

# **Plastic surgery**

## **Specialty Overview**

# Overview

- The specialty of plastic and reconstructive surgery is that branch of surgery concerned with the restoration of normal form and function. It is a varied specialty involving adults and children and encompassing a wide range of conditions affecting different parts of the body.
- Nowadays most consultants in the UK have a particular area of special interest within plastic surgery although nearly all also take part in an on-call rota dealing with emergency admissions.
- One of the most interesting and fulfilling aspects of the specialty is the frequency with which plastic surgeons work with surgeons from other specialties such as general surgery, orthopaedics, otorhinolaryngology, and maxillofacial surgery. In these cases the reconstructive techniques that plastic surgeons have at their disposal are particularly useful.
- The specialty is also closely associated with aesthetic surgery where body parts are surgically altered to bring about an improvement in appearance.

Areas of special interest associated with the specialty of plastic surgery include the following:

- Head and Neck Surgical Oncology
- Cleft Lip and Palate Surgery (including craniofacial abnormalities)
- Breast Surgery
- Hand and Upper Limb Surgery
- Academic Plastic Surgery

Other areas where senior trainees and subsequently consultants develop particular expertise include:

- Burns
- Skin and soft tissue tumours
- Lower limb trauma
- Aesthetic or cosmetic surgery

Implicit in the wide ranging nature of the specialty is the requirement that a consultant in plastic surgery demonstrates a high level of skill, experience and judgement in carrying out all the roles that his/her job entails. The curriculum and training programmes are designed to produce surgeons competent to take up such consultant appointments in the UK. To be considered fully trained, surgeons must achieve all the requirements of the curriculum through to successful completion.

James Watson - SAC Chair

Eric Freedlander - Content Editor

# **The Purposes of Training in the Specialty of Plastic Surgery**

To produce plastic surgeons competent to work as consultant plastic surgeons in the UK.

This includes:

- Competence to manage patients presenting with a wide range of acute and emergency conditions including trauma and burns, diagnosing, assessing and treating or referring on as appropriate.
  - Competence in the management of patients presenting with a range of elective conditions as specified in the core syllabus for the specialty of plastic surgery.
  - Competence to manage an additional range of elective and emergency conditions by virtue of appropriate training and assessment opportunities obtained during training.
  - Professional competences as specified in the syllabus and derived from the CanMEDS framework and Good Medical Practice documents of the Canadian Medical Association and the General Medical Council of the UK, respectively.
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# The Training Pathway in the Specialty of Plastic Surgery

- To acquire the CCT in the specialty of plastic surgery trainees must complete all the requirements of the syllabus. This includes the key topics for each stage and clear demonstration that the specified levels of competence overall have been achieved at the time of final review.
  - The curriculum is designed to provide trainees in the specialty of plastic surgery with a structured training programme that will enable them to progress from the introductory stages of training through to the level required of a surgeon working independently as a consultant in the NHS.
  - The training programme, designed to last an indicative 8 years, includes training in areas of special interest. It comprises three stages: initial (ST1 and 2); intermediate (ST3 - 6); and final (ST7 and 8).
  - Normally, ST1 and ST2 will comprise a two-year period of generic surgical training where the trainee rotates through several surgical specialties including plastic surgery with each rotation lasting 4-6 months.
  - At the end of this period, selected trainees will proceed to ST3 and from this point their training will be solely in the specialty of plastic surgery.
  - Having completed the syllabus, attained the required levels of competence and passed the Intercollegiate Examination, the candidate will be eligible to be awarded a CCT.
  - Increasingly, senior trainees are undertaking training in an area of special interest that crosses specialty boundaries: so-called interface training. These modules, which take between 12 and 24 months to complete and are appointed through advertisement and selection, are taken towards the end of training (in ST7 and 8). Training in such an additional area of special interest will usually result in the deferment of the CCT until this is completed.
  - They are available in the following areas:
    - Head and neck (with exposure to training from otorhinolaryngologists and maxillofacial surgeons)
    - Hand surgery (in combination with orthopaedic surgeons)
    - Cleft lip and palate (with otorhinolaryngologists and maxillofacial surgeons)
    - Breast surgery (with general surgeons)
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# **The Scope and Standards of Plastic Surgical Practice at CCT**

A major proportion of the workload involves dealing with urgent or emergency cases including:

- Hand trauma.
- Burns and scalds
- Soft tissue injuries involving face, trunk or limbs.

Elective surgery includes the following major areas:

- Head and neck. This includes excisional and reconstructive surgery for congenital and acquired abnormalities, and for malignancy involving the face and mouth.
  - Cleft lip and palate and other craniofacial abnormalities.
  - Breast: including surgery for reconstruction, reduction and augmentation.
  - Hand and upper limb: including congenital and acquired conditions.
  - Skin and soft tissue tumours.
  - Congenital and acquired deformities of the trunk and urogenital system.
  - Aesthetic or cosmetic surgery.
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## **The Configuration and Delivery of Plastic Surgical Services**

- There are approximately 60 plastic surgery units around the country and these are for the most part situated in teaching hospitals.
  - At present each comprises on average 6-7 consultants together with a number of trainees and other grades in support.
  - Inpatient care, including management of urgent conditions, is carried out in the base hospital for each unit with consultants also providing outpatient clinics and at times day case operating at peripheral hospitals within their catchment area.
  - There are approximately 300 consultants in the UK, which translates into 1: 205,000 population.
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## **Future Trends in Plastic Surgery**

- The specialty is planning to increase consultant numbers and this will be reflected by some increase in recognised training posts.
  - To achieve the recommendation made by the then Senate of Surgery of 1 consultant per 100,000 population for the UK and to allow a consultant delivered service, a doubling of consultant numbers to 600 will be required.
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# Key Topics

## Key Conditions

### Wound Care

- Management of wounds including contaminated, infected wounds and those involving skin loss

### Burns

- Assessment, resuscitation and initial management of burns
- Surgical management of burns
- Diagnosis and management of complications of burns including inhalational injury and septic shock

### Head & Neck

- Approaches to reconstruction of defects of the ear, eyelid, nose, lip and oral cavity
- Approaches to management of facial palsy
- Management of patients requiring radical or selective neck dissection

### Clefts

- Principles of management of baby with cleft lip and palate
- Investigation and management of velopharyngeal incompetence

### Breast

- Management of patients requiring breast reconstruction, reduction and augmentation

### Hand

- The diagnosis and management of all aspects of hand trauma
- The diagnosis and management of congenital deformities of the hand
- The diagnosis and management of acquired hand conditions

### Lower Limb

- The multidisciplinary assessment and management of compound tibial fractures involving skin loss

### Skin Tumours

- All aspects of diagnosis and management of malignant skin tumours including surgical reconstruction and management of regional lymph nodes

### GU

- The principles of surgical management of hypospadias



**Aesthetic**

- The assessment and management of patients requiring aesthetic alterations of body parts including face, eyelids, nose and ears.

**General**

- Competence in the use of plastic surgery techniques including design and use of z-plasty, pedicled cutaneous and myocutaneous flaps, and free flaps

# Initial Stage

By the end of this stage trainees, including those pursuing an academic pathway will have been exposed to a wide range of conditions and procedures. The module Core Surgical Skills and Knowledge for All Specialties is common to all the surgical specialties.

They will have to demonstrate competence in, to the level detailed in the syllabus, in the following areas:

- Emergency uncomplicated resuscitation of burns in children and adults.
- Emergency resuscitation of the acutely injured patient suffering from haemorrhagic shock.
- Assessment of hand trauma cases
- Initial assessment of cases of lower limb trauma involving compound fractures, soft tissue damage, skin loss, major nerve and/or vessel injury.
- The knowledge and basic understanding of the common conditions encountered in the specialties through which they have rotated.
- Basic operative skills relating to tissue handling, wound closure and simple lesion excision.
- The use of learning resources including scientific journals and textbooks, scientific meetings and seminars, and web based resources.
- The ability to constructively criticise medical literature.
- The approaches to scientific research including making appropriate ethical committee submissions.
- The candidate must also be seen to be developing appropriate professional skills as described in “Good Medical Practice.”

## ST1 Placement in Plastic Surgery

The learning outcomes of a four or six month placement in plastic surgery are to:

- provide trainees with insight and skills in the acute management of hand, complex limb and facial trauma as well as thermal injury
- highlight the role of plastic surgeons and plastic surgical techniques in reconstruction following severe injuries, burns and the consequences of malignancy

### Knowledge

- An understanding of the relevant anatomy, physiology and pathology of acute conditions including thermal injury, hand, limb and facial trauma
- An appreciation of the importance of good surgical technique involved in soft tissue handling and wound closure
- An understanding of wound management
- For those trainees wishing to pursue a career in plastic surgery, some knowledge of common elective plastic surgery operations

### Clinical Skills

- An understanding of burns assessment and resuscitation
- An understanding of burn wound excision and grafting
- An understanding of burn wound dressings
- An awareness of the roles of nursing staff, physiotherapists and occupational therapists in rehabilitation

- The ability to systematically undertake an examination of the hand and upper limb, with particular reference to cases of hand trauma
- The ability to undertake, with supervision, exploration of hand trauma cases and in minor cases to undertake wound closure
- An awareness of the roles of physiotherapists, occupational therapists in rehabilitation of cases of hand trauma
- For trainees wishing to continue in the specialty, to begin to develop some ability to carry out some aspects of common elective plastic surgery operations

### **Technical Skills**

- To undertake, with supervision, excision of benign skin lesions and closure of simple wounds
- The opportunity to begin to develop surgical techniques including using the operating microscope
- The ability to undertake, with supervision, exploration and debridement of wounds.
- The ability to undertake, with supervision, the excision of a hand ganglion.
- The ability to undertake, with supervision, the repair of divided hand extensor tendon

### **Professional Skills**

- To develop interpersonal skills relating to the complementary roles of plastic surgeons and orthopaedic surgeons in the management of complex lower limb trauma To develop interpersonal skills relating to the complementary roles of plastic, otolaryngological and maxillofacial surgeons in the management of head and neck malignancy, and cleft lip and palate cases.

## **Plastic Surgery Trainees Placed in Other Specialties**

During ST1 and ST2 trainees wishing to pursue a career in plastic surgery may be placed in other surgical specialties as part of an overall training programme. The following act as a guide as to the **areas** in other specialty syllabuses that are most relevant to the plastic surgery training programme.

### **T &O**

- Resuscitation and initial management of patient with multiple injuries
- Principles of management of lower limb fractures
- Management of wrist fractures
- Rehabilitation of amputees
- Principles of joint replacement of hip/knee

### **ENT (ORL)**

- Management of otitis media in children
- Management of nasal trauma
- Investigation and management of neck swellings
- Management of the compromised airway

### **Oral and Maxillofacial surgery**

- Principles of management of orbital and mandibular trauma
- Management of infections of head and neck
- Investigation of intraoral pathology

- Investigation of patients with deformities of the facial skeleton

## General Surgery

- Management of the acute abdomen and other acute surgical conditions
- Management of benign breast disease including outpatient assessment
- Management of breast cancer
- Assessment and management of peripheral vascular disease including acute thromboembolic episodes

## Paediatric surgery

- Assessment and management of trauma in children
- Issues relating to child protection
- Management of hypospadias
- Management of common surgical procedures in children including hernia, hydrocele, neck swellings

Click on [Workplace Based Assessments](#) to view the assessment forms including DOPS and PBAs

## Topics

<b>Topic</b>	<b>Basic sciences</b>
<b>Category</b>	Core Surgical Skills and Knowledge for All Specialties
<b>Sub-category:</b>	None
	<i>Underpinning basic science knowledge appropriate for the practice of surgery.</i>
	<i>Applied anatomy: Knowledge of anatomy appropriate for surgery</i>
	<i>Physiology: Knowledge of physiology relevant to surgical practice</i>
<b>Objective</b>	<i>Pathology: Knowledge of pathological principles underlying system specific pathology</i>
	<i>Microbiology: Knowledge of microbiology relevant to surgical practice</i>
	<i>Radiology: Knowledge of diagnostic and interventional radiology</i>
	Applied anatomy:
	4 Development, organs and structures, surface and imaging anatomy of thorax, abdomen, pelvis, perineum, limbs, neck as appropriate for surgical operations
	Physiology:
<b>Knowledge</b>	4 Homeostasis
	3 Thermoregulation
	3 Metabolic pathways
	4 Blood loss
	4 Sepsis
	4 Fluid balance and fluid replacement therapy
	3 Metabolic abnormalities

Pathology:

- 4 Inflammation
- 4 Wound healing
- 4 Cellular injury
- 4 Vascular disorders
- 4 Disorders of growth, differentiation and morphogenesis
- 4 Tumours
- 3 Surgical immunology
- 3 Surgical haematology

Microbiology:

- 4 Surgically important microorganisms
- 4 Sources of infection
- 4 Asepsis and antisepsis
- 4 Sterilisation
- 4 Antibiotics
- 4 High risk patient management

Radiology:

- 3 Principles of diagnostic and interventional radiology

**Clinical Skills** No content

**Technical Skills and Procedures** No content

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** Basic surgical skills

**Category** Core Surgical Skills and Knowledge for All Specialties

**Sub-category:** None

*Acquisition of basic surgical skills in instrument and tissue handling.*

*Incision of skin and subcutaneous tissue: Ability to incise superficial tissues accurately with suitable instruments.*

*Closure of skin and subcutaneous tissue: Ability to close superficial tissues accurately.*

*Knot tying: Ability to tie secure knots.*

**Objective**

*Haemostasis: Ability to achieve haemostasis of superficial vessels.*

*Tissue retraction: Use of suitable methods of retraction.*

*Use of drains: Knowledge of when to use a drain and which to choose.*

*Tissue handling: Ability to handle tissues gently with appropriate instruments.*

*Skill as assistant: Ability to assist helpfully, even when the operation is not familiar.*

Incision of skin and subcutaneous tissue:

- 4 Langer's lines
- 4 Healing mechanism
- 4 Choice of instrument
- 4 Safe practice
- 4 Basic Surgical Skills course

Closure of skin and subcutaneous tissue:

- 4 Options for closure
- 4 Suture and needle choice
- 4 Safe practice

Knot tying:

- 4 Choice of material

## **Knowledge**

Haemostasis:

- 4 Techniques

Tissue retraction:

- 4 Choice of instruments

Use of drains:

- 4 Indications
- 4 Types
- 4 Management/removal

Tissue handling:

- 4 Choice of instruments

Incision of skin and subcutaneous tissue:

- 4 Ability to use scalpel, diathermy and scissors

Closure of skin and subcutaneous tissue:

- 4 Accurate and tension free apposition of wound edges

## **Clinical Skills**

Knot tying:

- 4 Single handed
- 4 Double handed
- 4 Instrument
- 4 Superficial
- 4 Deep

Haemostasis:

- 4 Control of bleeding vessel (superficial)
- 4 Diathermy
- 4 Suture ligation
- 4 Tie ligation
- 4 Clip application

Tissue retraction:

- 4 Tissue forceps
- 4 Placement of wound retractors

Use of drains:

- 4 Insertion
- 4 Fixation
- 4 Removal

Tissue handling:

- 4 Appropriate application of instruments and respect for tissues

Skill as assistant:

- 4 Anticipation of needs of surgeon when assisting

**Technical Skills and Procedures**

No content

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** The Assessment and Management of the Surgical Patient

**Category** Core Surgical Skills and Knowledge for All Specialties

**Sub-category:** None

**Objective** *Ability to assess the patient and manage the patient, and propose surgical or non-surgical management.*

**Knowledge** No content

- 3 Surgical history and examination (elective and emergency)
- 3 Construct a differential diagnosis
- 3 Plan investigations
- 3 Clinical decision making
- 3 Case work up and evaluation; risk management
- 3 Active participation in MDTs
- 3 Taking consent for intermediate level intervention; emergency and elective
- 3 Written clinical communication skills
- 3 Interactive clinical communication skills: patients
- 3 Interactive clinical communication skills: colleagues

**Technical Skills and Procedures**

No content

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** Peri-operative care

**Category** Core Surgical Skills and Knowledge for All Specialties

**Sub-category:** None

*Ability to manage patient care in the peri-operative period.*

*Pre-operative assessment and management: Ability to assess the patient adequately prior to operation and manage any pre-operative problems appropriately.*

**Objective**

*Intraoperative care: Ability to conduct safe surgery in the operating theatre environment.*

*Post-operative care: Ability to care for the patient in the post-operative period.*

*Blood Products: Appropriate use of blood products.*

*Antibiotics: Appropriate use of antibiotics.*

Pre-operative assessment and management:

- 4 Cardiorespiratory physiology
- 3 Diabetes mellitus
- 3 Renal failure
- 4 Pathophysiology of blood loss
- 4 Pathophysiology of sepsis
- 4 Risk factors for surgery and scoring systems
- 3 Principles of day surgery

Intraoperative care:

- 4 Safety in theatre
- 4 Sharps safety
- 4 Diathermy, laser use
- 4 Infection risks
- 3 Radiation use and risks
- 4 Tourniquets

**Knowledge** 3 Principles of local, regional and general anaesthesia

Post-operative care:

- 4 Cardiorespiratory physiology
- 3 Diabetes mellitus
- 3 Renal failure
- 4 Pathophysiology of blood loss
- 4 Pathophysiology of sepsis
- 4 Complications specific to particular operation
- 2 Critical care

Blood Products:

- 4 Components of blood
- 4 Alternatives to use of blood products

Antibiotics:



4 Common pathogens in surgical patients  
 4 Antibiotic sensitivities  
 4 Antibiotic side-effects  
 4 Principles of prophylaxis and treatment  
 Pre-operative assessment and management:

4 History and examination  
 4 Interpretation of pre-operative investigations  
 3 Management of comorbidity  
 4 Resuscitation

Intraoperative care:

4 Safe conduct of intraoperative care

Post-operative care:

**Clinical Skills**

4 Assessment of patient's condition  
 4 Post-operative analgesia  
 4 Fluid and electrolyte management  
 4 Monitoring of post-operative patient  
 4 Detection of impending organ failure  
 4 Initial management of organ failure  
 4 Use of MDT meetings

Blood Products:

4 Appropriate use of blood products  
 4 Management of the complications of blood product transfusion

Antibiotics:

4 Appropriate prescription of antibiotics

**Technical Skills and Procedures**

No content

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Assessment of multiply injured patients including children</b>
<b>Category</b>	Core Surgical Skills and Knowledge for All Specialties
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Safely assess the multiply injured patient.</i>
<b>Knowledge</b>	3 Anatomy 3 Pathogenesis of shock 1 Differences In Children 4 History and examination 3 Investigation
<b>Clinical Skills</b>	4 Resuscitation and early management according to ATLS and APLS guidelines 3 Referral to appropriate surgical subspecialties

**Technical Skills and Procedures** 3 Central venous line insertion  
 3 Chest drain insertion  
 2 Diagnostic peritoneal lavage

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **Bleeding diathesis**

**Category** Core Surgical Skills and Knowledge for All Specialties

**Sub-category:** None  
*Understand, Recognise and Manage bleeding diathesis in the surgical patient.*

**Objective** *Diagnosis: Diagnose possible bleeding diathesis in the surgical patient.*  
*Treatment: Manage bleeding diathesis in the surgical patient.*  
 Diagnosis:

**Knowledge** 3 Mechanism of haemostasis  
 3 Pathology of impaired haemostasis e.g. haemophilia, liver disease, massive haemorrhage  
 Treatment:  
 3 Understands use of blood products  
 Diagnosis:  
 4 Recognition of conditions likely to lead to the diathesis  
 3 Recognition of abnormal bleeding during surgery

**Clinical Skills** Treatment:  
 3 Avoidance by correct surgical techniques  
 3 Corrective measures, e.g. warming, packing

**Technical Skills and Procedures** **No content**

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **Venous thrombosis + embolism**

**Category** Core Surgical Skills and Knowledge for All Specialties

**Sub-category:** None  
*Understanding of practice in the prevention and management of Venous thrombosis and Embolism.*

**Objective** *Coagulation: Understanding of the physiology and pathophysiology of coagulation.*  
*Diagnosis: Able to arrange basic investigation of patients with suspected venous thrombosis and embolism.*  
*Treatment: Ability to initiate treatment of venous thrombosis and embolism.*

*Prophylaxis: Use of common methods of prophylaxis against venous thrombosis and embolism.*

Coagulation:

- 2 Clotting mechanism (Virchow Triad)
- 2 Effect of surgery and trauma on coagulation
- 2 Tests for thrombophilia and other disorders of coagulation

Diagnosis:

- 2 Methods of investigation for suspected thromboembolic disease

**Knowledge**

Treatment:

- 4 Anticoagulation, heparin and warfarin
- 2 Role of V/Q scanning, CT angiography and thrombolysis
- 2 Place of pulmonary embolectomy

Prophylaxis:

- 3 Knowledge of methods of prevention, mechanical and pharmacological

Coagulation:

- 4 Recognition of patients at risk

Diagnosis:

- 3 Awareness of symptoms and signs associated with pulmonary embolism and DVT

**Clinical Skills**

- 2 Role of duplex scanning, venography and d-dimer measurement

Treatment:

- 3 Initiate and monitor treatment

Prophylaxis:

- 4 Awareness at all times of the importance of prophylaxis

**Technical Skills and Procedures**

No content

**Professional Skills**

Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic**

**Nutrition**

**Category**

Core Surgical Skills and Knowledge for All Specialties

**Sub-category:**

None

**Objective**

*Recognise the need for artificial nutritional support and arrange enteral nutrition.*

**Knowledge**

- 3 Effects of malnutrition, both excess and depletion
- 3 Methods of screening and assessment

<b>Clinical Skills</b>	3 Arrange access to suitable artificial nutritional support, preferably via a nutrition team: Dietary supplements
	2 Arrange access to suitable artificial nutritional support, preferably via a nutrition team: Enteral nutrition
	1 Arrange access to suitable artificial nutritional support, preferably via a nutrition team: Parenteral nutrition
<b>Technical Skills and Procedures</b>	No content
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Academic activity</b>
<b>Category</b>	Core Surgical Skills and Knowledge for All Specialties
<b>Sub-category:</b>	None <i>An introduction to research methodology and to teaching others.</i>
<b>Objective</b>	<i>Research: Ability to perform a simple research study and present the results.</i>  <i>Teaching: Ability to teach small groups such as medical students.</i> Research:
<b>Knowledge</b>	2 Research methodology Teaching:  2 Teaching methods Research:
<b>Clinical Skills</b>	2 Ability to analyse published evidence Teaching:
<b>Technical Skills and Procedures</b>	3 Ability to teach small groups No content
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Management of the dying patient</b>
<b>Category</b>	Core Surgical Skills and Knowledge for All Specialties
<b>Sub-category:</b>	None <i>Ability to manage the dying patient appropriately.</i>
<b>Objective</b>	<i>Palliative Care: Good management of the dying patient in consultation with the palliative care team.</i>  <i>Principles of organ donation: Knowledge of the principles of organ donation.</i> Palliative Care:
<b>Knowledge</b>	3 Care of the terminally ill

- 4 Analgesia
- 3 Antiemetics
- 3 Laxatives

Principles of organ donation:

- 3 Circumstances in which consideration of organ donation is appropriate
- 3 Principles of brain death

3 Understanding the role of the coroner and the certification of death

Palliative Care:

**Clinical Skills**

- 3 Symptom control in the terminally ill patient

**Technical Skills and Procedures**

No content

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** Endocrine and Metabolic Disorders  
**Category** Core Surgical Skills and Knowledge for All Specialties  
**Sub-category:** None

**Objective** *To identify, investigate and managesurgical patients with common metabolic disorders*

- *To identify, investigate and manage surgical patients with Thyrotoxicosis*
- *To identify, investigate and manage surgical patients with Hypothyroidism*
- *To identify, investigate and manage surgical patients with Hypercalcaemia*
- *Knowledge of the significance of corticosteroid therapy in patient care*
- *To identify, investigate and manage surgical patients with diabetes mellitus*
- *To identify, investigate and manage surgical patients with Hyponatraemia*

Thyrotoxicosis  
 4 Pathophysiology of thyroid hormone excess and associated risks from surgery

Hypothyroidism  
 4 Pathophysiology of thyroid hormone deficiency and associated risks from surgery

Hypercalcaemia  
 3 Causes and effects of hypercalcaemia

**Knowledge** Cortico-steroid therapy  
 4 Complications  
 4 Steroid insufficiency

Diabetes Mellitus  
 4 Complications

Hyponatraemia  
 4 Pathophysiology of fluid and electrolyte balance  
 4 Causes of hyponatraemia

**Clinical Skills** Thyrotoxicosis  
 4 History and examination

3 Investigation of thyrotoxicosis

Hypothyroidism

4 History and examination

4 Investigation

Hypercalcaemia

3 Investigation of hypercalcaemia

3 Treatment of hypercalcaemia

Cortico-steroid therapy

4 Peri-operative management of patients on steroid therapy

Diabetes Mellitus

4 Peri-operative management of diabetic patients

Hyponatraemia

4 Treatment

**Technical Skills  
and Procedures**

No content

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic**

**Child Protection**

**Category**

Core Surgical Skills and Knowledge for All Specialties

**Sub-category:**

None

**Objective**

No content

**Knowledge**

4 Working knowledge of trust and Local Safeguarding Children Boards (LSCBs) Child Protection Procedures

4 Basic understanding of child protection law

4 Understanding of Children's rights

4 Working knowledge of types and categories of child maltreatment, presentations, signs and other features (primarily physical, emotional, sexual, neglect, professional)

4 Understanding of one personal role, responsibilities and appropriate referral patterns in child protection

4 Understanding of the challenges of working in partnership with children and families

Ability to:

4 Recognise the possibility of abuse or maltreatment

4 Recognise limitations of own knowledge and experience and seek appropriate expert advice

**Clinical Skills**

4 Urgently consult immediate senior in surgery to enable referral to paediatricians

4 Keep appropriate written documentation relating to child protection matters

4 Communicate effectively with those involved with child protection, including children and their families

**Technical Skills  
and Procedures**

No content

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Use of plastic surgery techniques including design and use of z-plasty, pedicled and myocutaneous flaps, free flaps</b>
<b>Category</b>	Generic Plastic Surgery
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the management of the surgical patient and application of the specified plastic surgery techniques.</i>
	3 Relevant anatomy and physiology.
	3 Relevant associated disease and conditions.
	3 Appropriate pre-operative investigations and patient assessment.
	2 Range, indications and principles of relevant operations.
	3 Post-operative complications and their management.
	2 Recent advances.
	2 Relevant anatomy, physiology, pharmacology, pathology relating to skin and flap blood supply
<b>Knowledge</b>	2 Random, axial pattern flaps.
	2 Concept of vessel territories.
	4 Assessment and non-operative management of the acute and elective surgical patient.
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	2 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
	3 Z-plasty
	2 V-Y advancement
	3 Excision of lesion
	3 Wide excision of lesion
<b>Technical Skills and Procedures</b>	3 SSG
	3 FTSG
	3 Excision & local flap
	2 Random and axial pattern flaps
	2 Rotation, transposition flaps
	2 Pedicled cutaneous, fasciocutaneous, myocutaneous and osteocutaneous flaps
	2 Free flaps
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Assessment, resuscitation and initial management of burns</b>
<b>Category</b>	Burns
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the early phase of burns management</i>
	2 Relevant anatomy, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.
<b>Knowledge</b>	2 Relevant associated disease and conditions.
	3 Appropriate pre-operative investigations and patient assessment.

	2 Range, indications and principles of relevant operations.
	2 Post-operative complications and their management.
	2 Recent advances.
	2 Relevant ancillary investigations, interventions e.g. psychological support, physiotherapy.
	2 Mechanisms of burn injury.
	2 Causes of burn injury.
	3 IV resuscitation regimens.
	3 Use of blood products, plasme volume expanders.
	2 Non-accidental injuries.
	3 Assessment and non-operative of the management of the acute burns patient
<b>Clinical Skills</b>	3 History taking.
	4 Examination including assessment of burn surface area and depth.
	2 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
	3 Management of fluid & electrolyte balance
	3 Assessment & resuscitation
	3 Open venotomy
<b>Technical Skills and Procedures</b>	3 Escharotomy
	1 Bronchoscopy
	1 Endotracheal intubation
	1 Tracheostomy
	2 Burn wound management with dressings
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Surgical management of burns</b>
<b>Category</b>	Burns
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the surgical aspects of burns management</i>
	2 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.
	2 Relevant associated disease and conditions.
	3 Appropriate pre-operative investigations and patient assessment.
<b>Knowledge</b>	3 Range, indications and principles of relevant operations.
	2 Post-operative complications and their management.
	2 Recent advances.
	2 Relevant ancillary investigations, interventions e.g. psychological support, physiotherapy, occupational therapy.
	2 Knowledge of wound healing and tissue transplantation
	3 Assessment and non-operative management of the burns patient.
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	2 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
	2 Early tangential excision and split skin grafting
<b>Technical Skills and Procedures</b>	2 Late grafting
	1 Use of allograft skin
	1 Use of skin substitutes
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills



<b>Topic</b>	<b>Diagnosis and management of complications of burns including inhalational injury and septic shock</b>
<b>Category</b>	Burns
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in management of complications arising during treatment of burn injury</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>2 Relevant anatomy, physiology, bacteriology, biochemistry, and pathology</li> <li>2 Pathophysiology of smoke inhalation and effect on respiration</li> <li>2 Pathophysiology of renal failure as relating to burn injury</li> <li>2 Dietetics as relating to burn injury metabolism</li> <li>2 Shock complicating resuscitation</li> <li>2 Septic shock</li> <li>2 Intensive care monitoring and treatment</li> <li>2 Assessment of the burn patient.</li> <li>4 History.</li> <li>4 Examination.</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>3 IV resuscitation.</li> <li>3 Provision of oxygen therapy via face mask.</li> <li>1 Endotracheal intubation.</li> <li>2 Skills of analysis and diagnostic synthesis, judgement.</li> </ul>
<b>Technical Skills and Procedures</b>	<b>No content</b>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Late management and rehabilitation</b>
<b>Category</b>	Burns
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in burns management</i> <i>Competence in late management, with understanding of the needs for patient rehabilitation</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>2 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.</li> <li>2 Relevant associated disease and conditions.</li> <li>2 Range, indications and principles of relevant operations.</li> <li>2 Post-operative complications and their management.</li> <li>2 Recent advances.</li> <li>2 Relevant ancillary investigations, interventions e.g., psychological support, physiotherapy, occupational therapy.</li> <li>2 Relevant teamworking with other professionals</li> <li>1 Prosthetics.</li> <li>3 Assessment and non-operative management of the burns patient</li> <li>4 History taking.</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>4 Examination.</li> <li>2 Skills of analysis and diagnostic synthesis, judgement, surgical planning</li> <li>2 Scar management including use of pressure garments</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>Contracture release: 2 Grafts</li> <li>Contracture release: 2 Flaps</li> </ul>

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Diagnosis and management of all aspects of hand trauma</b>
<b>Category</b>	Hand and Upper Limb
<b>Sub-category:</b>	Trauma
<b>Objective</b>	<i>Competence in the diagnosis and management of hand trauma</i>
	2 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology.
	2 Relevant associated disease and conditions.
	2 Appropriate pre-operative investigations and patient assessment.
	2 Range, indications and principles of relevant operations.
<b>Knowledge</b>	2 Post-operative complications and their management.
	2 Recent advances.
	2 Relevant ancillary investigations, interventions e.g.physiotherapy, occupational therapy.
	2 Crush injuries.
	1 Injection injuries.
	3 Assessment and non-operative of the management of the acute surgical patient
<b>Clinical Skills</b>	4 History taking.
	4 Examination including hand examination.
	2 Skills of analysis and diagnostic synthesis, judgement, surgical planning
	3 Wound exploration and debridement.
	2 Primary microsurgical repair of peripheral nerve
	2 Primary graft to peripheral nerve
	2 Random pattern flap reconstruction of fingertip (cross-finger, Kutler, Kleinert)
<b>Technical Skills and Procedures</b>	1 Neurovascular island flap reconstruction (homodigital island, Littler)
	3 Primary repair of extensor of hand
	2 Primary repair of flexor of hand
	2 Primary open reduction of small bone and fixation
	3 Manipulation of fracture of bone
	1 Replantation of digit, hand
	1 Amputation of phalanx of finger
	1 Provision of skin cover using grafts, flaps
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Surgical management of brachial plexus injuries</b>
<b>Category</b>	Hand and Upper Limb
<b>Sub-category:</b>	Trauma
<b>Objective</b>	<i>An understanding of the principles of diagnosis, investigation and management of patients, children and adults, with closed brachial plexus injuries</i>
	2 Relevant anatomy, physiology and pathology.
	2 Relevant associated conditions including other trauma.
<b>Knowledge</b>	2 Appropriate pre-operative investigations and assessment including neurological assessment, nerve conduction studies, electromyography.
	2 Range, indications and principles of relevant operations.
	2 Post-operative complications and their management.

	2 Relevant ancillary interventions including physiotherapy, occupational therapy.
	2 Mechanisms of nerve injury and regeneration.
	3 Assessment and non-operative management of these patients.
<b>Clinical Skills</b>	4 History
	4 Examination including neurological examination.
	2 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
	1 Surgical exposure of brachial plexus
	1 Exploration of brachial plexus.
	1 Intraoperative nerve testing.
<b>Technical Skills and Procedures</b>	1 Neurolysis
	1 Nerve grafting.
	2 Nerve repair.
	1 Nerve transfer
	1 Tendon transfer.
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Diagnosis and management of congenital hand conditions</b>
<b>Category</b>	Hand and Upper Limb
<b>Sub-category:</b>	Elective
<b>Objective</b>	<i>Competence in the management of congenital hand conditions.</i>
	2 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.
	2 Relevant associated disease and conditions.
<b>Knowledge</b>	2 Appropriate pre-operative investigations and patient assessment.
	2 Range, indications and principles of relevant operations.
	2 Post-operative complications and their management.
	2 Recent advances.
	2 Relevant ancillary interventions e.g. physiotherapy, occupational therapy.
	2 Classification of congenital hand and forearm anomalies.
	3 Assessment and non-operative of the management of the elective surgical patient.
<b>Clinical Skills</b>	4 History taking.
	3 Examination.
	2 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
	2 Correction of polydactyly (ulnar)
	1 Correction of syndactyly.
<b>Technical Skills and Procedures</b>	1 Correction of duplicate thumb.
	2 Correction of triggering of digit.
	1 Release of constriction band
	Pollicisation
	Toe to thumb transfer
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Diagnosis and management of acquired conditions of the hand</b>
<b>Category</b>	Hand and Upper Limb
<b>Sub-category:</b>	Elective

<b>Objective</b>	<p><i>Competence in the management of elective, acquired hand and forearm conditions.</i></p> <p>2 Relevant embryology, anatomy, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.</p> <p>2 Relevant associated disease and conditions.</p> <p>2 Appropriate pre-operative investigations and patient assessment.</p> <p>2 Range, indications and principles of relevant operations.</p> <p>2 Post-operative complications and their management.</p>
<b>Knowledge</b>	<p>2 Recent advances.</p> <p>2 Relevant ancillary investigations, interventions e.g. appropriate drug therapy, physiotherapy, occupational therapy.</p> <p>1 Nerve compressions.</p> <p>1 Vasospastic disorders.</p> <p>1 Rheumatoid disease.</p> <p>2 Dupuytren's contracture.</p> <p>2 Ganglion.</p> <p>1 Loss of motor function affecting the hand, principles of tendon transfer</p> <p>3 Assessment and non-operative of the management of the acute and elective surgical patient</p> <p>4 History taking.</p>
<b>Clinical Skills</b>	<p>3 Examination.</p> <p>3 Digital nerve block</p> <p>1 Regional nerve block</p> <p>2 Skills of analysis and diagnostic synthesis, judgement, surgical planning</p> <p>2 Carpal tunnel release</p> <p>1 Cubital tunnel release</p> <p>2 Insertion of steroid (trigger finger, de Quervain's, carpal tunnel)</p> <p>1 Palmar fasciectomy</p> <p>1 Dermofasciectomy</p> <p>2 Excision of ganglion</p> <p>1 Tenosynovectomy (rheumatoid)</p> <p>1 Multiple transfer of tendon to tendon</p> <p>1 Secondary repair of tendon using temporary prosthesis</p> <p>1 Tenolysis of flexor</p>
<b>Technical Skills and Procedures</b>	<p>1 Release of constriction of sheath of tendon (trigger finger, de Quervain's)</p> <p>1 Microvascular transfer of toe to thumb</p> <p>1 Pollicisation of finger</p> <p>1 Swanson MCPJ or PIPJ arthroplasty</p> <p>1 Trapezectomy</p> <p>1 Darrach procedure</p> <p>1 Bone-graft</p> <p>1 Fusion of wrist</p> <p>1 Primary arthrodesis and internal fixation</p> <p>1 Repair of capsular of joint for stabilisation of joint (eg Thumb UCL repair)</p> <p>1 Release of contracture of joint (Check rein ligament release)</p> <p>1 Wrist arthroscopy</p>
<b>Professional Skills</b>	<p>Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills</p>

**Topic** Management of children and adults with cleft lip and palate  
**Category** Cleft Lip and Palate/Cranio Facial Anomalies

<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the management of patients with cleft lip and/or cleft palate</i> 1 Relevant embryology, anatomy, physiology. 1 Incidence of clefting. 1 Related conditions and syndromes. 1 Pre-operative assessment and investigation. 1 Range, indications and principles of operations.
<b>Knowledge</b>	1 Post-operative complications. 1 Speech therapy. 1 Hearing tests. 1 Orthodontics, paediatric and restorative dentistry. 1 Genetics relating to clefting. 2 Structure and function of MDTs. 3 Assessment and non-operative management.
<b>Clinical Skills</b>	4 History taking. 4 Examination. 2 Skills of analysis and diagnostic synthesis, judgement and surgical planning
<b>Technical Skills and Procedures</b>	1 Presurgical orthodontics 1 Cleft lip repair and revision 1 Cleft palate repair and re-repair 1 Pharyngoplasty of varying types 1 Alveolar bone grafting 1 Maxillary and mandibular osteotomy 1 Speech assessment 1 Palatal videofluoroscopy 1 Nasendoscopy
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Investigation and management of velopharyngeal incompetence</b>
<b>Category</b>	Cleft Lip and Palate/Cranio Facial Anomalies
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the management of velopharyngeal incompetence and related speech problems with or without cleft palate</i> 2 Relevant anatomy, embryology and physiology. 2 Related syndromes and conditions. 2 Pre-operative assessment and investigation including speech assessment, nasometry, palatal videofluoroscopy, and nasendoscopy.
<b>Knowledge</b>	1 Range, indication and principles of relevant operations. 2 Post-operative complications and their management. 2 Speech therapy. 1 Hearing tests. 2 Structure and function of MDTs. 1 Assessment and non-operative management.
<b>Clinical Skills</b>	4 History taking. 4 Examination. 1 Skills of analysis, diagnostic synthesis, judgement and surgical planning.
<b>Technical Skills and Procedures</b>	1 Palatal re-repair 1 Palatal exploration with intravelar veloplasty 1 Furlow's repair 1 Pharyngoplasty of varying types.

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Diagnosis and management of craniofacial deformities</b>
<b>Category</b>	Cleft Lip and Palate/Cranio Facial Anomalies
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To gain knowledge of the commoner craniofacial deformities</i> 1 Relevant embryology, anatomy, physiology and pathology. 1 Relevant associated disease and syndromes.
<b>Knowledge</b>	1 Relevant investigations including imaging; paediatric, neurological and ophthalmic assessment. 1 Range, indications and principles of relevant operations. 2 Post-operative complications and their management. 2 Assessment and pre-operative management of the elective surgical patient.
<b>Clinical Skills</b>	4 History taking. 3 Examination.
<b>Technical Skills and Procedures</b>	1 Common craniofacial procedures.

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Principles of diagnosis and management of maxillofacial trauma</b>
<b>Category</b>	Head and Neck
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the diagnosis and principles of treatment of maxillofacial trauma</i> 2 Relevant anatomy, physiology and pathology. 2 Relevant associated disease and conditions. 2 Appropriate pre-operative investigations including imaging, and patient assessment.
<b>Knowledge</b>	1 Range, indications and principles of relevant operations. 2 Post-operative complications and their management. 1 Methods of internal, external fracture fixation. 2 Fracture healing. 2 Associated head and neck injuries. 3 Glasgow coma scale. 2 Assessment and pre-operative management of the acute surgical patient.
<b>Clinical Skills</b>	4 History taking. 4 Examination. 2 Skills analysis, diagnostic synthesis, judgement, surgical planning.
<b>Technical Skills and Procedures</b>	1 Manipulation of nasal bone fractures. 1 Exploration of orbital fractures. 1 Elevation of malar complex fractures. 1 Reduction and fixation of mandibular fractures.

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Excisional surgery for benign and malignant disease</b>
<b>Category</b>	Head and Neck

**Sub-category:** None

**Objective** *Competence in management of patients with benign or malignant tumours of the head and neck.*

2 Relevant embryology, anatomy, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.

2 Relevant associated disease and conditions.

2 Appropriate pre-operative investigations including imaging, and patient assessment.

2 Tumour staging.

**Knowledge**

2 Range, indications and principles of relevant operations.

2 Post-operative complications and their management.

1 Recent advances.

2 Relevant ancillary investigations, interventions e.g. radiotherapy, chemotherapy, psychological support, physiotherapy, occupational, speech therapy, dietetics.

2 Effects of sun exposure and other aetiological factors.

2 Premalignant cutaneous and intraoral conditions.

2 Structure and function of MDTs.

2 Assessment and non-operative of the management of the acute surgical patient

**Clinical Skills**

4 History taking.

4 Examination.

2 Fine needle aspiration cytology.

2 Skills of analysis and diagnostic synthesis, judgement, surgical planning

Excisional surgery: 2 Lip

Excisional Surgery:1 Oral cavity, including tongue, floor of mouth, buccal mucosa, retromolar trigone, alveolus and mandible, palate

Excisional Surgery:1 Maxilla

Excisional Surgery: 2 Eyelid

**Technical Skills and Procedures**

Excisional Surgery: 2 Nose

Excisional Surgery: 2 Ear

Excisional Surgery: 2 Scalp

Excisional Surgery: 2 Scalp & Bone

1 Parotidectomy-superficial, radical

1 Submandibular gland excision

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **Approaches to reconstruction of the head and neck including defects of the ear, eyelid, nose and lip and oral cavity**

**Category** Head and Neck

**Sub-category:** None

**Objective** *Competence in reconstruction of traumatic or excisional defects of the head and neck region.*

2 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.

**Knowledge**

2 Relevant associated disease and conditions.

- 2 Soft tissue facial injuries.
- 2 Appropriate pre-operative investigations including imaging, and patient assessment.
- 2 Range, indications and principles of relevant operations.
- 2 Post-operative complications and their management.
- 1 Prosthetics.
- 1 Recent advances.
- 1 Relevant ancillary investigations, interventions e.g. radiotherapy, psychological support, physiotherapy, occupational therapy, speech therapy etc.
- 2 Assessment and non-operative of the management of the elective surgical patient.

**Clinical Skills**

- 4 History taking.
- 4 Examination.
- 2 Skills of analysis and diagnostic synthesis, judgement, surgical planning.

Reconstructive Surgery Lip:

- 1 Lip shave
- Reconstructive Surgery lip: 2 Wedge excision
- Reconstructive Surgery lip: 1 Local flaps

Oral cavity: 2 Skin grafts

Oral cavity: 1 Local Flaps

Oral cavity: 1 Regional Flaps

Oral cavity: 1 Free flaps including cutaneous, myocutaneous, osteocutaneous

Oral cavity: 1 Autologous mandibular reconstruction

Eyelid reconstruction:

- 2 Skin grafts
- 1 V-excision +/- lateral canthotomy
- 1 Cheek advancement
- 1 Chondromucosal grafts
- 1 Lid switch
- 1 Ptosis correction
- 1 Repair of lacrimal apparatus

**Technical Skills and Procedures**

Nose:

- 2 Skin grafts
- 1 Local flaps
- 1 Regional flaps
- 1 Cartilage/bone grafts
- 1 Branemark reconstruction

Ear:

- 1 Skin grafts
- 1 Local flaps
- 1 Autologous reconstruction using cartilage framework
- 1 Branemark reconstruction

Scalp:

- 1 Local Flaps
- 1 Regional Flaps
- 1 Free Flaps
- 1 Bone Grafts
- 1 Alloplastic materials



1 Tissue expansion

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Management of patients requiring radical or selective neck dissection for malignant disease</b>
<b>Category</b>	Head and Neck
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the management of patients requiring neck dissection for malignant disease</i> 2 Relevant embryology, anatomy, physiology, pathology, microbiology. 2 Relevant associated diseases and conditions. 2 Appropriate pre-operative investigations (including imaging techniques) and patient management. 2 Range, indications and principles of relevant operations including the different types of neck dissection performed.
<b>Knowledge</b>	2 Post-operative complications and their management. 2 Classification of cervical lymph node groups. 2 FNA techniques. 1 Indications for sentinel node biopsy. 2 Structure and function of MDTs. 2 Relevant ancillary investigations and interventions, including radiotherapy, chemotherapy, physiotherapy, occupational therapy, and dietetics.
<b>Clinical Skills</b>	2 Assessment and non-operative management of the elective surgical patient. 4 History taking 4 Examination
<b>Technical Skills and Procedures</b>	2 Cervical lymph node biopsy 2 Radical neck dissection 2 Selective neck dissections of various types
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Approaches to management of facial palsy</b>
<b>Category</b>	Head and Neck
<b>Sub-category:</b>	Congenital and acquired deformities
<b>Objective</b>	<i>Competence in management of patient's children and adults, who have congenital or acquired facial palsy.</i> 2 Relevant embryology, anatomy, physiology, pathology. 2 Relevant associated disease and conditions. 2 Appropriate pre-operative investigations and patient assessment.
<b>Knowledge</b>	2 Range, indications and principles of relevant operations. 2 Post-operative complications and their management. 2 Recent advances. 2 Relevant ancillary interventions. 2 Assessment and non-operative of the management of the elective surgical patient.
<b>Clinical Skills</b>	4 History taking. 4 Examination. 2 Skills of analysis and diagnostic synthesis, judgement, surgical planning
<b>Technical Skills</b>	1 Static procedures including fascial slings.

**and Procedures** 1 Eyelid procedures including gold weight insertion.  
1 Facial nerve grafting.  
1 Microvascular free muscle transfer.

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **Investigation and management of vascular and related abnormalities**  
**Category** Head and Neck  
**Sub-category:** None  
**Objective** *Competence in the diagnosis and management of patients, children and adult, with congenital abnormalities of the head and neck*  
2 Relevant anatomy, physiology, haematology and pathology.  
2 Relevant associated diseases and conditions.  
2 Classification of vascular and lymphatic malformations  
2 Branchiogenic anomalies  
**Knowledge** 1 Laser therapy  
2 Steroid therapy  
1 Interventional radiology  
2 Post-operative complications  
2 Relevant ancillary investigations and interventions, including ophthalmic assessment  
**Clinical Skills** 2 Assessment and non-operative management  
4 History taking  
4 Examination  
1 Sclerotherapy.  
**Technical Skills and Procedures** 2 Debulking of haemangioma, lymphangioma.  
2 Excision and reconstruction of facial structures including eyelids and lips.  
2 Excision branchial sinus, fistula and cyst.  
1 Excision of thyroglossal cyst.  
**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic** **Breast augmentation**  
**Category** Management of patients requiring breast reconstruction, reduction and augmentation  
**Sub-category:** None  
**Objective** *Competence in the management of patients requesting breast augmentation for breast aplasia, hypoplasia and asymmetry.*  
2 Relevant embryology, anatomy, physiology, and pathology of the breast.  
2 Relevant associated disease and conditions including benign breast disease.  
2 Safety of breast implants including issues relating to the effects of silicone on the body, and regulation of implants.  
**Knowledge** 2 Appropriate pre-operative investigations and patient assessment including psychological assessment.  
2 Post-operative complications and their management.  
2 Recent advances and developments relating to implant manufacture.  
3 Assessment of the elective surgical patient.  
**Clinical Skills** 4 History taking.  
4 Examination.  
2 Skills of analysis and diagnostic synthesis, judgement, surgical planning

**Technical Skills and Procedures** 2 Breast augmentation using differing surgical approaches.

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic Breast reduction**

**Category** Management of patients requiring breast reconstruction, reduction and augmentation

**Sub-category:** None

**Objective** *Competence in management of patients requesting breast reduction.*

2 Relevant embryology, anatomy and physiology of the breast.

2 Relevant associated disease and conditions including benign breast disease and causes of mammary hypertrophy.

2 Appropriate pre-operative investigations and patient assessment including psychological assessment.

**Knowledge** 2 Range, indications and principles of relevant operations for breast reduction and breast mastopexy.

2 Post-operative complications and their management.

2 Recent advances in techniques for breast reduction.

2 Blood supply and innervation of the breast, breast skin and nipple/areolar complex.

2 Causes of gynecomastia

3 Assessment of the elective surgical patient.

**Clinical Skills** 4 History taking.

4 Examination.

2 Skills of analysis, judgement, surgical planning.

2 Various operations for breast reduction.

**Technical Skills and Procedures** 2 Various operations for breast mastopexy.

1 Correction of the tuberous breast

2 Correction of gynaecomastia

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

**Topic Breast reconstruction**

**Category** Management of patients requiring breast reconstruction, reduction and augmentation

**Sub-category:** None

**Objective** *Competence in the management of patients requiring breast reconstruction.*

*An understanding of the principles involved in multidisciplinary assessment of these patients.*

2 Relevant embryology, anatomy, physiology, and pathology of the breast.

2 Relevant associated disease and conditions including carcinoma of the breast and its treatment.

2 Appropriate pre-operative investigations and patient assessment.

**Knowledge** 2 Range, indications and principles of relevant operations.

2 Post-operative complications and their management.

2 Recent advances in flap design.

2 Breast implants and issues surrounding safety of silicone.

2 Relevant ancillary investigations, interventions including radiotherapy, chemotherapy, hormone therapy, psychological support.

<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>3 Assessment of the elective surgical patient.</li> <li>4 History taking.</li> <li>4 Examination.</li> <li>2 Skills of analysis and diagnostic synthesis, judgement, surgical planning.</li> <li>2 Axillary nodal dissection</li> <li>2 FNA/Core Biopsy</li> <li>Breast Reconstruction: 2 Implant only</li> <li>Breast Reconstruction: 2 Tissue expansion</li> <li>Pedicled Flaps: 2 Latissimus dorsi</li> <li>Pedicled Flaps: 2 TRAM</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>Free flaps: 1 Latissimus dorsi</li> <li>Free flaps:1 TRAM</li> <li>Free flaps:1 DIEP</li> <li>Free flaps:1 SGAP</li> <li>Free flaps: 1 IGAP</li> </ul>
	2 Nipple/areolar reconstruction.
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Perineal reconstruction</b>
<b>Category</b>	Trunk and GU
<b>Sub-category:</b>	None
<b>Objective</b>	<p><i>To be able to undertake perineal reconstruction in cases of trauma and following excisional procedures for malignant and premalignant conditions affecting the vulva and perineum.</i></p> <p><i>Knowledge of techniques available for penile reconstruction.</i></p> <p><i>Knowledge of techniques available for vaginal reconstruction.</i></p>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>2 Relevant embryology, anatomy, physiology, pathology including microbiology, and histopathology.</li> <li>2 Relevant associated disease and conditions.</li> <li>1 Issues relating to patients requesting gender reassignment.</li> <li>3 Appropriate pre-operative investigations and patient assessment.</li> <li>2 Range, indications and principles of relevant operations.</li> <li>2 Post-operative complications and their management.</li> <li>2 Recent advances.</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>3 Assessment and non-operative management of the acute and elective surgical patient</li> <li>4 History taking.</li> <li>4 Examination.</li> <li>2 Skills of analysis and diagnostic synthesis, judgement, surgical planning</li> <li>2 Skin grafts</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>1 Bowel grafts</li> <li>2 Random flaps</li> <li>2 Myocutaneous flaps</li> <li>1 Free flaps</li> </ul>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

**Topic**                      **The principles of surgical management of hypospadias.**

<b>Category</b>	Trunk and GU
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To obtain competencies in the management of cases of hypospadias. To understand the principles of management in cases of epispadias and exstrophy.</i>
<b>Knowledge</b>	2 Relevant embryology, anatomy, physiology. pathology. 2 Relevant associated syndromes and conditions. 3 Appropriate pre-operative investigations and patient assessment. 2 Range, indications and principles of relevant operations. 2 Post-operative complications and their management. 2 Recent advances.
<b>Clinical Skills</b>	3 Assessment and non-operative of the management of the elective surgical patient. 4 History taking. 4 Examination. 2 Skills of analysis and diagnostic synthesis, judgement, surgical planning
<b>Technical Skills and Procedures</b>	2 Operative procedures in common use for hypospadias and related conditions including 1 stage, 2 stage techniques.
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Surgical management of congenital and acquired defects of the chest wall, abdominal wall and trunk</b>
<b>Category</b>	Trunk and GU
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the assessment and management of defects involving the trunk, including traumatic defects</i>
<b>Knowledge</b>	2 Relevant embryology, anatomy, physiology, and pathology 2 Appropriate pre-operative investigations and patient assessment. 2 Range, indication and principles of relevant operations. 2 Tissue expansion techniques
<b>Clinical Skills</b>	3 Assessment of the acute and elective surgical patient -adult and child 4 History taking 4 Examination 2 Skills of analysis and diagnostic synthesis, judgement, surgical planning
<b>Technical Skills and Procedures</b>	2 Operations for Poland's syndrome involving chest deformity 1 Operations to cover spinal defects in children with spina bifida 2 Operations to provide skin cover in traumatic injuries involving skin, soft tissue loss 2 Operations to provide skin cover following surgical resection of tumours including abdominal wall defects, chest wall defects. 1 Provision of skin cover in sternotomy wounds
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>The multidisciplinary assessment of management of tibial fractures involving skin loss</b>
<b>Category</b>	Lower Limb
<b>Sub-category:</b>	None

<b>Objective</b>	<i>Competence in the combined management of patients with compound tibial fractures involving skin loss</i>
	2 Relevant anatomy, physiology, pathology. 2 Fracture healing. 2 Skin blood supply. 1 External fixators.
<b>Knowledge</b>	3 Appropriate pre-operative investigations and patient assessment. 2 Range, indications and principles of relevant operations. 3 Post-operative complications and their management. 3 Relevant ancillary investigations and interventions including imaging techniques, physiotherapy, occupational therapy.
<b>Clinical Skills</b>	3 Assessment and non-operative management of the acute surgical patient. 4 History taking 4 Examination including combined assessment of limb viability and function. Nerve repair Vessel repair 2 Local flaps: Fasciocutaneous 2 Local flaps: Perforator
<b>Technical Skills and Procedures</b>	2 Local flaps: Muscle 2 Local-flaps: Myocutaneous 1 Free flaps: Skin 1 Free flaps: Muscle 1 Free flaps: Myocutaneous 1 Free flaps: Osteocutaneous
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Trauma</b>
<b>Category</b>	Lower Limb
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the management of lower limb trauma.</i>
	2 Relevant anatomy, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology. 3 Appropriate pre-operative investigations and patient assessment. 2 Degloving injuries and their mechanism.
<b>Knowledge</b>	2 Compartment syndrome. 2 Range, indications and principles of relevant operations. 4 Post-operative complications and their management. 3 Relevant ancillary investigations and interventions, e.g. imaging techniques, physiotherapy, occupational therapy. 3 Assessment and non-operative of the management of the acute surgical patient
<b>Clinical Skills</b>	4 History taking. 4 Examination including assessment of limb viability, compartment syndrome. 3 Use of doppler. 2 Skills of analysis and diagnostic synthesis, judgement, surgical planning
<b>Technical Skills and Procedures</b>	3 Superficial wounds 2 Debridement/SSG 2 Fasciotomy 2 Amputations above knee/below knee

2 Harvest iliac crest bone graft  
 Vessel repair  
 Nerve repair  
 2 Local Flaps: Fasciocutaneous  
 2 Local flaps: Perforator  
 2 Local flaps: Muscle  
 2 Local flaps: Myocutaneous  
 1 Free Flaps:- Radial  
 Free flaps: other

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Diagnosis and management of lymphoedema</b>
<b>Category</b>	Lower Limb
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the diagnosis and management of lymphoedema</i> 2 Relevant anatomy, embryology, physiology and pathology of the lymphatic system
<b>Knowledge</b>	2 Classification of lymphoedema 2 Non-operative management 2 Surgical management
<b>Clinical Skills</b>	3 Assessment of the elective surgical patient 4 History taking 4 Examination
<b>Technical Skills and Procedures</b>	2 Various operations including Charles's procedure
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>All aspects of diagnosis and management of benign and malignant skin tumours including surgical reconstruction and regional node dissection</b>
<b>Category</b>	Skin and Soft Tissue Tumours
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in diagnosis and management of skin lesions including benign skin and subcutaneous lesions, skin malignancy</i> 2 Relevant anatomy, embryology, physiology, and pathology including histopathology 2 Relevant associated disease 3 Appropriate pre-operative investigations and patient assessment 3 Benign skin lesions and subcutaneous lesions 3 Malignant melanoma and non-melanoma skin cancer 3 Incisional and excisional biopsy
<b>Knowledge</b>	3 Excision margins 2 Adjuvant therapy including radiotherapy, chemotherapy 2 Tumour staging 2 Minimum data sets 1 Moh's technique 1 Sentinel node biopsy 2 Recent advances 2 Palliative care

<b>Clinical Skills</b>	3 Assessment of the elective surgical patient 4 History taking 4 Examination
<b>Technical Skills and Procedures</b>	3 Excision of sebaceous cyst 3 Excision and direct closure of simple skin lesions 3 Excision and direct closure basal cell carcinoma 3 Excision and graft malignant skin lesions 3 Excision malignant melanoma 2 Excision and flap repair Regional lymph dissection axilla Regional lymph dissection groin Regional lymph dissection neck
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Soft tissue sarcomas</b>
<b>Category</b>	Skin and Soft Tissue Tumours
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To achieve knowledge and understanding of the multidisciplinary management of soft tissue sarcomas</i> 2 Relevant embryology, anatomy, physiology and pathology. 3 Appropriate pre-operative investigations, including imaging, and patient assessment.
<b>Knowledge</b>	2 Range indications and principles of relevant operations. 3 Post-operative complications and their management. 2 Relevant ancillary investigations and interventions, including radiotherapy, chemotherapy. 2 Recent advances. 2 Biopsy techniques
<b>Clinical Skills</b>	3 Assessment and non-operative management of the elective surgical patient. 4 History taking. 4 Examination. 2 Skills of analysis and diagnostic synthesis, judgement, surgical planning. 2 FNA cytology. 2 Core biopsy. 2 Incisional biopsy at various sites and of varying tissues including fat, connective tissue, muscle, nerve.
<b>Technical Skills and Procedures</b>	2 En-bloc excisional techniques at various sites 2 Flap reconstruction as required 2 Nerve repair 2 Vessel repair
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>The assessment and management of patients requiring aesthetic alterations of body parts including face, eyelids, nose and ears.</b>
<b>Category</b>	Aesthetic
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the practice of aesthetic plastic surgery.</i>
<b>Knowledge</b>	2 Relevant anatomy, embryology, physiology, biochemistry and pharmacology,



pathology including microbiology, haematology, immunology and histopathology.

2 Relevant associated disease.

2 Appropriate pre-operative investigations and patient assessment including psychological assessment.

2 Range, indications and principles of relevant operations in the different areas

2 Post-operative complications and their management.

2 Recent advances including development of new surgical techniques.

3 Assessment and non-operative of the management of the elective surgical patient.

**Clinical Skills** 4 History taking.

4 Examination.

2 Skills of analysis and diagnostic synthesis, judgement, surgical planning

2 Blepharoplasty-upper

2 Blepharoplasty-lower

3 Pinnaplasty

Correction of the constricted ear

2 Breast-augmentation

2 Breast-reduction

2 Breast-mastopexy

2 Breast-tuberous correction

2 Abdominoplasty

1 Face Lift-skin

1 Face Lift-SMAS

2 Liposuction-abdomen

2 Liposuction-thighs

2 Liposuction-trunk

**Technical Skills  
and Procedures**

1 Brachioplasty

1 Thigh lifts

1 Body lifts

1 Laser-tattoo removal

1 Laser-skin lesion

1 Laser-peeling

1 Laser-Chemical peeling

2 Laser-Dermabrasion

1 Laser-Filler injections

2 Rhinoplasty-post trauma

1 Rhinoplasty-cosmetic

**Professional Skills** Please see the [Professional Skills and Behaviour » Initial](#) section for these skills

<b>Topic</b>	<b>Management of wounds including contaminated, infected wounds and those involving skin loss</b>
<b>Category</b>	Wound Care
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the management of lacerations, soft tissue injuries and wounds</i> 2 Relevant anatomy, physiology, biochemistry, pharmacology, pathology including microbiology, haematology, immunology and histopathology. 2 Relevant associated disease and conditions. 2 Appropriate pre-operative investigations and patient assessment. 2 Range, indications and principles of relevant surgical techniques and operations.
<b>Knowledge</b>	2 Post-operative complications and their management. 2 Recent advances in wound healing 2 Varicose ulceration including aetiology 2 Wound dressings 2 Antibiotic therapy 2 Degloving injury 2 Principles of Doppler physics 2 Necrotising fasciitis 3 Assessment and non-operative of the management of the acute and elective surgical patient
<b>Clinical Skills</b>	4 History taking. 4 Examination. 2 Use of Doppler 2 Skills of analysis and diagnostic synthesis, judgement, surgical planning 2 Exploration of traumatic wounds 2 Assessment of tissue viability 2 Debridement of tissues
<b>Technical Skills and Procedures</b>	2 Surgical handling of soft tissues 2 Suturing of soft tissues and skin lacerations 2 Nerve repair 2 Split skin grafting 2 Use of local and other flaps
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Pressure sore management including surgical management</b>
<b>Category</b>	Wound Care
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the management of patients developing pressure sores</i> 2 Relevant anatomy, physiology, pathology including microbiology. 2 Relevant associated disease and co-morbidity including neurological conditions and trauma. 2 Appropriate investigations, patient assessment and non-operative management.
<b>Knowledge</b>	2 Related dietetics 2 Aetiological factors 2 Range, indications and principles of relevant operations. 2 Post-operative complications and their management. 2 Recent advances including pressure relieving beds and mattresses, VAC therapy

	2 Relevant ancillary interventions e.g. physiotherapy, occupational therapy.
	3 Assessment and non-operative of the management of the elective surgical patient
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	2 Skills of analysis and diagnostic synthesis, judgement, surgical planning
<b>Technical Skills and Procedures</b>	2 Debridement of pressure sores
	1 Various procedures for closure of defects including flap closure
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

<b>Topic</b>	<b>Scar management</b>
<b>Category</b>	Wound Care
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To gain understanding of the mechanisms involved in scar formation particularly hypertrophic and keloid scarring.</i> <i>To gain competence in dealing with hypertrophic and keloid scars and in scar revision procedures.</i>
<b>Knowledge</b>	2 Relevant physiology, pathology relating to wound healing and scar formation 2 Methods available to treat hypertrophic/keloid scars including pressure therapy and steroid therapy 2 Scar revision procedures
<b>Clinical Skills</b>	<b>No content</b>
<b>Technical Skills and Procedures</b>	3 Steroid injection 2 Various scar revision operations including z-plasty, w-plasty
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Initial</a> section for these skills

# Intermediate Stage

By the end of ST6, the trainee will have been exposed to all of the major areas of practice within plastic surgery. To progress to the final stage the trainee will have demonstrated competence in the conditions and procedures listed to the level indicated.

He/she will be able to present management plans for all the common conditions encountered in elective practice. Among these are the following

- Should be emergency competent in the management of areas including hand trauma. This includes assessment, operative management and aftercare. Should demonstrate competence in management of common elective hand conditions.
- Should be able to formulate management plans for most cases of burns in adults in children and be able to adjust as appropriate resuscitation regimens in those cases where management is not straightforward. The trainee should also be able to carry out early excision and grafting in suitable cases of burns or scalds. By this stage he/she should have a clear understanding of the role of psychology in burn care, the importance of rehabilitation in burn care.
- Should be able to demonstrate competencies in breast surgery including reconstruction. This includes flap reconstruction.
- Should demonstrate competencies in reconstructive procedures required after excision of major defects or after major trauma. This includes flap reconstruction including developing competence in microsurgical reconstructive techniques.
- Should demonstrate competencies in the management of skin malignancy and other soft tissue tumours
- Should have demonstrated competencies in common areas of paediatric plastic surgical practice. Will have had exposure to cases of cleft lip and palate and hypospadias and will have demonstrated competencies relating to knowledge of and operative skills relating to these cases.
- Should have gained competencies in the areas of aesthetic surgery including preoperative assessment of these cases as well as operative skills.

(The trainee's level of knowledge should be at a level towards the end of these 4 years of training to enable him/her to attain a pass mark in the written MCQ/EMQ component of the Intercollegiate Specialty Examination.)

Click on [Workplace Based Assessments](#) to view the assessment forms including DOPS and PBAs

## Topics

<b>Topic</b>	<b>Use of plastic surgery techniques including design and use of z-plasty, pedicled and myocutaneous flaps, free flaps</b>
<b>Category</b>	Generic Plastic Surgery
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the management of the surgical patient and application of the specified plastic surgery techniques.</i>
<b>Knowledge</b>	4 Relevant anatomy and physiology. 4 Relevant associated disease and conditions. 4 Appropriate pre-operative investigations and patient assessment. 3 Range, indications and principles of relevant operations.

- 4 Post-operative complications and their management.
- 3 Recent advances.
- 3 Relevant anatomy, physiology, pharmacology, pathology relating to skin and flap blood supply
- 3 Random, axial pattern flaps.
- 3 Concept of vessel territories.

- Clinical Skills**
- 4 Assessment and non-operative management of the acute and elective surgical patient.
  - 4 History taking.
  - 4 Examination.
  - 3 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
- Technical Skills and Procedures**
- 4 Z-plasty
  - 3 V-Y advancement
  - 4 Excision of lesion
  - 4 Wide excision of lesion
  - 4 SSG
  - 4 FTSG
  - 4 Excision & local flap
  - 3 Random and axial pattern flaps
  - 3 Rotation, transposition flaps
  - 3 Pedicled cutaneous, fasciocutaneous, myocutaneous and osteocutaneous flaps
  - 3 Free flaps
- Professional Skills**
- Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

- Topic**            **Assessment, resuscitation and initial management of burns**
- Category**        Burns
- Sub-category:**    None
- Objective**        *Competence in the early phase of burns management*
- Knowledge**
- 3 Relevant anatomy, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.
  - 3 Relevant associated disease and conditions.
  - 4 Appropriate pre-operative investigations and patient assessment.
  - 3 Range, indications and principles of relevant operations.
  - 3 Post-operative complications and their management.
  - 3 Recent advances.
  - 3 Relevant ancillary investigations, interventions e.g. psychological support, physiotherapy.
  - 3 Mechanisms of burn injury.
  - 3 Causes of burn injury.
  - 4 IV resuscitation regimens.
  - 4 Use of blood products, plasme volume expanders.
  - 3 Non-accidental injuries.
- Clinical Skills**
- 4 Assessment and non-operative of the management of the acute burns patient

	4 History taking.
	4 Examination including assessment of burn surface area and depth.
	3 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
	4 Management of fluid & electrolyte balance
	4 Assessment & resuscitation
	4 Open venotomy
<b>Technical Skills and Procedures</b>	4 Escharotomy
	2 Bronchoscopy
	3 Endotracheal intubation
	3 Tracheostomy
	3 Burn wound management with dressings
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Surgical management of burns</b>
<b>Category</b>	Burns
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the surgical aspects of burns management</i>
	3 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.
	3 Relevant associated disease and conditions.
	4 Appropriate pre-operative investigations and patient assessment.
<b>Knowledge</b>	4 Range, indications and principles of relevant operations.
	3 Post-operative complications and their management.
	3 Recent advances.
	3 Relevant ancillary investigations, interventions e.g. psychological support, physiotherapy, occupational therapy.
	3 Knowledge of wound healing and tissue transplantation
	4 Assessment and non-operative management of the burns patient.
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	3 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
	3 Early tangential excision and split skin grafting
<b>Technical Skills and Procedures</b>	3 Late grafting
	2 Use of allograft skin
	2 Use of skin substitutes
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Diagnosis and management of complications of burns including inhalational injury and septic shock</b>
<b>Category</b>	Burns
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in management of complications arising during treatment of burn injury</i>
<b>Knowledge</b>	3 Relevant anatomy, physiology, bacteriology, biochemistry, and pathology
	3 Pathophysiology of smoke inhalation and effect on respiration

	3 Pathophysiology of renal failure as relating to burn injury
	3 Dietetics as relating to burn injury metabolism
	3 Shock complicating resuscitation
	3 Septic shock
	3 Intensive care monitoring and treatment
	3 Assessment of the burn patient.
	4 History.
	4 Examination.
<b>Clinical Skills</b>	4 IV resuscitation.
	4 Provision of oxygen therapy via face mask.
	2 Endotracheal intubation.
	3 Skills of analysis and diagnostic synthesis, judgement.
<b>Technical Skills and Procedures</b>	No content
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Late management and rehabilitation</b>
<b>Category</b>	Burns
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in burns management</i> <i>Competence in late management, with understanding of the needs for patient rehabilitation</i>
<b>Knowledge</b>	3 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology. 3 Relevant associated disease and conditions. 3 Range, indications and principles of relevant operations. 3 Post-operative complications and their management. 3 Recent advances. 3 Relevant ancillary investigations, interventions e.g., psychological support, physiotherapy, occupational therapy. 3 Relevant teamworking with other professionals 2 Prosthetics.
<b>Clinical Skills</b>	4 Assessment and non-operative management of the burns patient 4 History taking. 4 Examination. 3 Skills of analysis and diagnostic synthesis, judgement, surgical planning 3 Scar management including use of pressure garments
<b>Technical Skills and Procedures</b>	Contracture release:3 Grafts Contracture release:3 Flaps
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Management of all aspects of hand trauma</b>
<b>Category</b>	Hand and Upper Limb
<b>Sub-category:</b>	Trauma
<b>Objective</b>	<i>Competence in the diagnosis and management of hand trauma</i>

	3 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.
	3 Relevant associated disease and conditions.
	3 Appropriate pre-operative investigations and patient assessment.
<b>Knowledge</b>	3 Range, indications and principles of relevant operations.
	3 Post-operative complications and their management.
	3 Recent advances.
	3 Relevant ancillary investigations, interventions e.g. physiotherapy, occupational therapy.
	3 Crush injuries.
	2 Injection injuries.
	4 Assessment and non-operative of the management of the acute surgical patient
<b>Clinical Skills</b>	4 History taking.
	4 Examination including hand examination.
	3 Skills of analysis and diagnostic synthesis, judgement, surgical planning
	4 Wound exploration and debridement.
	3 Primary microsurgical repair of peripheral nerve
	3 Primary graft to peripheral nerve
	3 Random pattern flap reconstruction of fingertip (cross-finger, Kutler, Kleinert)
<b>Technical Skills and Procedures</b>	2 Neurovascular island flap reconstruction (homodigital island, Littler)
	4 Primary repair of extensor of hand
	3 Primary repair of flexor of hand
	3 Primary open reduction of small bone and fixation
	4 Manipulation of fracture of bone
	2 Replantation of digit, hand
	4 Amputation of phalanx of finger
	3 Provision of skin cover using grafts, flaps
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Surgical management of brachial plexus injuries</b>
<b>Category</b>	Hand and Upper Limb
<b>Sub-category:</b>	Trauma
<b>Objective</b>	<i>An understanding of the principles of diagnosis, investigation and management of patients, children and adults, with closed brachial plexus injuries</i>
	3 Relevant anatomy, physiology and pathology.
	3 Relevant associated conditions including other trauma.
	3 Appropriate pre-operative investigations and assessment including neurological assessment, nerve conduction studies. electromyography.
<b>Knowledge</b>	3 Range, indications and principles of relevant operations.
	3 Post-operative complications and their management.
	3 Relevant ancillary interventions including physiotherapy, occupational therapy.
	3 Mechanisms of nerve injury and regeneration.
	4 Assessment and non-operative management of these patients.
<b>Clinical Skills</b>	4 History
	4 Examination including neurological examination.



	3 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
	2 Surgical exposure of brachial plexus
	2 Exploration of brachial plexus.
	2 Intraoperative nerve testing.
<b>Technical Skills and Procedures</b>	2 Neurolysis
	2 Nerve grafting.
	3 Nerve repair.
	2 Nerve transfer
	2 Tendon transfer.
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Diagnosis and management of congenital hand conditions</b>
<b>Category</b>	Hand and Upper Limb
<b>Sub-category:</b>	Elective
<b>Objective</b>	<i>Competence in the management of congenital hand conditions.</i>
	3 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.
	3 Relevant associated disease and conditions.
<b>Knowledge</b>	3 Appropriate pre-operative investigations and patient assessment.
	3 Range, indications and principles of relevant operations.
	3 Post-operative complications and their management.
	3 Recent advances.
	3 Relevant ancillary interventions e.g. physiotherapy, occupational therapy.
	3 Classification of congenital hand and forearm anomalies.
<b>Clinical Skills</b>	4 Assessment and non-operative of the management of the elective surgical patient.
	4 History taking.
	4 Examination.
	3 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
	3 Correction of polydactyly (ulnar)
	3 Correction of syndactyly.
	2 Correction of duplicate thumb.
<b>Technical Skills and Procedures</b>	3 Correction of triggering of digit.
	2 Release of constriction band.
	1 Pollicisation
	1 Toe to thumb transfer
	Pollicisation
	Toe to thumb transfer
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Management of acquired conditions of the hand</b>
<b>Category</b>	Hand and Upper Limb
<b>Sub-category:</b>	Elective
<b>Objective</b>	<i>Competence in the management of elective, acquired hand and forearm conditions.</i>

	3 Relevant embryology, anatomy, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.
	3 Relevant associated disease and conditions.
	3 Appropriate pre-operative investigations and patient assessment.
	3 Range, indications and principles of relevant operations.
	3 Post-operative complications and their management.
	3 Recent advances.
<b>Knowledge</b>	3 Relevant ancillary investigations, interventions e.g. appropriate drug therapy, physiotherapy, occupational therapy.
	2 Nerve compressions.
	2 Vasospastic disorders.
	2 Rheumatoid disease.
	3 Dupuytren's contracture.
	3 Ganglion.
	2 Loss of motor function affecting the hand, principles of tendon transfer
	4 Assessment and non-operative of the management of the acute and elective surgical patient
	4 History taking.
<b>Clinical Skills</b>	4 Examination.
	4 Digital nerve block
	2 Regional nerve block
	3 Skills of analysis and diagnostic synthesis, judgement, surgical planning
	3 Carpal tunnel release
	2 Cubital tunnel release
	3 Insertion of steroid (trigger finger, de Quervain's, carpal tunnel)
	3 Palmar fasciectomy
	3 Dermofasciectomy
	4 Excision of ganglion
	2 Tenosynovectomy (rheumatoid)
	2 Multiple transfer of tendon to tendon
	2 Secondary repair of tendon using temporary prosthesis
	3 Tenolysis of flexor
<b>Technical Skills and Procedures</b>	2 Release of constriction of sheath of tendon (trigger finger, de Quervain's)
	2 Microvascular transfer of toe to thumb
	2 Pollicisation of finger
	2 Swanson MCPJ or PIPJ arthroplasty
	2 Trapezectomy
	2 Darrach procedure
	2 Bone-graft
	2 Fusion of wrist
	3 Primary arthrodesis and internal fixation
	2 Repair of capsular of joint for stabilisation of joint (eg Thumb UCL repair)
	2 Release of contracture of joint (Check rein ligament release)
	2 Wrist arthroscopy
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

**Topic** Management of children and adults with cleft lip and palate  
**Category** Cleft Lip and Palate/Cranio Facial Anomalies  
**Sub-category:** None

<b>Objective</b>	<i>Competence in the management of patients with cleft lip and/or cleft palate</i>
	2 Relevant embryology, anatomy, physiology.
	2 Incidence of clefting.
	2 Related conditions and syndromes.
	2 Pre-operative assessment and investigation.
	2 Range, indications and principles of operations.
<b>Knowledge</b>	2 Post-operative complications.
	2 Speech therapy.
	2 Hearing tests.
	2 Orthodontics, paediatric and restorative dentistry.
	2 Genetics relating to clefting.
	3 Structure and function of MDTs.
	4 Assessment and non-operative management.
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	3 Skills of analysis and diagnostic synthesis, judgement and surgical planning
	1 Presurgical orthodontics
	2 Cleft lip repair and revision
	2 Cleft palate repair and re-repair
<b>Technical Skills and Procedures</b>	2 Pharyngoplasty of varying types
	2 Alveolar bone grafting
	1 Maxillary and mandibular osteotomy
	2 Speech assessment
	2 Palatal videofluoroscopy
	2 Nasendoscopy
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Investigation and management of velopharyngeal incompetence</b>
<b>Category</b>	Cleft Lip and Palate/Cranio Facial Anomalies
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the management of velopharyngeal incompetence and related speech problems with or without cleft palate</i>
	3 Relevant anatomy, embryology and physiology.
	3 Related syndromes and conditions.
	3 Pre-operative assessment and investigation including speech assessment, nasometry, palatal videofluoroscopy, and nasendoscopy.
<b>Knowledge</b>	2 Range, indication and principles of relevant operations.
	3 Post-operative complications and their management.
	3 Speech therapy.
	2 Hearing tests.
	3 Structure and function of MDTs.
	2 Assessment and non-operative management.
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	2 Skills of analysis, diagnostic synthesis, judgement and surgical planning.
	2 Palatal re-repair
<b>Technical Skills and Procedures</b>	2 Palatal exploration with intravelar veloplasty
	2 Furlow's repair
	2 Pharyngoplasty of varying types.

**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** **Craniofacial deformities**

**Category** Cleft Lip and Palate/Cranio Facial Anomalies

**Sub-category:** None

**Objective** *To gain knowledge of the commoner craniofacial deformities*

2 Relevant embryology, anatomy, physiology and pathology.

2 Relevant associated disease and syndromes.

**Knowledge** 2 Relevant investigations including imaging; paediatric, neurological and ophthalmic assessment.

2 Range, indications and principles of relevant operations.

3 Post-operative complications and their management.

**Clinical Skills** 3 Assessment and pre-operative management of the elective surgical patient.

4 History taking.

4 Examination.

**Technical Skills and Procedures** 2 Common craniofacial procedures.

**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** **Principles of diagnosis and management of maxillofacial trauma**

**Category** Head and Neck

**Sub-category:** None

**Objective** *Competence in the diagnosis and principles of treatment of maxillofacial trauma*

3 Relevant anatomy, physiology and pathology.

3 Relevant associated disease and conditions.

3 Appropriate pre-operative investigations including imaging, and patient assessment.

**Knowledge** 2 Range, indications and principles of relevant operations.

3 Post-operative complications and their management.

2 Methods of internal, external fracture fixation.

3 Fracture healing.

3 Associated head and neck injuries.

4 Glasgow coma scale.

**Clinical Skills** 3 Assessment and pre-operative management of the acute surgical patient.

4 History taking.

4 Examination.

3 Skills analysis, diagnostic synthesis, judgement, surgical planning.

**Technical Skills and Procedures** 2 Manipulation of nasal bone fractures.

2 Exploration of orbital fractures.

2 Elevation of malar complex fractures.

2 Reduction and fixation of mandibular fractures.

**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

<b>Topic</b>	<b>Excisional surgery for benign and malignant disease</b>
<b>Category</b>	Head and Neck
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in management of patients with benign or malignant tumours of the head and neck.</i>
	3 Relevant embryology, anatomy, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.
	3 Relevant associated disease and conditions.
	3 Appropriate pre-operative investigations including imaging, and patient assessment.
	3 Tumour staging.
<b>Knowledge</b>	3 Range, indications and principles of relevant operations.
	3 Post-operative complications and their management.
	2 Recent advances.
	3 Relevant ancillary investigations, interventions e.g. radiotherapy, chemotherapy, psychological support, physiotherapy, occupational, speech therapy, dietetics.
	3 Effects of sun exposure and other aetiological factors.
	3 Premalignant cutaneous and intraoral conditions.
	3 Structure and function of MDTs.
	3 Assessment and non-operative of the management of the acute surgical patient
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	3 Fine needle aspiration cytology.
	3 Skills of analysis and diagnostic synthesis, judgement, surgical planning
	Excisional surgery:3 Lip
	Excisional Surgery: 2 Oral cavity, including tongue, floor of mouth, buccal mucosa, retromolar trigone, alveolus and mandible, palate
	Excisional Surgery: 2 Maxilla
<b>Technical Skills and Procedures</b>	Excisional Surgery: 3 Eyelid
	Excisional Surgery: 3 Nose
	Excisional Surgery: 3 Ear
	Excisional Surgery: 3 Scalp
	Excisional Surgery: 3 Scalp & Bone
	2 Parotidectomy-superficial, radical
	2 Submandibular gland excision
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Approaches to reconstruction of the head and neck including defects of the ear, eyelid, nose and lip and oral cavity</b>
<b>Category</b>	Head and Neck
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in reconstruction of traumatic or excisional defects of the head and neck region.</i>
<b>Knowledge</b>	3 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.

- 3 Relevant associated disease and conditions.
  - 3 Soft tissue facial injuries.
  - 3 Appropriate pre-operative investigations including imaging, and patient assessment.
  - 3 Range, indications and principles of relevant operations.
  - 3 Post-operative complications and their management.
  - 2 Prosthetics.
  - 2 Recent advances.
  - 2 Relevant ancillary investigations, interventions e.g. radiotherapy, psychological support, physiotherapy, occupational therapy, speech therapy etc.
  - 3 Assessment and non-operative of the management of the elective surgical patient.
- Clinical Skills**
- 4 History taking.
  - 4 Examination.
  - 3 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
- Reconstructive Surgery Lip:
- 3 Lip shave
  - Reconstructive Surgery lip: 3 Wedge excision
  - Reconstructive Surgery Lip: 2 Local flaps
- Oral cavity: 3 Skin grafts
- Oral cavity: 2 Local Flaps
- Oral cavity: 2 Regional Flaps
- Oral cavity: 2 Free flaps including cutaneous, myocutaneous, osteocutaneous
- Oral cavity: 2 Autologous mandibular reconstruction
- Eyelid reconstruction:
- 3 Skin grafts
  - 2 V-excision +/- lateral canthotomy
  - 2 Cheek advancement
  - 2 Chondromucosal grafts
  - 2 Lid switch
  - 2 Ptosis correction
- Technical Skills and Procedures**
- 2 Repair of lacrimal apparatus
- Nose:
- 3 Skin grafts
  - 2 Local flaps
  - 2 Regional flaps
  - 2 Cartilage/bone grafts
  - 2 Branemark reconstruction
- Ear:
- 2 Skin grafts
  - 2 Local flaps
  - 2 Autologous reconstruction using cartilage framework
  - 2 Branemark reconstruction
- Scalp:
- 2 Local Flaps
  - 2 Regional Flaps
  - 2 Free Flaps
  - 2 Bone Grafts

2 Alloplastic materials  
 2 Tissue expansion  
**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** **Management of patients requiring radical or selective neck dissection for malignant disease**  
**Category** Head and Neck  
**Sub-category:** None  
**Objective** *Competence in the management of patients requiring neck dissection for malignant disease*  
 3 Relevant embryology, anatomy, physiology, pathology, microbiology.  
 3 Relevant associated diseases and conditions.  
 3 Appropriate pre-operative investigations (including imaging techniques) and patient management.  
 3 Range, indications and principles of relevant operations including the different types of neck dissection performed.  
**Knowledge** 3 Post-operative complications and their management.  
 3 Classification of cervical lymph node groups.  
 3 FNA techniques.  
 2 Indications for sentinel node biopsy.  
 3 Structure and function of MDTs.  
 3 Relevant ancillary investigations and interventions, including radiotherapy, chemotherapy, physiotherapy, occupational therapy, and dietetics.  
**Clinical Skills** 3 Assessment and non-operative management of the elective surgical patient.  
 4 History taking  
 4 Examination  
**Technical Skills and Procedures** 3 Cervical lymph node biopsy  
 3 Radical neck dissection  
 3 Selective neck dissections of various types  
**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** **Approaches to management of facial palsy**  
**Category** Head and Neck  
**Sub-category:** Congenital and acquired deformities  
**Objective** *Competence in management of patients' children and adults, who have congenital or acquired facial palsy.*  
 3 Relevant embryology, anatomy, physiology, pathology.  
 3 Relevant associated disease and conditions.  
 3 Appropriate pre-operative investigations and patient assessment.  
**Knowledge** 3 Range, indications and principles of relevant operations.  
 3 Post-operative complications and their management.  
 3 Recent advances.  
 3 Relevant ancillary interventions.  
**Clinical Skills** 3 Assessment and non-operative of the management of the elective surgical patient.  
 4 History taking.

	4 Examination.
	3 Skills of analysis and diagnostic synthesis, judgement, surgical planning
	2 Static procedures including fascial slings.
<b>Technical Skills and Procedures</b>	2 Eyelid procedures including gold weight insertion.
	2 Facial nerve grafting.
	2 Microvascular free muscle transfer.
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Investigation and management of vascular and related abnormalities</b>
<b>Category</b>	Head and Neck
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the diagnosis and management of patients, children and adult, with congenital abnormalities of the head and neck</i>
	3 Relevant anatomy, physiology, haematology and pathology.
	3 Relevant associated diseases and conditions.
	3 Classification of vascular and lymphatic malformations
	3 Branchiogenic anomalies
<b>Knowledge</b>	2 Laser therapy
	3 Steroid therapy
	2 Interventional radiology
	3 Post-operative complications
	3 Relevant ancillary investigations and interventions, including ophthalmic assessment
	3 Assessment and non-operative management
<b>Clinical Skills</b>	4 History taking
	4 Examination
	2 Sclerotherapy.
	3 Debulking of haemangioma, lymphangioma.
<b>Technical Skills and Procedures</b>	3 Excision and reconstruction of facial structures including eyelids and lips.
	3 Excision branchial sinus, fistula and cyst.
	2 Excision of thyroglossal cyst.
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Breast augmentation</b>
<b>Category</b>	Management of patients requiring breast reconstruction, reduction and augmentation
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the management of patients requesting breast augmentation for breast aplasia, hypoplasia and asymmetry.</i>
	3 Relevant embryology, anatomy, physiology, and pathology of the breast.
	3 Relevant associated disease and conditions including benign breast disease.
	3 Safety of breast implants including issues relating to the effects of silicone on the body, and regulation of implants.
<b>Knowledge</b>	3 Appropriate pre-operative investigations and patient assessment including psychological assessment.
	3 Post-operative complications and their management.



	3 Recent advances and developments relating to implant manufacture.
	4 Assessment of the elective surgical patient.
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	3 Skills of analysis and diagnostic synthesis, judgement, surgical planning
<b>Technical Skills and Procedures</b>	3 Breast augmentation using differing surgical approaches.
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Breast reduction</b>
<b>Category</b>	Management of patients requiring breast reconstruction, reduction and augmentation
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in management of patients requesting breast reduction.</i>
	3 Relevant embryology, anatomy and physiology of the breast.
	3 Relevant associated disease and conditions including benign breast disease and causes of mammary hypertrophy.
	3 Appropriate pre-operative investigations and patient assessment including psychological assessment.
<b>Knowledge</b>	3 Range, indications and principles of relevant operations for breast reduction and breast mastopexy.
	3 Post-operative complications and their management.
	3 Recent advances in techniques for breast reduction.
	3 Blood supply and innervation of the breast, breast skin and nipple/areolar complex.
	4 Assessment of the elective surgical patient.
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	3 Skills of analysis, judgement, surgical planning.
	3 Various operations for breast reduction.
<b>Technical Skills and Procedures</b>	3 Various operations for breast mastopexy.
	2 Correction of the tuberous breast
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Breast reconstruction</b>
<b>Category</b>	Management of patients requiring breast reconstruction, reduction and augmentation
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the management of patients requiring breast reconstruction.</i> <i>An understanding of the principles involved in multidisciplinary assessment of these patients.</i>
	3 Relevant embryology, anatomy, physiology, and pathology of the breast.
<b>Knowledge</b>	3 Relevant associated disease and conditions including carcinoma of the breast and its treatment.
	3 Appropriate pre-operative investigations and patient assessment.

	3 Range, indications and principles of relevant operations.
	3 Post-operative complications and their management.
	3 Recent advances in flap design.
	3 Breast implants and issues surrounding safety of silicone.
	3 Relevant ancillary investigations, interventions including radiotherapy, chemotherapy, hormone therapy, psychological support.
	4 Assessment of the elective surgical patient.
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	3 Skills of analysis and diagnostic synthesis, judgement, surgical planning
	3 Axillary nodal dissection
	3 FNA/Core Biopsy
	Breast Reconstruction: 3 Implant only
	Breast Reconstruction: 3 Tissue expansion
	Pedicled Flaps: 3 Latissimus dorsi
<b>Technical Skills and Procedures</b>	Pedicled flaps: 3 TRAM
	Free flaps: Latissimus dorsi
	Free flaps: 2 TRAM
	Free flaps: 2 DIEP
	Free flaps: 1 SGAP
	Free flaps: 1 IGAP
	3 Nipple/areolar reconstruction
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Perineal reconstruction</b>
<b>Category</b>	Trunk and GU
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To be able to undertake perineal reconstruction in cases of trauma and following excisional procedures for malignant and premalignant conditions affecting the vulva and perineum.</i> <i>Knowledge of techniques available for penile reconstruction.</i> <i>Knowledge of techniques available for vaginal reconstruction.</i>
<b>Knowledge</b>	3 Relevant embryology, anatomy, physiology, pathology including microbiology, and histopathology. 3 Relevant associated disease and conditions. 2 Issues relating to patients requesting gender reassignment. 4 Appropriate pre-operative investigations and patient assessment.
<b>Clinical Skills</b>	3 Range, indications and principles of relevant operations. 3 Post-operative complications and their management. 3 Recent advances. 4 Assessment and non-operative management of the acute and elective surgical patient
	4 History taking. 4 Examination. 3 Skills of analysis and diagnostic synthesis, judgement, surgical planning
<b>Technical Skills and Procedures</b>	3 Skin grafts 2 Bowel grafts 3 Random flaps

3 Myocutaneous flaps  
 2 Free flaps  
**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** **The principles of surgical management of hypospadias.**  
**Category** Trunk and GU  
**Sub-category:** None  
**Objective** *To obtain competencies in the management of cases of hypospadias.  
 To understand the principles of management in cases of epispadias and exstrophy.*  
**Knowledge** 3 Relevant embryology, anatomy, physiology. pathology.  
 3 Relevant associated syndromes and conditions.  
 4 Appropriate pre-operative investigations and patient assessment.  
 3 Range, indications and principles of relevant operations.  
 3 Post-operative complications and their management.  
 3 Recent advances.  
**Clinical Skills** 4 Assessment and non-operative of the management of the elective surgical patient.  
 4 History taking.  
 4 Examination.  
 3 Skills of analysis and diagnostic synthesis, judgement, surgical planning  
**Technical Skills and Procedures** 3 Operative procedures in common use for hypospadias and related conditions including 1 stage, 2 stage techniques.  
**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** **Surgical management of congenital and acquired defects of the chest wall, abdominal wall and trunk**  
**Category** Trunk and GU  
**Sub-category:** None  
**Objective** *Competence in the assessment and management of defects involving the trunk, including traumatic defects*  
**Knowledge** 3 Relevant embryology, anatomy, physiology, and pathology  
 3 Appropriate pre-operative investigations and patient assessment.  
 3 Range, indication and principles of relevant operations.  
 3 Tissue expansion techniques  
**Clinical Skills** 4 Assessment of the acute and elective surgical patient -adult and child  
 4 History taking  
 4 Examination  
 3 Skills of analysis and diagnostic synthesis, judgement, surgical planning  
**Technical Skills and Procedures** 3 Operations for Poland's syndrome involving chest deformity  
 2 Operations to cover spinal defects in children with spina bifida  
 3 Operations to provide skin cover in traumatic injuries involving skin, soft tissue loss  
 3 Operations to provide skin cover following surgical resection of tumours including abdominal wall defects, chest wall defects.  
 2 Provision of skin cover in sternotomy wounds

**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

<b>Topic</b>	<b>Trauma</b>
<b>Category</b>	Lower Limb
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the management of lower limb trauma.</i> 3 Relevant anatomy, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology. 4 Appropriate pre-operative investigations and patient assessment. 3 Degloving injuries and their mechanism.
<b>Knowledge</b>	3 Compartment syndrome. 3 Range, indications and principles of relevant operations. 4 Post-operative complications and their management. 4 Relevant ancillary investigations and interventions, e.g. imaging techniques, physiotherapy, occupational therapy. 4 Assessment and non-operative of the management of the acute surgical patient
<b>Clinical Skills</b>	4 History taking. 4 Examination including assessment of limb viability, compartment syndrome. 4 Use of doppler. 3 Skills of analysis and diagnostic synthesis, judgement, surgical planning 4 Superficial wounds 3 Debridement/SSG 3 Fasciotomy 3 Amputations above knee/below knee 3 Harvest iliac crest bone graft
<b>Technical Skills and Procedures</b>	Vessel repair Nerve repair 3 Local Flaps: Fasciocutaneous 3 Local flaps: Perforator 3 Local flaps: Muscle 3 Local flaps: Myocutaneous 2 Free Flaps: Radial Free flaps: other
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>The multidisciplinary assessment and management of tibial fractures involving skin loss</b>
<b>Category</b>	Lower Limb
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the combined management of patients with compound tibial fractures involving skin loss</i> 3 Relevant anatomy, physiology, pathology.
<b>Knowledge</b>	3 Fracture healing. 3 Skin blood supply. 2 External fixators.

4 Appropriate pre-operative investigations and patient assessment.  
 3 Range, indications and principles of relevant operations.  
 4 Post-operative complications and their management.  
 4 Relevant ancillary investigations and interventions including imaging techniques, physiotherapy, occupational therapy.

**Clinical Skills** 4 Assessment and non-operative management of the acute surgical patient.  
 4 History taking  
 4 Examination including combined assessment of limb viability and function.

Nerve repair  
 Vessel repair  
**Technical Skills and Procedures** 3 Local flaps: Fasciocutaneous  
 3 Local flaps: Perforator  
 3 Local flaps: Muscle  
 3 Local flaps: Myocutaneous  
 2 Free flaps: Skin  
 2 Free flaps: Muscle  
 2 Free flaps: Myocutaneous  
 2 Free flaps: Osteocutaneous

**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** **The management of lymphoedema**

**Category** Lower Limb

**Sub-category:** None

**Objective** *Competence in the diagnosis and management of lymphoedema*

3 Relevant anatomy, embryology, physiology and pathology of the lymphatic system

**Knowledge** 3 Classification of lymphoedema  
 3 Non-operative management  
 3 Surgical management

**Clinical Skills** 4 Assessment of the elective surgical patient  
 4 History taking  
 4 Examination

**Technical Skills and Procedures** 3 Various operations including Charles's procedure

**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** **All aspects of diagnosis and management of benign and malignant skin tumours including surgical reconstruction and regional node dissection**

**Category** Skin and Soft Tissue Tumours

**Sub-category:** None

**Objective** *Competence in diagnosis and management of skin lesions including benign skin and subcutaneous lesions, skin malignancy*

**Knowledge** 3 Relevant anatomy, embryology, physiology, and pathology including histopathology  
 3 Relevant associated disease

	4 Appropriate pre-operative investigations and patient assessment
	4 Benign skin lesions and subcutaneous lesions
	4 Malignant melanoma and non-melanoma skin cancer
	4 Incisional and excisional biopsy
	4 Excision margins
	3 Adjuvant therapy including radiotherapy, chemotherapy
	3 Tumour staging
	3 Minimum data sets
	2 Moh's technique
	2 Sentinel node biopsy
	3 Recent advances
	3 Palliative care
<b>Clinical Skills</b>	4 Assessment of the elective surgical patient
	4 History taking
	4 Examination
	4 Excision of sebaceous cyst
	4 Excision and direct closure of simple skin lesions
	4 Excision and direct closure basal cell carcinoma
<b>Technical Skills and Procedures</b>	4 Excision and graft malignant skin lesions
	4 Excision malignant melanoma
	3 Excision and flap repair
	Regional lymph dissection axilla
	Regional lymph dissection groin
	Regional lymph dissection neck
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Intermediate</a> section for these skills

<b>Topic</b>	<b>Soft tissue sarcomas</b>
<b>Category</b>	Skin and Soft Tissue Tumours
<b>Sub-category:</b>	None
<b>Objective</b>	<i>To achieve knowledge and understanding of the multidisciplinary management of soft tissue sarcomas</i>
	3 Relevant embryology, anatomy, physiology and pathology.
	4 Appropriate pre-operative investigations, including imaging, and patient assessment.
<b>Knowledge</b>	3 Range indications and principles of relevant operations.
	4 Post-operative complications and their management.
	3 Relevant ancillary investigations and interventions, including radiotherapy, chemotherapy.
	3 Recent advances.
	3 Biopsy techniques
	4 Assessment and non-operative management of the elective surgical patient.
	4 History taking.
<b>Clinical Skills</b>	4 Examination.
	3 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
	3 FNA cytology.
	3 Core biopsy.
<b>Technical Skills and Procedures</b>	3 Incisional biopsy at various sites and of varying tissues including fat, connective tissue, muscle, nerve.
	3 En-bloc excisional techniques at various sites

- 3 Flap reconstruction as required
- 3 Nerve repair
- 3 Vessel repair

**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

<b>Topic</b>	<b>The assessment and management of patients requiring aesthetic alterations of body parts including face, eyelids, nose and ears.</b>
<b>Category</b>	Aesthetic
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the practice of aesthetic plastic surgery.</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>3 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.</li> <li>3 Relevant associated disease.</li> <li>3 Appropriate pre-operative investigations and patient assessment including psychological assessment.</li> <li>3 Range, indications and principles of relevant operations in the different areas</li> <li>3 Post-operative complications and their management.</li> <li>3 Recent advances including development of new surgical techniques.</li> <li>4 Assessment and non-operative of the management of the elective surgical patient.</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>4 History taking.</li> <li>4 Examination.</li> <li>3 Skills of analysis and diagnostic synthesis, judgement, surgical planning</li> <li>3 Blepharoplasty-upper</li> <li>3 Blepharoplasty-lower</li> <li>4 Pinnaplasty</li> <li>3 Correction of the constricted ear</li> <li>3 Breast-augmentation</li> <li>3 Breast-reduction</li> <li>3 Breast-mastopexy</li> <li>3 Breast-tuberous correction</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>3 Abdominoplasty</li> <li>2 Face Lift-skin</li> <li>2 Face Lift-SMAS</li> <li>3 Liposuction-abdomen</li> <li>3 Liposuction-thighs</li> <li>3 Liposuction-trunk</li> <li>2 Brachioplasty</li> <li>2 Thigh lifts</li> <li>2 Body lifts</li> </ul>

- 2 Laser-tattoo removal
- 2 Laser-skin lesion
- 2 Laser-peeling
  
- 2 Laser-chemical peeling
  
- 3 Laser-Dermabrasion
  
- 2 Laser-Filler injections
  
- 3 Rhinoplasty-post trauma
- 2 Rhinoplasty-cosmetic

**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

<b>Topic</b>	<b>Management of wounds including contaminated, infected wounds and those involving skin loss</b>
<b>Category</b>	Wound Care
<b>Sub-category:</b>	None
<b>Objective</b>	<i>Competence in the management of lacerations, soft tissue injuries and wounds</i> 3 Relevant anatomy, physiology, biochemistry, pharmacology, pathology including microbiology, haematology, immunology and histopathology. 3 Relevant associated disease and conditions. 3 Appropriate pre-operative investigations and patient assessment. 3 Range, indications and principles of relevant surgical techniques and operations. 3 Post-operative complications and their management.
<b>Knowledge</b>	3 Recent advances in wound healing 3 Facial wounds involving eyelids (including lacrimal apparatus), nose, lips, ears and deeper tissues including salivary glands, facial nerve 3 Varicose ulceration including aetiology 3 Wound dressings 3 Antibiotic therapy 3 Degloving injury 3 Principles of Doppler physics
<b>Clinical Skills</b>	4 Assessment and non-operative of the management of the acute and elective surgical patient 4 History taking. 4 Examination. 3 Use of Doppler 3 Skills of analysis and diagnostic synthesis, judgement, surgical planning 4 Exploration of traumatic wounds 3 Assessment of tissue viability 4 Debridement of tissues
<b>Technical Skills and Procedures</b>	4 Surgical handling of soft tissues 4 Suturing of soft tissues and skin lacerations 3 Nerve repair 4 Split skin grafting 3 Use of local and other flaps



**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** **Pressure sore management including surgical management**

**Category** Wound Care

**Sub-category:** None

**Objective** *Competence in the management of patients developing pressure sores*

3 Relevant anatomy, physiology, pathology including microbiology.

3 Relevant associated disease and co-morbidity including neurological conditions and trauma.

3 Appropriate investigations, patient assessment and non-operative management.

**Knowledge**

3 Related dietetics

3 Aetiological factors

3 Range, indications and principles of relevant operations.

3 Post-operative complications and their management.

3 Recent advances including pressure relieving beds and mattresses, VAC therapy

3 Relevant ancillary interventions e.g. physiotherapy, occupational therapy.

4 Assessment and non-operative of the management of the elective surgical patient

**Clinical Skills**

4 History taking.

4 Examination.

3 Skills of analysis and diagnostic synthesis, judgement, surgical planning

**Technical Skills and Procedures**

3 Debridement of pressure sores

3 Various procedures for closure of defects including flap closure

**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

**Topic** **Scar management**

**Category** Wound Care

**Sub-category:** None

**Objective**

*To gain understanding of the mechanisms involved in scar formation particularly hypertrophic and keloid scarring.*

*To gain competence in dealing with hypertrophic and keloid scars and in scar revision procedures.*

**Knowledge**

3 Relevant physiology, pathology relating to wound healing and scar formation

3 Methods available to treat hypertrophic/keloid scars including pressure therapy and steroid therapy

3 Scar revision procedures

**Clinical Skills**

**No content**

**Technical Skills and Procedures**

4 Steroid injection

3 Various scar revision operations including z-plasty, w-plasty

**Professional Skills** Please see the [Professional Skills and Behaviour » Intermediate](#) section for these skills

# Final including Special Interest Stage

In the final stage trainees continue to develop their competence either generalising in plastic surgery or developing a special interest.

## Cleft Lip and Palate Special Interest

Cleft Lip and Palate Surgery deals with the soft and hard tissue deformities of the commonest orofacial congenital disorder. In collaboration with other medical and dental disciplines, and non-medical health professionals, the surgeon contributes to the correction of respiratory, hearing, feeding, speech and facial growth disorders and facial deformity. The diagnosis of some forms of clefting may be made by pre-natal ultrasound; thus the surgical care of cleft patients and their families may start before birth. It continues in many cases throughout childhood and adolescence and concludes only at the cessation of growth, and when the patient is satisfied with the result; or when further care is required only from a different discipline.

Special interest training in cleft lip and palate may commence only after the trainees have passed the inter-collegiate board examinations in the home specialty (see paragraph "Entry to training" below). Trainees will thus have proved abilities in the generality of their own specialty, including operative skills. They will also have acquired skills in diagnosis, investigation, non-operative management, and in communication with patients and colleagues. Specific skills involved in the multi-disciplinary delivery of health care to children will also have been developed.

## Cleft Lip and Palate – Service Need

Nationwide there are 11 Cleft centres, although the majority of them work on more than one hub site, and all of them work in collaboration with district hospital and community health services.

There are 1000 to 1200 new patients with clefts born each year. Because of the effects on facial growth, dentition, hearing and speech, psychological effects and the associations with other congenital anomalies and genetic disorders, the great majority of the patients need follow-up at least until the facial skeleton has ceased growing (age 16 roughly), and many need continuing care in the first few years of adulthood. This equates to follow-up lists totalling 12,000 children or more, and a number of adults. Surgeons of three different disciplines are involved at any or all stages of care (Plastic, Oral & Maxillofacial, Otorhinolaryngology).

The current staffing arrangements in the Cleft centres vary according to how much the surgeons contribute to the generality of their "home" specialty. There are a very few exclusively "cleft" surgeons but they are the minority, and it does not look as if this will be the pattern in the near future. There are around 30 surgeons nationally operating on infant patients, and some more (OMFS) surgeons operating on older children and adults. There will therefore only be opportunities for a maximum of one or two trainees per year to develop the special interest.

## Entry to training

Trainees wishing to pursue a special interest in Cleft Lip and Palate Surgery will be drawn from the following four specialties: Oral and Maxillo-Facial Surgery, Oto-rhino-laryngology (ENT), Paediatric Surgery and Plastic Surgery. Entry to Cleft Lip and Palate special interest training is by competitive interview. Candidates should either have passed the inter-collegiate board examination in their "home-specialty" or be within 6 months of taking it.

## Length of training

The training is competency based but it is anticipated that the period of training will take more than one year but not exceed two years.

It is expected that trainees will have acquired some exposure to the management of cleft patients in a training setting in their home specialty, or in allowed periods “out of programme”. Experience obtained in non-training settings (e.g. “Cleft camps”) cannot be counted in a trainee’s log-book. However, it is clear that skills acquired in this manner can be assessed subsequently in the training setting.

All training in Cleft Lip and Palate Surgery is acknowledged by the four contributing specialties as counting towards the acquisition of the Certificate of Completion of Training (CCT).

The training interface group recognises that training in Cleft Lip and Palate Surgery should take place with the full facilities of a Paediatric environment. A trainee with a special interest in Cleft Lip and Palate Surgery must be able to demonstrate that he/she can function as part of a multi-disciplinary team. He/she must also demonstrate an appropriate relationship, directly or by correspondence, with all other relevant Paediatric Departments and Specialists, including: Fetal Medicine, Clinical Genetics, Nutrition and Dietetics, Anaesthetics, General Paediatrics, Community Paediatrics.

The training will cover the full range of primary and secondary cleft surgical procedures. Some of the related procedures that the advanced trainee (and later the consultant) will undertake will depend on their parent speciality (e.g. insertion of grommets, aspects of dental surgical management).

The purpose of the syllabus is to guide trainees as to the skills they will need to develop, in a multi-disciplinary setting, to treat cleft children and assist their families.

Click on [Workplace Based Assessments](#) to view the assessment forms including DOPS and PBAs

## Topics

<b>Topic</b>	<b>Management of all aspects of hand trauma</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Trauma
<b>Objective</b>	<i>Competence in the diagnosis and management of hand trauma</i>
	4 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.
	4 Relevant associated disease and conditions.
	4 Appropriate pre-operative investigations and patient assessment.
<b>Knowledge</b>	4 Range, indications and principles of relevant operations.
	4 Post-operative complications and their management.
	4 Recent advances.
	4 Relevant ancillary investigations, interventions e.g.physiotherapy, occupational therapy.
	4 Crush injuries.
	4 Injection injuries.
<b>Clinical Skills</b>	4 Assessment and non-operative of the management of the acute surgical

- patient
  - 4 History taking.
  - 4 Examination including hand examination.
  - 4 Skills of analysis and diagnostic synthesis, judgement, surgical planning
  - 4 Wound exploration and debridement.
  - 4 Primary microsurgical repair of peripheral nerve
  - 4 Primary graft to peripheral nerve
  - 4 Random pattern flap reconstruction of fingertip (cross-finger, Kutler, Kleinert)
  - 4 Neurovascular island flap reconstruction (homodigital island, Littler)
  - 4 Primary repair of extensor of hand
  - 4 Primary repair of flexor of hand
  - 4 Primary open reduction of small bone and fixation
  - 4 Manipulation of fracture of bone
  - 4 Replantation of digit, hand
  - 4 Amputation of phalanx of finger
  - 4 Provision of skin cover using grafts, flaps
- Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Use of plastic surgery techniques including design and use of z-plasty, pedicled and myocutaneous flaps, free flaps</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Trauma
<b>Objective</b>	<i>Competence in the management of the surgical patient and application of the specified plastic surgery techniques.</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>4 Relevant anatomy and physiology.</li> <li>4 Relevant associated disease and conditions.</li> <li>4 Appropriate pre-operative investigations and patient assessment.</li> <li>4 Range, indications and principles of relevant operations.</li> <li>4 Post-operative complications and their management.</li> <li>4 Recent advances.</li> <li>4 Relevant anatomy, physiology, pharmacology, pathology relating to skin and flap blood supply</li> <li>4 Random, axial pattern flaps.</li> <li>4 Concept of vessel territories.</li> </ul>

- 4 Assessment and non-operative management of the acute and elective surgical patient.
- 4 History taking.
- 4 Examination.
- 4 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
- 4 Z-plasty
- 4 V-Y advancement
- 4 Excision of lesion
- 4 Wide excision of lesion

- 4 SSG
- 4 FTSG
- 4 Excision & local flap
- 4 Random and axial pattern flaps
- 4 Rotation, transposition flaps
- 4 Pedicled cutaneous, fasciocutaneous, myocutaneous and osteocutaneous flaps
- 4 Free flaps

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Assessment, resuscitation and initial management of burns</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Trauma
<b>Objective</b>	<i>Competence in the early phase of burns management</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>4 Relevant anatomy, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.</li> <li>4 Relevant associated disease and conditions.</li> <li>4 Appropriate pre-operative investigations and patient assessment.</li> <li>4 Range, indications and principles of relevant operations.</li> <li>4 Post-operative complications and their management.</li> <li>4 Recent advances.</li> <li>4 Relevant ancillary investigations, interventions e.g. psychological support, physiotherapy.</li> <li>4 Mechanisms of burn injury.</li> <li>4 Causes of burn injury.</li> <li>4 IV resuscitation regimens.</li> <li>4 Use of blood products, plasme volume expanders.</li> <li>4 Non-accidental injuries.</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>4 Assessment and non-operative of the management of the acute burns patient</li> <li>4 History taking.</li> <li>4 Examination including assessment of burn surface area and depth.</li> <li>4 Skills of analysis and diagnostic synthesis, judgement, surgical planning.</li> <li>4 Management of fluid &amp; electrolyte balance</li> <li>4 Assessment &amp; resuscitation</li> <li>4 Open venotomy</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>4 Escharotomy</li> <li>2 Bronchoscopy</li> <li>3 Endotracheal intubation</li> <li>4 Tracheostomy</li> <li>4 Burn wound management with dressings</li> </ul>

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Surgical management of burns</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Trauma
<b>Objective</b>	<i>Competence in the surgical aspects of burns management</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>4 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.</li> </ul>

	4 Relevant associated disease and conditions.
	4 Appropriate pre-operative investigations and patient assessment.
	4 Range, indications and principles of relevant operations.
	4 Post-operative complications and their management.
	4 Recent advances.
	4 Relevant ancillary investigations, interventions e.g. psychological support, physiotherapy, occupational therapy
	4 Knowledge of wound healing and tissue transplantation
	4 Assessment and non-operative management of the burns patient.
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	4 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
	4 Early tangential excision and split skin grafting
<b>Technical Skills and Procedures</b>	4 Late grafting
	4 Use of allograft skin
	4 Use of skin substitutes
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Diagnosis and management of complications of burns including inhalational injury and septic shock</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Trauma
<b>Objective</b>	<i>Competence in management of complications arising during treatment of burn injury</i>
	4 Relevant anatomy, physiology, bacteriology, biochemistry, and pathology
	4 Pathophysiology of smoke inhalation and effect on respiration
	4 Pathophysiology of renal failure as relating to burn injury
<b>Knowledge</b>	4 Dietetics as relating to burn injury metabolism
	4 Shock complicating resuscitation
	4 Septic shock
	4 Intensive care monitoring and treatment
	4 Assessment of the burn patient.
	4 History.
	4 Examination.
<b>Clinical Skills</b>	4 IV resuscitation.
	4 Provision of oxygen therapy via face mask.
	3 Endotracheal intubation.
	4 Skills of analysis and diagnostic synthesis, judgement.
<b>Technical Skills and Procedures</b>	<b>No content</b>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Late management and rehabilitation</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Trauma
	<i>Competence in burns management</i>
<b>Objective</b>	<i>Competence in late management, with understanding of the needs for patient rehabilitation</i>

	4 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.
	4 Relevant associated disease and conditions.
	4 Range, indications and principles of relevant operations.
<b>Knowledge</b>	4 Post-operative complications and their management.
	4 Recent advances.
	4 Relevant ancillary investigations, interventions e.g., psychological support, physiotherapy, occupational therapy.
	4 Relevant teamworking with other professionals
	3 Prosthetics.
	4 Assessment and non-operative management of the burns patient
	4 History taking.
<b>Clinical Skills</b>	4 Examination.
	4 Skills of analysis and diagnostic synthesis, judgement, surgical planning
	4 Scar management including use of pressure garments
<b>Technical Skills and Procedures</b>	Contracture release:4 Grafts
	Contracture release:4 Flaps
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Surgical management of brachial plexus injuries</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Trauma
<b>Objective</b>	<i>An understanding of the principles of diagnosis, investigation and management of patients, children and adults, with closed brachial plexus injuries</i>
	4 Relevant anatomy, physiology and pathology.
	4 Relevant associated conditions including other trauma.
	4 Appropriate pre-operative investigations and assessment including neurological assessment, nerve conduction studies. electromyography.
<b>Knowledge</b>	4 Range, indications and principles of relevant operations.
	4 Post-operative complications and their management.
	4 Relevant ancillary interventions including physiotherapy, occupational therapy.
	4 Mechanisms of nerve injury and regeneration.
	4 Assessment and non-operative management of these patients.
<b>Clinical Skills</b>	4 History
	4 Examination including neurological examination.
	4 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
	4 Surgical exposure of brachial plexus
	4 Exploration of brachial plexus.
	3 Intraoperative nerve testing.
<b>Technical Skills and Procedures</b>	4 Neurolysis
	4 Nerve grafting.
	4 Nerve repair.
	4 Nerve transfer
	3 Tendon transfer.
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Diagnosis and management of congenital hand conditions</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Hand and Upper Limb
<b>Objective</b>	<i>Competence in the management of congenital hand conditions.</i> 4 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology. 4 Relevant associated disease and conditions.
<b>Knowledge</b>	4 Appropriate pre-operative investigations and patient assessment. 4 Range, indications and principles of relevant operations. 4 Post-operative complications and their management. 4 Recent advances. 4 Relevant ancillary interventions e.g. physiotherapy, occupational therapy. 4 Classification of congenital hand and forearm anomalies. 4 Assessment and non-operative of the management of the elective surgical patient.
<b>Clinical Skills</b>	4 History taking. 4 Examination. 4 Skills of analysis and diagnostic synthesis, judgement, surgical planning. 4 Correction of polydactyly (ulnar) 4 Correction of syndactyly.
<b>Technical Skills and Procedures</b>	4 Correction of duplicate thumb. 4 Correction of triggering of digit. 4 Release of constriction band. Pollicisation Toe to thumb transfer
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Management of acquired conditions of the hand</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Hand and Upper Limb
<b>Objective</b>	<i>Competence in the management of elective, acquired hand and forearm conditions.</i> 4 Relevant embryology, anatomy, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology. 4 Relevant associated disease and conditions. 4 Appropriate pre-operative investigations and patient assessment. 4 Range, indications and principles of relevant operations. 4 Post-operative complications and their management. 4 Recent advances.
<b>Knowledge</b>	4 Relevant ancillary investigations, interventions e.g. appropriate drug therapy, physiotherapy, occupational therapy. 4 Nerve compressions. 4 Vasospastic disorders. 4 Rheumatoid disease. 4 Dupuytren's contracture. 4 Ganglion. 4 Loss of motor function affecting the hand, principles of tendon transfer



	4 Assessment and non-operative of the management of the acute and elective surgical patient
	4 History taking.
<b>Clinical Skills</b>	4 Examination.
	4 Digital nerve block
	4 Regional nerve block
	4 Skills of analysis and diagnostic synthesis, judgement, surgical planning
	4 Carpal tunnel release
	4 Cubital tunnel release
	4 Insertion of steroid (trigger finger, de Quervain's, carpal tunnel)
	4 Palmar fasciectomy
	4 Dermofasciectomy
	4 Excision of ganglion
	4 Tenosynovectomy (rheumatoid)
	3 Multiple transfer of tendon to tendon
	4 Secondary repair of tendon using temporary prosthesis
	4 Tenolysis of flexor
<b>Technical Skills and Procedures</b>	4 Release of constriction of sheath of tendon (trigger finger, de Quervain's)
	4 Microvascular transfer of toe to thumb
	3 Pollicisation of finger
	4 Swanson MCPJ or PIPJ arthroplasty
	3 Trapezectomy
	4 Darrach procedure
	4 Bone-graft
	4 Fusion of wrist
	4 Primary arthrodesis and internal fixation
	4 Repair of capsule of joint for stabilisation of joint (eg Thumb UCL repair)
	4 Release of contracture of joint (Check rein ligament release)
	3 Wrist arthroscopy
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Management of children and adults with cleft lip and palate</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Cleft Lip and Palate/Cranio Facial Anomalies
<b>Objective</b>	<i>Competence in the management of patients with cleft lip and/or cleft palate</i>
	4 Relevant embryology, anatomy, physiology.
	4 Incidence of clefting.
	4 Related conditions and syndromes.
	4 Pre-operative assessment and investigation.
	4 Range, indications and principles of operations.
<b>Knowledge</b>	4 Post-operative complications.
	3 Speech therapy.
	3 Hearing tests.
	2 Orthodontics, paediatric and restorative dentistry.
	3 Genetics relating to clefting.
	4 Structure and function of MDTs.
	4 Assessment and non-operative management.
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	4 Skills of analysis and diagnostic synthesis, judgement and surgical planning

- 2 Presurgical orthodontics
- 4 Cleft lip repair and revision
- 4 Cleft palate repair and re-repair
- 4 Pharyngoplasty of varying types
- 4 Alveolar bone grafting
- 2 Maxillary and mandibular osteotomy
- 3 Speech assessment
- 3 Palatal videofluoroscopy
- 3 Nasendoscopy

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Investigation and management of velopharyngeal incompetence**

**Category** ST7/8 General

**Sub-category:** Cleft Lip and Palate/Cranio Facial Anomalies

**Objective** *Competence in the management of velopharyngeal incompetence and related speech problems with or without cleft palate*

**Knowledge**

- 4 Relevant anatomy, embryology and physiology.
- 4 Related syndromes and conditions.
- 4 Pre-operative assessment and investigation including speech assessment, nasometry, palatal videofluoroscopy, and nasendoscopy.
- 4 Range, indication and principles of relevant operations.
- 4 Post-operative complications and their management.
- 3 Speech therapy.
- 3 Hearing tests.
- 4 Structure and function of MDTs.
- 4 Assessment and non-operative management.

**Clinical Skills**

- 4 History taking.
- 4 Examination.
- 4 Skills of analysis, diagnostic synthesis, judgement and surgical planning.

**Technical Skills and Procedures**

- 4 Palatal re-repair
- 4 Palatal exploration with intravelar veloplasty
- 4 Furlow's repair
- 4 Pharyngoplasty of varying types.

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Craniofacial deformities**

**Category** ST7/8 General

**Sub-category:** Cleft Lip and Palate/Cranio Facial Anomalies

**Objective** *To gain knowledge of the commoner craniofacial deformities*

**Knowledge**

- 4 Relevant embryology, anatomy, physiology and pathology.
- 4 Relevant associated disease and syndromes.
- 4 Relevant investigations including imaging; paediatric, neurological and ophthalmic assessment.
- 4 Range, indications and principles of relevant operations.
- 4 Post-operative complications and their management.

**Clinical Skills**

- 4 Assessment and pre-operative management of the elective surgical patient.
- 4 History taking.
- 4 Examination.

**Technical Skills and Procedures** 2 Common craniofacial procedures.

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Principles of diagnosis and management of maxillofacial trauma</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Head and Neck
<b>Objective</b>	<i>Competence in the diagnosis and principles of treatment of maxillofacial trauma</i> 4 Relevant anatomy, physiology and pathology. 4 Relevant associated disease and conditions. 4 Appropriate pre-operative investigations including imaging, and patient assessment.
<b>Knowledge</b>	4 Range, indications and principles of relevant operations. 4 Post-operative complications and their management. 3 Methods of internal, external fracture fixation. 4 Fracture healing. 3 Associated head and neck injuries. 4 Glasgow coma scale.
<b>Clinical Skills</b>	4 Assessment and pre-operative management of the acute surgical patient. 4 History taking. 4 Examination. 4 Skills analysis, diagnostic synthesis, judgement, surgical planning. 4 Manipulation of nasal bone fractures.
<b>Technical Skills and Procedures</b>	3 Exploration of orbital fractures. 3 Elevation of malar complex fractures. 2 Reduction and fixation of mandibular fractures.
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Excisional surgery for benign and malignant disease</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Head and Neck
<b>Objective</b>	<i>Competence in management of patients with benign or malignant tumours of the head and neck.</i> 4 Relevant embryology, anatomy, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology. 4 Relevant associated disease and conditions. 4 Appropriate pre-operative investigations including imaging, and patient assessment.
<b>Knowledge</b>	4 Tumour staging. 4 Range, indications and principles of relevant operations. 4 Post-operative complications and their management. 4 Recent advances. 4 Relevant ancillary investigations, interventions e.g. radiotherapy, chemotherapy, psychological support, physiotherapy, occupational, speech therapy, dietetics. 4 Effects of sun exposure and other aetiological factors.

- 4 Premalignant cutaneous and intraoral conditions.
- 4 Salivary gland tumours
- 4 Structure and function of MDTs.
- 4 Assessment and non-operative of the management of the acute surgical patient
- Clinical Skills** 4 History taking.
- 4 Examination.
- 4 Fine needle aspiration cytology.
- 4 Skills of analysis and diagnostic synthesis, judgement, surgical planning
- Excisional surgery: 4 Lip
- Excisional Surgery: 4 Oral cavity, including tongue, floor of mouth, buccal mucosa, retromolar trigone, alveolus and mandible, palate
- Excisional Surgery: 4 Maxilla
- Excisional Surgery: 4 Eyelid
- Technical Skills and Procedures** Excisional Surgery: 4 Nose
- Excisional Surgery: 4 Ear
- Excisional Surgery: 4 Scalp
- Excisional Surgery: 4 Scalp & Bone
- 4 Parotidectomy-superficial, radical
- 4 Submandibular gland excision

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Approaches to reconstruction of the head and neck including defects of the ear, eyelid, nose and lip and oral cavity</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Head and Neck
<b>Objective</b>	<i>Competence in reconstruction of traumatic or excisional defects of the head and neck region.</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>4 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.</li> <li>4 Relevant associated disease and conditions.</li> <li>4 Soft tissue facial injuries.</li> <li>4 Appropriate pre-operative investigations including imaging, and patient assessment.</li> <li>4 Range, indications and principles of relevant operations.</li> <li>4 Post-operative complications and their management.</li> <li>2 Prosthetics.</li> <li>4 Recent advances.</li> <li>4 Relevant ancillary investigations, interventions e.g. radiotherapy, psychological support, physiotherapy, occupational therapy, speech therapy etc.</li> <li>4 Assessment and non-operative management of the acute and elective surgical patient.</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>4 History taking.</li> <li>4 Examination.</li> <li>4 Skills of analysis and diagnostic synthesis, judgement, surgical planning.</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>Reconstructive Surgery Lip: 4 Lip shave</li> <li>Reconstructive Surgery Lip: 4 Wedge excision</li> <li>Reconstructive Surgery Lip: 4 Local flaps</li> </ul>

Oral cavity: 4 Skin grafts  
 Oral cavity: 4 Local Flaps  
 Oral cavity: 4 Regional Flaps  
 Oral cavity: 4 Free flaps including cutaneous, myocutaneous, osteocutaneous  
 Oral cavity: 4 Autologous mandibular reconstruction

Eyelid reconstruction:  
 4 Skin grafts  
 4 V-excision +/- lateral canthotomy  
 4 Cheek advancement  
 4 Chondromucosal grafts  
 4 Lid switch  
 4 Ptosis correction  
 4 Repair of lacrimal apparatus

Nose:  
 4 Skin grafts  
 4 Local flaps  
 4 Regional flaps  
 4 Cartilage/bone grafts  
 4 Branemark reconstruction

Ear:  
 4 Skin grafts  
 4 Local flaps  
 4 Autologous reconstruction using cartilage framework  
 4 Branemark reconstruction

Scalp:  
 4 Local Flaps  
 4 Regional Flaps  
 4 Free Flaps  
 4 Bone Grafts  
 4 Alloplastic materials  
 4 Tissue expansion

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Management of patients requiring radical or selective neck dissection for malignant disease</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Head and Neck
<b>Objective</b>	<i>Competence in the management of patients requiring neck dissection for malignant disease</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>4 Relevant embryology, anatomy, physiology, pathology, microbiology.</li> <li>4 Relevant associated diseases and conditions.</li> <li>4 Appropriate pre-operative investigations (including imaging techniques) and patient management.</li> <li>4 Range, indications and principles of relevant operations including the different types of neck dissection performed.</li> <li>4 Post-operative complications and their management.</li> </ul>

	4 Classification of cervical lymph node groups.
	4 FNA techniques.
	4 Indications for sentinel node biopsy.
	4 Structure and function of MDTs.
	4 Relevant ancillary investigations and interventions, including radiotherapy, chemotherapy, physiotherapy, occupational therapy, and dietetics.
	4 Assessment and non-operative management of the elective surgical patient.
<b>Clinical Skills</b>	4 History taking
	4 Examination
<b>Technical Skills and Procedures</b>	4 Cervical lymph node biopsy
	4 Radical neck dissection
	4 Selective neck dissections of various types
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Approaches to management of facial palsy</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Congenital and acquired deformities
<b>Objective</b>	<i>Competence in management of patients children and adults, who have congenital or acquired facial palsy.</i>
	4 Relevant embryology, anatomy, physiology, pathology.
	4 Relevant associated disease and conditions.
	4 Appropriate pre-operative investigations and patient assessment.
<b>Knowledge</b>	4 Range, indications and principles of relevant operations.
	4 Post-operative complications and their management.
	4 Recent advances.
	4 Relevant ancillary interventions.
	4 Assessment and non-operative of the management of the elective surgical patient.
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	4 Skills of analysis and diagnostic synthesis, judgement, surgical planning
	4 Static procedures including fascial slings.
<b>Technical Skills and Procedures</b>	4 Eyelid procedures including gold weight insertion.
	4 Facial nerve grafting.
	4 Microvascular free muscle transfer.
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Investigation and management of vascular and related abnormalities</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Congenital and acquired deformities
<b>Objective</b>	<i>Competence in the diagnosis and management of patients, children and adult, with congenital abnormalities of the head and neck</i>
	4 Relevant anatomy, physiology, haematology and pathology.
	4 Relevant associated diseases and conditions.
<b>Knowledge</b>	4 Classification of vascular and lymphatic malformations
	4 Branchiogenic anomalies
	4 Laser therapy
	4 Steroid therapy

	4 Interventional radiology
	4 Post-operative complications
	4 Relevant ancillary investigations and interventions, including ophthalmic assessment
	4 Assessment and non-operative management
<b>Clinical Skills</b>	4 History taking
	4 Examination
	4 Sclerotherapy.
	4 Debulking/excision of haemangioma, lymphangioma.
<b>Technical Skills and Procedures</b>	4 Excision of lesions and reconstruction of facial structures including eyelids and lips.
	4 Excision branchial sinus, fistula and cyst.
	4 Excision of thyroglossal cyst.
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Breast augmentation</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Management of patients requiring breast reconstruction, reduction and augmentation
<b>Objective</b>	<i>Competence in the management of patients requesting breast augmentation for breast aplasia, hypoplasia and asymmetry.</i>
	4 Relevant embryology, anatomy, physiology, and pathology of the breast.
	4 Relevant associated disease and conditions including benign breast disease.
	4 Safety of breast implants including issues relating to the effects of silicone on the body, and regulation of implants.
<b>Knowledge</b>	4 Appropriate pre-operative investigations and patient assessment including psychological assessment.
	4 Post-operative complications and their management.
	4 Recent advances and developments relating to implant manufacture.
	4 Assessment of the elective surgical patient.
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	4 Skills of analysis and diagnostic synthesis, judgement, surgical planning
<b>Technical Skills and Procedures</b>	4 Breast augmentation using differing surgical approaches.
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Breast reduction</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Management of patients requiring breast reconstruction, reduction and augmentation
<b>Objective</b>	<i>Competence in management of patients requesting breast reduction.</i>
	4 Relevant embryology, anatomy and physiology of the breast.
	4 Relevant associated disease and conditions including benign breast disease and causes of mammary hypertrophy.
<b>Knowledge</b>	4 Appropriate pre-operative investigations and patient assessment including psychological assessment.
	4 Range, indications and principles of relevant operations for breast reduction

- and breast mastopexy.
- 4 Post-operative complications and their management.
- 4 Recent advances in techniques for breast reduction.
- 4 Blood supply and innervation of the breast, breast skin and nipple/areolar complex.
- 4 Causes of gynaecomastia
- 4 Assessment of the elective surgical patient.
- 4 History taking.
- 4 Examination.
- 4 Skills of analysis, judgement, surgical planning.
- 4 Various operations for breast reduction.
- 4 Various operations for breast mastopexy.
- 4 Correction of the tuberous breast
- 4 Correction of gynaecomastia

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Breast reconstruction</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Management of patients requiring breast reconstruction, reduction and augmentation
<b>Objective</b>	<i>Competence in the management of patients requiring breast reconstruction. An understanding of the principles involved in multidisciplinary assessment of these patients.</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>4 Relevant embryology, anatomy, physiology, and pathology of the breast.</li> <li>4 Relevant associated disease and conditions including carcinoma of the breast and its treatment.</li> <li>4 Appropriate pre-operative investigations and patient assessment.</li> <li>4 Range, indications and principles of relevant operations.</li> <li>4 Post-operative complications and their management.</li> <li>4 Recent advances in flap design.</li> <li>4 Breast implants and issues surrounding safety of silicone.</li> <li>4 Relevant ancillary investigations, interventions including radiotherapy, chemotherapy, hormone therapy, psychological support.</li> <li>4 Assessment of the elective surgical patient.</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>4 History taking.</li> <li>4 Examination.</li> <li>4 Skills of analysis and diagnostic synthesis, judgement, surgical planning</li> <li>4 Axillary nodal dissection</li> <li>4 FNA/Core Biopsy</li> <li>Breast Reconstruction: 4 Implant only</li> <li>Breast Reconstruction: 4 Tissue expansion</li> <li>Pedicled Flaps:4 Latissimus dorsi</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>Pedicled Flaps: 4 TRAM</li> <li>Free Flaps:4 Latissimus dorsi</li> <li>Free Flaps: 4 TRAM</li> <li>Free flaps: 4 DIEP</li> <li>Free Flaps: 4 SGAP</li> <li>Free Flaps: 4 IGAP</li> <li>4 Nipple/areolar reconstruction</li> </ul>
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills



<b>Topic</b>	<b>Perineal reconstruction</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Trunk and GU
<b>Objective</b>	<i>To be able to undertake perineal reconstruction in cases of trauma and following excisional procedures for malignant and premalignant conditions affecting the vulva and perineum.</i> <i>Knowledge of techniques available for penile reconstruction.</i> <i>Knowledge of techniques available for vaginal reconstruction.</i>
<b>Knowledge</b>	4 Relevant embryology, anatomy, physiology, pathology including microbiology, and histopathology. 4 Relevant associated disease and conditions. 3 Issues relating to patients requesting gender re-assignment. 4 Appropriate pre-operative investigations and patient assessment. 4 Range, indications and principles of relevant operations. 4 Post-operative complications and their management. 4 Recent advances.
<b>Clinical Skills</b>	4 Assessment and non-operative management of the acute and elective surgical patient 4 History taking. 4 Examination. 4 Skills of analysis and diagnostic synthesis, judgement, surgical planning
<b>Technical Skills and Procedures</b>	4 Skin grafts 4 Bowel grafts 4 Random flaps 4 Myocutaneous flaps 4 Free flaps
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>The principles of surgical management of hypospadias.</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Trunk and GU
<b>Objective</b>	<i>To obtain competencies in the management of cases of hypospadias.</i> <i>To understand the principles of management in cases of epispadias and exstrophy.</i>
<b>Knowledge</b>	4 Relevant embryology, anatomy, physiology. pathology. 4 Relevant associated syndromes and conditions. 4 Appropriate pre-operative investigations and patient assessment. 4 Range, indications and principles of relevant operations. 4 Post-operative complications and their management. 4 Recent advances.
<b>Clinical Skills</b>	4 Assessment and non-operative of the management of the elective surgical patient. 4 History taking. 4 Examination. 4 Skills of analysis and diagnostic synthesis, judgement, surgical planning
<b>Technical Skills and Procedures</b>	4 Operative procedures in common use for hypospadias and related conditions including 1 stage, 2 stage techniques.

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Surgical management of congenital and acquired defects of the chest wall, abdominal wall and trunk</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Trunk and GU
<b>Objective</b>	<i>Competence in the assessment and management of defects involving the trunk, including traumatic defects</i>
<b>Knowledge</b>	4 Relevant embryology, anatomy, physiology, and pathology 4 Appropriate pre-operative investigations and patient assessment. 4 Range, indication and principles of relevant operations. 4 Tissue expansion techniques
<b>Clinical Skills</b>	4 Assessment of the acute and elective surgical patient -adult and child 4 History taking 4 Examination 4 Skills of analysis and diagnostic synthesis, judgement, surgical planning 4 Operations for Poland's syndrome involving chest deformity 4 Operations to cover spinal defects in children with spina bifida
<b>Technical Skills and Procedures</b>	4 Operations to provide skin cover in traumatic injuries involving skin, soft tissue loss 4 Operations to provide skin cover following surgical resection of tumours including abdominal wall defects, chest wall defects. 4 Provision of skin cover in sternotomy wounds
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>The multidisciplinary assessment of management of tibial fractures involving skin loss</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Lower Limb
<b>Objective</b>	<i>Competence in the combined management of patients with compound tibial fractures involving skin loss</i>
<b>Knowledge</b>	4 Relevant anatomy, physiology, pathology. 4 Fracture healing. 4 Skin blood supply. 4 External fixators.
<b>Clinical Skills</b>	4 Appropriate pre-operative investigations and patient assessment. 4 Range, indications and principles of relevant operations. 4 Post-operative complications and their management. 4 Relevant ancillary investigations and interventions including imaging techniques, physiotherapy, occupational therapy. 4 Assessment and non-operative management of the acute surgical patient. 4 History taking 4 Examination including combined assessment of limb viability and function.
<b>Technical Skills and Procedures</b>	Nerve repair Vessel repair 4 Local flaps: Fasciocutaneous 4 Local flaps: Perforator 4 Local flaps: Muscle

- 4 Local flaps: Myocutaneous
- 4 Free flaps: Skin
- 4 Free flaps: Muscle
- 4 Free flaps: Myocutaneous
- 4 Free flaps: Osteocutaneous

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Trauma</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Lower Limb
<b>Objective</b>	<i>Competence in the management of lower limb trauma.</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>4 Relevant anatomy, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.</li> <li>4 Appropriate pre-operative investigations and patient assessment.</li> <li>4 Degloving injuries and their mechanism.</li> <li>4 Compartment syndrome.</li> <li>4 Range, indications and principles of relevant operations.</li> <li>4 Post-operative complications and their management.</li> <li>4 Relevant ancillary investigations and interventions, e.g. imaging techniques, physiotherapy, occupational therapy.</li> <li>4 Assessment and non-operative of the management of the acute surgical patient</li> </ul>
<b>Clinical Skills</b>	<ul style="list-style-type: none"> <li>4 History taking.</li> <li>4 Examination including assessment of limb viability, compartment syndrome.</li> <li>4 Use of doppler.</li> <li>4 Skills of analysis and diagnostic synthesis, judgement, surgical planning</li> <li>4 Superficial wounds</li> <li>4 Debridement/SSG</li> <li>4 Fasciotomy</li> <li>4 Amputations above knee/below knee</li> <li>4 Harvest iliac crest bone graft</li> </ul>
<b>Technical Skills and Procedures</b>	<ul style="list-style-type: none"> <li>Vessel repair</li> <li>Nerve repair</li> <li>4 Local Flaps: Fasciocutaneous</li> <li>4 Local flaps: Perforator</li> <li>4 Local flaps: Muscle</li> <li>4 Local flaps: Myocutaneous</li> <li>4 Free Flaps: Radial</li> <li>Free flaps: other</li> </ul>

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>The management of lymphoedema</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Lower Limb
<b>Objective</b>	<i>Competence in the diagnosis and management of lymphoedema</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>4 Relevant anatomy, embryology, physiology and pathology of the lymphatic system</li> <li>4 Classification of lymphoedema</li> </ul>

	4 Non-operative management
	4 Surgical management
<b>Clinical Skills</b>	4 Assessment of the elective surgical patient
	4 History taking
	4 Examination
<b>Technical Skills and Procedures</b>	4 Various operations including Charles's procedure
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>All aspects of diagnosis and management of benign and malignant skin tumours including surgical reconstruction and regional node dissection</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Skin and Soft Tissue Tumours
<b>Objective</b>	<i>Competence in diagnosis and management of skin lesions including benign skin and subcutaneous lesions, skin malignancy</i>
	4 Relevant anatomy, embryology, physiology, and pathology including histopathology
	4 Relevant associated disease
	4 Appropriate pre-operative investigations and patient assessment
	4 Benign skin lesions and subcutaneous lesions
	4 Malignant melanoma and non-melanoma skin cancer
	4 Incisional and excisional biopsy
<b>Knowledge</b>	4 Excision margins
	4 Adjuvant therapy including radiotherapy, chemotherapy
	4 Tumour staging
	4 Minimum data sets
	3 Moh's technique
	4 Sentinel node biopsy
	4 Recent advances
	4 Palliative care
	4 Assessment of the elective surgical patient
<b>Clinical Skills</b>	4 History taking
	4 Examination
	4 Excision of sebaceous cyst
	4 Excision and direct closure of simple skin lesions
	4 Excision and direct closure basal cell carcinoma
<b>Technical Skills and Procedures</b>	4 Excision and graft malignant skin lesions
	4 Excision malignant melanoma
	4 Excision and flap repair
	Regional lymph dissection axilla
	Regional lymph dissection groin
	Regional lymph dissection neck
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>The assessment and management of patients requiring aesthetic alterations of body parts including face, eyelids, nose and ears.</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Aesthetic

<b>Objective</b>	<i>Competence in the practice of aesthetic plastic surgery.</i>
	4 Relevant anatomy, embryology, physiology, biochemistry and pharmacology, pathology including microbiology, haematology, immunology and histopathology.
	4 Relevant associated disease.
<b>Knowledge</b>	4 Appropriate pre-operative investigations and patient assessment including psychological assessment.
	4 Range, indications and principles of relevant operations in the different areas
	4 Post-operative complications and their management.
	4 Recent advances including development of new surgical techniques.
	4 Assessment and non-operative of the management of the elective surgical patient.
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	4 Skills of analysis and diagnostic synthesis, judgement, surgical planning
	4 Blepharoplasty-upper
	4 Blepharoplasty-lower
	4 Pinnaplasty
	4 Correction of the constricted ear
	4 Breast-augmentation
	4 Breast-reduction
	4 Breast-mastopexy
	4 Breast-tuberous correction
	4 Abdominoplasty
	4 Face Lift-skin
	4 Face-Lift SMAS
	4 Liposuction-abdomen
	4 Liposuction-thighs
<b>Technical Skills and Procedures</b>	4 Liposuction-trunk
	4 Brachioplasty
	4 Thigh lifts
	4 Body lifts
	4 Laser-tattoo removal
	4 Laser-skin lesion
	4 Laser-peeling
	4 Laser-chemical peeling
	4 Laser-Dermabrasion
	4 Laser-Filler injections
	4 Rhinoplasty-post trauma
	4 Rhinoplasty-cosmetic

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Management of wounds including contaminated, infected wounds and those involving skin loss</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Wound Care
<b>Objective</b>	<i>Competence in the management of lacerations, soft tissue injuries and wounds</i> 4 Relevant anatomy, physiology, biochemistry, pharmacology, pathology including microbiology, haematology, immunology and histopathology. 4 Relevant associated disease and conditions. 4 Appropriate pre-operative investigations and patient assessment. 4 Range, indications and principles of relevant surgical techniques and operations.
<b>Knowledge</b>	4 Post-operative complications and their management. 4 Recent advances in wound healing 4 Varicose ulceration including aetiology 4 Wound dressings 4 Antibiotic therapy 4 Degloving injury 3 Principles of Doppler physics 4 Assessment and non-operative of the management of the acute and elective surgical patient
<b>Clinical Skills</b>	4 History taking. 4 Examination. 4 Use of Doppler 4 Skills of analysis and diagnostic synthesis, judgement, surgical planning 4 Exploration of traumatic wounds 4 Assessment of tissue viability 4 Debridement of tissues
<b>Technical Skills and Procedures</b>	4 Surgical handling of soft tissues 4 Suturing of soft tissues and skin lacerations 4 Nerve repair 4 Split skin grafting 4 Use of local and other flaps

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

<b>Topic</b>	<b>Pressure sore management including surgical management</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Wound Care
<b>Objective</b>	<i>Competence in the management of patients developing pressure sores</i> 4 Relevant anatomy, physiology, pathology including microbiology. 4 Relevant associated disease and co-morbidity including neurological conditions and trauma.
<b>Knowledge</b>	4 Appropriate investigations, patient assessment and non-operative management. 4 Related dietetics 4 Aetiological factors 4 Range, indications and principles of relevant operations.

	4 Post-operative complications and their management.
	4 Recent advances including pressure relieving beds and mattresses, VAC therapy
	4 Relevant ancillary interventions e.g. physiotherapy, occupational therapy.
	4 Assessment and non-operative of the management of the elective surgical patient
<b>Clinical Skills</b>	4 History taking.
	4 Examination.
	4 Skills of analysis and diagnostic synthesis, judgement, surgical planning
<b>Technical Skills and Procedures</b>	4 Debridement of pressure sores
	4 Various procedures for closure of defects including flap closure
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Soft tissue sarcomas</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Skin and Soft Tissue Tumours
<b>Objective</b>	<i>To achieve knowledge and understanding of the multidisciplinary management of soft tissue sarcomas</i>
	4 Relevant embryology, anatomy, physiology and pathology.
	4 Appropriate pre-operative investigations, including imaging, and patient assessment.
	4 Range indications and principles of relevant operations.
<b>Knowledge</b>	4 Post-operative complications and their management.
	3 Relevant ancillary investigations and interventions, including radiotherapy, chemotherapy.
	4 Recent advances.
	4 Biopsy techniques
	4 Assessment and non-operative management of the elective surgical patient.
	4 History taking.
<b>Clinical Skills</b>	4 Examination.
	4 Skills of analysis and diagnostic synthesis, judgement, surgical planning.
	4 FNA cytology.
	4 Core biopsy.
	4 Incisional biopsy at various sites and of varying tissues including fat, connective tissue, muscle, nerve.
<b>Technical Skills and Procedures</b>	4 En-bloc excisional techniques at various sites
	4 Flap reconstruction as required
	4 Nerve repair
	4 Vessel repair
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Scar management</b>
<b>Category</b>	ST7/8 General
<b>Sub-category:</b>	Wound Care
<b>Objective</b>	<i>To gain understanding of the mechanisms involved in scar formation particularly hypertrophic and keloid scarring.</i>
	<i>To gain competence in dealing with hypertrophic and keloid scars and in scar revision procedures.</i>

<b>Knowledge</b>	4 Relevant physiology, pathology relating to wound healing and scar formation 4 Methods available to treat hypertrophic/keloid scars including pressure therapy and steroid therapy 4 Scar revision procedures
<b>Clinical Skills</b>	<b>No content</b>
<b>Technical Skills and Procedures</b>	4 Steroid injection 4 Various scar revision operations including z-plasty, w-plasty
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Basic science</b>
<b>Category</b>	ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
<b>Sub-category:</b>	Basic science as applied to Cleft surgery
<b>Objective</b>	<b>No content</b> Oro-facial embryology Process and timing of facial, branchial arch and otological development Teratogenic effects  Genetics of cleft lip and palate and common cranio-facial syndromes Genetics of cleft lip and palate, cleft syndromes, common cranio-facial syndromes, cleft syndromes with risk of disability in other systems  Pathogenesis of cleft lip and palate Risk factors (medication and illness in pregnancy, family history, syndromes)  Basic knowledge of dental development Out-line of normal development of deciduous dentition, mixed dentition phase, permanent dentition Common dental anomalies in clefts  Surgical anatomy Skeleton and soft tissues of cleft and non-cleft patients, face, jaws, oral cavity, pharynx, upper airway  Normal physiology of infants and children Cardio-respiratory physiology of newborn, energy requirements, growth, development milestones in the first year of life, IV fluid management, principles of resuscitation (APLS/PALS)  Normal oro-facial physiology Feeding mechanisms, swallowing, relation of infant feeding and later speech mechanisms, nasal and Eustachian tube and middle ear physiology
<b>Knowledge</b>	
<b>Clinical Skills</b>	None
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

**Topic**      **History taking**



<b>Category</b>	ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
<b>Sub-category:</b>	Patient/Parent management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Symptom patterns, pregnancy and family history
<b>Clinical Skills</b>	Elicit relevant history Elicit pregnancy history Take history in difficult circumstances (English not first language, parents with psychological or social problems, confrontational parents)
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Clinical Examination</b>
<b>Category</b>	ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
<b>Sub-category:</b>	Patient/Parent management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Patterns of clinical signs in clefting Signs of appropriate development
<b>Clinical Skills</b>	Appropriate explanation of procedure to parents Ability to examine without causing undue discomfort elicit signs and use appropriate equipment
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Peri-operative management</b>
<b>Category</b>	ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months
<b>Sub-category:</b>	Patient/Parent management
<b>Objective</b>	<i>None</i>
<b>Knowledge</b>	Appropriate health for undergoing anaesthesia and operation Basic knowledge of anaesthesia for cleft infants Post-operative management, including introduction of feeding
<b>Clinical Skills</b>	Appropriate pre-operative examination Communication with anaesthetists Post-operative fluid management (Intravenous and oral) Use of prophylactic antibiotics
<b>Technical Skills and Procedures</b>	None
<b>Professional Skills</b>	Please see the <a href="#">Professional Skills and Behaviour » Final</a> section for these skills

<b>Topic</b>	<b>Surgical Technique</b>
<b>Category</b>	ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be

achieved in the first 6 months

**Sub-category:** Patient/Parent management

**Objective** *None*

**Knowledge** Principles and techniques of primary cleft surgery of lip and palate  
Principles and techniques of secondary cleft surgery, including unilateral alveolar bone graft

**Clinical Skills** Demonstrates appropriate knowledge of surgical anatomy  
Demonstrates appropriate knowledge of operation rationale  
Appropriate tissue handling  
Appropriate selection of instruments  
Appropriate selection of suture material

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Speech investigations**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months

**Sub-category:** *None*

**Objective** *None*

**Knowledge** Indications for speech investigations  
Methods and limitations  
Radiation protection

**Clinical Skills** Assessing appropriateness of referral for speech investigations  
Assessing likely cooperation of patient  
Basic interpretation of results

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Team working**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months

**Sub-category:** Multidisciplinary management

**Objective** *None*

**Knowledge** Understanding the expertise and role of other disciplines in cleft management  
**Clinical Skills** Effective communication with other disciplines  
Presentation of clinical cases

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Communication**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months

**Sub-category:** Multidisciplinary management  
**Objective** *None*  
**Knowledge** Methods and timing of involvement of other disciplines in cleft care  
**Clinical Skills** Appropriate involvement of other professionals  
**Technical Skills and Procedures** None  
**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Empathy and sensitivity, ethics, consent**  
**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months  
**Sub-category:** Multidisciplinary management  
**Objective** *None*  
**Knowledge** Range of patient and parent reaction to cleft deformity and its consequences  
 Knowledge of ethical issues in cleft management  
**Clinical Skills** Identifying patients and parents concerns  
 Take consent effectively for primary cleft operations  
 Ability to discuss ethical issues and potential complications  
**Technical Skills and Procedures** None  
**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Antenatal diagnosis**  
**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months  
**Sub-category:** Multidisciplinary management  
**Objective** *None*  
**Knowledge** Possibilities and limitations of antenatal diagnosis  
 Likelihood of undiagnosed coexistent abnormalities  
**Clinical Skills** Ability to ascertain details of antenatal diagnosis  
 Ability to prioritise information  
 Ability to use simple language in discussing diagnoses  
**Technical Skills and Procedures** None  
**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Organisation and planning**  
**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months  
**Sub-category:** Multidisciplinary management  
**Objective** *None*  
**Knowledge** Systematic approach to patient management  
**Clinical Skills** Starting with important tasks  
 Improvement of efficiency

Discussing prioritisation with colleagues in the team

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Data and record management**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months

**Sub-category:** Multidisciplinary management

**Objective** *None*

**Knowledge** Understand how data are recorded by different specialties in cleft management

**Clinical Skills** Contribute accurate records  
Understand significance of data recorded by others

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Audit/Evidence based medicine**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months

**Sub-category:** Multidisciplinary management

**Objective** *None*

**Knowledge** Principles of EBM  
Important clinical trials in cleft management  
Ongoing audit in cleft management

**Clinical Skills** Critically appraise evidence  
Competent use of paper and electronic data sources  
Ability to discuss evidence with parents and patients at appropriate level  
Ability to carry out audit project

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Research**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 1 Key Objectives to be achieved in the first 6 months

**Sub-category:** Multidisciplinary management

**Objective** *None*

**Knowledge** Place of research in aiding patient management  
Different methods of research and application of these

**Clinical Skills** Involvement in departmental research project  
Using critical analysis skills to determine research questions

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic Embryology**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Core knowledge

**Objective** *None*

**Knowledge** Process and timing of facial, branchial arch and otological development  
Teratogenic effects

**Clinical Skills** Ability to relate deformity/anomaly to embryology

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic Genetics, syndromes**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Core knowledge

**Objective** *None*

**Knowledge** Genetics of cleft lip and palate  
Cleft syndromes  
Common cranio-facial syndromes  
Cleft syndromes with risk of disability in other systems

**Clinical Skills** Sensitive discussion of new findings  
Use of clinical genetics inputs

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic Growth and development in infant/child nutrition**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Core knowledge

**Objective** *None*

**Knowledge** Cardio-respiratory physiology of newborn  
Energy requirements  
Growth  
Development milestones in the first year of life  
IV fluid management  
Principles of resuscitation (APLS/PALS)

**Clinical Skills** Feeding mechanisms, swallowing, relation of infant feeding and later speech mechanisms, nasal and Eustachian tube and middle ear physiology  
Use of growth charts, recognising growth/development exceptions in syndromic patients, appropriate referral of developmental delay, learning

difficulties, childhood disability

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Speech Development**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Core knowledge

**Objective** *None*

Feeding mechanisms, swallowing, relation of infant feeding and later speech mechanisms, nasal and Eustachian tube and middle ear physiology

**Knowledge**

Range of normal speech development mechanisms at risk in cleft, effect of otitis media with effusion, speech skills at school entry

**Clinical Skills**

Effective liaison with Speech Therapists, effective liaison with ENT, appropriate interventions in pre-school child and school child

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Peri-operative Management**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Core knowledge

**Objective** *None*

**Knowledge** Range of normal pre-operative parameters in children, significant dangers for anaesthetics and operation, principles of post-operative fluid management, antibiotic policy

**Clinical Skills**

Appropriate examination, liaison with Anaesthetics and Ward staff, counselling of parents, post-operative fluids and feeding management, thresholds for Intensive Care interventions

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Antenatal management**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Antenatal management

**Objective** *None*

**Knowledge** Possibilities and limitations of antenatal diagnosis, likelihood of undiagnosed coexistent abnormalities

**Clinical Skills**

Ability to ascertain details of antenatal diagnosis, ability to prioritise information, ability to use simple language in discussing diagnoses

Ability to conduct ante-natal counselling, demonstrate appropriate liaison with Fetal Medicine Department

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Airway**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Post natal management

**Objective** *None*

**Knowledge** Airway in Pierre Robin, choanal and laryngeal anomalies

**Clinical Skills** Airway management in collaboration with other professionals

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Feeding**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Post natal management

**Objective** *None*

**Knowledge** Energy requirements and preferred methods of feeding in clefts, feeding problems in syndromic and premature babies

**Clinical Skills** Liaise with other professionals on optimisation of cleft patients' feeding

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Counselling**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Post natal management

**Objective** *None*

**Knowledge** Understanding of techniques and priorities of informing parents of new patients

**Clinical Skills** Counselling parents of new patients, ability to use simple language, ability to demonstrate priorities to parents

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Principles of pre-surgical orthodontics**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Post natal management

**Objective** *None*

**Knowledge** Awareness of orthodontic preferences, awareness of situations indicating pre-surgical orthodontics

**Clinical Skills** Appropriate discussion with Orthodontic colleagues

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Primary lip repair**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Primary surgery

**Objective** *None*

**Knowledge** Surgical anatomy, pathological anatomy, techniques and timing, rationale of different sequences

**Clinical Skills** **No content**

**Technical Skills and Procedures** Operative skill to repair the lip and appropriate other structures according to Unit protocol

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Primary Palate repair**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Primary surgery

**Objective** *None*

**Knowledge** Surgical anatomy, pathological anatomy, techniques and timing, rationale of different sequences

**Clinical Skills** **No content**

**Technical Skills and Procedures** Operative skill to repair the palate and appropriate other structures according to Unit protocol

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Lip revision and fistula closure**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Secondary surgery

**Objective** *None*

**Knowledge** Appropriate assessment of lip/fistula disability, awareness of patient perceptions

**Clinical Skills** None

**Technical Skills** Ability to make appropriate lip revision, ability to make appropriate fistula



**and Procedures** closure

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Investigation of velo-pharyngeal function**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Secondary surgery

**Objective** *None*

**Knowledge** Indications for speech investigations, methods and limitations, radiation protection

**Clinical Skills** **No content**

**Technical Skills and Procedures** Assessing appropriateness of referral for speech investigations, assessing likely co-operation of patient, basic interpretation of results

Full interpretation of the results and formation of clinical plan

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Secondary palatal surgery, surgical management of VPI**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Secondary surgery

**Objective** *None*

**Knowledge** Anatomy and physiology of palatal function and abnormalities after cleft closure, pathophysiology of VPI

**Clinical Skills** **No content**

**Technical Skills and Procedures** Judgement on correct operations for secondary repair and control of VPI, skilful dissection of palate after previous repair, surgical skills in speech surgery, pharyngoplasty

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Alveolar bone graft**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Secondary surgery

**Objective** *None*

**Knowledge** Preparation for bone grafting, correct assessment of evolution of secondary dentition, understanding of orthodontic investigations and treatment

**Clinical Skills** None

**Technical Skills and Procedures** Surgical skills in alveolar bone grafting, correct peri-operative management

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Rhinoplasty**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Secondary surgery

**Objective** *None*

**Knowledge** Anatomy and pathological anatomy of the cleft nose, understanding of corrective procedures

**Clinical Skills** None

**Technical Skills and Procedures** Demonstrate surgical skills in cleft rhinoplasty, management of cleft airway and nasal septum

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Cleft related orthognathic surgery**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Secondary surgery

**Objective** *None*

**Knowledge** Understanding of anatomy and pathological anatomy, understanding of planning, surgical principles in orthognathic appliances and their usage, methods of distraction osteogenesis

**Clinical Skills** None

**Technical Skills and Procedures** Ability to perform orthognathic surgery under supervision

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Basic Otology and hearing assessment**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Multidisciplinary teamworking

**Objective** *None*

**Knowledge** Interpretation of audiogram and tympanometry study, understanding the principles of brain stem evoked response audiometry

**Clinical Skills** Ability to refer from appropriate history and audiogram

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Orthodontics**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Multidisciplinary teamworking

**Objective** *None*

**Knowledge** Understanding of orthodontic role in cleft care, planning AGB, planning orthognathic surgery, orthodontic measurement of mid-facial growth

**Clinical Skills** Appropriate liaison with Orthodontists

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Speech and language therapy**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Multidisciplinary teamworking

**Objective** *None*

**Knowledge** Speech and language therapy input into cleft management, tools for examining speech development, surgical and orthodontic assistance to speech therapy

**Clinical Skills** Appropriate liaison with Speech and language therapists, partaking in policy formation for patients concerning speech management

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Paediatric and restorative dentistry**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Multidisciplinary teamworking

**Objective** *None*

**Knowledge** Understanding of the role of Paediatric Dentists, understanding basics of oral and dental hygiene, understanding principles of restorative dentistry

**Clinical Skills** Appropriate referral to Paediatric and Restorative Dentist

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Child and adolescent psychology**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Multidisciplinary teamworking

**Objective** *None*

**Knowledge** Awareness of the role of Psychologists in childhood and adolescence, understanding of situations requiring psychology therapy

**Clinical Skills** Care in selection of appropriate patients/families for referral

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Children with disabilities**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be

achieved with 18 months

**Sub-category:** Multidisciplinary teamworking

**Objective** *None*

**Knowledge** Understanding the role of Community Paediatrics and associated professionals, special needs teaching, awareness of communication disorders

**Clinical Skills** Appropriate liaison with community agencies, ability to write relevant reports

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Ethical issues**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Multidisciplinary teamworking

**Objective** *None*

**Knowledge** Understanding of consent in older children and adolescents, Gillick competence, ethics of new procedures

**Clinical Skills** Ability to take consent from older children and adolescents, ability to communicate medical ethics to parents and older children

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **General paediatric issues**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Multidisciplinary teamworking

**Objective** *None*

**Knowledge** Understanding resuscitation of children  
Understanding issues of non-accidental injury and child protection

**Clinical Skills** Maintenance of APLS/PALS skills  
Ability to recognise signs of NAI, risk factors, family pathology, awareness of NAI referral pathways to child protection

**Technical Skills and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills

**Topic** **Management of residual cleft deformity in adults**

**Category** ST7 - ST8 Special Interest Cleft Lip and Palate Stage 2 objectives to be achieved with 18 months

**Sub-category:** Multidisciplinary teamworking

**Objective** *None*

**Knowledge** Understanding of situation at cessation of facial growth, basic understanding of nasal septal deformity, understanding of adult self-image problems,

understanding of adult communication problems

**Clinical Skills** Ability to assemble appropriate professionals to solve adults' concerns

**Technical Skills  
and Procedures** None

**Professional Skills** Please see the [Professional Skills and Behaviour » Final](#) section for these skills