



PRACTICAL IMPLANTOLOGY

Courses Mentoring Guidance & Support Practice Growth

PROGRAMME HANDBOOK

practicalimplantology.com



Welcome from the Practical Implantology Directors

We are delighted that you have chosen to begin, enhance or reinvigorate your dental implant journey with us – we hope you will enjoy this exciting pathway.

The Practical Implantology Course has been designed, to enable any practitioner, at any stage, standard or level of surgical skill, to attain such a standard of clinical care and competence that they can start to introduce dental implants to their patients within their own practices. The speed of knowledge assimilation amongst delegates may vary, but we will assess, all delegates' individual needs to deliver training that is appropriate to each delegate's learning style and therefore of maximum benefit to them. We will monitor everyone's progress and guide them accordingly through the course.

We are very proud of our course; it is unique in many ways. We have created an extended support structure including faculty staff, visiting lecturers, past participants, industry partners and support staff who will always be at hand to help. There are private Facebook and WhatsApp groups where people can share their own questions and worries in an open and protected environment. Our support for you does not stop at the end of the course but continues afterwards on a long-term basis. We feel that a really protective 'family' is being created to allow you to practice dental implants in a safe and nurturing environment.

The course is fully compliant with the GDC guidelines in dental Implant education. All the mandatory theoretical components will be covered in addition to the course having a strong hands-on/clinical component.

Finally, once all preclinical elements are completed, delegates will place implants on live patients in Egypt in a fully supported one to one environment. Each participant will place at least 5 implants and participate in many more. We will endeavor to provide a mixture of implant placements and procedures. Crucially, each participant will be actively involved in other surgeries by their colleagues meaning that a huge implant experience will be achieved. Here we will learn how important team work is in this field of implant dentistry.

The Egyptian experience is a mutually beneficial endeavor. You will treat patients who would never be able to have this level of treatment due to financial and social reasons. You will make a considerable improvement to their lives. In return they allow you to perform surgery on them with no risk to you and they are immensely respectful and grateful. We should be respectful and caring to them at all times.

This will be the start of a great adventure; we will always be there for you. Embrace this time; we are very proud and grateful that you have chosen our course.



The purpose of this handbook is to outline the aims and outcomes that Practical Implantology hopes to achieve.

Practical Implantology Course Directors

Dr Mukesh Soni BDS MSc (Restorative & Aesthetic Dentistry -Manc)
GDC No: 64451



Dr Sam Mohammed BDS
GDC No: 71162



Dr Azhar Sheikh BDS Manc, MFGDP UK
GDC No: 58270



By the end of the programme students will have acquired the knowledge, skills and most importantly clinical experience to confidently and safely:

- Deliver safe, predictable and competent implant treatment.
- Understand the importance of teamwork within this modality of dentistry.
- Be able to organise dental implant work flows
- Be able to communicate with patients in the role of dental implants
- Be able to create patient management systems with the practice team so dental implantology is seamlessly introduced to the practice
- Be able to understand the major legal, ethical and social implications of implant treatment
- Understand the use of digital technology in dental implant planning
- Understand the essential importance in communicating with fellow colleagues , mentors, manufacturers and laboratory technicians in treatment planning

Programme Structure

The programme structure is modular. The modules are organised so that at minimum, all the specific GDC outcomes are covered. There are 3 UK based modules and thereafter a clinical/practical module held in Cairo Egypt. All UK based modules have to be completed to be certified for treating patients in Egypt.

The modules are taught by leading professionals in field of implant dentistry. These professionals have been handpicked not only for their knowledge, but also that they all have a caring and sharing nature which is essential in our unique approach to education.

Pattern of Delivery

The programme is taught over a condensed 4-5 month diet.

There are two cohorts per year.

Participants must attend 3 UK based modules and the Clinical/Practical based module in Egypt to pass the course. Each module is for 3-4 days, usually 4-6 weeks apart.

These must be attended in succession. If modules are not attended we will not sign participants off to place dental implants.

There is also a day where participants are asked to attend one of the directors' practices – limited to 8 per day. On this day they will see an implant placement and understand the full implant work flow.

Programme Progression



Each student must have passed and attended each module. Only then will Practical Implantology allow certification to place implants within their practices.

Module 1	Content
Day 1	Introduction to Dental Implantology
	History of Dental Implants
	Role of Dental implants
	Biomechanics of Osseointegration
	Risk Factors & Contraindications
	Full Assessment for Dental Implants
	Log Book Creation
Day 2	Basic Surgical Sciences
	Surgical Instrumentation
	Glossary of Implant Terminology
	Operative Implant Dentistry
Day 3	Operative Implant Dentistry
	Basic Surgical Sciences – Suturing
	Introduction to Treatment Planning

Module 2	Content
Day 1	Introduction to Digital Dentistry
	Radiation Physics
	Role of CBCT in Implant Dentistry
	Legal Implications with CBCT
Day 2	Introduction to Digital Treatment Planning and workflow
Day 3	Digital Treatment Planning
	Overdentures
	Photography

Module 3	Content
Day 1	Anatomy
	Healing of the Extraction Socket
	Fundamental of Bone Augmentation & Grafting
Day 2	Implant Exposure



	Operative Implant Dentistry- Impressions
	Maintenance of Implants
	Temporisation
Day 3	Occlusion
	Legal & Ethical Aspects
Day 4	Complications and Dental Implants
	Practical Treatment Planning

Module 4	Content
Day 1	Student Seminar
	Orientation
Day 2	Photography
	Digital Treatment Planning
	Asepsis
	Live Surgery
	Medico - legal considerations
Day 2	Photography
	Digital Treatment Planning
	Asepsis
	Live Surgery
	Medico- legal considerations
Day 3	Photography
	Digital Treatment Planning
	Asepsis
	Live Surgery
	Medico- legal considerations

Surgery Visit	Full Assessment
	Photography
	Digital Treatment Planning
	Asepsis
	Delivery of Treatment Plan
	Live Surgery

Module 1	Content	Description
----------	---------	-------------



Day 1	Introduction to Dental Implantology	Aims and objective of the course will be discussed. Teaching methods. Introduction to the team and overview of the modules, participant requirements, assessments and practical components. An introduction to each other. Cases will be shown – these cases will provide an idea of the standards we feel all can achieve by the end of the course. We will introduce the unique psychology of implantology. Participants will be supported and encouraged to search for patients and prepare them for implants.
	History of Dental Implants	A walk through the history dental of implantology to its modern day.
	Role of Dental implants	An overview of the role dental implant modalities within modern day treatment planning. Introduction to consent and why different options are and should be available. An understanding of why, even though dental implantology may be the gold standard in many cases, it is an elective procedure and other options must be discussed
	Biomechanics of Osseointegration	An understanding of osseointegration. Understanding how osseointegration works and considerations for success.
	Risk Factors & Contraindications	The lecture will consider the medical and dental risks and contraindications with respect to dental implant treatment.
	Full Assessment for Dental Implants	Participants will be introduced to treatment planning, and the

		dynamics of tissue loss. The lecture will discuss the considerations to take into account when starting to treatment plan. Several cases will be shown. Assessment of the surgical patient will be discussed.
	Log Book Creation	An introduction to the log book. Students will be introduced to legal aspects of implantology. Introduced to sound and protective record keeping. Also introduced to forms and consents forms applicable to dental implantology. All participants will be given a filled log book to keep for reference – which will also be in digital format for them to use at their practices. Participants will also be introduced to the full assessment form. There will be a lecture on how to fill the form and its use in treatment planning.
	Dental Photography	Dental Photography is very important in communication. It will aid in treatment planning and mentoring. The lecture will allow students to understand the role of photography within dentistry. There will be a practical element where all participants with their own cameras will take appropriate photographs. Students will understand the settings appropriate for macro photography
Day 2	Basic Surgical Sciences	Participants will be introduced to surgical protocols. Participants will be shown all

		surgical instruments used in implant treatment. Students will be introduced to different terminology. Use of the instruments. How to hold instruments and care of the instruments. All participants will be given a basic surgical kit included as part of the course.
	System overview of Implant Terminology	Implant terminology can be quite overwhelming when one first starts this modality. We will discuss relevant specific terms and names. Understanding this early on will enhance and quicken future learning. An implant kit is very complicated when one first looks at one – we will demystify this. Everyone will have kits in front of them so they will be ready for the practical that follows this lecture
	Operative Implant Dentistry	An introduction to prosthodontically driven implant placement. We will consider this with respect to biological, mechanical and longevity parameters. Students will practice placement of dental implants on models. Students will work in pairs helping each other. There will be sufficient assistants helping.
Day 3	Operative Implant Dentistry	Once implants are placed we have to transfer their position to the technician. The lecture will go over terminology. The lecture will discuss the different types of impression taking. Use of materials. Laboratory considerations. Students will be able to take impressions with the different techniques.

		Impressions will be taken of the implants placed earlier in the session.
	Basic Surgical Sciences – Suturing	The importance of good suturing will be discussed. An overview of suturing will be given. Different types of suture material will be discussed, along with their filaments and needles. The pros and cons will be discussed, and different sutures will be practiced on models.
	Introduction to Treatment Planning	Combining the last three days we will discuss how to start to prepare, consider cases and prepare patients. An introduction to fee setting considerations will be discussed.

Module 2	Content	
Day 1	Introduction to Digital Dentistry	Students will be shown that whilst we are predicating treatment on analogue skill sets, the role of digital dentistry is very important. We will discuss how it can help diagnosis and accelerate learning
	Radiation Physics	Basic revision on the use of x-rays and an overview of the physics of how x-rays are generated and constructed
	Role of CBCT in Implant Dentistry	CBCT is the gold standard in diagnosis aiding in dental implant treatment planning. It opens us up to the 3-D world. This allows us to plan in every dimension usefully. Students will use software that helps them understand living in 3-d. This transformation takes time as the brain has to adjust its 2-D conventional views

	Legal Implications with CBCT	Students have to understand that the radiation dose is usually higher with a CBCT and influenced by the field of view. This imposes added responsibility. At the end of the day students will be certified to prescribe CBCTs.
Day 2	Digital Treatment Planning	This will be an introduction to digital planning software. Students will be shown how digital planning can help placement. They will be shown specific software that can be used to merge digital x-rays and digital models. Students will be shown how to take their analogue, prosthodontically driven implant knowledge into the digital world. Each student will plan 2 cases in the digital world. Students will be shown how implant surgical guides are then constructed. These guides are used for precise implant placement.
Day 3	Digital Treatment Planning	The digital days will end with an introduction to digital impression taking. Delegates will be shown a CBCT scanner and its use. Participants will also be shown an intra-oral scanner with its benefits.
	Dental Implant Marketing	Dental implant marketing is very important. We want all students to understand the costs involved. We will discuss openly setting up costs, fee setting and marketing ideas that have worked and not worked in the past.
	Implant retained Overdentures	Overdentures can be a very cost

		effective modality. The lecture will help introduce students to the role of overdentures in implantology. Their advantages and disadvantages. Cases will be shown where over dentures have been used.
--	--	---

Module 3	Content	
Day 1	Anatomy	This lecture will provide an overview of the anatomy that is specific and applicable to dental implant placement. There will be an overview of the bones, neural and vascular supply of the maxilla and mandible. The lecture will help students identify areas which may lead to future complications
	Healing of the Extraction Socket	Students will learn about the anatomy of the healing socket. Students will learn what hard tissue and soft tissue changes occur when a tooth is extracted. Atraumatic extraction techniques will be discussed – along with dental ridge preservation techniques. Students will have hands on practice in ridge preservation technique on a model
	Basic Bone Augmentation & Grafting	The lecture will introduce participants to the principals of basic bone augmentation. Guided bone regeneration will be explained with cases and videos, Participants will have practical experience with bone grafting materials and the vertical mattress suture to help stabilise membrane use. Different types of grafting materials will be discussed with each of their advantages and

		disadvantages.
Day 2	Implant Exposure	The lecture will show different methods of implant exposure. This will include soft tissue manipulation to enhance buccal soft tissue contour and the importance of keratinised tissue around dental implants.
	Operative Implant Dentistry- Impressions	The lecture will be laboratory based. There will be revision from the first impression lecture from the laboratory view point. We will discuss the lab prescription, materials one can use, cement v screw retained. Students will have hands on models where they will restore implants.
	Maintenance of Implants	This lecture will help provide an insight into the maintenance of dental implants. Design of the prosthesis. Proper homecare. Examples of problems will be highlighted and how to avoid them. Importance of a proper maintenance and recall program
	Temporisation	Students will learn about the different ways of temporisation while dental implants are healing. The advantages and disadvantages of each option will be provided. Examples of each type of restoration will be discussed and shown.
Day 3	Occlusion	This lecture is led by a specialist in prosthodontics. Students learn the basic fundamentals to consider when restoring implants. It will be practical based. Students will understand the guidance advised and also the static occlusion

		considerations to be taken into account. Cases will be discussed and problems discussed
	Legal & Ethical Aspects	This lecture is led by a medico-legal adviser. Medico legal discussions will enlighten students to the common pitfalls that occur within implant dentistry. Definitions of consent will be discussed and real medico legal cases will be read aloud. This great interactive session is ideal in helping formulating safe protocols, protective procedures in diagnosis and proper consents for protection. This lecture will help bring together many of the safe protocols taught and continuously repeated throughout the course
	Treatment Planning Exercise	Cases will be given to students. The cases will include a completed log book. CT Scans will be given, photos, periodontal assessment and study models where present. Working in groups, treatment plans will be formulated. These plans should include as much information to help provide safe implant and predictable implant placement. Each group will present their case explaining their decision making.
Day 4	Complications with Dental Implants	The directors will highlight many of the complications associated with dental implants which they have encountered over the last 25 years. The lecture will overview the entire syllabus and reinforce someone the pitfalls if protocols are not adhered to. Prevention is always better than cure is the theme of the lecture.

	Treatment Planning Exercise	Cases will be given to students. The cases will include a completed log book. CT Scans will be given, photos, periodontal assessment and study models where present. Working in groups' treatment plans will be formulated. These plans should include as much information to help provide safe implant and predictable implant placement. Each group will present their case explaining their decision making.
--	-----------------------------	---

Module 4	Content	
Day 1	Delegate Seminar	This will take place on the evening before the Practical sessions in Cairo, Egypt After Module 3 each student will be given a relevant topic to research. This will be a practical topic that has already been covered on the course. Working with the course directors a 10-15 minute PowerPoint presentation will be given to the group. All presentations will be shared with other members of the group, to add to their learning experience. This will be conducted in a professional manner yet in a protective, supportive, non-aggressive and self-nurturing environment.
Days 2/3/4	Photography Digital Treatment Planning Asepsis Live Surgery Medico- legal considerations	In Egypt all Students will work together, reinforcing the dental implant work flow and the importance of team work. There is a dedicated team that has been put together to help make this successful. Each participant will place a number of implants on live patients. Groups will be made where

		<p>the surgeon with their mentor go over digital planning. This digital planning will be converted into an analogue treatment plan. Photographs are taken by another student and local anesthetic by another. The patient is someone who would never have been able to afford such treatment. They must be respected and looked after at all times by all students. The student chosen for the surgery will be guided by a mentor. At no time will someone be on their own. If a mentor feels that they should take over the surgery in the best interest of the patient, then this will occur. Patients will be shared between students as fairly as possible. The three mentors whilst following the same sound protocols have different teaching methods and surgical nuances - it is important to learn from all involved. After surgery notes must be written and shown to the mentor to sign off</p> <p>The decorum between all students must be professional, positive and supportive. These days are long and hard but immersive and fulfilling. Over the three days we will meet in the evening for a debrief- here we will discuss the surgeries and work out the next day's plan regarding patient allocation. We will endeavor to be as fair as possible for all involved.</p>
--	--	--

Learning Outcomes	A	B	C	D
--------------------------	----------	----------	----------	----------



Demonstrate critical understanding of the principles, theory and safe practice of the specialty	✓	✓	✓	
Demonstrate proficiency in history taking and clinical examination and understanding of surgical disorders in the context of basic sciences and mechanism of disease	✓	✓	✓	✓
Proficiently evaluate, identify and select suitable clinical cases			✓	
Integrate complex knowledge to promote and advise prospective clinical patients	✓	✓	✓	✓
Demonstrate critical skills in diagnosing and planning the treatment for clinical cases		✓	✓	
Critically identify and evaluate the choice of techniques to enhance treatment options	✓	✓	✓	✓
Evaluate complex legal and ethical principles underlying patient care	✓			✓
Demonstrate proficiency in the use of relevant equipment			✓	
Demonstrate proficiency in performing safe basic surgical techniques that are common in practice			✓	
Demonstrate advanced and proficient skills in the practice of the specialty	✓	✓	✓	✓
Exercise appropriate judgement in planning, selecting or presenting information, methods or resources and systematically apply knowledge in an original manner to formulate new ideas or conclusions	✓	✓	✓	✓

Module Outlines

Module 1

General Information

Module Leaders	M Soni, S Mohamed , A Sheikh
Location	Planmeca UK - Coventry
Theory Hours	12 Hours
Practical Hours	10 Hours
Assessment Hours	1.5 Hours
Non – verifiable reading hours	10

Educational Aims

Introduce Students to Dental Implantology

- To educate students the role dental implantology has within dentistry
- Introduce students to full clinical assessment of patients
- Introduce students to the medicolegal aspects related to implantology
- Equip Students with knowledge to understand the specific implant terminology
- Teach Students about surgical equipment, osteotomy preparation and impression taking specific for dental implantology
- Introduce students to the role of suturing

GDC Learning Outcomes

LO1	Demonstrate critical understanding of the principles, theory and safe practice of dental implantology	A, B ,C
LO2	demonstrate advanced knowledge, skills and attitudes required to manage the oral surgery patient	A,B,C
LO3	Demonstrate proficiency in history taking and clinical examination and understanding of surgical disorders in the context of basic sciences and mechanism of disease to aid in dental implant treatment planning	A,B,C,D
LO4	Demonstrate an understanding of the glossary of term related to dental implantology	C
LO5	Demonstrate an understanding of safe prosthodontically driven osteotomy positions and construction of site	C
LO6	Demonstrate an understanding of Implant impression taking	C

Assessments

There will be informal continual clinical/hands on assessments.



There will be 5 multiple choice (or y/n) format assessments:

- Role of Dental Implants
- Risk Factors & Contraindications
- Osteotomy Site Preparation
- Impression taking
- Suturing materials and techniques
- Basic surgical sciences

Module 2

General Information

Module Leaders	A Nulty, A Sheikh, S Mohamed
Location	Planmeca UK - Coventry
Theory Hours	14 Hours
Practical Hours	8 Hours
Assessment Hours	3 hours
Non – verifiable reading	10 hours

Educational Aims

Introduce students to CBCT and their role within Dental Implantology

- Introduce students to digital dental implant planning
- Introduce students to the role of overdentures in implant dentistry
- Dental photography

LO1	Demonstrate critical understanding of the principles, theory and safe practice of CBCT	C
LO2	Demonstrate the use of CBCT in digital prosthodontically driven treatment planning	C
LO3	Demonstrate the role of overdentures in implant dentistry	C
LO4	Demonstrate the usefulness of dental photography and demonstrate use of a DSLR camera	C

Assessments

There will be informal continual clinical/hands on assessments.

There will be 3 multiple choice (or y/n) format assessments:

- Understanding CBCT
- Digital Treatment planning
- Clinical Photography



There will be an exercise in digital planning. Students will have to plan a given case on digital software we provide. Students also will be coached into taking the appropriate photographs by practicing on each other.

Module 3

Module Leaders	M Soni, A Sheikh, S Mohamed
Location	Planmeca UK - Coventry
Theory Hours	16 Hours
Practical Hours	6 Hours
Assessment Hours	3 Hours
Non verifiable – reading	10

Educational Aims

- Study bone biology, metabolism, physiology and healing
- Introduce students to healing of bone and introduction to bone augmentation
- Introduce student to anatomy related to dental implantology
- Reinforce dental operative skill sets in osteotomy site preparation and impression taking and temporisation
- Understand the importance or communication with laboratory technicians
- Understand the importance of maintenance of dental implants
- Understanding the key ethical, consents and medico legal issues
- An understanding of the basic principles of occlusion with respect to dental implants

LO1	Demonstrate advanced knowledge of the important surgical anatomy of the head and neck from both a Theoretical and a clinical perspective. Understand the anatomy of the tooth, bone and soft tissue healing of the extraction socket	C
LO2	Understand the principles, theory and safe practice of basic bone augmentation. Assess difficulty of bone augmentation case and be able to perform ridge preservation	C
LO3	demonstrate critical understanding of the management of peri-implantitis, maintenance and recall protocols of dental implants	A B C D
LO4	comprehensively understand the principles, theory and safe practice of bone augmentation	C
LO5	Demonstrate an understanding of the medico- legal aspects of dental implants	A B D
LO6	Understand a basic understanding of occlusion for dental implants and temporisation during dental implant treatment	C

Assessments

There will be informal continual clinical/hands on assessments.

There will be 3 multiple choice (or y/n) format assessments:

- Anatomy
- Healing of the extraction socket
- Basics of bone augmentation
- Maintenance of dental implants
- Basics of occlusion

To cover medico legal issues students will have to submit a treatment plan for a given surgical case.

Module 4

Module Leaders	M Soni, A Sheikh, S Mohamed
Location	Egypt Cairo
Theory Hours	10
Practical Hours	25
Verifiable reading with Power point presentation	10 hours

Educational Aims

- Introduce students to general surgical principles
- provide students with a pragmatic approach to solve common clinical problems of oral surgery patient
- equip students with the knowledge of surgical protocols and decision making in oral surgery decision making and restorative protocols
- provide students with hand on experience in surgery for placing dental implants
- to allow students to develop presentation and initiate research education

LO1	Demonstrate a critical understanding of the fundamental principles, theory and safe practice of implant dentistry	A D C D
LO2	Demonstrate proficiency in implant placement	C
LO3	Demonstrate research and Presentation skills	A B C D
LO4	Demonstrate knowledge, skills and attitudes required to manage the oral surgery patient	C
LO5	Demonstrate an understanding of the medico- legal aspects of dental	A B D

	implants	
LO6	Demonstrate knowledge of the important surgical anatomy of the head and neck from both a theoretical and a clinical perspective	C
LO7	Demonstrate knowledge of restoratively driven implant placement	C
LO8	Demonstrate an understanding of asepsis	C
LO9	Demonstrate an understanding of clinical photography	C
LO10	Demonstrate an understanding of the importance of team work and the ability to work with in a team	A B D
LO11	Demonstrate an understanding of medico - legal aspects related to dental implants	

Assessments

There will be informal continual clinical/hands on assessments.

Surgical cases will be monitored, and all students will be given direct feedback on their personal progress

Power point presentations will be constructively critiqued by the course directors

Surgery Visit

Module Leaders	M Soni, A Sheikh, S Mohamed
Location	One of the Directors Dental Practice
Theory Hours	5
Practical Hours	3

Educational Aims

- introduce students to live dental implant work flow
- introduce students to live full assessment, photography and treatment planning
- equip students with the knowledge of the importance of team work and the individual roles of all staff members
- Educate students in the role of asepsis
- to allow students to understand the role of the log –book with respect to consent, patient workflow, fee assignment and staff roles in surgery.
- Students will observe and assist in live surgery.

Educational Aims

- introduce students to general surgical principles
- provide students with a pragmatic approach to solve common clinical problems of oral surgery patient



- equip students with the knowledge of surgical protocols and decision making in oral
- surgery decision making and restorative protocols
- provide students with hand on experience in surgery for placing dental implants
- to allow students to develop presentation and initiate research education

LO1	Demonstrate an understand of the documentation needed for consents for dental implant surgery	A D C D
LO2	demonstrate a proficiency in asepsis and it role in dental implantology	C
LO3	Demonstrate an understanding of the role and importance of teamwork in dental implant	A B C D
LO4	Understand the role and needs of the full assessment and data gathering in dental implantology including photography	C
LO5	Demonstrate an understanding of the live surgery workflow	A B D
LO6	Demonstrate an understanding of the importance of team work and the ability to work with in a team	A B D
LO7	Demonstrate an understanding of medico - legal aspects related to dental implants	A B D

Syllabus for all 4 Modules

1. Anatomy/physiology/basic sciences:

Maxilla and Mandible:

Bones - Arterial, Neural Supply

Anatomy of the Tooth

Bone Biology, physiology, metabolism and osteoblast function in health and disease.

Osteoinduction, osteopromotion, osteoconduction and osteogenesis.

The vascular and neural supply to the maxillofacial area and its importance to bone grafting procedures.

Aetiological factors affecting bone loss and alveolar resorption, patterns of bone remodeling, and turnover in health and disease.

The pathogenesis and biochemical basis of peri- implantitis.

Principles of pain and inflammation,

Biocompatibility in relation to bone grafts materials

Various types of bone grafts: Autogenous, Allogenuous, Xenogenous and Synthetic bone grafts

Guided tissue regeneration

2. Principles of Surgery

Surgical diagnosis

Basic necessities for a surgical procedure



Principles of aseptic technique
Flap design and tissue handling
Bleeding control
Suturing

3. Examination and diagnosis of oral surgery patient

Taking a medical history
Physical and radiographic examination
Clinical and laboratory diagnosis
Assessment of the patient; medical/dental and social histories.
The formulation of comprehensive and realistic treatment plans.
Systemic diseases in relation to implant dentistry and clinical management.
Management of medically compromised patients.
Infective endocarditis and bacteraemias, including prophylaxis.
Pathological conditions and their impact on implant treatment.
Therapeutic use of hormones and the implications for implant dentistry.
Identification of the need for bone augmentation procedures.

4. Imaging and Surgical Radiology

Radiological techniques and procedures
The principles of effective radiology and imaging
Radiological anatomy of the jaws and teeth
Conventional radiographic systems, indications and interpretation of images
Digital Imaging
Basic principles of CT scans and their interpretation
The use of three-dimensional imaging software in the planning, positioning and placing of implants.
Surgical guide fabrication
The use of clinical photography

5. Medico- legal responsibilities for the dental implant patient, ethics and communication skills

The interface between clinical dental practice and the law
The principles of professional and ethical practice
How to present treatment options
Treatment plans and how to work towards informed consent
The law in relation to informed consent
Communication with patients, relatives and health care colleagues
The ability of the student to communicate complex treatment modalities to the patient

Medical and dental records: their content, the law regarding disclosure and data protection

Effective communication with laboratory technicians

Participation in peer review, audit, courses and conferences

6. Implant related surgical protocols and management

Principles of implant placement, including flap design and ridge augmentation.

Preoperative medication and post-operative management.

Methods of implant exposure and soft tissue management.

Definition and principles of implant placement

Osseointegration

Classification and types of dental implants

Indications and contraindications of dental implants as treatment plan option

Surgical procedures

Methods of implant exposure and soft tissue management

Protocols of immediate/ Para immediate and delayed implant placement.

Preoperative medication and post-operative management

7. Clinical Implant Restorative Dentistry

Assessment of previous restorations, dentures and of the current dentition and occlusion.

Current restorative techniques and protocols used in implant dentistry.

Impression techniques and materials for implants

Transitional prostheses and provisional implant restoration

Occlusal aspects specific to the restoration of dental implants

The diagnosis and management of periodontal tissues in health and disease, including use of indices

The provision of the fixed and removable implant retained prosthesis, including their design, maintenance and the problems related to precision attachments and implant components

Care and maintenance of precision attachments

Biomechanics of bars, mechanical and magnetic attachments

Dental laboratory techniques and materials used in the fabrication and

Construction of the implant prosthesis

Monitoring and maintaining standards of the laboratory

Involving technicians in the planning of implant cases

8. Knowledge of the treatment protocols and terminology specific to in Implant Dentistry

A brief history of implantology, its development and current status.

Biocompatibility; what is it, how is it assessed and the factors that influence it.

What is osseointegration how is it achieved and maintained and what patient specific factors influence it.

Interplay between biomaterials and biomechanics.

Identification of the salient features of modern implant systems and different tissue interface(s).

The macro and microscopic features of implant design.

An understanding of the limitations of implant treatment.

Different loading protocols of implants; when to load and how to load.

Mechanics of screw fixation.

Torque and its effects.

Factors that influence emergence and submergence profile and their effect on soft tissue aesthetics.

9. Knowledge of the management and identification of complications specific Implant Dentistry and revision

Management and understanding the aetiology of failed, failing and ailing implants. Identification and analysis of the biomechanical problems associate with fracture implant components and or substructures.

Surgical complications related directly to implant placement, nerve damage and hemorrhage. Perforation of vital structures and damage to adjacent teeth and roots. The differential diagnosis and aetiology of bone loss associated with either occlusal trauma or disease.

Soft tissue aesthetic and maintenance problems.

Maintenance and hygiene problems associated with implant supported/retained prostheses.

Competently plan and instigate an implant maintenance programme.

10. Management of systems specific to implant practice

Knowledge of cross-infection control procedures including cleaning, sterilisation and disinfection procedures in general dental practice.

Infection control procedures specific to implant placement and equipment.

The management of the implant patient treatment programme.

Delegation and supervision of auxiliaries.

Use of hygienists in the maintenance of the implant patient.

Basic information and data storage relevant to implant dentistry.

11. Clinical Surgical Syllabus

Knowledge of the basic principles of this specialist subject and their application in patient care.

Successful completion of 5 supervised clinical cases that the student can apply all of the theoretical acumen learnt above

Clinical competency in management of soft and hard tissues with respect and according to sound surgical principles.

Surgical competence when carrying out surgical procedures and according to the protocols of the respective systems.

Understanding the pre-operative and post-operative care of the patient.

Show understanding of restoratively driven dental implant planning

Identify and effectively manage complications as they arise appreciation of personal limitations, and the maturity and willingness to discuss and manage complex cases with your colleagues.

Essential Texts

Practical Implant Dentistry: The Science and Art
Edited by Ashok Sethi, Thomas Kaus

DIMITROULIS, G. (2008) Illustrated Lecture Notes in Oral and Maxillofacial Surgery. Quintessence Publishing Co Inc.,U.S.
ISBN 9780867154788

BRÅNEMARK, P.; ZARB, G.A.; ALBREKTSSON, T. (1985)
Tissue-Integrated Prostheses: Osseointegration in Clinical Dentistry.
Quintessence Publishing Co Inc.,U.S. ISBN: 0-86715-129-3

SCHWARZ, F.; and BECKER, J. (2009) Peri-implant Infection: Etiology, Diagnosis and Treatment. Quintessence Publishing Co Ltd ISBN 978-1-85097-193-1

MCLEOD, I. and CRIGHTON, A (2006). Practical Oral Medicine Surgical Complications in Oral Implantology: Etiology, Prevention, and Management. Quintessence Publishing (IL) Co Inc

END

