

REQUIREMENTS FOR HIGHER SPECIALIST TRAINING IN PLASTIC SURGERY

INTRODUCTION

The SAC has been charged with defining the requirements of training in the specialty to comply with the recommendations of the Calman report. The detailed recommendations are set out below.

In a small specialty covering such a wide spectrum as Plastic Surgery rotations are essential, and funding will also have to be provided for removal expenses.

Because of the small number of trainees and trainers in any one region, Plastic Surgery trainees will need to attend more national courses and meetings than trainees in larger specialties. Specific recommendations for study leave are attached (Appendix 1).

It is highly desirable that a trainee in Plastic Surgery should have attended an ATLS course or its equivalent before obtaining the CCST.

1.0 RECOMMENDATIONS

1.1 Higher Specialist Training will be a six year continuum in posts approved by the SAC, of which at least five years will be clinical.

There should be some flexibility in how this is arranged. After successful completion of training the trainee will be awarded a Certificate of Completion of Surgical Training (CCST). Sub-specialty training can start during the fifth year and can continue in the sixth year.

1.2 Entry into Higher Specialist Training

This will be by an Appointments Committee after satisfactory completion of basic surgical training (or equivalent) and possession of MRCS/AFRCS (or equivalent), such equivalence being jointly agreed by the Surgical Royal Colleges of Great Britain and Ireland.

It is important for basic surgical trainees to have the opportunity of experience in the specialty. The SAC would welcome more trainees on rotation as part of the "common trunk" but does not believe that experience of the specialty at this stage is essential for potential Plastic Surgery trainees. Individuals should be encouraged to apply from a range of different backgrounds.

It should be possible to enter HST immediately after completion of BST. However, it is likely that the demand for training posts will continue to exceed supply, so that most trainees will have to enter a holding post. This would be an appropriate opportunity for trainees to gain experience in Plastic Surgery or a related specialty.

1.3 Annual Assessments

After entry into HST the first six months must be recognised as probationary, and be followed by a rigorous assessment interview. The trainee must be aware that his appointment can be terminated after this or after any of the subsequent annual assessments.

If a trainee is dismissed after six months or a year we suggest his place be filled by another first year trainee. The filling of vacancies later in training needs further consideration, as experience has shown that locums are difficult to find. Such vacancies may provide good opportunities to offer periods of training to European trainees, or secondments for Specialist Registrars from other programmes.

1.4 **Log Books**

The trainee will keep a record of his experience in a log book in a form approved by the SAC and the British Association of Plastic Surgeons. He be required to produce this at his annual assessments and to the SAC before the granting of a CCST.

1.5 **Completion of Training**

After award of the CCST the trainee will be eligible to enter into independent practice. He may, however, opt for further sub-specialty training, a research post or a visit overseas. Alternatively, he will be able to remain in his training post for a limited period (6 months, and at the discretion of the Postgraduate Dean, for a further single extension) if he is unable to obtain a Consultant post immediately.

2.0 **TRAINING PROGRAMMES**

The SAC does not wish to impose a rigid uniformity of training on every trainee, and hopes to encourage a healthy diversity of interests and skills among fully trained Plastic Surgeons. The recommendations set out below are designed to be flexible, and training programmes will vary in the way they fulfil these requirements.

- 2.1 The trainee must train in more than one Unit and be exposed to the work of at least six Consultants. During training he should assume increasing responsibility, under appropriate supervision, for conditions of progressively increasing complexity. The Units should have organised teaching programmes, instruction in basic sciences, administration and management, and audit meetings. Two sessions must be allocated for research or private study within the working week.
- 2.2 The SAC will encourage trainees to move outside their basic rotations, either on direct exchanges with colleagues in other approved programmes, or on secondment in the UK or overseas. Only one year of overseas training will count towards the CCST. Such moves should be arranged between the programme directors concerned, with the approval of the SAC prior to implementation.

A detailed syllabus will be found as Appendix 2.

- 2.3 In summary, training will be progressive and will be divided into Years 1 & 2, Years 3 & 4, and Years 5 & 6. The programme for the first two years of Higher Specialist Training should cover the whole spectrum of the specialty at a basic level, concentrating mainly on principles of management. It should include:
 - Management of and relationships with the Plastic Surgery outpatient and inpatient
 - Principles of Reconstructive Surgery
 - Principles of Aesthetic Surgery
 - Management of Acute Trauma
 - Malignant Skin Tumours

- Benign Skin Conditions
- Administration
- Level 1 (basic) sub-specialty training in:
 - Burns 1
 - Paediatric Plastic Surgery
 - Head & Neck Tumours 1
 - Elective Hand Surgery 1

The trainee should be involved in each of these sub-specialties for a minimum of six months, but it is recognised that in almost all cases he will be working in several at the same time. Clinical experience should be graded and should progress from assisting at operations, through supervised operating of simpler procedures to independent operating on simpler procedures. Sub-specialty Surgery at this stage should largely be confined to assisting. Outpatient attendance should progress from "sitting in" to seeing returned patients under Consultant supervision.

- 2.4 During Years 3 & 4 the trainee should continue the progression towards increasing responsibility. He should have further experience at a higher level (Level 2) in Reconstructive and Aesthetic Surgery of the face, breasts, trunk and limbs; surgical management of metastatic malignant disease; and in the following sub-specialties:

- Burns 2
- Hands 2
- Head and Neck Tumours 2
- Cleft Lip and Palate
- Reconstruction of Genitalia
- Oculoplastic Surgery
- Limb Trauma

Training must take place in an approved Unit or Units. Training in the complete spectrum of Aesthetic Surgery is unlikely to be possible in NHS hospitals, and arrangements should be made for trainees to accompany Consultants in their private practice to gain this experience. Alternatively, secondment for a period of whole time experience should be arranged.

- 2.5 In the fifth **and sixth** years the trainee may continue general specialty training at a more advanced level or have the opportunity to enter advanced sub-specialty training for all or **part of the time**. This could be either within the rotation in defined posts or, alternatively, he could seek posts elsewhere. This would introduce further choice and competition into training. **One year of training overseas can be counted towards the CCST.**

RESEARCH

- 2.6 A period of up to one year in supervised research previously approved by the SAC will be encouraged. The SAC will require evidence that the research time has been profitably used.
- 2.7 Temporary vacancies should be filled with short term locum appointments - training or service - or those from other specialties or by secondment of Specialist Registrars from other programmes.
- 2.8 Prior training may be recognised towards HST during the transition phase of assimilation in to the Unified Training Grade. The Specialty Training Committee (STC) and the relevant

Postgraduate Deans will assess each individual for placement on the Unified Training Grade. Up to one year of research may be recognised towards Higher Surgical Training.

3.0 IMPLEMENTATION OF TRAINING PROGRAMMES

3.1 Units are invited to set up rotations with others and to develop programmes to meet the requirements set out above. In planning these rotations they should remember that:

- rotations with nearby Units may, in many cases, avoid the need for trainees to move house
- Units should link up which can complement each other's training
- programmes need not be the same for every trainee
- consideration should be given to whether the programme can provide sub-specialty training for 6 months or a year (in either 5th or 6th years) without compromising the training of more junior trainees.
- plans for rotations must be submitted to the SAC for approval.

3.2 **The role of the SAC in setting up rotations:**

- the SAC will not enforce programmes, but will approve or disapprove of those submitted to it
- however, the SAC can offer advice
- the SAC must ensure that smaller Units with educational approval, are included in rotations and, if necessary, will insist on their inclusion.

APPENDIX 1

Recommendations by the SAC in Plastic Surgery and BAPS for the Minimum Number of Courses and Meetings to be Attended by Trainees in the Specialty

These recommendations apply to overseas trainees as well as UK/EEA career trainees. They are linked to the modular training syllabus outlined in Appendix 2.

Part I - Years I and 2

Successful completion of BST should ensure that trainees at this grade have attained basic surgical skills. There are further skills required in Plastic Surgery, particularly microsurgical expertise and the management of trauma.

- a) A microsurgical training course
- b) An ATLS course
- c) One national meeting per year

Part 2 - Years 3 and 4

Training at this level will develop clinical skills with increasing responsibility in Plastic Surgery. More advanced teaching courses are required at this level in preparation for the final FRCS in Plastic Surgery.

- a) At least two advanced courses in Plastic Surgery per year
- b) One BAPS scientific meeting per year
- c) One sub-specialty meeting per year

Part 3 - Years 5 and 6

More advanced general Plastic Surgery training with the possibility of sub-specialty training and/or research.

- a) At least two advanced courses per year
- b) One BAPS scientific meeting per year
- c) Two sub-specialty meetings per year
- d) Two national meetings per year

Special consideration should be given if the trainee is presenting a paper, whatever the grade.

APPENDIX 2

Syllabus of Training in Plastic Surgery Leading to Certification, with recommendations for Modules of Training

INTRODUCTION

The syllabus is divided into a series of modules. During each module the trainee should learn the following:

- relevant anatomy, embryology, physiology, biochemistry and pharmacology
- relevant pathology
- relevant associated diseases and conditions
- appropriate pre-operative investigations and patient assessment
- range, indications and principles of relevant operations
- post-operative complications and their management
- recent advances
- relevant ancillary interventions, e.g. radiotherapy, psychological support, physio/occupational/speech therapy, etc.

Training in modules should include: selected reading, tutorials, attendance at appropriate Meetings/Courses, attachment to Consultants with special interests, attendance at special clinics and attachment to inter-facing specialities where appropriate.

Modules for Part 1 (Years 1 and 2) relate mainly to principles of management. Those for Parts 2 and 3 imply increasing experience in practical techniques and in patient management.

TRAINING IN OPERATIVE AND CLINICAL PRACTICE

This will be undertaken throughout the continuum of training. The spectrum of operations to be learnt is described in the revised Plastic Surgery log book published by BAPS. The SAC in Plastic Surgery is considering guidelines for the quantity of operative training which should be undertaken. Where possible during Part 2 of the continuum, operative training should be organised to coincide with related modules. It is expected that part of the clinical and operative training in Aesthetic Surgery that is necessary for competent independent practice may need to be conducted in the private sector. Trainees should be enabled to attend Consultants' private operating lists and consulting rooms.

The Programme Director should be responsible for timetabling modules, of which two or more could run concurrently, eg "Principles of Reconstructive Surgery" could well run throughout the period of core training. At the end of each year the trainee will be formally assessed.

PART 1 (Years 1 and 2) : INTRODUCTORY TRAINING MODULES

1.1 Principles of Reconstructive Surgery

- a) wound healing and wound repair
- b) transfer of tissues by free graft
- c) transfer of tissues by vascular pedicle
- d) transfer of tissues by microanastomosis
- e) use of non-autogenous grafts/implants
- f) tissue expansion

1.2 Principles of Aesthetic Surgery

- a) patient selection
- b) scars: cosmesis; behaviour; hypertrophic/keloid; pathological; management
- c) treatment of benign skin conditions (tattoos, naevi, etc)
- d) laser therapy

1.3 Management of Acute Trauma

- a) injuries of the hands, including tendons, nerves, blood vessels and bones; hand infections
- b) soft tissue injuries of the face, fractures of the nose, malars and principles of management of maxillary and mandibular fractures
- c) injuries of the limbs, including compound fractures

1.4 Burns 1

- a) resuscitation of major burns, including nutrition and infection
- b) primary treatment of burn wounds
- c) types and sites of burns
- d) management of post-burn scarring

1.5 Paediatric Plastic Surgery

- a) general principles of cleft lip and palate management
- b) general principles of craniofacial surgery
- c) general principles of hypospadias management
- d) general principles of congenital hand surgery
- e) prominent ears

1.6 Malignant Skin Tumours

- a) melanoma, including surgical management of metastatic spread to regional lymph nodes; management of other metastases
- b) squamous and basal cell carcinomas
- c) soft tissue sarcomas of skin and other tissues
- d) non-surgical methods of treatment

1.7 Head and Neck Tumours 1

- a) principles of management

1.8 Elective Hand Surgery 1

- a) Dupuytren's contracture
- b) carpal tunnel
- c) simple post-traumatic rehabilitation

1.9 Administration and Management

NHS, private sector, medico-legal, preparation of medical reports, audit, ethics.

PART 2 (Years 3 and 4)

Trainees should learn the theory of all the following modules, and develop practical experience of most of the operations described.

A: APPLIED RECONSTRUCTIVE AND AESTHETIC PLASTIC SURGERY

2.1 Reconstructive and Aesthetic Surgery of the Face and Lips

Repair and reconstruction of facial defects, reconstruction of upper and lower lips, face lifts, treatment of rhytides.

2.2 Reconstructive and Aesthetic Surgery of the Nose

Reconstruction of skin defects, SMR, turbinectomy, reconstructive rhinoplasties, aesthetic rhinoplasties, augmentation rhinoplasty.

2.3 Reconstructive and Aesthetic Surgery of the Eyelids

Tumours, reconstruction of skin defects, reconstruction of the upper and lower eyelids, reconstruction of the eyebrow, ectopion, blepharoplasty including reduction of skin, muscle and fat, brow lifts.

2.4 Reconstructive and Aesthetic Surgery of the Ears

Tumours of the ear, otitis externa, partial and total pinnectomies, principles of reconstruction for microtia and anotia, prosthetics including osseo-integration, slit earlobe, keloid scars.

2.5 Reconstructive and Aesthetic Surgery of the Breasts

Benign and malignant tumours of the breast, gynaecomastia, Polands syndrome, reconstruction of the breast and nipple after mastectomy and lumpectomy, subcutaneous mastectomy, reduction and augmentation mammoplasties, mastopexy.

2.6 Reconstructive and Aesthetic Surgery of the Trunk and Limbs

Reconstruction of defects of the chest and abdominal walls, pectus excavatum, abdominoplasties including adjuvant liposuction, surgery of pressure sores and ulcers. Treatment of lipotrophies by suction-assisted liposculpture and dermolipectomies.

2.7 Surgical Management of Metastatic Malignant Disease of Skin and Soft Tissues

Including radical lymph node dissection of groin, axilla and neck.

B. SUBSPECIALTY MODULES

Part 2 trainees will be required to become familiar with the following modules but will not necessarily be expected to have operative training beyond that of assisting.

Burns 2

Management of major burns, resuscitation, nutritional support, infection, skin cover, surgical rehabilitation of post-burn scar contractures, ulcers etc, reconstruction of the burned face, psychological support.

Cleft Lip and Palate

Indications, principles and practice of primary and secondary soft tissue reconstructions, alveolar bone grafting, rhinoplastic techniques, principles of orthodontics and orthognathic reconstruction, principles of speech development and investigation of speech disorders, pharyngoplasties.

Reconstructive Surgery of the Genitalia

Hypospadias, epispadias, vaginoplasty, gender reassignment.

Hand Surgery 2

Congenital malformations, complex post-traumatic surgical rehabilitation, rheumatoid arthritis, tumours.

Oculoplastic Surgery

Ptosis, entropion and ectropion, blepharophimosis, anophthalmia, exophthalmos, reconstruction for lacrimal drainage.

Head and Neck Surgery

Carcinoma of the floor of the mouth, palate, nose and maxillary antrum; surgical resections, functional and radical neck dissections, functional and aesthetic reconstructions, mandibular reconstructions, prosthetics, parotidectomies, reconstruction for facial palsy.

Aesthetic Surgery

As described in the syllabus of training recommended by BAAPS.

Limb Trauma

Primary repair and reconstruction of major soft tissue and skeletal injuries in conjunction with interfacing specialties; surgical rehabilitation; amputations; prosthetics.

At the completion of Part 2 the trainee should be ready to pass the Intercollegiate Specialty Examination. (Please visit <http://www.intercollegiate.org.uk> for further information concerning the examination, including the regulations, how to apply etc).

PART 3 (Years 5 and 6)

The trainee may opt to spend **part or all of years 5 and 6 in more advanced general plastic surgical training, or in sub-specialty training** in one or more of the sub-specialties listed in the Sub-specialty Modules for Part 2 above, or in Craniofacial Surgery. This training must be in a Unit approved for Part 3 Sub-Specialty training, and can be outside the main training rotation. Further training in sub-specialty modules during the 5th and 6th years, leading to proficient

independent practice, will require the following training beyond that required for the Specialist Assessment:

- 3.1 Familiarity with relevant texts and scientific publications and detailed knowledge of recent advances.
- 3.2 Detailed knowledge of the investigation and management of relevant clinical and syndromic diagnoses.
- 3.3 Wide experience in the indications for and practice of relevant operations to the level of performance without trainer assistance.
- 3.4 Where appropriate, attachment to interfacing specialty(ies) for extended training.

Details of individual sub-specialty module requirements are being developed by the SAC.