APPENDIX A

Aims and Learning Outcomes for the Diploma in Implant Dentistry,
The Royal College of Surgeons of Edinburgh

The Diploma in Implant Dentistry of the Royal College of Surgeons of Edinburgh is an assessment of core knowledge and competence in the field of implant dentistry. It is intended to test the candidate’s competency at a level expected of a general practitioner with a particular interest in implant dentistry and will include aspects of minor augmentation. The diploma is not intended to test the candidate’s competency or detailed knowledge of the more advanced procedures such as major bone grafting (block onlay grafting), sinus grafting or full arch prosthodontic rehabilitation.

Aims

- To allow the candidate to demonstrate a core knowledge of implant dentistry
- To allow the candidate to demonstrate a level of competence in the planning and execution of dental implant treatment

Learning Outcomes

“What the Candidate is able to do”

1. Clinical Assessment Skills

For the patient presenting with an established or anticipated need for tooth replacement, the candidate should be able to:

- Elicit and record a comprehensive medical and dental history
- Understand the relevance of the case history to the individual case
- Complete a thorough extra-oral and intra-oral examination, including detailed assessment of the teeth, restorations, periodontal tissues, oral mucosa, residual alveolar ridges and aesthetic requirements
- Assess the occlusion and its relevance in relation to the treatment proposed
- Recognise the need for appropriate further investigations.
- Be able to request and interpret appropriate investigations and write a report of the findings
- Collate and interpret the information gathered in the history and examination process and arrive at the correct diagnoses
- Arrive at a considered prognosis for the remaining dentition
- Communicate clearly to the patient, both verbally and in writing, the findings of the examination, the diagnosis and treatment options
- Show an awareness of the evidence base relating to the different options considered including dental implants
- Produce a treatment plan considering all options for tooth replacement and the preventive, functional, aesthetic, psychological and financial requirements of the patient
- Understand the interface between implant dentistry and other clinical disciplines
- Understanding the differences between fixed and removable implant prostheses
- Evaluate the options of both fixed and removable implant prostheses
- Understand the current evidence in relation to the different types of implant placement techniques
- Consider and recommend the timing of implant placement and restoration
- Obtain valid consent for the proposed treatment
- Provide or refer for appropriate allied treatment.
• Re-evaluate the clinical situation prior to implant therapy
• Recognise and refer cases of a complexity that are beyond the scope of their competence

2. **Practical Procedures**

For the patient requiring implant therapy, the candidate should be able to:

• Obtain all records necessary to mount and evaluate study casts and prescribe diagnostic ‘wax-ups’
• Demonstrate an understanding of the use of the diagnostic wax-up in the construction of radiographic and surgical guides
• Order fabrication of appropriate radiographic templates
• Prescribe and interpret appropriate radiographs
• Plan in detail the placement of implants
• Demonstrate the transfer of planning information to the surgical procedure via the use of appropriate guides
• Select the appropriate form of anaesthesia and manage patient anxiety
• Maintain infection control and follow an appropriate aseptic surgical protocol
• Design appropriate mucoperiosteal flaps
• Understand the different types of bone defects and how to manage these
• Understand the different types of grafting materials and barriers used for minor augmentation and their application to implant treatment
• Carry out surgical implant placement which may involve minor local augmentation procedures for the repair of small dehiscence and fenestration defects
• Understand the principles of soft tissue handling and wound closure
• Provide postoperative care and advice, including the prescription of analgesia and antibiotics as appropriate
• Demonstrate an understanding of the management of intra-operative and peri-operative complications
• Assess the outcome of implant placement with respect to the treatment plan
• Understand the following treatment with respect to restoring dental implants
  o Provisional restorations
  o Abutment selection
  o Impression techniques
  o Jaw registration
  o Laboratory prescription
  o Try in and adjustment
  o Final prosthesis delivery/fit
• Carry out the following treatment with respect to restoring dental implants
  o Provisional restorations
  o Abutment selection
  o Impression techniques
  o Jaw registration
  o Laboratory prescription
  o Try in and adjustment
  o Final prosthesis delivery/fit
• Plan and implement an appropriate maintenance and re-evaluation programme
• Demonstrate an understanding of the management of complications during restorative treatment and throughout the maintenance programme
3. **The scientific basis of implant dentistry**

The candidate should be able to demonstrate knowledge of:

- Clinical Implant Dentistry
- Anatomy
  - Detailed knowledge of the mandible, maxilla and related structures
- Pathology
  - Hard and soft tissue disease affecting implant treatment
- Bio-mechanics
  - Bone and implant components
  - Implant design and surfaces
- Physiology and Histology
  - Wound healing
  - Bone physiology and osseointegration
  - Soft tissue integration
- Applied Dental materials
  - Implant component materials
  - Impression materials
  - Restorative materials
- Applied Pharmacology
  - Local anaesthetics, analgesics and antibiotics
- Radiology
  - Dental imaging techniques
  - Regulations relating to ionising radiation

4. **Appropriate attitudes to professional and clinical practice**

The candidate should demonstrate the ability to:

- Reflect on their clinical practice
- Maintain good clinical records
- Understand the importance of informed consent
- Reflect on their professional and clinical standards
- Locate and evaluate the scientific literature and the evidence base relevant to implant dentistry
- Analyse personal needs in respect of continuing professional development and life-long learning

**NOTE:** These Regulations are under continual review therefore it is recommended that candidates keep in regular contact with the College to ensure that they have the most up-to-date information. The Examinations Section will be able to advise you:

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