CAMBRIDGE ACADEMY OF
DENTAL IMPLANTOLOGY

UK IMPLANTOLOGY YEAR COURSE

2019/2020

COURSE INFORMATION

Contents

Introduction

A warm welcome to the UK Implantology Year Course.

This course is aimed at dental practitioners who are at complete beginner level upwards in dental implantology, and wish to ensure that their core training satisfies the requirements of the General Dental Council (GDC) for straightforward dental implant treatment.

In accordance with the GDC's requirements the course is formally structured and competency assessed. The program consists of a structured theoretical training element together with directly supervised surgical training and mentoring. Theory is contact taught on 10 Study Days.

At the end of the program, upon satisfactorily completing the practical and theory elements, you will be able to demonstrate that you have received training in accordance with the GDC's requirements. Once all requirements have been met the 'Certificate of Competence in Dental Implantology (Foundation Level)' will be awarded.

The General Dental Council regulations

In 2005 the Faculty of General Dental Practice (FGDP) at the Royal College of Surgeons of England first published a set of guidelines, 'Training Standards in Implant Dentistry for General Dental Practitioners'. These guidelines were last updated in 2016. The guidelines include a suggested syllabus and a program of mentoring for surgical skills in dental implantology.

In 2008 the GDC released a new policy which adapted the FGDP(UK)'s 'Training Standards' guidelines as the regulatory minimal requirements for any dentist wishing to practice implantology in the UK. The GDC released the following statement: -

'Educational providers and dental practitioners who wish to practise implant dentistry should refer to the Training Standards in Implant Dentistry for General Dental Practitioners, published by the Faculty of General Dental Practice (UK). The GDC supports these training standards, as the authoritative source for implant dentistry for dental practitioners in the UK. This statement has been issued in response to concerns raised with the GDC about the practice of implant dentistry by general dental practitioners.'

This made the guidelines in this document a mandatory training requirement. If any dentist should come before the GDC and have been practicing dental implantology without having fulfilled these training requirements the dentist could be susceptible to a charge of serious professional misconduct. The ultimate punishment for such an offence is removal from the Dentists Register, and hence loss of livelihood.

The 'Training Standards' requirements set out an exact syllabus for training and require that every implantologist **must**: -

- Receive direct mentored surgical skills training in the clinical treatment of implant patients from the initial case assessment to treatment planning, surgical implant placement, restoration and long term maintenance.
- Participate in a structured postgraduate training course in implant dentistry
- Undergo an assessment of competence

In October 2008 the GDC released another policy statement which said:

'The guidelines, which the GDC considers the authority on training standards for this procedure, make clear that inserting dental implants is a surgical procedure which should only be carried out by dentists with suitable training. This would normally involve a postgraduate training course in implant dentistry and an assessment of competence.'

The important aspect of this second policy statement is that the GDC require any training course to include competency assessment procedures. In other words, the participant will need to have proved that rather than just attending a course he/she has also demonstrated an adequate level of theoretical knowledge via a formal assessment and has been competency assessed in surgical skills by a mentor. Hence before a dentist may practice implantology unsupervised the dentist must have been formally declared clinically competent.

The GDC regulations also distinguish clinical cases into two groups – 'Straightforward' and 'Complex'. The definitions can be found in the Training Standards document. Satisfactory completion of the Year Course and being awarded the 'Certificate of Competence in Dental Implantology (Foundation Level)' demonstrates that a dentist has received training to GDC requirements allowing the dentist to treat 'Straightforward' clinical cases unsupervised. There are further advanced training requirements needed before a dentist may carry out treatment on 'Complex' cases. This course's 'Certificate of Competence in Dental Implantology (Foundation Level)' *does not* demonstrate training to the level required for 'Complex' case treatment.

Training provision

The UK Implantology Year Course provides the full GDC recognised syllabus in theoretical and practical training. The course also provides direct supervision for treatment planning and surgical placement and mentoring for the clinical assessment and prosthodontic aspects of implant treatment. Participants undergo a competency assessment for every stage of treatment. This assessment is carried out by the case mentor, under the overall authority of the course director.

The competency assessment of the theoretical training is carried out at the end of the course. This involves the taking of a Multiple Choice Question (MCQ) test, which is completed online. The link to the MCQ will be sent to all participants at the end of the course.

The pass mark for the MCQ is 75%. The MCQ is undertaken in the participants own time. Participants are free to refer to course material and text books when taking the MCQ. The assessment can only be taken once per cohort.

If the MCQ Theory Assessment is failed, it cannot be retaken until the following year. A fee will be charged for retaking the assessment.

In order to reach a level of clinical competence, 3 clinical cases must be undertaken and passed as competent. Each case is competency assessed at every stage. If you have failed to reach clinical competency at any stage of a case, then this case will not count towards the 3 competent cases that are required for the Certificate. A formal framework for the assessment of surgical skills competency is used by the case supervisors.

You can complete your 3 competent clinical cases using one of, or a combination of, the following pathways:-

1. Bringing patients to the course for treatment on one of your Surgical Skills Study Days
2. Using an accredited Local Mentor*
3. Using an Accredited Training Centre**

* Local Mentors must be accredited by the Academy before being used for your cases. Please visit the Delegates' Area of the course website to download the Accreditation Form that the prospective mentor must complete and send to us.

** A list of Accredited Training Centres is available on the coursed website – ImplantologyYearCourse.com

Please see Appendix II for information on using a Local Mentor or using an Accredited Training Centre

Aims & objectives

The aim of the course is to provide competency assessed training that will allow a dental practitioner to confidently and safely provide straightforward implant treatment in accordance with the General Dental Council's requirements for training in implant dentistry.

Upon completion of the theoretical and practical training and satisfactory completion of the competency assessments the practitioner will be able to place and restore dental implants in 'straightforward' cases in their own practice. The practitioner will also be able to identify those cases which are likely to be more complex and outside of the practitioner's experience and capability.

The course follows the syllabus as detailed in the document –Training Standards in Implant Dentistry', published in 2016 by the Faculty of General Dental Practice (UK).

The course is designed to be the starting point of a lifelong program of continuing education in implant dentistry.

Once the participant has completed all of the Study Days, passed the MCQ and has achieved the required level of surgical competency by completing 3 competent clinical cases a 'Certificate of Competence in Dental Implantology (Foundation Level)' will be awarded. This certificate demonstrates that the dentist has been trained and competency tested to a level appropriate to satisfy the GDC requirements for the provision of 'straightforward' implant treatment.

Attainment of the 'Certificate' ***does not*** demonstrate the ability to carry out treatment defined in the Training Standards document as 'Complex' and participants must not do so until higher training and expertise, as defined by the GDC, has been obtained.

Entry Requirements

Delegates on the UK Year Course must: -

1. Hold full UK General Dental Council registration.
2. Possess full professional indemnity cover, which *specifically includes implant treatment.* Participants must provide proof of cover before taking part in any surgical sessions on the course. If you are unsure of your level of cover you must contact your indemnity provider*.
3. Pay the course fees on time and in full.

* Delegates who do not hold full implantology indemnity insurance or who have not provided proof of such insurance will not be permitted to provide treatment to any patient on the course.

Course composition

The course consists of:-

1. 5 Theory Study Days
2. 5 Live Surgery Study Days
3. 25 Distance Learning Modules – the 'Living Textbook'

Theory Study Days

The Theory Study Days take place at the Møller Centre, Churchill College, University of Cambridge. Directions for the centre are provided within this booklet.

Live Surgery Study Days

The Live Surgery Study Days take place at Cavendish House Dental Care & Implant Centre in Cambridge.

Directions for Cavendish House are provided within this booklet.

Distance Learning Modules

These are provided online. These 25 modules compliment the contact training provided on the Study Days.

Syllabus

The syllabus for the theoretical and practical components of the course follows the requirements of the GDC as described in the document Training Standards in Implant Dentistry (2016). The training teaches the necessary skills to:-

1. Clinically assess a patient's suitability for implant therapy and undertake a risk:benefit analysis, including the identification of any physical or medical conditions the patient has that could make them unsuitable for implant treatment or could complicate surgery.
2. Communicate well with the patient, to ensure s/he:-
    i) is fully informed about other treatment options, and their relative indications and contra-indications,
    ii) is fully informed about the advantages and disadvantages of using implant anchorage in restoring the appearance and function of their dentition
    ii) gives consent prior to implant placement that is informed and valid
3. Undertake appropriate imaging of the mandible and the maxilla, and interpret the findings to inform treatment
4. Use aseptic surgical techniques
5. Harvest hard and soft tissues from oral sites for localized alveolar augmentation
6. Raise mucoperiosteal flaps and suture
7. Use exogenous bone or bone substitutes for minor alveolar bone augmentation in the placement of implants
8. Use appropriate pharmaceutical agents
9. Undertake conventional restorative procedures
10. Undertake straightforward implant-supported restorative procedures
11. Diagnose and deal with complications occurring during or after treatment
12. Monitor and maintain implants over time, including the repair and replacement of any implant or prostheses
13. Document and audit all clinical activity.

The theoretical training specifically covers:-

1. Surgical anatomy of the maxilla, the mandible and the surrounding tissues
2. Pathological processes that occur in the maxilla, the mandible and the surrounding tissues
3. Physical or medical conditions that could make a patient unsuitable for implant treatment or could complicate surgery
4. The implant and other treatment options available and their relative indications and contraindications for certain patient groups
5. The various advantages and disadvantages of using implant anchorage in restoring the appearance and function of the dentition, including the technical, functional and cosmetic limitations
6. The principles and process of obtaining valid patient consent prior to implant treatment
7. Implant design, geometry and characteristics
8. The sourcing of suitable materials
9. The effective control of infection and principles of aseptic technique
10. Appropriate pharmaceutical agents that might be needed
11. The healing processes that normally occur following surgery

12. How to identify and deal with peri-operative and longer term complications
13. Clinical and laboratory techniques used to restore implants, including an understanding of the laboratory stages and techniques used to construct implant supported restorations.
14. The principles and practice of appropriate record keeping, including the need to document and audit all clinical activity.

Surgical Skills Study Days

Supervised surgical training

Each participant will have the opportunity to place and restore implants at the training centre under direct supervision. The surgical procedure will be filmed and watched by other members of the group via an audiovisual link.

If delegates prefer they can use an accredited Local Mentor or Accredited Training Centre instead of bringing patients to the course. Please see the section on mentors for further details (page 7).

Each case carried out under direct supervision must be recorded by the delegate in a log diary. Log diary forms are available in the Student Zone of the course website. An example of the log diary case form is shown on the following page.

Delegates should also keep a log diary of every case used during the 'Treatment Planning and Surgery' workshop sessions. There is one session at each Surgical Skills Study Day.

Example Form

Case Log –Supervised Case

Delegate name: _____

Patient name: _____

Supervisor: _____

Date: _____

Implant(s) placed

Sites placed: _____

Type: _____

Width: _____ Length: _____

Type: _____

Width: _____ Length: _____

Type: _____

Width: _____ Length: _____

Procedure details –

Temporisation:

Healing abutment ❑ Cover Screw ❑ Immediate prosthesis ❑

Impression stage:

Location treatment performed: _____

Impression coping used: _____

Impression material used: _____

Occlusal recording medium: _____

Open Tray ❑ Closed Tray ❑

Articulated: YES ❑ NO ❑

Final prosthesis:

Location treatment performed: _____

Prosthesis type: _____

Abutment used: _____

Cement used: _____

Patient happy? YES ❑ NO ❑

Reflective commentary:

Competency assessments:

The case must be signed off at each stage and upon completion for competency by the case supervisor. If the prosthetic stage is carried out at the delegate's own practice the supervisor must be sent all of the required artefacts before it can be assessed for prosthetic competency, and hence final completion.

Surgical stage: _____

Prosthetic stage: _____

Final case completion:

I declare that in my opinion this case has been successfully completed to a satisfactory standard and the delegate has demonstrated an acceptable level of skill and knowledge.

Supervisor's signature: _____

Date: _____

Competency Assessments

It is a GDC requirement for a postgraduate implant training course to have a competency assessment procedure.

The case supervisor will assess the participant's competency in every stage of the treatment carried out by the participant on the participant's patients who are treated on the course. Once the participant has demonstrated sufficient competency in 'straightforward' implant treatment this element of the course will have been completed.

You will be required to successfully complete 3 competent clinical cases. If a case fails competency at any stage another case must be undertaken until the total number of competent cases reaches 3.

The case supervisor will assess competency for each stage of treatment using the form on the following page.

Example Form

Competency Assessment – Surgical Insertion

Delegate name: _____

Patient name: _____

Supervisor: _____

Date: _____

Procedure details –

Case Complexity –

Straightforward ❑ Advanced ❑

Amount of supervisor assistance –

100%❑ 75%❑ 50%❑ 25%❑ 0%❑

Competency assessment -

INDICATORS	TICK IF COMPETENCY MET
Understanding treatment goals	
Pre-operative organisation	
Correct instrument identification & selection	
Procedural steps performed in sequence	
Procedure performed correctly	
Significance of anatomical structures understood	
Effective patient management	
Effective patient communication	
Successful outcome	

Overall competency assessment –

Acceptable ❑

Unacceptable ❑

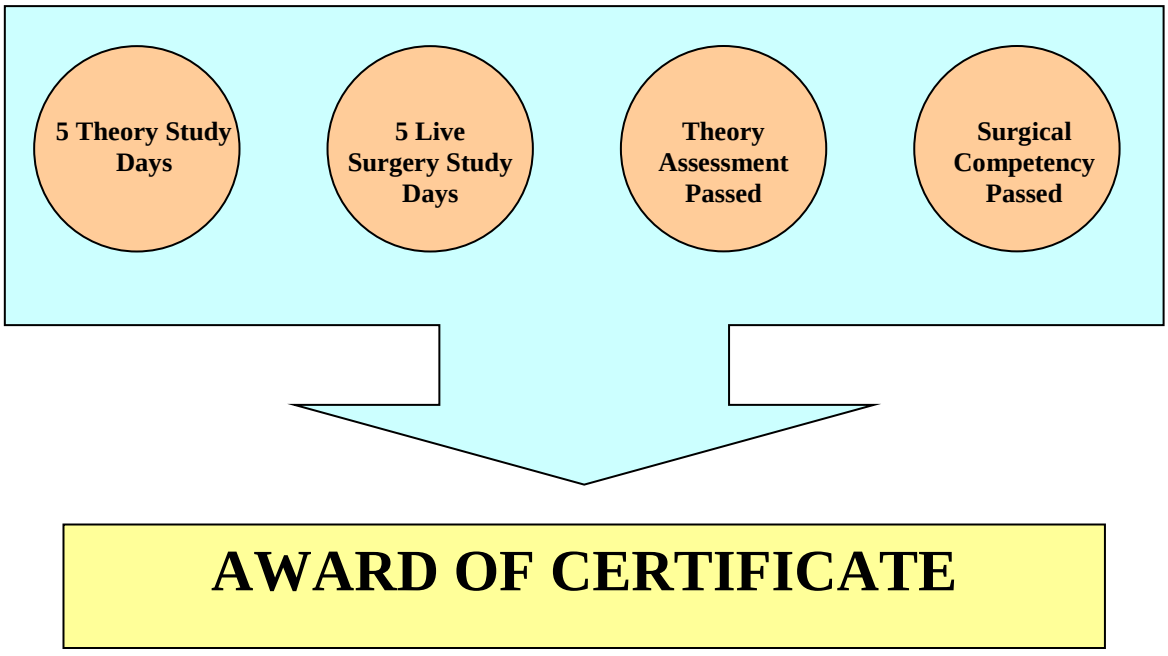
Supervisor's signature _____

Certificate of Competence in Dental Implantology

(Foundation Level)

The 'Certificate of Competence in Dental Implantology (foundation Level)' is awarded upon satisfactory completion of the Theoretical and Practical elements of the UK Implantology Year Course. Holding the certificate demonstrates that you have completed competency assessed training in accordance with GDC regulations, which allows you to place and restore implants in Straightforward cases (as defined by the document 'Training Standards in Implant Dentistry 2016'). You *must not* carry out any treatment that is defined as 'Complex' unless you have satisfied the GDC's additional requirements for further advanced training as explained in the above document.

The gain the Certificate you must have attended the full day for each Surgical Skills Study Day and each Theory Study Day, have passed 3 competent clinical cases and have passed the end of course Theory Assessment.



Theory assessment

At the end of the Year Course each participant will complete a multiple choice style (MCQ) assessment online. This is completed by the participant on a home computer (PC or Mac). The pass mark for the MCQ is 75%. Participants are free to refer to course material and textbooks when taking the MCQ.

The MCQ will be open for a 4 week period.

If the MCQ Theory Assessment is failed or not completed within the 4 weeks that it is open, it cannot be retaken until the following year. A fee will be charged for retaking the assessment.

Surgical Skills Assessment

Participants must carry out implant treatment on their own patients under direct supervision and mentoring. Each stage of every case requires a supervisor. Every stage of treatment is competency assessed by the supervisor. If a course participant is having problems reaching the required level of surgical skills competency, further directly supervised training will be available after the completion of the Year Course. Further fees will be payable if such additional training is required.

Treating patients at the Surgical Skills Training Centre during the course

When treated on one of your Surgical Skills Study Days the patient pays just the cost price for the consumables and the laboratory fees. CBCT scans are taken free of charge.

When patents are treated at the training centre outside of the designated Live Surgery Days of the Year Course cohort into which the participating dentist was enrolled there is no reduced fee scale and no apportionment of fees. The patient will pay the usual fee charged by the training centre during normal non-course clinics, directly to the training centre.

If patients are treated with a Local Mentor, the fee charged by the Local Mentor is a matter of agreement between the dentist, patient and Local Mentor.

The Treatment Planning Process

Initial examination

Often a patient will initially express a wish for implant treatment either at a routine examination or at an appointment where they have been informed that a tooth requires extraction.

In order to examine the patient properly we would recommend that you book a subsequent appointment of at least 1.5 hours for the full case assessment.

Full Case Assessment

The procedure for the Full Case Assessment is taught on the course. After the assessment, you will need to send the completed Case Assessment Form to the training centre (Cavendish House) along with the required artefacts (clinical photos, radiographs, study models, occlusal records etc). The form contains a checklist for you. Once the training centre receives these items a Case Supervisor will be appointed to your case. The supervisor will then contact you and go through the treatment planning process with you. After the case has been treatment planned you can discuss the treatment details, treatment alternatives, risks and benefits with your patient and agree upon your proposed fee. The case supervisor will help you with the treatment planning and consent document. Once your patient has agreed the treatment plan, the case supervisor will help you to arrange a suitable date on one of the Surgical Skills Study Days for the surgery. The surgery will be filmed and watched on an audio-visual link by the other course delegates. Your patient will need to consent for this. You will carry out the surgery under direct 1-on-1 supervision.

The current version of the Case Assessment Form can be downloaded from the Delegates' Area of the course website.

If using a Local Mentor, the form and all artefacts are given to the mentor, not the course training centre.

Please see the Appendix II for information on using Local Mentors or an Accredited Training Centre

Treating Patients

Treatment stages

The treatment stages of implant treatment must always be carried out at the training centre or under the direct supervision of an Accredited Local Mentor, or at an Accredited Training Centre. If being treated on the course during a Surgical Skills Study day, the fee charged to the patient for this stage is paid directly to the training centre. The fee charged will depend upon which Fee Option the participating dentist decides upon for the case. The fee structure is explained in the Delegates' Area of the course website.

If treated at an Accredited Training Centre or with a Local Mentor, the fee will be determined by either the Local Mentor or the Training Centre.

Any fees charged to the delegate for the training by a Local Mentor or an Accredited Training Centre are not covered by the course fees.

Patient Fees – treating on the course in Cambridge

When treated on one of your Surgical Skills Study Days the patient pays just the cost price for the consumables and the laboratory fees. CBCT scans are taken free of charge.

The following is to be used as a general ballpark costs guide only, for a straightforward single implant case treated on one of your Surgical Skills Study Days: -

CBCT scan	-	FREE
Radiographic stent	-	£95
Implant	-	£280
Surgery consumables (drapes, etc)	-	£80
Healing abutment	-	£60
Impression coping	-	£60
Laboratory fee	-	£500

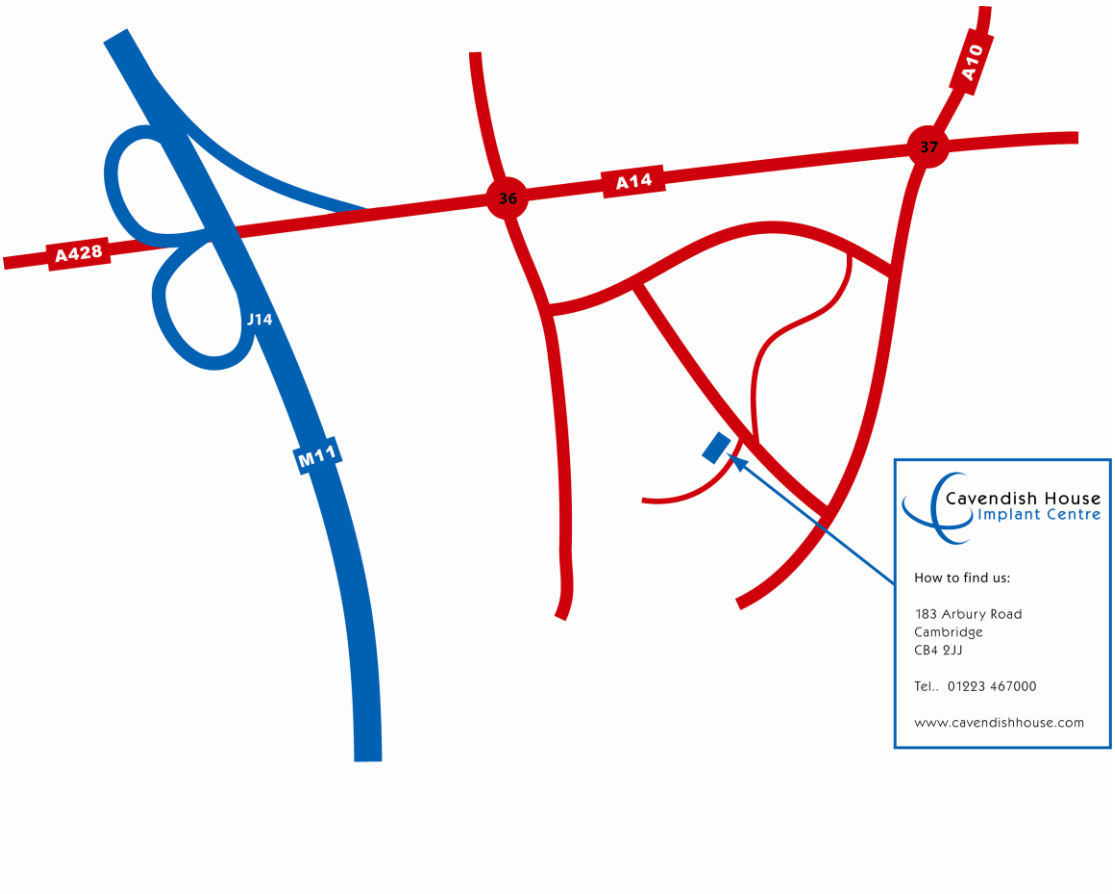
Venues

Cavendish House

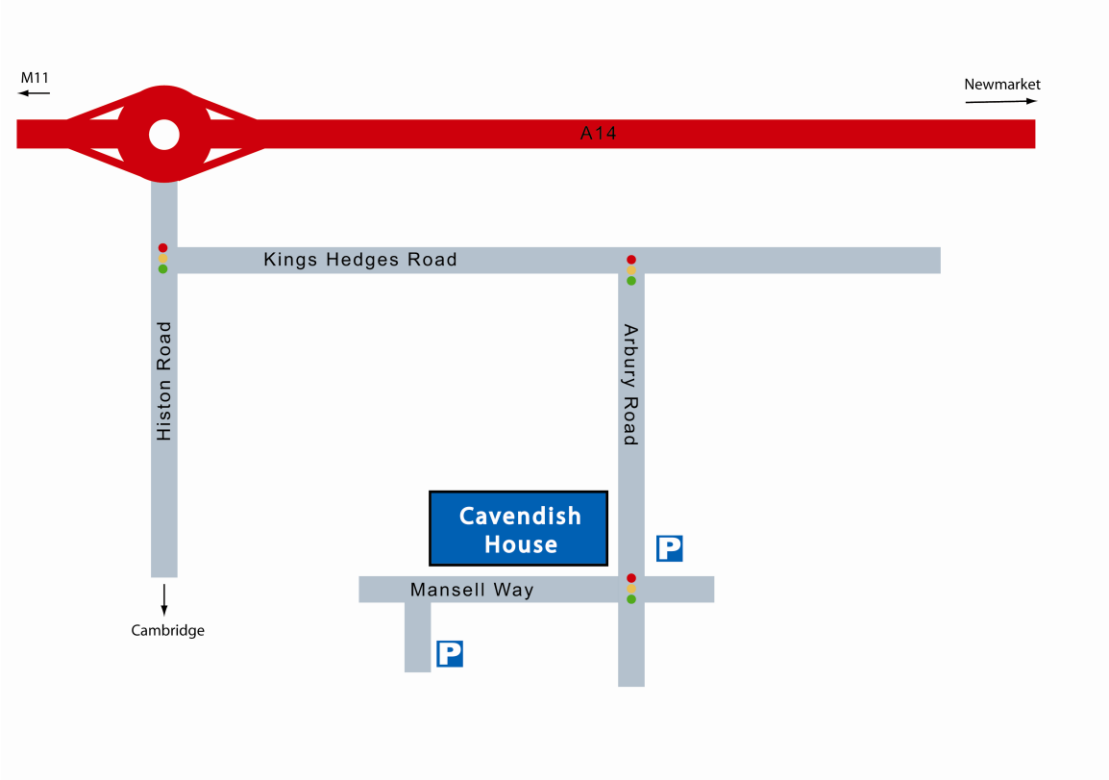
The Live Surgery Study Days take place at Cavendish House Dental Care & Implant Centre in Cambridge. You will have the opportunity to watch Live Surgery demonstrations in the training room via an audio visual link to the operating surgeries. Please arrive at the training centre by 9:00am at the latest. The day will usually end at 4:00pm. You will be provided with coffee, refreshments and a light lunch.

Free car parking is available across the road, opposite the practice. See maps below for details.

Area map:



Detailed map:



Contact details:

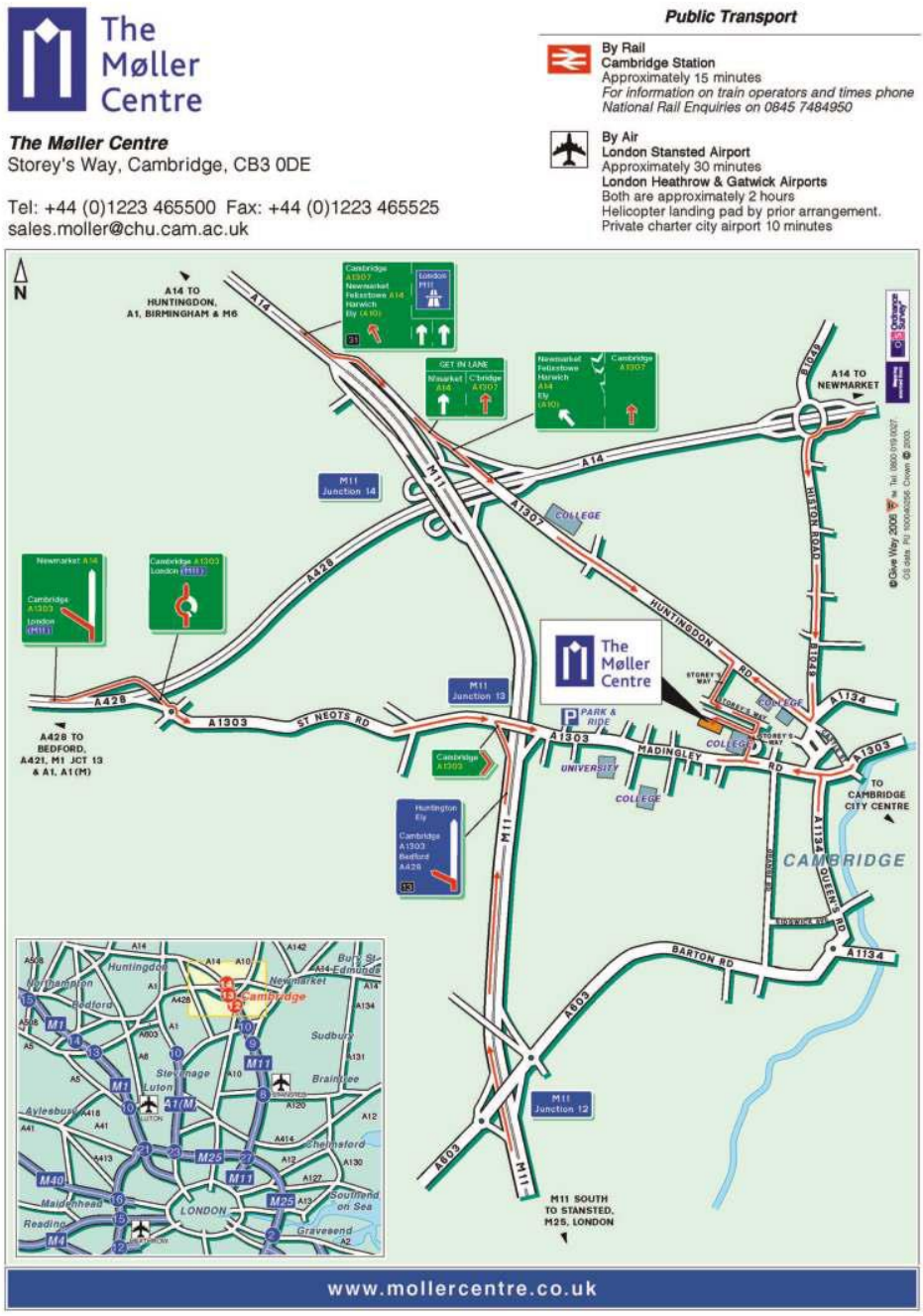
Cavendish House Dental Care & Implant Centre
183 Arbury Road
Cambridge
CB4 2JJ

Tel…01223 467000

www.cavendishhouse.com

The Møller Centre

The Theory Study Days take place at the Møller Conference Centre at Churchill College, University of Cambridge. Registration for the Theory Study days takes place at 8:30am. We are usually finished by 5pm.



Accommodation

Theory Study Days

The Moller Centre is a residential conference venue. Please contact the Moller Centre directly for information on accommodation availability (www.mollercentre.co.uk)

Surgical Skills Study Days

A Travelodge and a Premier Inn are both within 15 minutes walking distance of the Training Centre (Cavendish House, 183 Arbury Road, Cambridge, CB4 2JJ) :-

Premier Inn - Ring Fort Road, Cambridge,,CB4 2GW

Travelodge - Chieftain Way, Orchard Park, Cambridge, CB4 2WR

Appendix I

The ‘Training Standards’ document (2016)

TRAINING STANDARDS IN IMPLANT DENTISTRY 2016[1]

Foreword to TSID 2016

This revision of the 2012 document has been undertaken as its scheduled review was due, and, to align with the Faculty of General Dental Practice's (FGDP) policy of periodically reviewing all Standards.

The FGDP(UK) would like to thank the valuable input received from all external contributors in producing this revision, in particular, the Association of Dental Implantology (ADI), Professor Cemal Ucer of Edge Hill University and Dr Paul Stone of the Edinburgh Dental Institute.

This document aims to provide a summary of the training that a reasonable dental practitioner carrying out safe implant dentistry in the United Kingdom should undertake, before embarking upon patient care in this discipline. The working group considered whether a minimum number of completed implant cases undertaken during training should be stipulated. It was felt more appropriate that emphasis is given to undertaking an appropriate quality assured course, having an experienced mentor, maintaining a detailed record of the range of training received, having an experiential log, and complying with the principles of lifelong learning.

Abhijit Pal
Vice-Dean, Faculty of General Dental Practice (UK)

[1] Document to be revisited in 2019

Introduction

Dental implants are used for the replacement of one or more missing teeth. Their insertion involves various surgical and restorative dental procedures; therefore, dentists placing implants must be competent in carrying out these procedures. The dentist must have undertaken suitable postgraduate training which has included mentored clinical implant placement and/or restoration.

Training in implant dentistry is available from a variety of providers including universities, royal colleges and hospitals. Courses are also run by individuals and commercial providers. This document describes the standards which should be met by such training courses in the United Kingdom.

These standards have been developed to ensure patient safety and protection. They should be used by dental teams and providers of training, to ensure consistency in the acquisition of knowledge and clinical skills for implant procedures, and to ensure good practice. They also serve as a reference point for the General Dental Council (GDC), in the consideration of patient complaints against dentists who have allegedly practised implant dentistry without the necessary competence.

The original standards for training dental teams who wish to practise implant dentistry were developed in December 2005 by a small working group convened by the GDC. The standards were revisited and updated in 2008, and again in 2011/2012 (see Annex for the list of contributors in 2012). Whilst the GDC initiated the development of these standards, this is not a GDC document. It is a shared publication from the group who developed it.

The standards development groups have always been independent of any commercial organisation; their remit being to develop, review and update the standards in light of developments in implant dentistry.

It is recognised that the practice of implant dentistry changes as new materials and techniques are developed. The training standards will be reviewed and updated as need be by the same or equivalent expert group in 2019.

The surgical procedure involves placing a small root analog of appropriate biocompatible material (the 'implant') into the patient's jawbone, and attaching a false tooth, teeth or denture to it. For some patients, the jawbone may need augmenting prior to or at the time of placement. It is essential that any patient considering having dental implant treatment receives a thorough assessment, treatment and maintenance plan, in order to give their informed consent before undergoing the procedure. The patient must receive sufficient information on the benefits, risks, costs, alternatives and likely prognosis.

The clinician should have an evidence-informed and patient-centered approach to the selection of techniques and materials and be satisfied that the manufacturer of materials is sufficiently stable and of adequate stature to be able to provide component parts for the foreseeable future. The clinician should also take responsibility for assessing the effects any implant features may have on the surrounding tissues.

Before undertaking implant treatment, the dentist should be familiar with The General Dental Council's Standards for the Dental Team. Principle 7, in particular, highlights the importance of the practitioner understanding their limitations and working within one's professional knowledge and skillset.

We draw the reader's attention to sub-standards 7.1, 7.2 and 7.3 which states that registrants must:

7.1 provide good quality care based on current evidence and authoritative guidance

7.2 work within their knowledge, skills, professional competence and abilities

7.3 update and develop their professional knowledge and skills throughout their working lives

THE STANDARDS

The scope of implant dentistry

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

1. Replacement of missing dentition involving the straightforward placement and/or restoration of implants
2. Replacement of missing dentition involving the complex placement and/or restoration of implants

The Appendix provides guidance about ‘Straightforward’ and ‘Complex’ cases.

Replacement of dentition involving the straightforward placement and/or restoration of implants

Before undertaking implant treatment, a dentist must develop competence in the procedures involved in clinical assessment, treatment planning, and the placement and restoration of implants. The skills and knowledge necessary for competence should be developed through a training course in implant dentistry, with a suitably trained and experienced clinician acting as a mentor. Such a training course must constitute verifiable CPD, with concise aims and objectives, anticipated learning outcomes and quality controls. There must be documentary evidence available of the course and its successful completion, and a record detailing the clinical experience obtained in the course. Treatment offered and undertaken must be evidence-informed and patient-centered. The dentist must use contemporary decision-making processes to critically appraise new products and techniques before using them, and must ensure that they normally follow accepted practice. Dentists would need to be able to provide justification to support their use of any unconventional treatment protocols.

Subject to which part of implant treatment a dentist takes responsibility for the dentist should have the necessary skills to:

1. Clinically assess a patient’s suitability for implant therapy and undertake a risk-benefit analysis, including the identification of any dental or medical conditions the patient has that could make them unsuitable for implant treatment or could complicate surgery.

2. Be able to determine if the complexity of the case falls within his/her clinical experience and know when to make an appropriate referral.

3. Communicate well with the patient, to ensure s/he:
   - is fully informed about other treatment options, and their relative indications and contra-indications;
   - is fully informed of the material risks in the recommended treatment plan and the advantages and disadvantages of using implant anchorage in restoring the appearance and function of their dentition;
   - gives consent at every stage of implant placement and restoration that is informed and valid.

4. Undertake appropriate imaging (in line with Ionising Radiation Medical Exposure Regulations - IRMER).

5. Use aseptic surgical techniques.

6. Raise mucoperiosteal flaps and suture.

7. Use autogenous bone harvested from the oral cavity or bone substitutes, for minor alveolar bone augmentation in the placement of implants.

8. Use appropriate pharmaceutical agents.

9. Undertake (where necessary) conventional restorative procedures.

10. Undertake straightforward implant-supported restorative procedures.

11. Diagnose and deal with complications occurring during or after treatment.

12. Monitor and maintain implants and restorations over time.

13. Carry out adequate record-keeping, documenting and auditing of all clinical activity.

The dentist must first have a good level of general dental knowledge (MJDF or equivalent), augmented by an in-depth underpinning knowledge of the above skills and processes, specifically:

1. Surgical anatomy of the maxilla, the mandible and the surrounding tissues.

2. Pathological processes that occur in the maxilla, the mandible and the surrounding tissues.

3. Physical or medical conditions that could make a patient unsuitable for implant treatment or could complicate surgery.

4. The implant and other treatment options available and their relative indications and contraindications for certain patient groups.

5. The various advantages and disadvantages of using implant anchorage in restoring the appearance and function of the dentition, including the technical, functional and cosmetic limitations.

6. The principles and process of obtaining valid patient consent prior to implant treatment.

7. Implant design, geometry and characteristics.

8. The sourcing of suitable materials.

9. The effective control of infection and principles of aseptic technique.

10. Appropriate pharmaceutical agents that might be needed.

11. The healing processes that normally occurs following surgery.

Replacement of dentition involving the complex placement and / or restoration of implants

A dentist must be experienced in the placement and/or restoration of straightforward implants, as described above, before progressing onto the treatment of complex cases. Some clinicians may possess all of the surgical and restorative skills needed to treat a complex case single-handedly, but this is the exception; therefore, it is likely that the planning and treatment of such cases will require a team approach. Different aspects of care may be undertaken by appropriately trained and experienced members of the multidisciplinary team.

The prosthodontic team should be competent in managing the occlusal scheme, including changes to the vertical dimension and position of teeth and how these changes interact with the existing dentition (if present) and the jaw relationships. The placement of implants with complex bone augmentation demands a high level of surgical experience and a significant ability to care for such patients. Dentists undertaking such treatment should have been trained and assessed by a suitably competent and experienced mentor within an appropriate structured programme: one that has enabled the dentist to achieve a standard in these specific techniques equivalent to trainees sitting a specialist examination in oral surgery. As with training for straightforward cases, appropriate documentation of training courses undertaken and experience received during training should be available. The

trainee implant dentist must have developed competence in dealing with any immediate and long-term complications from 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; however, 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.

All those assisting in implant and oral surgical procedures must have up to date and adequate knowledge of surgical asepsis.

All members of the dental team are reminded of their responsibility to continue to update their skills and knowledge in the field of implant dentistry.

It is recommended that all members of the dental team keep a detailed portfolio of their training, the courses they have attended, all mentoring they have received, and implants they have placed and/or restored, together with the outcomes.

The portfolio should demonstrate training and experience consistent with the complexity of treatment provided. Such portfolios could be used in any dispute in regards to a dentist's competence in implant dentistry, including those brought before the GDC. All dentists need to be appropriately indemnified against medico-legal disputes involving implants.

Appendix

Guidance for 'Straightforward' and 'Complex' Cases

Few treatment episodes will fall exactly into either category; however, the definitions here should help to identify the degree of complexity and potential risks involved in individual cases. Dental practitioners can better match cases to their level of experience and skills, as well as determine their professional development and training requirements.

Perception of Case

Straightforward: You can easily visualise the end result and the treatment stages are predictable. There are no aesthetic risk factors.

Complex: The end result cannot be easily visualised without extensive diagnostic and planning techniques. Treatment will include multiple stages to achieve the desired outcome and may involve multidisciplinary planning. Complications are more likely to occur than with straightforward cases. The aesthetic requirements or limitations of the case are high, as are the expectations of the patient.

Age and Medical History

Straightforward: The patient is fit to undergo routine oral surgical and restorative treatment procedures. There are no medical risk factors.

Complex: Due to age or physical/medical compromise, the patient will require special care and management. Consideration will need to be given to the duration of the required procedures, and the complexity of any remedial action required, should complications occur.

Tooth Position

Straightforward: The teeth to be replaced conform to the existing arch form, and the adjacent and opposing teeth easily determine the optimal prosthetic tooth position. There are no aesthetic risk factors.

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

Implant Surgery

Straightforward: The implant surgical 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).

Complex: The implant surgery is a more difficult procedure, which has anatomically related risks and might require significant hard tissue grafting (this includes onlay bone grafting and sinus grafting). Surgery will involve significant alteration to anatomical structures with potential risk of damage to vital structures.

Soft Tissue

Straightforward: Minor augmentation or alteration of the position of the peri-implant mucosa is all that is required. Such intervention would not require significant grafting of hard/soft tissue. Soft tissues biotype (quality and quantity) is satisfactory.

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

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.

Periodontal Status

Straightforward: The patient has healthy periodontal status or requires only straightforward mechanical periodontal intervention to eliminate minor pocketing or bleeding and improvement in plaque control.

Complex: The patient has active periodontitis with advanced horizontal/vertical bone loss and tooth mobility. There are lifestyle issues or co-morbidities such as smoking, diabetes or bruxism.

Placement Timing

Straightforward: Delayed after hard and soft tissue healing.

Complex: Immediate placement.

Loading Protocols

Straightforward: Implants are loaded after a conventional period of 8 to 12 weeks.

Complex: Implants are loaded/temporarised immediately or soon after their placement (early loading).

Maintenance

Straightforward: Dental hygienist or clinician provides oral hygiene advice and manages implant mucositis or periimplantitis with non-surgical periodontal therapy.

Complex: Surgical management of periimplantitis or implants that require removal by surgical approach.

ANNEX

CONTRIBUTORS

2016 Review

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2012 Review

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Appendix II

Local Mentors and Accredited Training Centres

Clinical Case Requirements

In order to achieve the Certificate of Competency in Dental Implantology (Foundation Level) you need to pass 3 clinical cases. The cases must be either treated at the Training Centre in Cambridge (Cavendish House) or under the direct supervision of an Accredited Local Mentor. The cases must be at the 'Straightforward' level of complexity.

1. Bringing patients to the training centre in Cambridge

If using this option, you will firstly need to carry out a full assessment of your patient in your own practice.

You will then complete the Case Assessment Form and submit the form along with the pre-operative radiographs, study casts, clinical photos and occlusal records. This form is available for download in the Delegates' Area of the course website (file name : 'Case Assessment Form – Training Centre Mentoring')

DO NOT take a CBCT scan until the case has first been assesses by your supervisor on the course. Your supervisor will advise on the CBCT prescription, if the case shows that treatment may be possible, and will advise whether a prosthetic stent is required.

All aspects of the treatment planning, consent process and surgery/prosthetics will be managed by your supervisor.

2. Using a Local Mentor

If you have an experienced Local Colleague who agrees to act as your mentor you may choose this option. All mentors need to be accredited by us first. The Mentor Accreditation Form can be found in the Delegates' Area of the course website. The mentor must fill this form out and send it to us either by post or email.

The process is then: -

a) You assess the patient in your own surgery and complete all sections of the assessment form including a full clinical diagnosis. This form is available for download in the Student Zone of the course website
b) You take standard dental radiographs (usually PAs or an OPG), study casts, clinical photos and occlusal records. These are sent along with the form to your Local Mentor. Do not send these to the course if using a Local Mentor.
c) DO NOT take a CBCT until your mentor has assessed the case and considered that treatment is possible.
d) If your mentor considers that the case is a possibility for implant treatment he/she will write up a CBCT prescription for you.
e) If you are assessing an edentulous region for implant treatment you MUST have a radiographic stent made from a prosthetic wax-up. The patient MUST wear the radiographic stent during the CBCT scan. This is essential for prosthodontic planning.
f) A video showing how a radiographic CBCT stent is made can be found in the Student Zone of the course website.
g) If a case does not have a volumetric assessment prior to surgery (i.e. a CBCT scan) it will not pass the required course standard and as such is likely to fail.
h) Your Local Mentor will then help you to draw up the treatment options and final treatment plan. These must be discussed with your patient and then followed up with the treatment

planning/consent letter. You will be able to find an example of such a document in the Delegates' Area of the course website.

f) To pass, the case must show evidence of a full consent process. For this you need to show that:-

   i. All treatment alternatives were explained to the patient

   ii. The risks, benefits, costs, prognosis and long term implications for every treatment alternative were discussed with the patient

   iii. The patient understood all the information

   iv. Any risks that were of specific importance to the patient were identified and discussed

   v. The full details of the planned treatment were explained

   vi. Layman's language was used in the consent process (no technical terms)

   vii The discussion were back up with a written consent document that has been signed by dentist and patient

g) DO NOT just copy and paste the example consent document from the Delegates' Area. The consent process needs to be specific to the individual patient concerned. If there is evidence that the document is not specific to the individual patient (e.g. a generic reference to IDN damage for a maxillary implant) the case will fail.

h) The surgical and prosthetic stages are then carried out under the direct supervision of your Local Mentor.

i) The working casts must be articulated from a facebow record. If the case did not use facebow articulation, it will fail.

j) The Local Mentor must complete the Competency Assessment Forms for each stage of treatment. These forms can be found in the Delegates' Area of the course website.

k) Send all forms in for each of the 3 cases once all cases have been completed (after final fit).

l) We will then choose one of the cases for invigilation. We will inform you which case has been chosen. You will then need to send in all artifacts from that case (Case Assessment Form, articulated casts, occlusal records, radiographs, photos etc.). If this case passes (and the other 2 cases have satisfactory Competency Assessment evaluations from your Local Mentor) your clinical cases requirement will be complete. If the sampled case fails, we will ask for all of the artifacts for the other two cases so that they can also be assessed for pass or fail.