

JOINT COMMITTEE FOR POSTGRADUATE TRAINING IN DENTISTRY
SPECIALTY ADVISORY COMMITTEE IN ORTHODONTICS
GUIDELINES FOR UK POST-CCST TRAINING APPOINTMENTS IN
ORTHODONTICS
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1. INTRODUCTION

This guidance is intended to be used as a guide for universities and hospitals seeking approval for Post-CCST Training programmes in orthodontics leading to eligibility to be appointed to a consultant appointment (NHS or honorary/academic) in orthodontics in the National Health Service. These programmes are for a minimum of 2 years but completion of the programme is based on when the relevant competencies have been achieved. Programmes comprise additional training following the UK 3 year specialty training programmes. They are normally available to holders of a CCST in Orthodontics awarded by the General Dental Council (or EU equivalent) and are specially designed to equip trainees to meet the regulations for the Intercollegiate Specialty Fellowship Board Examination in Orthodontics (FDS(Orth)) of the Royal Surgical Colleges. This guidance should therefore be read in conjunction with the appropriate regulations of the Royal Surgical Colleges of Great Britain and Ireland.

This guidance is not framed with an exactitude designed to suit every occasion or circumstance. Compliance with its spirit is more important than rigid adherence to its letter. Deaneries, programme directors, and trainers are encouraged to show initiative in developing high quality training programmes that undergo continuous improvement and evolution.

This guidance should be read in conjunction with the *“Guidelines for the UK Three Year Training Programmes in Orthodontics for Specialty Registrars”* which is available from the SAC in Orthodontics. The three year specialty registrar curriculum is available on the General Dental Council website at <http://www.gdc-uk.org/Dentalprofessionals/Specialistlist/Documents/OrthodonticCurriculum.pdf>

During post-CCST training those orthodontists undertaking such programmes must have access to supervision and be working in clinical programmes designed to acquire new skills and knowledge and to broaden experience and maturity of clinical practice. The trainee should develop a consultant approach, an interest in continuing education, an interest in teaching and teaching skills, a continued interest in research methods and techniques, a responsible attitude and commitment to the training of hospital staff, experience and knowledge of NHS management, and an interest in professional activity. Experience and training in a special clinical interests is to be encouraged during these years.

2. THE PURPOSE OF POST-CCST TRAINING IN ORTHODONTICS

Post-CCST training builds on the initial 3 year specialty registrar training programme, but also allows new skills and knowledge to be developed. Manpower numbers of these posts should be controlled as the numbers of training posts available are limited and the numbers are planned in order to supply the expected need for consultant orthodontist and senior academic posts in the UK.

Entry will be competitive and all posts must be advertised. Entrants to Post-CCST Training programmes will be required to demonstrate successful completion of a 3 year approved programme and possession of MOrth, or equivalent, together with satisfactory completion of their ARCPs and award of a CCST in Orthodontics by the General Dental Council. They will continue in the Specialty Registrar grade and hold a Training Number.

The satisfactory end of this period of post-CCST training will be marked by the successful completion of the Intercollegiate Specialty Fellowship Examination plus satisfactory completion of all ARCPs (including satisfactory completion of all Workplace based assessments).

For academic training there will be several possible training pathways which will allow both flexibility between hospital and academic posts and also for individual trainees. These include:

1. *Additional University training*

The potential academic trainee will have completed a specialty training programme and have been awarded their CCST. They may then apply for a HEFCE funded lecturer's post or an NIHR funded post such as an ACL. The Deanery, with advice from the SAC, will liaise regarding the appropriate extension to training in such cases. The trainee should complete a research based higher degree during the period of additional training. The Intercollegiate Specialty Examination will be taken towards the end of the programme.

2. *Clinical training Fellowships*

These programmes have the advantage of allowing the potential academic to have a period of protected research time leading to a research based higher degree. The potential postholder will have already completed a specialty training programme and have been awarded their CCST. The clinical training Fellowship is awarded by various funding bodies, usually for periods of up to three years. Whilst 8 sessions are spent carrying out research, the trainee may spend two sessions in a clinical setting where they will receive additional training. At the end of this period the trainee will have completed their research based higher degree and they can then enter a reduced additional training programme as either an academic trainee or an NHS trainee. Credit for the clinical training during the Fellowship will be accounted for when the Deanery and SAC consider how much additional training is required before taking their Intercollegiate Specialty Fellowship Examination.

3. THE STRUCTURE OF ADDITIONAL ORTHODONTIC TRAINING PROGRAMMES

3.1 Objectives

At the end of the post-CCST training programme, the trainee will:

- Be competent to treat malocclusions requiring an interdisciplinary or multiple disciplinary approach and involving other hospital based medical and dental specialties.
- Be able to provide advice to general and specialist dental and medical practitioners and hospital consultants in all aspects of orthodontic care and craniofacial abnormality.
- Be competent to provide and supervise treatment plans for dental or specialist practitioners who carry out orthodontics in primary care.
- Be eligible to become a trainer for those who are engaged in specialty registrar training in orthodontics and play a full role in postgraduate orthodontic training.
- Be able to treat the most severe types of malocclusion.
- Be able to manage complex multidisciplinary cases in conjunction with other medical and dental disciplines.
- Be able to contribute to the care of Cleft Lip and Palate patients and patients with complex craniofacial syndromes.
- Be competent in hospital management and administration.
- Have appropriate skills in teaching, appraisal, and interviewing.

3.2 Training Rotations

The SAC advises that trainees be exposed, as far as possible, to a longitudinal combined and integrated training between a dental teaching hospital and district general hospitals. Exposure should normally be gained in a range of different hospital environments. Because the StR and post-CCST training will, for many trainees, be in different institutions the SAC wishes programmes to emphasise the long term nature of orthodontic treatment and, as far as possible, enable trainees to treat and observe patients and techniques over the long term. It might be difficult for single training centres to deliver the entire curriculum. Therefore, more than one centre should consider combining to provide a joint teaching programme.

3.3 Length of Training Programmes

Total training time will be for a minimum of two years full time (or part-time equivalent). Post-CCST training is not time limited and depends on the attainment of all necessary competencies. Locum experience will not normally be accepted.

Less than Full Time Training (LTFT) is permitted. The arrangements for such part-time training are given in the *“Guide to Specialty Training in Dentistry”* (‘the Dental Gold Guide’). To be eligible for such training trainees will have to show that “training on a full time basis would not be practicable for well founded individual reasons”. Flexible training programmes must be for a minimum of six sessions per week and the training period will

be calculated accordingly - the exact time to be determined by the Deanery, with advice from the SAC, at the time of approval of the application of the trainee.

Any changes to training programmes must be approved by the Deanery prior to the change occurring. The SAC should be advised of any such changes.

3.4 Distribution of time within the two years (or equivalent) of the Post-CCST Programme

In full-time posts, the trainee should spend at least 8 sessions per week involved in patient contact, with at least 5 of these sessions devoted to personal treatment sessions.

A balanced programme will, for all trainees, allow personal treatment sessions, diagnostic sessions, review clinics, formal and informal teaching, research and reading time.

LTFT trainees should be given a timetable for a **minimum** of six sessions per week which should include a minimum of 5 patient contact sessions, 3 of which are personal treatment sessions.

TABLE 1

The table below gives details of Training times and Clinical Sessional distribution:

GRADE	Weekly Sessions	Total Clinical Sessions	Personal Treatment	Other - New patient Teaching, Joint Clinics & Review
F/T NHS Hospital Trainee	10	8	5	3

NB: The timetables and duration of all training programmes other than conventional F/T NHS trainees **MUST** be approved by the Deanery, with advice from the SAC, at the time that the post is approved. This applies to all NHS and academic posts.

TABLE 2

The table below gives details of Sessional Distribution between Non Clinical Sessions:

GRADE	Total Sessions	Total Clinical Sessions	Non Clinical Sessions	Non Clinical Being taught	Non Clinical Research, Study, Audit	Non Clinical Management, Administration
F/T NHS Hospital Trainee	10	8	2	0	1.5	0.5

3.5 Timetabling

- The extended nature of orthodontic treatment and treatment review requires the trainee to attend continuously in each unit for a period of at least 2 years full time (or part-time equivalent).
- If the trainee has any exceptional leave, the Deanery and SAC must be advised immediately to allow them to consider the impact on training. A meeting should be arranged with the Educational Supervisor/TPD and the Deanery as soon as the trainee returns to work.
- The academic aspect of orthodontics together with its interface with other dental specialties normally requires the trainee to spend a proportion of each week in a (Dental) Teaching Hospital.
- The training programme should equip the trainee for a consultant post in the National Health Service. Substantial experience of work in a District General Hospital is therefore essential.
- An effective training rotation for the trainee is for the week to be divided into 3 days and 2 days, so that the pattern of training is Teaching Hospital: District General Hospital 3:2 or 2:3. Either split of the training week can work well.
- The District General Hospital facilities should be of an adequate size and quality with fully available consultant cover to permit the allocation of 2 or 3 days of a trainee week. Honorary academic trainees are expected to attend a District General Hospital ideally for a minimum of 1 day per week throughout the programme.
- Whilst visits to a number of hospitals are valuable for occasional clinics, in general the more satisfactory programmes limit the major part of the training to two hospitals. The trainee should have sufficient time to make a significant administrative, clinical and teaching impact in each unit.
- Absence of a Dental Teaching Hospital in a Deanery will require a flexible approach to be taken and the Deanery and the SAC will consider individual proposals. Visits by the trainee may be arranged to a Dental Teaching Hospital outside the Deanery.
- All trainees (including academic trainees) must include personal treatment sessions under the guidance of several consultants and hospital administrative experience must be obtained. The trainee should spend full days at each hospital and avoid "split days".

3.6 Facilities

At each training unit there should be:

- Fully equipped surgery accommodation with an appropriate range of appliance systems and instruments
- Trained dental nurse support with reasonable continuity of personnel
Adequate secretarial support
- Adequate access to a full range of relevant diagnostic facilities including radiography and photography
- Access to a full range of high quality laboratory services associated with orthodontics
- Desk space for personal study by the trainee during the time they spend in the unit
- Ready access to a range of relevant journals and text books or on-line access
Computerised facilities for the storage, analysis and retrieval of cephalometric data, the collection and analysis of audit data
- In at least one unit, there should also be: advanced teaching facilities (e.g. teaching laboratory with typodont facilities etc.); a fully equipped post-graduate centre; full library facilities including the facility for borrowing from other libraries and computerised literature searches; facilities for medical illustration and access to a full range of high quality laboratory services associated with orthodontics

The combined training units (Dental Teaching Hospital and District General Hospital) should both be linked with a department of Oral and Maxillofacial Surgery. There should be adequate clinical association with other disciplines including Oral Medicine, Cleft Lip and Palate Surgery, Craniofacial Surgery, Restorative Dentistry and Paediatric Dentistry.

An active oral and maxillofacial surgery service and ready access to consultant oral and maxillofacial surgery opinions is required within the District General Hospital. Ideally this would also involve access to consultant restorative advice.

3.7 Caseload

The caseload for a trainee on a programme should be in the region of 175 cases in active treatment. Caseloads outside of this range will require explanation. Caseloads should be modified pro rata for part time trainees.

It is expected that all cases should be in IOTN Dental Health Component grades 4 and 5. Any that are not require explanation as to why treatment is being provided.

3.8 Case mix

Training centres should attempt to provide a good case mix. The following is provided as a guide but will vary between training programmes:

- 25% orthognathic
 - 15% joint restorative
 - 10% joint paediatric/special needs
 - 10% dento-alveolar surgery
 - The remainder should be complex orthodontic cases (incl. clefts and craniofacial)
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3.9 Transfer cases

It is inevitable that, with a short training programme, the trainee will receive some transfer cases. This situation should not be regarded as a problem because transfer cases will give the trainee an opportunity to finish cases. However, it is imperative that the quality of the cases that are transferred is high. If the training and supervision are good, then the transfers should be good, and this is the responsibility of the trainers. As a result, at the commencement of training, no more than one-third of the caseload should be transfer cases.

3.10 Cleft lip and palate

CLP services exist largely as a “hub and spoke” model. Trainees should gain exposure to the workings of the cleft centre and have attachment on a regular basis to an interdisciplinary cleft clinic.

3.11 Supervision

There are four levels of training supervision:-

1. Trainer in the surgery directly supervising or demonstrating techniques
2. Trainer present in the clinic available to assist or advise
3. Trainer available within the hospital
4. Trainer available from outside the hospital, as for emergency on-call

The trainer allocated to a particular clinic duty is responsible for decisions relating to the nature of supervision. If the trainer is not in the clinic, the trainee must know where to contact help. **Trainers should be away from the clinic only in exceptional circumstances and not routinely.** Close supervision of the training programme is essential.

The Training Programme Director (TPD) will be appointed by the Deanery and must have the confidence of all those on the Specialty Training Committee. The TPD is responsible for the organisation of the training programme. The Training Programme Director should:

1. Appoint for each trainee an educational supervisor responsible for monitoring the trainee's progress and ensuring that any difficulties are identified and resolved as rapidly as possible. Clinical supervisors should comprise consultant orthodontists who work frequently with the trainee and who are closely involved in their training.
2. Ensure that formal meetings take place (including those for appraisal) between the educational supervisor and the individual trainee in order to monitor and advise on a trainee's progress and training needs. A record should be kept of these meetings to inform the ARCP. At the time of publishing these guidelines it is anticipated this will be through the ISCP site.

Trainees should be exposed to the views of more than one consultant and this will normally happen through the linked appointments between teaching hospital and district general hospital. The majority of direct supervision should be provided by a consultant, however some guidance by an experienced senior specialist practitioner in orthodontics is also welcomed.

3.12 Trainee Documentation

Trainees should keep records of the patients they have under treatment. This should ideally be done through a secure computerised spreadsheet or database. The records should include all patients who are under, or have completed, treatment. Each patient record should contain relevant data about:

- demographic information
- diagnosis
- indices
- treatment
- adjunctive treatment from other disciplines
- outcome, including complications
- retention
- consultant responsible

While most of the record entries will relate to cases requiring active orthodontic treatment, it should also represent the full range of the trainee's clinical activity.

3.13 Programme Content

The programme should enable the trainee, in association with supervising consultants, to complete the diagnosis, treatment planning and treatment of the widest possible range of cases, using the full range of orthodontic techniques, with graded and progressive responsibility. At least half of the trainee's time should be allocated to the personal operative treatment of his or her own patients.

The experience should specifically include new patient and review clinics, including those for whom only opinion and advice has been given.

The programme should include attendance at combined clinics which consider the treatment of patients with cleft lip and palate and other complex and developmental facial anomalies, the treatment of patients who require combined orthodontic and maxillofacial surgical treatment, combined orthodontic and restorative treatment, and the orthodontic treatment of patients with special needs.

Training and experience should be gained in the management of an orthodontic department in a National Health Service hospital and in the broader aspects of the organisation of health services.

The programme should include experience in orthodontic teaching of some of the following: hospital staff, general dental practitioners, postgraduate and undergraduate students, nurses and technicians.

Each trainee should be encouraged to prepare, and submit for publication, articles in refereed journals. Facilities and specific guided sessions should be made available for this. Wherever possible experienced academic guidance should be given and trainers should be involved in the projects chosen.

3.14 Curriculum

The curriculum is based on that approved by the (former) Specialist Dental Education Board of the General Dental Council and equates to that part of the final two years of a proposed 5 year run-through training as proposed by the SAC and JCPTD. The proposed 5 year run-through training has yet to be approved by the GDC Council. At the time of writing this document, it is understood that this will be considered as part of the GDC's forthcoming review of dental specialist lists.

4. APPROVAL OF POSTS

Full details of new posts or changes to posts must be submitted to the relevant Deanery *before* approval is granted. This is to ensure that the guidance is met, to discuss the training programme with the trainers and to identify any difficulties in implementing these requirements. It is also appropriate to seek advice from the SAC at that stage and the SAC should be formally notified of any new posts or changes to existing posts once approved by the Deanery.

5. POST-CCST PROGRAMME MODULES

During the additional period of training, the trainee will acquire new knowledge and skills and also greater depth of training and experience of certain modules in the 3 year specialty training programme.

On completion of StR and post-CCST training, the trainee should be able to demonstrate the following aptitudes:

NB: Modules 34 to 44 are those which teach new knowledge and skills during post-CCST training and are therefore highlighted

Generic Specialist Skills

- A professional and ethical approach to patient care
- A scientific attitude, an inquiring mind and the stimulation of professional curiosity A thorough understanding of scientific methodology
- An ability to interpret the relevant literature
- An awareness of current legislation and working practices relating to the practice of dentistry
- An ability to develop themselves by both reflective practice and self evaluation
- An ability to teach at the appropriate level to all members of the dental team
- An ability to promote and apply dental health education

Orthodontic Specific Specialist Skills

- Diagnose anomalies of the dentition
 - Detect deviations in the development of the dentition, of facial growth and the possession of functional abnormalities
 - Evaluate the need for orthodontic treatment
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- Formulate a treatment plan and predict its course
- Carry out interceptive orthodontic measures
- Execute simple and complex treatment procedures
- Evaluate orthodontic progress and treatment outcomes
- Possess a detailed understanding and clinical experience of the multidisciplinary approach for the treatment of dentally and medically compromised patients
- Possess a detailed understanding and clinical experience of the multidisciplinary approach for the treatment of patients requiring orthognathic treatment
- Possess a detailed understanding and clinical experience of the multidisciplinary approach for the treatment of patients with clefts of the lip and palate
- Possess a detailed understanding and clinical experience of the multidisciplinary approach for the treatment of patients with congenital and developmental craniofacial abnormalities
- Possess a detailed understanding and clinical experience of the multidisciplinary approach for the treatment of patients with moderate and severe hypodontia
- Be aware of management issues related to providing treatment in a secondary care setting
- Possess experience of teaching orthodontic subjects
- Be able to acquire and interpret research information and data
- Be able to prepare oral and written clinical and research findings

Section A - Generic Knowledge, Skills and Attitudes

Module 1 - Cell and Molecular Biology with Genetics

Module 2 - Embryology, growth and development of the face and jaws

Module 3 - Psychology

Module 4 - Research with ICT

Module 5 - Radiological Imaging Techniques

Module 6 - Oral Health

Module 7 - Dental Health Education

Module 8 - Health and Safety

Module 9 - Clinical Governance

Section B . Orthodontic Specialist Specific Knowledge, Skills and Attitudes

Module 10 - Normal and Abnormal Development of the Dentition

Module 11 - Temporomandibular Dysfunction and Orthodontics

Module 12 - Tooth Movement and Facial Orthopaedics

Module 13 - Orthodontic Materials and Biomechanics

Module 14 - Aetiology of Malocclusion

Module 15 - Airway, Craniofacial Development and Malocclusion

Module 16 - Diagnostic Procedures

Module 17 - Treatment Planning

Module 18 - Growth, Treatment Analysis and Cephalometry

Module 19 - Long-term Effects of Orthodontic Treatment

Module 20 - The Iatrogenic Effects of Orthodontic Treatment

Module 21 - Epidemiology in Orthodontics
Module 22 - Orthodontic Literature and Research
Module 23 - Removable Appliances
Module 24 - Functional Appliances
Module 25 - Extra-Oral Appliances
Module 26 - Fixed Appliances
Module 27 - Retention Appliances
Module 28 - Guiding the Development of the Occlusion
Module 29 - Adult Orthodontics
Module 30 - Orthodontics and Minor Oral Surgery
Module 31 - Orthodontics and Restorative Dentistry
Module 32 - Overview of Multidisciplinary Management of Facial Disharmony
Module 33 - Management

Module 34 - Psychology in Relation to Craniofacial Abnormality
Module 35 - Advanced Cephalometrics and Imaging
Module 36 - Orthognathic Treatment
Module 37 - Multidisciplinary Management of Medically Compromised Patients
Module 38 - Orthodontic management of patients with special needs
Module 39 - Distraction osteogenesis
Module 40 - Multidisciplinary Care of Cleft Lip and Palate Patients
Module 41 - Multidisciplinary Care of Craniofacial Deformities
Module 42 - Hypodontia
Module 43 - Management in Secondary Care
Module 44 - Teaching and training
