly consented if you are unable to show that they were told of this need

Long term review and maintenance

What to check?

- **Stability:**
 - is the crown stable or loose?
- **Bone levels:**
 - periapical film. Annual for 1st 3 - 4 years. ? evidence
- **Periodontal condition:**
 - Oral hygiene status
 - 6 point pocket chart with specific comment on probing depth and presence/absence of bleeding on implants

Long term review and maintenance

What to check – con't?

- **Occlusion:**
 - guidances maintained – monitor wear of other teeth?
 - maintain shimstock clearance (30-40µm or 3 sheets shimstock)
 - **Periodic photographs**

RECORD FINDINGS IN RECORDS

Record the planned review protocol in notes

Long term review and maintenance

Look out for?

- undiagnosed/unnoticed screw or crown loosening
- gingival margin inflamed, bad taste or odour, movement
- how to get a cement-retained crown off?
 - finger pressure, forceps with rubber dam spacer, pneumatic?
- gingival swelling/sinus formation – trapped cement?
- significant bleeding on probing

Long term review and maintenance

- **Loose crown**
 - remove, check abutment is tight, soak region chlorhexidine, dry, recement
 - care not to re-torque the abutment screw too often ? 2-3 times. Use new screw?
- **Occlusal change**
 - re-establish shimstock clearance
 - repair worn teeth
 - nightguards

Long term review and maintenance

- **Bone loss**
 - try to identify a cause
 - cleaning, hygienist care, home OH
 - non-surgical periodontal-style treatment
 - surgery to expose the implant, curette soft tissue, ? grafting to support soft tissues?
 - ensure patient is informed that the implant is ailing
 - consider referral?
 - no agreed "best treatment" for peri-implantitis

Long term review and maintenance

- **Cleaning**
 - Daily tooth brush – hand or electric
 - Daily id care – floss and/or Tepe interdental brush
 - Some reports of floss debris snagging on rough-surface implants causing issues
 - Water jets/air floss fine
 - Professional dental/hygienist care fine
 - Stainless steel, titanium, carbon fibre, plastic scalers
 - care due to scratching
 - Ultrasonic – care with metallic tips – can use plastic scalers, plastic tips

Long term review and maintenance

- **Cleaning**
 - Most implants should have the crown extending just subgingivally
 - Most cases no need to scale significantly subging so normal scalers around crown margins are fine
 - If abutment is visible, or there is a greater probing depth 3mm+ then great care not to scratch the surface
 - Educate hygiene team – remember probing depth on implant does not count towards the BPE score

Antibiotics

- **Amoxicillin**: 500mg three times daily 7 days
- **Erythromycin**: 500mg three times daily 7 days

Analgesics

- **Ibuprofen**, 400mg every 4-6 hours as needed, maximum dose 2.4g in 24 hour period
- **Paracetamol**, 500mg-1g every 4-6 hours, maximum dose 4g in 24 hour period
- **Dexketoprofen (Keral)**, 25mg every 8 hours, maximum dose 75mg in 24 hour period

Corticosteroids

- **Dexamethasone**
 - 8mg 1 hour pre op or IM at surgery, 8mg day 2, 4mg day 3, 2mg day 4

Clinical photography

- SLR camera – digital
- macro lens (100mm)
- ring flash/side flashes

Clinical photography

- use good retractors, mirrors and contrastors
- www.photodent.com
- use highest “f-stop” possible (f.16-22) for best depth of field
- use the “macro-ratio” settings to focus to standardise your pictures



Clinical photography

- full facial 1:3?
- unretracted anterior and lateral views
- retracted anterior and lateral views 1:2?
- occlusal views 1:3?
- close ups 1:1?



Full arch view at 1:3 ratio



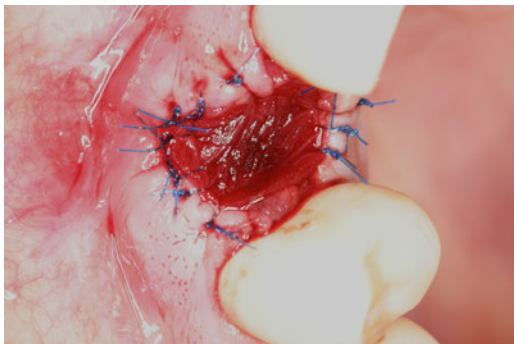
Lateral view at 1:2 ratio



Occlusal view at 1:3 ratio



Close up view at 1:1 ratio



Contrastors



Close up view at 1:1 ratio, with contrastor



Buccal contrastor

