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1. Specialty Overview

Overview of Paediatric Surgical Training Programme

Paediatric Surgery is that branch of medicine that deals with the diseases, trauma and malformations of childhood years (foetal period to teenage years). Consultant surgeons working in this area of clinical practice will have undergone a specific training programme to furnish the knowledge, skills and professional attitudes necessary for dealing with children and their families.

At present the majority of specialised children's surgery is performed in specific children's hospitals, or in paediatric surgical units within larger hospitals. In these settings, teams of health professionals led by consultant paediatric surgeons will provide the necessary services to diagnose, surgically treat and support the rehabilitation of children with various ailments. The routine workload has a very general focus with most consultants developing experience and skills across the breadth of surgery. To facilitate this, the training is broad based and comprehensive. There is an increasing trend for consultants to develop further specific expertise in different areas of practice which may include:

- Neonatal Surgery
- Urological Surgery
- Hepatobiliary Surgery
- Gastrointestinal Surgery
- Oncological Surgery.

Most consultants will also have a commitment to an emergency workload though the nature of delivery of that will vary between different units.

Specialty Training Programmes are the route to achieving a Certificate of Completion of Training (C.C.T.) in Paediatric Surgery. Under current guidelines this certificate is mandatory to apply for consultant positions in the U.K.

Entry to Training Programmes is via a competitive selection process and successful candidates will have met the specific requirements laid out in the person specification related to the post being applied to.

The programme of training in Paediatric Surgery is currently an indicative 8 years in duration and aims to furnish trainees with the knowledge, skills and attitudes to progress to CCT in Paediatric Surgery. It is anticipated that trainees will progress through the stages from novice, to competent practitioner, and ultimately to independent practitioner. Training programmes provide opportunities for exposure to the wide range of surgical problems in children, commensurate with acquisition of the competences as detailed within the curriculum document. In addition trainees may be exposed to more focused practice in various paediatric specialties as detailed above.

On completion of CCT, trainees will be able to apply for a consultant position. New consultants would be expected to manage the broad range of conditions presenting to them within the limits of their experience and expertise. This may include appropriate referrals within the team to colleagues with specific expertise, or to national designated centres for specified rare conditions.

The syllabus outlines the expected goals of the training programme in Paediatric Surgery and informs the trainees of the areas of knowledge in which they are expected to become proficient, and inform trainers allowing construction of a programme to meet individual trainee needs. Information from this curriculum will also help inform the annual RITA process and ensure clear guidance for counselling of the trainee.

The four stages initial, intermediate, final and special interest reflect the progress through the specialty. The initial stage ST1 and 2 is the early phase of training, the intermediate...
stage ST3 and 4 introduces specialist skills, and the final stage ST5 and 6 develops specialist skills, the special interest phase enables further development of paediatric specialisation and consolidation of specialist skills and forms the transition to CCT. The syllabus in each stage is not however mutually exclusive. It is fully expected that at different stages trainees may be exposed to different training opportunities and thus may have started on some of the areas of the later stages before completing their objectives for earlier stages. The content in each stage therefore should be viewed as a guide to the minimum required at the end of each of these stages. The use of ‘patient/parent’ should be used to imply all those who have legal responsibility for the child including guardians and professional carers.

On completion of the training programme, Paediatric Surgical Trainees including those pursuing an academic pathway will be expected to have demonstrated competence in all aspects of the published syllabus. These would include the following areas:

**Generic**

- Understanding the specific features of the management of children’s health and illness
- Self directed learning
- Ability to assess published evidence in relation to clinical care
- Ability to teach
- Appropriate professional behaviours in dealing with children and families
- The ability to both lead and work within appropriate teams

**General Surgery**

- Assessment and management of children with acute abdominal pathology
- Assessment and management of trauma (including APLS certification)
- Assessment and management of children with abdominal wall herniae
- Long term management of those children presenting with index neonatal conditions
- Assessment and management of children with oncological diagnoses

**Neonatal Surgery**

- Assessment and management of neonates with acute abdominal pathology
- Assessment and management of neonates with abdominal wall defects
- Assessment and management of neonates with major index conditions e.g. Hirschsprungs disease, anorectal malformations, oesophageal atresia
- Assessment and management of pyloric stenosis

**Urology**

- Assessment and management of children with urinary tract infection
- Assessment and management of children with both upper and lower urinary tract abnormalities to include hypospadias
- Assessment and management of children with haematuria

**SAC Chair:** David Thomas  
**Editor:** Graham Lamont
2. Key Conditions

On completion of the training programme, the Paediatric Surgical Trainee will be expected to have demonstrated competence in all aspects of the published syllabus. These would include the following areas:

Generic

- Understanding the specific features of the management of childrens health and illness
- Self directed learning
- Ability to assess published evidence in relation to clinical care
- Ability to teach
- Appropriate professional behaviours in dealing with children and families
- The ability to both lead and work within appropriate teams

General Surgery

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- Assessment and management of pyloric stenosis

Urology

- Assessment and management of children with urinary tract infection
- Assessment and management of children with both upper and lower urinary tract abnormalities to include hypospadias
- Assessment and management of children with haematuria
3. Initial Stage

Four point scales

What the 4 point scale means for Knowledge

1. Knows of
2. Knows basic concepts
3. Knows generally
4. Knows both specifically and broadly

What the 4 point scale means for Clinical Skills and Technical Skills and Procedures

1. Has observed
2. Can do with assistance
3. Can do whole but may need assistance
4. Competent to do whole without assistance, including managing complications
3.1 Overview

Overview of Initial Stage

The purpose of the initial stage of training (ST 1 and 2) is to enable the trainee to develop the key skills that will allow further progression in the specialty. The module Generic Surgical Skills and Knowledge –all specialties is common to all the surgical specialties.

By the end of ST2, trainees including those following an academic pathway will need demonstrate competence to the defined level in the following areas:

- Generic Skills to allow teamworking, and management of paediatric patients
- Basic sciences (anatomy, physiology, pathology, embryology and genetics) as they relate to illness in children and the practice of Paediatric Surgery
- The diagnosis and management of common paediatric surgical conditions:
  - Child with abdominal pain
  - Vomiting child
  - Trauma
  - Groin conditions
    - Hernia
    - Hydrocoele
    - Penile inflammatory conditions
    - Undescended testis
    - Acute scrotum
  - Abdominal wall pathologies
  - Urological conditions
  - Constipation
  - Head / Neck swellings
  - Intussusception
  - Abscess
  - Ingrowing toenail

In terms of general experience it is expected that trainees would have gained exposure to the following procedures and to be able to perform those marked (*) under direct supervision.

<table>
<thead>
<tr>
<th>Elective Procedures</th>
<th>Emergency Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inguinal Hernia (not neo-natal)</td>
<td>Appendicectomy</td>
</tr>
<tr>
<td>Orchidopexy</td>
<td>Incision and drainage of abscess*</td>
</tr>
<tr>
<td>Circumcision*</td>
<td>Pyloromyotomy</td>
</tr>
<tr>
<td>Lymph node biopsy*</td>
<td>Operation for testicular torsion*</td>
</tr>
<tr>
<td>Abdominal wall herniae</td>
<td>Insertion of pleural drain*</td>
</tr>
<tr>
<td>Insertion of CV lines</td>
<td>Insertion of suprapubic catheter*</td>
</tr>
<tr>
<td>Management of Ingrowing toenails*</td>
<td>Reduction of intussusception</td>
</tr>
<tr>
<td>EUA Rectum*</td>
<td></td>
</tr>
<tr>
<td>Manual evacuation*</td>
<td></td>
</tr>
<tr>
<td>Open rectal biopsy</td>
<td></td>
</tr>
<tr>
<td>Excision of skin lesions*</td>
<td></td>
</tr>
</tbody>
</table>

ST1 Placement in Paediatric Surgery

Purpose

The purpose of a placement in Paediatric Surgery is to enable the trainee to develop some of the key skills that will underpin further training and experience in the specialty by:
• Understanding the differences between the adult and paediatric presentation of common surgical conditions.
• Understanding key differences between adult and child in the management of surgical conditions.
• Being able to diagnose common paediatric surgical conditions
• Undergoing exposure to a range of common surgical procedures
• Developing a number of generic skills specific to paediatric surgery

During the attachment it is expected that the trainee will cover the following (further detail is found in the syllabus).

Knowledge

• Variable requirements for communication according to age
• Basic Sciences relevant to child development and disease (including relevant genetics and embryology)
• Specific ethical and legal Issues affecting the practice of Paediatric Surgery (including issues of consent)
• The symptom patterns, differential diagnosis, investigation and management of common paediatric surgical conditions (see list below)
• The theoretical basis of life support approaches in paediatric surgery
• The principles of surgical intervention

Clinical Skills

• History taking relevant to specific age or developmental stage
• Appropriate examination techniques for children of different ages
• Basic life support skills in paediatric practice
• Ability to communicate appropriately with:
  o Patients
  o Relatives/carers
  o Colleagues, including ward & OP teams
• In respect of common clinical presentations, including:
  o The child with abdominal pain
  o Abdominal wall pathologies
  o The Vomiting child
  o Common Urological conditions
  o Trauma
  o Constipation
  o Head / Neck swellings
  o Intussusception
  o Ingrowing toenail
  o Abscess
  o Groin conditions:
    o Hernia
    o Hydrocele
    o Penile inflammatory conditions
    o Undescended testis
    o Acute scrotum
• The ability to:
  o Construct a differential diagnosis
  o Interpret investigations
  o Construct a management plan for common conditions

Operative Skills

The following procedures are those which the trainee will be able to undertake under direct senior supervision by completion of a 6-month module in Paediatric Surgery. There would be a reduced expectation for 4-month attachments.
Elective Procedures

- Circumcision
- Abdominal wall herniae
- Management of ingrowing toenails
- EUA rectum
- Manual evacuation
- Excision of skin lesions

Emergency Procedures

- Incision and drainage of abscess
- Operation for testicular torsion
# 3.2 Conditions

## Generic Surgical Skills and Knowledge- All Specialties

<table>
<thead>
<tr>
<th>Basic sciences</th>
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</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>Underpinning basic science knowledge appropriate for the practice of surgery.</td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Applied anatomy:</strong></td>
<td>Knowledge of anatomy appropriate for surgery</td>
</tr>
<tr>
<td><strong>Physiology:</strong></td>
<td>Knowledge of physiology relevant to surgical practice</td>
</tr>
<tr>
<td><strong>Pathology:</strong></td>
<td>Knowledge of pathological principles underlying system specific pathology</td>
</tr>
<tr>
<td><strong>Microbiology:</strong></td>
<td>Knowledge of microbiology relevant to surgical practice</td>
</tr>
<tr>
<td><strong>Radiology:</strong></td>
<td>Knowledge of diagnostic and interventional radiology</td>
</tr>
</tbody>
</table>

## Clinical Skills

No content

## Technical Skills

No content

### Knowledge

**Applied anatomy:**
- Development, organs and structures, surface and imaging anatomy of thorax, abdomen, pelvis, perineum, limbs, neck as appropriate for surgical operations

**Physiology:**
- Homeostasis
- Thermoregulation
- Metabolic pathways
- Blood loss
- Sepsis
- Fluid balance and fluid replacement therapy
- Metabolic abnormalities

**Pathology:**
- Inflammation
- Wound healing
- Cellular injury
- Vascular disorders
- Disorders of growth, differentiation and morphogenesis
- Tumours
- Surgical immunology
- Surgical haematology

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

**Radiology:**
- Principles of diagnostic and interventional radiology
### Professional Skills

**Basic surgical skills**

**Objective**

*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.

*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.

**Knowledge**

Incision of skin and subcutaneous tissue:

- 3 Langer’s lines
- 3 Healing mechanism
- 2 Choice of instrument
- 3 Safe practice
- 3 Basic Surgical Skills course

Closure of skin and subcutaneous tissue:

- 2 Options for closure
- 2 Suture and needle choice
- 3 Safe practice

*Knot tying:*

- 2 Choice of material

*Haemostasis:*

- 3 Techniques

*Tissue retraction:*

- 2 Choice of instruments

*Use of drains:*

- 2 Indications
- 2 Types
- 2 Management/removal

*Tissue handling:*

- 3 Choice of instruments

**Clinical Skills**

Incision of skin and subcutaneous tissue:
3 Ability to use scalpel, diathermy and scissors

Closure of skin and subcutaneous tissue:

3 Accurate and tension free apposition of wound edges

Knot tying:

2 Single handed
3 Double handed
3 Instrument
3 Superficial
2 Deep

Haemostasis:

3 Control of bleeding vessel (superficial)
3 Diathermy
3 Suture ligation
2 Tie ligation
2 Clip application

Tissue retraction:

3 Tissue forceps
2 Placement of wound retractors

Use of drains:

2 Insertion
2 Fixation
2 Removal

Tissue handling:

3 Appropriate application of instruments and respect for tissues

Skill as assistant:

2 Anticipation of needs of surgeon when assisting

**Technical Skills**

No content

**Professional Skills**

No content

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<table>
<thead>
<tr>
<th>The Assessment and Management of the Surgical Patient</th>
</tr>
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<tbody>
<tr>
<td><strong>Objective</strong></td>
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<tr>
<td><strong>Knowledge</strong></td>
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<tr>
<td><strong>Clinical Skills</strong></td>
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</table>
**Perioperative care**

**Objective**

*Ability to manage patient care in the perioperative period.*

*Preoperative assessment and management: Ability to assess the patient adequately prior to operation and manage any preoperative problems appropriately.*

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

*Postoperative care: Ability to care for the patient in the postoperative period.*

**Blood Products: Appropriate use of blood products.**

**Antibiotics: Appropriate use of antibiotics.**

**Knowledge**

**Preoperative assessment and management:**

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

**Intraoperative care:**

3 Safety in theatre
4 Sharps safety
3 Diathermy, laser use
3 Infection risks
2 Radiation use and risks
2 Tourniquets
2 Principles of local, regional and general anaesthesia

**Postoperative care:**

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

**Blood Products:**

3 Components of blood
2 Alternatives to use of blood products

**Antibiotics:**

3 Common pathogens in surgical patients
2 Antibiotic sensitivities
3 Antibiotic side-effects
3 Principles of prophylaxis and treatment

**Clinical Skills**
Preoperative assessment and management:

3 History and examination
3 Interpretation of preop investigations
3 Management of comorbidity
3 Resuscitation

Intraoperative care:

2 Safe conduct of intraoperative care

Postoperative care:

3 Assessment of patient’s condition
3 Postoperative analgesia
3 Fluid and electrolyte management
3 Monitoring of postoperative patient
3 Detection of impending organ failure
3 Initial management of organ failure
2 Use of MDT meetings

Blood Products:

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

Antibiotics:

3 Appropriate prescription of antibiotics

**Technical Skills**

No content

**Professional Skills**

Preoperative assessment and management:

3 Communication with patient and relatives
3 Liaison with physicians and ITU staff

Intraoperative care:

3 Communication with other staff members

Postoperative care:

3 Communication with patient and relatives
3 Liaison with physicians and ITU staff

Blood Products:

3 Communication with patient and relatives

---

**Assessment of multiple injured patients including children**

**Objective**

Safely assess the multiply injured patient.

**Knowledge**

2 Anatomy
3 Pathogenesis of shock
2 Differences In Children

**Clinical Skills**

4 History and examination
3 Investigation
3 Resuscitation and early management according to ATLS and APLS guidelines
3 Referral to appropriate surgical subspecialties

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

**Professional Skills**
No content

---

**Bleeding diathesis**

**Objective**
*Understand, Recognise and Manage bleeding diathesis in the surgical patient.*

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

**Treatment:** *Manage bleeding diathesis in the surgical patient.*

**Knowledge**

**Diagnosis:**
3 Mechanism of haemostasis
2 Pathology of impaired haemostasis e.g. haemophilia, liver disease, massive haemorrhage

**Treatment:**
2 Understands use of blood products

**Clinical Skills**

**Diagnosis:**
2 Recognition of conditions likely to lead to the diathesis
2 Recognition of abnormal bleeding during surgery

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

**Technical Skills**
No content

**Professional Skills**

**Diagnosis:**
3 Communication with laboratory staff

**Treatment:**
3 Communication with anaesthetist, theatre team and laboratory staff

---

**Venous thrombosis + embolism**

**Objective**
*Understanding of practice in the prevention and management of Venous thrombosis and Embolism.*

**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.*

**Knowledge**
Coagulation:

3 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

Treatment:

3 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

**Clinical Skills**

Coagulation:

3 Recognition of patients at risk

Diagnosis:

3 Awareness of symptoms and signs associated with pulmonary embolism and DVT
2 Role of duplex scanning, venography and d-dimer measurement

Treatment:

3 Initiate and monitor treatment

Prophylaxis:

3 Awareness at all times of the importance of prophylaxis

**Technical Skills**

No content

**Professional Skills**

Coagulation:

3 Protocol management

Diagnosis:

2 Ability to organise and time appropriate investigation

Treatment:

2 Prioritisation of investigation and treatment
2 Patient counselling

Prophylaxis:

2 Able to implement in the team setting the culture of prophylaxis

**Nutrition**

**Objective**

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

**Knowledge**

3 Effects of malnutrition, both excess and depletion
2 Methods of screening and assessment
Clinical Skills
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
2 Arrange access to suitable artificial nutritional support, preferably via a nutrition team:
   Parenteral nutrition

Technical Skills
No content

Professional Skills
No content

Academic activity
Objective
An introduction to research methodology and to teaching others.

Research: Ability to perform a simple research study and present the results.
Teaching: Ability to teach small groups such as medical students.

Knowledge
Research:
2 Research methodology
Teaching:
2 Teaching methods

Clinical Skills
Research:
2 Ability to analyse published evidence
Teaching:
3 Ability to teach small groups

Technical Skills
No content

Professional Skills
No content

Management of the dying patient
Objective
Ability to manage the dying patient appropriately.

Palliative Care: Good management of the dying patient in consultation with the palliative care team.
Principles of organ donation: Knowledge of the principles of organ donation.

Knowledge
Palliative Care:
2 Care of the terminally ill
3 Analgesia
2 Antiemetics
2 Laxatives

Principles of organ donation:
2 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

**Clinical Skills**

Palliative Care:

2 Symptom control in the terminally ill patient

**Technical Skills**

No content

**Professional Skills**

Palliative Care:

3 Communication with the patient and relatives
2 Liason with the palliative care team

Principles of organ donation:

3 Communication with relatives
2 Liason with the transplant team
0 Learn to cope with crisis and mortality

---

**Endocrine and Metabolic Disorders**

**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

**Knowledge**

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

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

Hypercalcaemia
2 Causes and effects of hypercalcaemia

Cortico-steroid therapy
3 Complications
3 Steroid insufficiency

Diabetes Mellitus
2 Complications

Hyponatremia
2 Pathophysiology of fluid and electrolyte balance
2 Causes of hyponatremia

**Clinical Skills**

Thyrotoxicosis
2 History and examination
2 Investigation of thyrotoxicosis

Hypothyroidism
2 History and examination
2 Investigation

Hypercalcaemia
2 Investigation of hypercalcaemia
2 Treatment of hypercalcaemia
Cortico-steroid therapy
3 Peri-operative management of patients on steroid therapy

Diabetes Mellitus
3 Peri-operative management of diabetic patients

Hyponatraemia
3 Treatment

Technical Skills
No content

Professional Skills
3 Liaise with endocrinologists
3 Liaise with diabetic team

Child Protection

Objective

Knowledge
4 Working knowledge of Trust and ACPC 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

Clinical Skills
Ability to:
4 recognise the possibility of abuse or maltreatment
4 recognise limitations of own knowledge and experience and seek appropriate expert advice
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
No content

Professional Skills
No content
**Core Generic Skills**

**Basic Sciences**

<table>
<thead>
<tr>
<th><strong>Anatomy</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td>To understand the basic anatomy that surgeons will encounter during the management of children, and the embryological development of anatomical systems.</td>
</tr>
</tbody>
</table>

**Knowledge**

<table>
<thead>
<tr>
<th><strong>CARDIOVASCULAR:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Embryogenesis of heart and major vessels, and formation of the lymphatic system</td>
</tr>
<tr>
<td>2 Common anatomical variations of heart chambers, valves and major vessels</td>
</tr>
<tr>
<td>2 Surgical anatomy of heart and major arteries + veins in thorax, neck, abdomen and groins</td>
</tr>
</tbody>
</table>

**RESPIRATORY:**

| 2 Embryogenesis of trachea and bronchial tree |
| 2 Lung development |
| 2 Common anatomical variations of respiratory tree and lungs to include vascular anomalies |
| 2 Surgical anatomy of pleura, lung and trachea and bronchial tree |

**GASTROINTESTINAL TRACT AND ABDOMINAL WALL:**

| 2 Embryogenesis of the GIT to include formation of the solid organs, anorectum, and abdominal wall |
| 2 Common anatomical variations in the formation of the GIT and abdominal wall |
| 2 Surgical anatomy of the GIT and its relations to other systems |

**RENAL:**

| 2 Embryogenesis of the upper and lower renal tract to include male and female genital development |
| 2 Common anatomical variations of the renal tract and genitalia |
| 2 Surgical anatomy of the renal tract, and associated genital structures to include relationships to other systems |

**NEUROLOGICAL:**

| 2 Embryogenesis of the brain and spinal cord, and of the supporting structures (skull, vertebral column) |
| 2 Common anatomical variations of the brain and spinal cord |
| 2 Surgical anatomy of the brain, spinal cord and major somatic nerves (to include relationships to other systems) |

**MUSCULO SKELETAL:**

| 2 Embryogenesis of the skeleton and muscle development |
| 2 Common anatomical variations of skeleton |
| 2 Surgical anatomy of skeleton where relevant to other systems |

**Clinical Skills**

<table>
<thead>
<tr>
<th><strong>CARDIOVASCULAR:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Relate knowledge to assessment of clinical situation or progress of disease condition</td>
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</table>

<table>
<thead>
<tr>
<th><strong>RESPIRATORY:</strong></th>
</tr>
</thead>
<tbody>
<tr>
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</table>
GASTROINTESTINAL TRACT AND ABDOMINAL WALL:
2 Relate knowledge to assessment of clinical situation or progress of disease condition

RENAL:
2 Relate knowledge to assessment of clinical situation or progress of disease condition

NEUROLOGICAL:
2 Relate knowledge to assessment of clinical situation or progress of disease condition

MUSCULO SKELETAL:
2 Relate knowledge to assessment of clinical situation or progress of disease condition

Technical Skills
No content

Professional Skills
CARDIOVASCULAR:
3 A commitment to the highest standard of care
3 A commitment to serve the interests and welfare of patients

RESPIRATORY:
3 A commitment to the highest standard of care
3 A commitment to serve the interests and welfare of patients

GASTROINTESTINAL TRACT AND ABDOMINAL WALL:
3 A commitment to the highest standard of care
3 A commitment to serve the interests and welfare of patients

RENAL:
3 A commitment to the highest standard of care
3 A commitment to serve the interests and welfare of patients

NEUROLOGICAL:
3 A commitment to the highest standard of care
3 A commitment to serve the interests and welfare of patients

MUSCULO SKELETAL:
3 A commitment to the highest standard of care
3 A commitment to serve the interests and welfare of patients

Physiology
Objective
To understand the normal physiological processes at different ages. To understand the effects of disease and trauma on these processes.

Knowledge
FLUID BALANCE:
2 Basic requirements of fluid and electrolytes at different ages
2 Mechanisms of homeostasis
2 Influence of disease states
  -renal
  -cardiac
  -gastrointestinal
  -trauma
2 Mechanisms of homeostasis
2 Abnormalities encountered in disease

ACID-BASE BALANCE:
2 Basic requirements of fluid and electrolytes at different ages
2 Mechanisms of homeostasis
2 Influence of disease states
  -renal
  -cardiac
  -gastrointestinal
  -trauma
2. Mechanisms of homeostasis
2. Abnormalities encountered in disease

**OXYGEN TRANSPORT:**
2. Airway function in health and disease
2. Alveolar function and gas exchange
2. Effect of disease
- R.D.S.
- Infection
- Barotrauma
- Prematurity
2. Effect of foetal circulation

**GASTROINTESTINAL TRACT:**
2. Motility of different regions of gut
2. Secretion and absorption
2. Function of sphincter regions
- G.O. junction
- Pylorus
- Ileocaecal region
- Anorectum
2. Defaecation and continence

**HEPATOBIILIARY FUNCTION AND PANCREATIC FUNCTION:**
2. Metabolic and synthetic hepatic function
2. Bile production and transport
2. Exocrine pancreatic function
2. Effect of disease on normal function

**RENAL TRACT:**
2. Renal mechanisms for maintenance of homeostasis
2. Effect of disease
2. Bladder function and continence
2. Transitional renal physiology in neonate and young child

**GROWTH AND METABOLISM:**
2. Nutritional requirements at different ages
2. Endocrine factors influencing growth
- thyroid
- pituitary
- pancreatic
- adrenal
- gonadal
2. Effect of disease states including
- chronic disease
- trauma
- response to operation
2. Influence and use of parenteral and enteral feeding

**AUTONOMIC NERVOUS SYSTEM:**
2. Differing effects of sympathetic and parasympathetic innervation
2. Effects on differing physiological processes

**Clinical Skills**

**FLUID BALANCE:**
2. Relate knowledge to assessment of clinical situation or progress of disease condition

**ACID-BASE BALANCE:**
2. Relate knowledge to assessment of clinical situation or progress of disease condition

**OXYGEN TRANSPORT:**
2. Relate knowledge to assessment of clinical situation or progress of disease condition

**GASTROINTESTINAL TRACT:**
2 Relate knowledge to assessment of clinical situation or progress of disease condition

**HEPATOBIILIARY FUNCTION AND PANCREATIC FUNCTION:**
2 Relate knowledge to assessment of clinical situation or progress of disease condition

**RENAL TRACT:**
2 Relate knowledge to assessment of clinical situation or progress of disease condition

**GROWTH AND METABOLISM:**
2 Relate knowledge to assessment of clinical situation or progress of disease condition

**AUTONOMIC NERVOUS SYSTEM:**
2 Relate knowledge to assessment of clinical situation or progress of disease condition

### Technical Skills

**No content**

### Professional Skills

- **FLUID BALANCE:**
  3 A commitment to the highest standard of care
  3 A commitment to serve the interests and welfare of patients

- **ACID-BASE BALANCE:**
  3 A commitment to the highest standard of care
  3 A commitment to serve the interests and welfare of patients

- **OXYGEN TRANSPORT:**
  3 A commitment to the highest standard of care
  3 A commitment to serve the interests and welfare of patients

- **GASTROINTESTINAL TRACT:**
  3 A commitment to the highest standard of care
  3 A commitment to serve the interests and welfare of patients

- **HEPATOBIILIARY FUNCTION AND PANCREATIC FUNCTION:**
  3 A commitment to the highest standard of care
  3 A commitment to serve the interests and welfare of patients

- **RENAL TRACT:**
  3 A commitment to the highest standard of care
  3 A commitment to serve the interests and welfare of patients

- **GROWTH AND METABOLISM:**
  3 A commitment to the highest standard of care
  3 A commitment to serve the interests and welfare of patients

- **AUTONOMIC NERVOUS SYSTEM:**
  3 A commitment to the highest standard of care
  3 A commitment to serve the interests and welfare of patients

### Surgical Pathology and Genetics

#### Objective

**Knowledge**

**INFLAMMATORY PROCESSES:**

- 2 Processes of acute inflammatory response as it affects different organ systems
  - Respiratory
  - GIT
  - Renal
- 2 Processes of chronic inflammatory response
- 2 Processes of wound healing

**ONCOLOGY:**

- 2 Basic mechanisms of tumour initiation and growth
<table>
<thead>
<tr>
<th>2 Role of environmental factors</th>
<th>2 Role of genetic factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Basic knowledge of staging of different tumours and relation to treatment strategies and outcome</td>
<td>2 Mechanism of action of chemo and radiotherapy</td>
</tr>
</tbody>
</table>

**PRINCIPLES OF HUMAN GENETICS:**
2 Relevance to clinical conditions

**INFECTIVE PROCESSES:**
2 Commonly encountered infective agents
2 Diagnostic procedures
2 Role and mechanism of antibiotics
2 Value of preventative measures

**HAMARTOMATOUS LESIONS:**
2 Basic pathology of lesions related to growth
2 Prognosis of differing lesions
2 Differential diagnosis and treatment modalities if required

**Clinical Skills**

**INFLAMMATORY PROCESSES:**
2 Relate knowledge to assessment of clinical situation or progress of disease condition

**ONCOLOGY:**
2 Relate knowledge to assessment of clinical situation or progress of disease condition

**PRINCIPLES OF HUMAN GENETICS:**
2 Relate knowledge to assessment of clinical situation or progress of disease condition

**INFECTIVE PROCESSES:**
2 Relate knowledge to assessment of clinical situation or progress of disease condition

**HAMARTOMATOUS LESIONS:**
2 Relate knowledge to assessment of clinical situation or progress of disease condition

**Technical Skills**
No content

**Professional Skills**

**INFLAMMATORY PROCESSES:**
3 A commitment to the highest standard of care
3 A commitment to serve the interests and welfare of patients

**ONCOLOGY:**
3 A commitment to the highest standard of care
3 A commitment to serve the interests and welfare of patients

**PRINCIPLES OF HUMAN GENETICS:**
3 A commitment to the highest standard of care
3 A commitment to serve the interests and welfare of patients

**INFECTIVE PROCESSES:**
3 A commitment to the highest standard of care
3 A commitment to serve the interests and welfare of patients

**HAMARTOMATOUS LESIONS:**
3 A commitment to the highest standard of care
3 A commitment to serve the interests and welfare of patients
Understanding the specific features of the management of children's health and illness

<table>
<thead>
<tr>
<th>Good Clinical Care</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td>To be able to take a history and make an appropriate physical examination. Keep accurate and relevant medical records.</td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
</tr>
<tr>
<td>Examination:</td>
</tr>
<tr>
<td>2 Patterns of clinical signs</td>
</tr>
<tr>
<td>Note keeping/Letters:</td>
</tr>
<tr>
<td>Structure of:</td>
</tr>
<tr>
<td>3 Medical notes</td>
</tr>
<tr>
<td>3 Discharge letters</td>
</tr>
<tr>
<td>2 Coding returns</td>
</tr>
<tr>
<td>2 Outpatient letters/ Prescriptions</td>
</tr>
<tr>
<td>2 Role of medical records in central data returns</td>
</tr>
<tr>
<td>History Taking:</td>
</tr>
<tr>
<td>2 Symptom patterns</td>
</tr>
<tr>
<td><strong>Clinical Skills</strong></td>
</tr>
<tr>
<td>Examination:</td>
</tr>
<tr>
<td>3 Appropriate explanation of procedure to parents and patients</td>
</tr>
<tr>
<td>3 Ability to examine without causing undue discomfort</td>
</tr>
<tr>
<td>2 Elicit signs and use equipment appropriately</td>
</tr>
<tr>
<td>Note keeping/Letters:</td>
</tr>
<tr>
<td>Legible accurate recording of:</td>
</tr>
<tr>
<td>3 History examination Differential diagnosis</td>
</tr>
<tr>
<td>3 Investigation and management plan</td>
</tr>
<tr>
<td>3 Results and action taken</td>
</tr>
<tr>
<td>2 Other relevant information</td>
</tr>
<tr>
<td>4 Date and sign each entry</td>
</tr>
<tr>
<td>3 Relevant IT skills (e-mail and internet skills)</td>
</tr>
<tr>
<td>History Taking:</td>
</tr>
<tr>
<td>3 Elicit a relevant history</td>
</tr>
<tr>
<td>3 Identify and synthesise problems</td>
</tr>
<tr>
<td>2 Take a history in difficult circumstances</td>
</tr>
<tr>
<td>- English is not the patient or parents first language</td>
</tr>
<tr>
<td>- Patient with disability</td>
</tr>
<tr>
<td>- Patient or parents have psychological problems</td>
</tr>
<tr>
<td>- Confrontational parents</td>
</tr>
<tr>
<td><strong>Technical Skills</strong></td>
</tr>
<tr>
<td>Examination:</td>
</tr>
<tr>
<td>3 Note keeping/Letters:</td>
</tr>
<tr>
<td>3 History Taking:</td>
</tr>
<tr>
<td><strong>Professional Skills</strong></td>
</tr>
<tr>
<td>Examination:</td>
</tr>
<tr>
<td>3 Be aware of patient dignity and comfort</td>
</tr>
<tr>
<td>3 Be aware of needs of parent and child</td>
</tr>
</tbody>
</table>
3 Be conscious of need for chaperone in certain cases

Note keeping/Letters:
2 Ensure accessibility of notes to all members of the team
Consider importance of:
3 Timely dictation of discharge summaries
3 Effective use of medical secretaries
3 Prompt and accurate communication with primary care
2 Understand the value of clear coding returns

History Taking:

2 Consider the impact of Physical problems on family dynamics
2 Psychological overlay on physical symptoms
### Appropriate professional behaviours in dealing with children and families

<table>
<thead>
<tr>
<th>Good Clinical Care: Time management, Risk management and decision-making</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td>To manage time and problems effectively.</td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
</tr>
<tr>
<td>TIME MANAGEMENT:</td>
</tr>
<tr>
<td>2 Systematic approach to prioritisation of patient tasks</td>
</tr>
<tr>
<td>RISK MANAGEMENT:</td>
</tr>
<tr>
<td>2 Complications and side effects of treatments (surgical and non-surgical) and the effect of non-intervention</td>
</tr>
<tr>
<td>DECISION MAKING:</td>
</tr>
<tr>
<td>2 Clinical priorities in investigation and management</td>
</tr>
<tr>
<td><strong>Clinical Skills</strong></td>
</tr>
<tr>
<td>TIME MANAGEMENT:</td>
</tr>
<tr>
<td>3 Start with most important task</td>
</tr>
<tr>
<td>2 Show improved efficiency as skill develops</td>
</tr>
<tr>
<td>2 Recognise need to re-prioritise or call for help</td>
</tr>
<tr>
<td>RISK MANAGEMENT:</td>
</tr>
<tr>
<td>2 Discuss relevant risks with parents/patients (where applicable)</td>
</tr>
<tr>
<td>DECISION MAKING:</td>
</tr>
<tr>
<td>2 Analyse and manage clinical problems</td>
</tr>
<tr>
<td>2 Involve appropriate other professionals and parents/patients</td>
</tr>
<tr>
<td><strong>Technical Skills</strong></td>
</tr>
<tr>
<td>No content</td>
</tr>
<tr>
<td><strong>Professional Skills</strong></td>
</tr>
<tr>
<td>TIME MANAGEMENT:</td>
</tr>
<tr>
<td>3 Realistic expectations of tasks to be completed by self and others</td>
</tr>
<tr>
<td>3 Willingness to consult other opinions and work as a team</td>
</tr>
<tr>
<td>RISK MANAGEMENT:</td>
</tr>
<tr>
<td>2 Willingness to listen to and accept parents/patients view</td>
</tr>
<tr>
<td>DECISION MAKING:</td>
</tr>
<tr>
<td>2 Willingness to consider who is the best to make decision in a given situation</td>
</tr>
<tr>
<td>2 Willing to consider other opinions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communication Skills</th>
</tr>
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<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
</tr>
<tr>
<td>No content</td>
</tr>
<tr>
<td><strong>Clinical Skills</strong></td>
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<tr>
<td>No content</td>
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<tr>
<td><strong>Technical Skills</strong></td>
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<tr>
<td>No content</td>
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<tr>
<td><strong>Professional Skills</strong></td>
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<tr>
<td>No content</td>
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</tbody>
</table>
Operative Skills

Pre-operative care

Objective
To ensure the trainee has reached a level of competence in a range of basic operative procedures.

Knowledge
3 Indications for surgery
3 Required preparation for surgery to include necessary pre-operative investigations
3 Outcomes and complications of surgery
3 Knowledge of the admission process

Clinical Skills
3 Synthesis of history and examination into operative management plan
3 Ability to explain procedure and outcomes to patient and parents at an appropriate level
3 To be able to take informed consent
2 To construct an appropriate theatre list
3 To follow the admission procedure

Technical Skills
No content

Professional Skills
3 Takes time to explain procedures to patient
2 Encourages questions
2 Takes parent and patient views into account in decision making

Intra-operative care

Objective
To ensure the trainee has reached a level of competence in a range of basic operative procedures

Knowledge
3 Anatomy to be encountered during procedure
2 Steps involved in operative procedure
2 Knowledge of alternative procedures in case of encountering difficulties
3 Potential complications of procedure

Clinical Skills
3 Necessary hand-eye dexterity to complete procedure
3 Appropriate use of assistance
3 Communication with other members of theatre team

Technical Skills
No content

Professional Skills
3 Willingness to act as part of a team or lead team where necessary
2 Self-awareness of when to seek advice/assistance

Post-operative care

Objective
To ensure the trainee has reached a level of competence in a range of basic operative procedures.

Knowledge
3 Outcomes of procedure
2 Likely post-operative progress from disease process and intervention
2 Physiological and pathological changes in condition as a result of intervention

Clinical Skills
3 Assessment of patient and physiological parameters
3 Appropriate intervention to deal with changing parameters
3 Communication skills for dealing with team members, patients and parents
2 Ability to prioritise interventions

Technical Skills
No content

Professional Skills
3 Willingness to act as part of a team or lead team where necessary
2 Self-awareness of when to seek advice/assistance
Surgical conditions of childhood

Assessment and management of children with acute abdominal pathology

<table>
<thead>
<tr>
<th>Intussusception</th>
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</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td>To be able to assess a child presenting acutely with intussusception as the suspected diagnosis</td>
</tr>
<tr>
<td>To be able to formulate a differential diagnosis and an investigation and management plan</td>
</tr>
<tr>
<td>To be able to treat the child appropriately up to and including operative intervention if required</td>
</tr>
<tr>
<td>To be able to communicate the above information at the required level to patients/parents/other team members/referral source</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Patterns of symptoms and relation to likely pathology and age of child</td>
</tr>
<tr>
<td>2 Differential diagnosis</td>
</tr>
<tr>
<td>2 Role of radiology both for diagnosis and interventional management</td>
</tr>
<tr>
<td>2 Technique for non-operative reduction</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clinical Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Ability to assess child and recognise severity of illness, to include indications for operative intervention</td>
</tr>
<tr>
<td>2 Ability to take appropriate resuscitative measures and form a viable treatment plan</td>
</tr>
<tr>
<td>3 Ability to communicate with all relevant groups</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technical Skills</th>
</tr>
</thead>
<tbody>
<tr>
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<table>
<thead>
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<th>Professional Skills</th>
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<tbody>
<tr>
<td>3 A commitment to the highest standard of care</td>
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<table>
<thead>
<tr>
<th>Child with abdominal pain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td>To be able to assess a child presenting with abdominal pain either acutely or through the OP clinic.</td>
</tr>
<tr>
<td>To be able to formulate a differential diagnosis and an investigation and management plan</td>
</tr>
<tr>
<td>To be able to treat the child appropriately up to and including operative intervention if required</td>
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<td>To be able to communicate the above information at the required level to patients/parents/other team members</td>
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<td>3 Patterns of symptoms and relation to likely pathology and age of child</td>
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<td>2 Differential diagnosis</td>
</tr>
<tr>
<td>2 Place and value of investigations</td>
</tr>
<tr>
<td>2 Place of operative intervention, and associated outcomes (see Section 4)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clinical Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Ability to assess ill child</td>
</tr>
<tr>
<td>3 Ability to communicate with ill child (see Section 1)</td>
</tr>
<tr>
<td>2 Ability to form a viable investigation and treatment plan</td>
</tr>
<tr>
<td>3 Ability to communicate with all relevant groups</td>
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<table>
<thead>
<tr>
<th>Technical Skills</th>
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</thead>
<tbody>
<tr>
<td>2 Appendicectomy</td>
</tr>
<tr>
<td>3 Incision and drainage of abscess</td>
</tr>
</tbody>
</table>

<table>
<thead>
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</tr>
</tbody>
</table>
**Vomiting child**

**Objective**

*To be able to assess a child presenting with vomiting either acutely or through the OP clinic.*

*To be able to formulate a differential diagnosis and an investigation and management plan.*

*To be able to treat the child appropriately up to and including operative intervention if required.*

*To be able to communicate the above information at the required level to patients/ parents/ other team members.*

**Knowledge**

2 Patterns of symptoms and relation to likely pathology  
3 Significance of bile stained vomiting  
2 Differential diagnosis  
3 Place and value of investigations  
2 Methods of medical management  
2 Place of operative intervention, and associated outcomes (see Section 4)

**Clinical Skills**

3 Ability to assess ill child including an assessment of severity of dehydration.  
3 Ability to communicate with ill child (see Section 1)  
2 Ability to form a viable investigation and treatment plan  
3 Ability to communicate with all relevant groups

**Technical Skills**

2 Pyloromyotomy  
1 Upper GI endoscopy  
1 pH monitoring

**Professional Skills**

3 A commitment to the highest standard of care  
3 A commitment to serve the interests and welfare of patients
## Assessment and management of trauma (including APLS certification)

### Trauma Management

**Objective**

To be able to assess a child presenting with trauma either through the A&E Dept or directly to the hospital.

To be able to formulate a differential diagnosis and an investigation and management plan.

To be able to treat the child appropriately up to and including operative intervention if required.

To be able to communicate the above information at the required level to patients/parents/other team members.

**Knowledge**

1. Algorithms for assessment of trauma victims
   - Primary survey
   - Secondary survey

2. Likely effects of different types of trauma and relation to age of child

3. Investigation protocols and local variations thereof

4. Awareness of NAI and local procedures for dealing with this category of trauma

**Clinical Skills**

1. Ability to appropriately assess trauma cases and carry out relevant resuscitative measures

2. Ability to prioritise interventions

3. Ability to act as part of team or lead team where appropriate

**Technical Skills**

1. Insertion of CV lines

2. Insertion of pleural drain

**Professional Skills**

1. A commitment to the highest standard of care

2. A commitment to serve the interests and welfare of patients

### Good Clinical Care: Life Support Skills

**Objective**

To demonstrate basic + advanced life support skills

**Knowledge**

1. Theoretical basis of life support

**Clinical Skills**

1. Basic, Advanced Life Support skills

**Technical Skills**

No content

**Professional Skills**

1. Stay calm and apply skills logically
Management of benign surgical conditions

**Child with Groin Conditions**

**Objective**

To be able to assess a child presenting to the OP clinic or acutely with ‘groin pathology’

To be able to formulate a differential diagnosis and an investigation and management plan

To be able to treat the child appropriately up to and including operative intervention if required

To be able to communicate the above information at the required level to patients/parents/other team members/referral source

**Knowledge**

INGUINAL HERNIA:

3 Developmental anatomy
2 Natural history
3 Indications and outcomes of surgery

HYDROCELE:

3 Developmental anatomy
2 Natural history
3 Place of conservative management
3 Indications and outcomes of surgery

UNDESCENDED TESTIS:

3 Developmental anatomy
2 Natural history of undescended testis and retractile testis
2 Place of conservative management
2 Indications and outcomes of surgery

PENILE INFLAMMATORY CONDITIONS:

3 Developmental anatomy
2 Natural history
3 Place of conservative management
3 Indications and outcomes of surgery

ACUTE SCROTUM:

3 Natural history
2 Place of conservative management
3 Indications and outcomes of surgery

**Clinical Skills**

INGUINAL HERNIA:

3 Ability to assess child and reach appropriate diagnosis
3 Ability to form a treatment plan
3 Ability to communicate with all relevant groups

HYDROCELE:

3 Ability to assess child and reach appropriate diagnosis
3 Ability to form a treatment plan
3 Ability to communicate with all relevant groups

UNDESCENDED TESTIS:

3 Ability to assess child and reach appropriate diagnosis
3 Ability to differentiate true undescended testis from retractile variant
3 Ability to form a treatment plan
3 Ability to communicate with all relevant groups
PENILE INFLAMMATORY CONDITIONS:
1. Ability to assess child and reach appropriate diagnosis
2. Ability to form a treatment plan
3. Ability to communicate with all relevant groups

ACUTE SCROTUM:
1. Ability to assess child and reach appropriate diagnosis
2. Ability to form a treatment plan
3. Ability to communicate with all relevant groups

**Technical Skills**
- Inguinal Hernia
- Orchiopexy
- Operation of testicular torsion
- Circumcision

**Professional Skills**
- A commitment to the highest standard of care
- A commitment to serve the interests and welfare of patients

---

### Abdominal wall conditions

**Objective**
- To be able to assess a child presenting to the OP clinic or acutely with abnormalities of the abdominal wall
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to treat the child appropriately up to and including operative intervention if required
- To be able to communicate the above information at the required level to patients/parents/other team members/referral source

**Knowledge**

**UMBILICAL HERNIA:**
1. Developmental anatomy
2. Natural history
3. Place of conservative management
4. Indications and outcomes of surgery

**SUPRA-UMBILICAL HERNIA:**
1. Developmental anatomy
2. Natural history to include contrast with umbilical hernia
3. Indications and outcomes of surgery

**EPIGASTRIC HERNIA:**
1. Developmental anatomy
2. Natural history
3. Indications and outcomes of surgery

**Clinical Skills**

**UMBILICAL HERNIA:**
1. Ability to assess child and reach appropriate diagnosis
2. Ability to form a treatment plan
3. Ability to communicate with all relevant groups

**SUPRA-UMBILICAL HERNIA:**
1. Ability to assess child and reach appropriate diagnosis
2. Ability to form a treatment plan
3. Ability to communicate with all relevant groups

**EPIGASTRIC HERNIA:**
1. Ability to assess child and reach appropriate diagnosis
2. Ability to form a treatment plan
3. Ability to communicate with all relevant groups
### Technical Skills
2 Repair of Abdominal wall hernia

### Professional Skills
3 A commitment to the highest standard of care
3 A commitment to serve the interests and welfare of patients

### Urological Conditions

#### Objective
To be able to assess a child presenting to the OP clinic or acutely with abnormalities in the urinary tract
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention if required
To be able to communicate the above information at the required level to patients/parents/other team members/referral source

#### Knowledge
**URINARY TRACT INFECTION:**
- 3 Patterns of symptoms and relation to likely pathology and age of child
- 2 Relevance of different symptom patterns
- 2 Differential diagnosis
- 2 Place and value of investigations

**HAEMATURIA:**
- 3 Patterns of symptoms and relation to likely pathology and age of child
- 2 Differential diagnosis
- 2 Place and value of investigations

#### Clinical Skills
**URINARY TRACT INFECTION:**
- 3 Ability to assess child
- 2 Ability to form a viable investigation and treatment plan
- 3 Ability to communicate with all relevant groups

**HAEMATURIA:**
- 3 Ability to assess child
- 2 Ability to form a viable investigation and treatment plan
- 3 Ability to communicate with all relevant groups

#### Technical Skills
2 Circumcision
2 Insertion of suprapubic catheter

#### Professional Skills
3 A commitment to the highest standard of care
3 A commitment to serve the interests and welfare of patients

### Constipation

#### Objective
To be able to assess a child presenting to the OP clinic or acutely with constipation as the primary presenting symptom
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention if required
To be able to communicate the above information at the required level to patients/parents/other team members/referral source

#### Knowledge
- 3 Patterns of symptoms and relation to likely pathology and age of child
- 2 Differential diagnosis to include medical anomalies and socio-psychological aspects of symptom
- 2 Place and value of investigations

#### Clinical Skills
Head and Neck swellings

**Objective**

To be able to assess a child presenting to the OP clinic or acutely with a head/neck swelling as the primary presenting symptom

To be able to formulate a differential diagnosis and an investigation and management plan

To be able to treat the child appropriately up to and including operative intervention if required

To be able to communicate the above information at the required level to patients/parents/other team members/referral source

**Knowledge**

2 Patterns of symptoms and relation to likely pathology, relevant anatomy and age of child

2 Relevance of embryonic development of head and neck structures

2 Differential diagnosis

2 Place and value of investigations

**Clinical Skills**

3 Ability to assess child

2 Ability to form a viable investigation and treatment plan

2 Ability to communicate with all relevant groups

**Technical Skills**

1 Lymph node biopsy

**Professional Skills**

3 A commitment to the highest standard of care

3 A commitment to serve the interests and welfare of patients
### Venous Thrombosis and Embolism

**Objective**
To be able to assess a child presenting acutely with acute surgical pathology (see example below) as the suspected diagnosis
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention if required
To be able to communicate the above information at the required level to patients/parents/other team members/referral source

**Knowledge**
- 3 Patterns of symptoms and relation to likely pathology and age of child
- 2 Differential diagnosis
- 2 Place and value of investigations

**Clinical Skills**
- 3 Ability to assess child
- 2 Ability to form a viable investigation and treatment plan
- 3 Ability to communicate with all relevant groups

**Technical Skills**
- 2 Incision and drainage of abscess

**Professional Skills**
- 3 A commitment to the highest standard of care
- 3 A commitment to serve the interests and welfare of patients

### Abscess

**Objective**
To be able to assess a child presenting acutely with acute surgical pathology (see example below) as the suspected diagnosis
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention if required
To be able to communicate the above information at the required level to patients/parents/other team members/referral source

**Knowledge**
- 3 Patterns of symptoms and relation to likely pathology and age of child
- 2 Differential diagnosis
- 2 Place and value of investigations

**Clinical Skills**
- 3 Ability to assess child
- 2 Ability to form a viable investigation and treatment plan
- 3 Ability to communicate with all relevant groups

**Technical Skills**
- 2 Incision and drainage of abscess

**Professional Skills**
- 3 A commitment to the highest standard of care
- 3 A commitment to serve the interests and welfare of patients

### Ingrowing toenail

**Objective**
To be able to assess a child presenting acutely with non acute surgical pathology (see example below) as the suspected diagnosis
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention if required
To be able to communicate the above information at the required level to patients/parents/other team members/referral source

**Knowledge**
- 3 Patterns of symptoms and relation to likely pathology and age of child
- 3 Relevance of different symptom patterns
- 2 Differential diagnosis
- 2 Place and value of investigations

**Clinical Skills**
- 3 Ability to assess child
- 2 Ability to form a viable investigation and treatment plan
- 3 Ability to communicate with all relevant groups

**Technical Skills**
- 2 Operative management of ingrowing toenails

**Professional Skills**
- 3 A commitment to the highest standard of care
| 3 | A commitment to serve the interests and welfare of patients |
4. Intermediate Stage

Four point scales

What the 4 point scale means for Knowledge

1. Knows of
2. Knows basic concepts
3. Knows generally
4. Knows both specifically and broadly

What the 4 point scales means for Clinical Skills and Technical Skills and Procedures

1. Has observed
2. Can do with assistance
3. Can do whole but may need assistance
4. Competent to do whole without assistance, including managing complications
4.1 Overview

The aim of the intermediate stage (ST3 and 4) is to allow the trainee to continue to develop the skills, knowledge and attitude required to practise Paediatric Surgery in the U.K health system.

Trainee will build on the basic skills and competences achieved in the initial stage of the programme, gaining exposure to the more specialised areas of practice. It is expected that the trainees will continue to build on their clinical experiences and be able to demonstrate competent practice in the operations detailed at the end of the initial stage.

The curriculum goals are presented in a modular fashion for ease of reference and recording of achievement rather than as a suggested teaching package. In some centres the trainees may work for firms in which there is an element of specialisation (paediatric urology is a prime example of this), but in other units there may be a more widespread range of experience to be obtained. There will obviously be areas of duplicate coverage and again this curriculum should be viewed as a framework to aid understanding rather than as a prescriptive document.

The different sections will contain a mixture of information on relevant conditions, symptom patterns and associated surgical operations. This is in an attempt to represent the variety of clinical practice. Overall these goals outlined are simply guides to progress and should be used by trainees, trainers and Programme Directors to help plan rotational placements to ensure a full breadth of training.

The following modules are included:

- Gastrointestinal
- Neonatology
- General Urology
- Thoracic
- Oncology
- Endocrine
- Surgical Disciplines
- Research and Audit
- Teaching and Training.

The expected outcomes for this phase of training are as follows:

- Further experience in the management of the common surgical problems of childhood
- A practitioner with integrity, respect and compassion
- Increasing exposure to the more specialised areas of paediatric surgery to include clinical presentation, operative and non-operative management of cases within the different areas.
- Competence in further range of operations common to paediatric practice

The operative skills outlined here are those relevant to this stage of surgical training. Many are related to the conditions outlined in the specialty modules.

Again the curriculum is there to act as a guide to a minimum level of competence to be achieved by the end of ST4. The operations detailed here are those it is reasonable to expect the trainee to be able to perform either independently or with consultant assistance available but not necessarily at the operating table.

Although this list is not exhaustive it gives an indication of those procedures that it is reasonable to expect a trainee by the end of ST4 to have been exposed to and in the case of the marked procedures (*) be deemed competent to perform.
Elective Procedures

- Gastrostomy – open / PEG*
- Fundoplication
- Splenectomy / cholecystectomy
- Upper GI Endoscopy (flexible)
- Exomphalos minor
- Anoplasty for low anorectal malformation
- Intestinal resection and anastomosis (non-neonatal)
- Rectal Biopsy for Hirschsprungs (suction/open)*
- Inguinal herniae – infant and neonatal (not extreme prematurity)
- Colostomy closure*
- C.V. line insertion*
- Open biopsy of tumours
- Muscle biopsy*
- Cystoscopy*
- Repair glandular hypospadias
- Simple Nephrectomy (dysplastic kidney)
- Ureteric reimplant / submucosal injection
- Closure of vesicostomy or ureterostomy
- Laparoscopic approach for diagnosis*

Emergency Procedures

- Gastrochisis closure (primary or silo)
- Colostomy formation – anorectal malformations / Hirschsprungs disease*
- Correction of malrotation*
- Meconium ileus enterotomy / or stoma formation
- Operative reduction / resection of intussusception*
- Urinary diversion (ureterostomy/vesicostomy formation)*
- Removal of oesophageal foreign body
## 4.2 Conditions

### Gastrointestinal

<table>
<thead>
<tr>
<th><strong>Gastro-oesophageal reflux</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td>To understand the presenting symptoms of common gastrointestinal conditions in childhood and their management</td>
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<tr>
<td>To be able to formulate a differential diagnosis and an investigation and management plan</td>
</tr>
<tr>
<td>To be able to treat the child appropriately up to and including operative intervention in selected cases</td>
</tr>
<tr>
<td>To be able to communicate the above information at the required level to patients/parents/other team members/referral source</td>
</tr>
<tr>
<td>To be able to practice with integrity, respect and compassion</td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
</tr>
<tr>
<td>2 Pathophysiology</td>
</tr>
<tr>
<td>3 Investigation and management</td>
</tr>
<tr>
<td>2 Indications for operative intervention</td>
</tr>
<tr>
<td><strong>Clinical Skills</strong></td>
</tr>
<tr>
<td>3 Ability to synthesise history and investigations into appropriate management plan</td>
</tr>
<tr>
<td>3 Ability to communicate information to parents/child</td>
</tr>
<tr>
<td><strong>Technical Skills</strong></td>
</tr>
<tr>
<td>No content</td>
</tr>
<tr>
<td><strong>Professional Skills</strong></td>
</tr>
<tr>
<td>A commitment to the highest standard of care</td>
</tr>
<tr>
<td>The generation and dissemination of knowledge</td>
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<tr>
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<td>Optimum utilization of resources</td>
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<tr>
<th><strong>Abdominal pain</strong></th>
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<td>3 Patterns of symptoms and relation to likely pathology and age of child</td>
</tr>
<tr>
<td>3 Differential diagnosis</td>
</tr>
<tr>
<td>3 Place and value of investigations</td>
</tr>
<tr>
<td>3 Place of operative intervention, and associated outcomes</td>
</tr>
<tr>
<td><strong>Clinical Skills</strong></td>
</tr>
<tr>
<td>3 Ability to assess ill child</td>
</tr>
<tr>
<td>3 Ability to communicate with ill child (see Section 1)</td>
</tr>
<tr>
<td>3 Ability to form a viable investigation and treatment plan</td>
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<tr>
<td>3 Ability to communicate with all relevant groups</td>
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<tr>
<td><strong>Gastro-intestinal bleeding</strong></td>
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<td>2 Patterns of symptoms and relation to likely pathology and age of child</td>
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<tr>
<td>2 Differential diagnosis to include medical anomalies and socio-psychological aspects of symptom</td>
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<td>3 Place and value of investigations</td>
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<td>3 Ability to communicate with all relevant groups</td>
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<tr>
<td>2 To include community aspects of further management</td>
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<tr>
<td><strong>Technical Skills</strong></td>
</tr>
<tr>
<td>No content</td>
</tr>
<tr>
<td><strong>Professional Skills</strong></td>
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</tbody>
</table>
### Inflammatory Bowel Disease

**Objective**

To understand the presenting symptoms of common gastrointestinal conditions in childhood and their management

To be able to formulate a differential diagnosis and an investigation and management plan

To be able to treat the child appropriately up to and including operative intervention in selected cases

To be able to communicate the above information at the required level to patients/parents/other team members/referral source

To be able to practice with integrity, respect and compassion

**Knowledge**

2 Patterns of symptoms and relation to likely pathology and age of child

2 Differential diagnosis

2 Place and value of investigations

2 Place of operative intervention, and associated outcomes

**Clinical Skills**

3 Ability to assess ill child

3 Ability to communicate with ill child (see Section 1)

2 Ability to form a viable investigation and treatment plan

3 Ability to communicate with all relevant groups

**Technical Skills**

No content

**Professional Skills**

A commitment to the highest standard of care

The generation and dissemination of knowledge

A commitment to serve the interests and welfare of patients

Optimum utilization of resources

---

### Short bowel Syndrome

**Objective**

To understand the presenting symptoms of common gastrointestinal conditions in childhood and their management

To be able to formulate a differential diagnosis and an investigation and management plan

To be able to treat the child appropriately up to and including operative intervention in selected cases

To be able to communicate the above information at the required level to patients/parents/other team members/referral source

To be able to practice with integrity, respect and compassion

**Knowledge**

2 Patterns of symptoms and relation to likely pathology and age of child

2 Differential diagnosis

3 Place and value of investigations

2 Place of operative intervention, and associated outcomes

**Clinical Skills**

3 Ability to assess ill child

3 Ability to communicate with ill child (see Section 1)

2 Ability to form a viable investigation and treatment plan

3 Ability to communicate with all relevant groups

**Technical Skills**

No content

**Professional Skills**

A commitment to the highest standard of care

The generation and dissemination of knowledge

A commitment to serve the interests and welfare of patients

Optimum utilization of resources
2 Patterns of symptoms and relation to likely pathology and age of child
2 Differential diagnosis
2 Place and value of investigations
2 Place of operative intervention, and associated outcomes

Clinical Skills
3 Ability to assess ill child
3 Ability to communicate with ill child (see Section 1)
2 Ability to form a viable investigation and treatment plan
3 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Liver disease e.g. Biliary atresia Choledochal cyst Inflammatory/infectious liver disease

Objective
To understand the presenting symptoms of common gastrointestinal conditions in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/ parents/ other team members/ referral source
To be able to practice with integrity, respect and compassion

Knowledge
2 Patterns of symptoms and relation to likely pathology and age of child
2 Differential diagnosis
2 Place and value of investigations
2 Place of operative intervention, and associated outcomes

Clinical Skills
3 Ability to assess ill child
3 Ability to communicate with ill child (see Section 1)
2 Ability to form a viable investigation and treatment plan
3 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources
Urology

Urineal tract Infection

Objective
To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

Knowledge
3 Patterns of symptoms and relation to likely pathology and age of child
3 Relevance of different symptom patterns
3 Differential diagnosis
3 Place and value of investigations

Clinical Skills
3 Ability to assess child
2 Ability to form a viable investigation and treatment plan
3 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Haematuria

Objective
To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

Knowledge
3 Patterns of symptoms and relation to likely pathology and age of child
3 Differential diagnosis
3 Place and value of investigations

Clinical Skills
3 Ability to assess child
3 Ability to form a viable investigation and treatment plan
3 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Hypospadias

Objective
To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

### Knowledge
1. Likely modes of presentation
2. Different anatomical variants
3. Place and value of investigations/operative intervention

### Clinical Skills
1. Ability to assess child
2. Ability to form a viable investigation and treatment plan
3. Ability to communicate with all relevant groups

### Technical Skills
No content

### Professional Skills
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

---

### Upper tract obstruction (to include Pelvi-ureteric junction obstruction and Vesico-ureteric junction obstruction)

#### Objective
To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

#### Knowledge
1. Likely modes of presentation
2. Place and value of investigations/operative intervention
3. Differential diagnosis

#### Clinical Skills
1. Ability to assess child
2. Ability to form a viable investigation and treatment plan
3. Ability to communicate with all relevant groups

#### Technical Skills
No content

#### Professional Skills
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

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### Posterior urethral valves

#### Objective
To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
### Urinary tract calculus disease

<table>
<thead>
<tr>
<th>Objective</th>
<th>Knowledge</th>
<th>Clinical Skills</th>
<th>Technical Skills</th>
</tr>
</thead>
</table>
| To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract | 2 Likely modes of presentation  
2 Aetiological and biochemical factors  
2 Place and value of investigations/ operative and non-operative intervention  
2 Differential diagnosis | 3 Ability to assess child  
2 Ability to form a viable investigation and treatment plan  
3 Ability to communicate with all relevant groups | No content                                                                                   |
| To be able to formulate a differential diagnosis and an investigation and management plan |                                                                                |                                                                                 |                                                                                  |
| To be able to treat the child appropriately up to and including operative intervention in selected cases |                                                                                |                                                                                 |                                                                                  |
| To be able to communicate the above information at the required level to patients/ parents/ other team members/ referral source |                                                                                |                                                                                 |                                                                                  |
| To be able to practice with integrity, respect and compassion |                                                                                |                                                                                 |                                                                                  |

### Bladder dysfunction (incl. neuropathic bladder)

<table>
<thead>
<tr>
<th>Objective</th>
<th>Knowledge</th>
<th>Clinical Skills</th>
<th>Technical Skills</th>
</tr>
</thead>
</table>
| To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract | 2 Likely modes of presentation  
2 Differential diagnosis  
2 Place and value of investigations  
2 Knowledge of appropriate referral pathways | 3 Ability to assess child | No content                                                                                   |
| To be able to formulate a differential diagnosis and an investigation and management plan |                                                                                |                                                                                 |                                                                                  |
| To be able to treat the child appropriately up to and including operative intervention in selected cases |                                                                                |                                                                                 |                                                                                  |
| To be able to communicate the above information at the required level to patients/ parents/ other team members/ referral source |                                                                                |                                                                                 |                                                                                  |
| To be able to practice with integrity, respect and compassion |                                                                                |                                                                                 |                                                                                  |

**Knowledge**

2 Likely modes of presentation  
2 Aetiological and biochemical factors  
2 Place and value of investigations/ operative and non-operative intervention  
2 Differential diagnosis

**Clinical Skills**

3 Ability to assess child  
2 Ability to form a viable investigation and treatment plan  
3 Ability to communicate with all relevant groups

**Technical Skills**

No content
<table>
<thead>
<tr>
<th>Renal failure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td>To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract</td>
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<td>To be able to formulate a differential diagnosis and an investigation and management plan</td>
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<td>To be able to treat the child appropriately up to and including operative intervention in selected cases</td>
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<td>To be able to practice with integrity, respect and compassion</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Likely modes of presentation</td>
</tr>
<tr>
<td>2 Differential diagnosis</td>
</tr>
<tr>
<td>2 Place and value of investigations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clinical Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Ability to assess child</td>
</tr>
<tr>
<td>3 Ability to communicate with all relevant groups</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technical Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>No content</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>A commitment to the highest standard of care</td>
</tr>
<tr>
<td>The generation and dissemination of knowledge</td>
</tr>
<tr>
<td>A commitment to serve the interests and welfare of patients</td>
</tr>
<tr>
<td>Optimum utilization of resources</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bladder extrophy (to include outlet anomalies e.g. epispadias)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
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<tr>
<td>To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract</td>
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<td>2 Place and value of investigations</td>
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<tr>
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<table>
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<tr>
<th>Technical Skills</th>
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</tr>
<tr>
<td>Optimum utilization of resources</td>
</tr>
</tbody>
</table>
## Duplication of urinary tract

### Objective
- To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to treat the child appropriately up to and including operative intervention in selected cases
- To be able to communicate the above information at the required level to patients/parents/other team members/referral source
- To be able to practice with integrity, respect and compassion

### Knowledge
1. Likely modes of presentation
2. Embryological derivation and anatomical variants
3. Place and value of investigations/operative intervention
4. Differential diagnosis

### Clinical Skills
1. Ability to assess child
2. Ability to form a viable investigation and treatment plan
3. Ability to communicate with all relevant groups

### Technical Skills
- No content

### Professional Skills
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources
## Neonatal Surgery

### Congenital Diaphragmatic Hernia

**Objective**
- To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period
- To be able to construct an appropriate management plan for these children
- To understand the place of operative management in the neonatal period and be able to carry this out in selected cases
- To be able to practice with integrity, respect and compassion

**Knowledge**
- Mode of presentation both pre- and post natal
- Pathophysiology of the condition and anatomical variants
- Associated anomalies
- Outcome data on the condition
- Differing management strategies
- Role of pre-natal counselling

**Clinical Skills**
- Ability to assess child
- Ability to form a viable investigation and treatment plan
- Ability to communicate with all relevant groups

**Technical Skills**
- No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

### Intestinal Atresias

**Objective**
- To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period
- To be able to construct an appropriate management plan for these children
- To understand the place of operative management in the neonatal period and be able to carry this out in selected cases
- To be able to practice with integrity, respect and compassion

**Knowledge**
- Mode of presentation both pre- and post natal
- Anatomical variants
- Associated anomalies
- Outcome data on the condition
- Differing management strategies
- Role of pre-natal counselling

**Clinical Skills**
- Ability to assess child
- Ability to form a viable investigation and treatment plan
- Ability to communicate with all relevant groups

**Technical Skills**
- No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources
Meconium Ileus

Objective
To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period
To be able to construct an appropriate management plan for these children
To understand the place of operative management in the neonatal period and be able to carry this out in selected cases
To be able to practice with integrity, respect and compassion

Knowledge
2 Mode of presentation both pre- and post natal
2 Patho-physiology of the condition and anatomical variants
2 Associated anomalies
2 Outcome data on the condition
2 Differing management strategies
2 Role of pre-natal + genetic counselling

Clinical Skills
3 Ability to assess child
2 Ability to form a viable investigation and treatment plan
3 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Malrotation

Objective
To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period
To be able to construct an appropriate management plan for these children
To understand the place of operative management in the neonatal period and be able to carry this out in selected cases
To be able to practice with integrity, respect and compassion

Knowledge
2 Mode of presentation
2 Patho-physiology of the condition and anatomical variants
2 Associated anomalies
2 Outcome data on the condition
2 Differing management strategies

Clinical Skills
3 Ability to assess child
2 Ability to form a viable investigation and treatment plan
3 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Hirschsprungs disease

Objective
To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period
To be able to construct an appropriate management plan for these children
To understand the place of operative management in the neonatal period and be able to
Oesophageal Atresia and Tracheo-oesophageal fistula

**Objective**

To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period

To be able to construct an appropriate management plan for these children

To understand the place of operative management in the neonatal period and be able to carry this out in selected cases

To be able to practice with integrity, respect and compassion

**Knowledge**

2 Mode of presentation both pre- and post natal

2 Patho-physiology of the condition and anatomical variants

2 Associated anomalies

2 Outcome data on the condition

2 Differing management strategies

2 Role of genetic counselling

**Clinical Skills**

3 Ability to assess child

2 Ability to form a viable investigation and treatment plan

3 Ability to communicate with all relevant groups

**Technical Skills**

No content

**Professional Skills**

A commitment to the highest standard of care

The generation and dissemination of knowledge

A commitment to serve the interests and welfare of patients

Optimum utilization of resources

Anorectal Malformations

**Objective**

To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period

To be able to construct an appropriate management plan for these children

To understand the place of operative management in the neonatal period and be able to carry this out in selected cases

To be able to practice with integrity, respect and compassion

**Knowledge**

2 Mode of presentation both pre- and post natal

2 Patho-physiology of the condition and anatomical variants

2 Associated anomalies

2 Outcome data on the condition

2 Differing management strategies
<table>
<thead>
<tr>
<th>Associated anomalies</th>
<th>Outcome data on the condition</th>
<th>Differing management strategies</th>
<th>Role of pre-natal counselling</th>
</tr>
</thead>
</table>

**Clinical Skills**
- Ability to assess child
- Ability to form a viable investigation and treatment plan
- Ability to communicate with all relevant groups

**Technical Skills**
- No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

### Necrotising Enterocolitis

**Objective**
- To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period
- To be able to construct an appropriate management plan for these children
- To understand the place of operative management in the neonatal period and be able to carry this out in selected cases
- To be able to practice with integrity, respect and compassion

**Knowledge**
- Mode of presentation
- Patho-physiology of the condition
- Associated anomalies
- Outcome data on the condition
- Differing management strategies

**Clinical Skills**
- Ability to assess child
- Ability to form a viable investigation and treatment plan
- Ability to communicate with all relevant groups

**Technical Skills**
- No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

### Neonatal Abdominal Wall Defects

**Objective**
- To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period
- To be able to construct an appropriate management plan for these children
- To understand the place of operative management in the neonatal period and be able to carry this out in selected cases
- To be able to practice with integrity, respect and compassion

**Knowledge**
- Mode of presentation both pre- and post natal
- Patho-physiology of the condition and anatomical variants
- Associated anomalies
- Outcome data on the condition
- Differing management strategies
- Role of pre-natal counselling
Clinical Skills
3 Ability to assess child
2 Ability to form a viable investigation and treatment plan
3 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Intersex anomalies

Objective
To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period
To be able to construct an appropriate management plan for these children
To understand the place of operative management in the neonatal period and be able to carry this out in selected cases
To be able to practice with integrity, respect and compassion

Knowledge
2 Mode of presentation both pre- and post natal
2 Patho-physiology of the condition and anatomical variants
2 Associated anomalies
2 Outcome data on the condition
2 Differing management strategies
2 Role of genetic counselling

Clinical Skills
3 Ability to counsel and inform parents
2 Ability to form a viable investigation and treatment plan
3 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Antenatal management

Objective
To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period
To be able to construct an appropriate management plan for these children
To understand the place of operative management in the neonatal period and be able to carry this out in selected cases
To be able to practice with integrity, respect and compassion

Knowledge
2 Likely modes of presentation of different conditions
2 Place and value of investigations
2 Types of and indications for antenatal intervention
2 Role of ante-natal counselling

Clinical Skills
3 Ability to counsel and inform parents
2 Ability to form a viable investigation and treatment plan
3 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
| A commitment to the highest standard of care |
| The generation and dissemination of knowledge |
| A commitment to serve the interests and welfare of patients |
| Optimum utilization of resources |
# Oncology

## Wilms Tumour

### Objective

- To understand the presentation and management of childhood tumours
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to practice with integrity, respect and compassion

### Knowledge

- 2 Mode of clinical presentation
- 2 Differential diagnosis
- 2 Relevant basic science knowledge of oncogenesis
- 2 Outcome data of treatment modalities
- 2 Role of surgery

### Clinical Skills

- 3 Ability to assess child
- 2 Ability to form a viable investigation and treatment plan
- 3 Ability to communicate with all relevant groups

### Professional Skills

- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

## Neuroblastoma

### Objective

- To understand the presentation and management of childhood tumours
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to practice with integrity, respect and compassion

### Knowledge

- 2 Mode of clinical presentation
- 2 Differential diagnosis
- 2 Relevant basic science knowledge of oncogenesis
- 2 Outcome data of treatment modalities
- 2 Role of surgery

### Clinical Skills

- 3 Ability to assess child
- 2 Ability to form a viable investigation and treatment plan
- 3 Ability to communicate with all relevant groups

### Professional Skills

- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

## Hepatoblastoma

### Objective

- To understand the presentation and management of childhood tumours
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to practice with integrity, respect and compassion

### Knowledge
### Soft tissue tumours

**Objective**

*To understand the presentation and management of childhood tumours*

*To be able to formulate a differential diagnosis and an investigation and management plan*

*To be able to practice with integrity, respect and compassion*

**Knowledge**

2 Mode of clinical presentation  
2 Differential diagnosis  
2 Relevant basic science knowledge of oncogenesis  
2 Outcome data of treatment modalities  
2 Role of surgery

**Clinical Skills**

3 Ability to assess child  
2 Ability to form a viable investigation and treatment plan  
3 Ability to communicate with all relevant groups

**Technical Skills**

No content

**Professional Skills**

A commitment to the highest standard of care  
The generation and dissemination of knowledge  
A commitment to serve the interests and welfare of patients  
Optimum utilization of resources

### Haematological malignancies

**Objective**

*To understand the presentation and management of childhood tumours*

*To be able to formulate a differential diagnosis and an investigation and management plan*

*To be able to practice with integrity, respect and compassion*

**Knowledge**

2 Mode of clinical presentation  
2 Differential diagnosis  
2 Relevant basic science knowledge of oncogenesis  
2 Management strategies and basic outcome data of treatment modalities

**Clinical Skills**

3 Ability to assess child  
3 Ability to communicate with all relevant groups

**Technical Skills**

No content
<table>
<thead>
<tr>
<th><strong>Osteosarcoma</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td><em>To understand the presentation and management of childhood tumours</em> <em>To be able to formulate a differential diagnosis and an investigation and management plan</em> <em>To be able to practice with integrity, respect and compassion</em></td>
</tr>
</tbody>
</table>
| **Knowledge**    | 2 Mode of clinical presentation  
2 Differential diagnosis  
2 Relevant basic science knowledge of oncogenesis  
2 Management strategy and basic outcome data of treatment modalities  
2 Role of surgery |
| **Clinical Skills** | 3 Ability to assess child  
3 Ability to communicate with all relevant groups |
| **Technical Skills** | No content |

<table>
<thead>
<tr>
<th><strong>Benign tumours</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td><em>To understand the presentation and management of childhood tumours</em> <em>To be able to formulate a differential diagnosis and an investigation and management plan</em> <em>To be able to practice with integrity, respect and compassion</em></td>
</tr>
</tbody>
</table>
| **Knowledge**     | 2 Mode of clinical presentation  
2 Differential diagnosis  
2 Relevant basic science knowledge of oncogenesis  
2 Outcome data of treatment modalities  
2 Role of surgery |
| **Clinical Skills** | 3 Ability to assess child  
3 Ability to form a viable investigation and treatment plan  
3 Ability to communicate with all relevant groups |
| **Technical Skills** | No content |

| **Professional Skills** | A commitment to the highest standard of care  
The generation and dissemination of knowledge  
A commitment to serve the interests and welfare of patients  
Optimum utilization of resources |
## Endocrine conditions

### Disease of the thyroid gland

**Objective**
- To understand the presenting symptoms of endocrine conditions in childhood and their management
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to identify the need for surgery and influence of endocrine conditions on surgery
- To be able to communicate the above information at the required level to patients/parents/other team members/referral source
- To be able to practice with integrity, respect and compassion

**Knowledge**
- 2 Likely modes of presentation
- 2 Differential diagnosis
- 2 Place and value of investigations
- 2 Knowledge of appropriate referral pathways

**Clinical Skills**
- 3 Ability to assess child
- 2 Ability to form a viable investigation and treatment plan
- 3 Ability to communicate with all relevant groups

**Technical Skills**
- No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

### Parathyroid disease

**Objective**
- To understand the presenting symptoms of endocrine conditions in childhood and their management
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to identify the need for surgery and influence of endocrine conditions on surgery
- To be able to communicate the above information at the required level to patients/parents/other team members/referral source
- To be able to practice with integrity, respect and compassion

**Knowledge**
- 2 Likely modes of presentation
- 2 Differential diagnosis
- 2 Place and value of investigations
- 2 Knowledge of appropriate referral pathways

**Clinical Skills**
- 3 Ability to assess child
- 2 Ability to form a viable investigation and treatment plan
- 3 Ability to communicate with all relevant groups

**Technical Skills**
- No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

### Diabetes

**Objective**
To understand the presenting symptoms of endocrine conditions in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to identify the need for surgery and influence of endocrine conditions on surgery
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

**Knowledge**
2 Likely modes of presentation
2 Differential diagnosis
2 Place and value of investigations
2 Knowledge of appropriate referral pathways

**Clinical Skills**
2 Ability to assess child
2 Ability to form a viable investigation and treatment plan
3 Ability to communicate with all relevant groups

**Technical Skills**
No content

**Professional Skills**
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

### Disorders of Growth

**Objective**
To understand the presenting symptoms of endocrine conditions in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to identify the need for surgery and influence of endocrine conditions on surgery
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

**Knowledge**
2 Likely modes of presentation
2 Differential diagnosis
2 Place and value of investigations
2 Knowledge of appropriate referral pathways

**Clinical Skills**
2 Ability to assess child
2 Ability to form a viable investigation and treatment plan
3 Ability to communicate with all relevant groups

**Technical Skills**
No content

**Professional Skills**
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

### Disorders of secondary sexual development

**Objective**
To understand the presenting symptoms of endocrine conditions in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to identify the need for surgery and influence of endocrine conditions on surgery
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

**Knowledge**
- Likely modes of presentation
- Differential diagnosis
- Place and value of investigations
- Knowledge of appropriate referral pathways

**Clinical Skills**
- Ability to assess child
- Ability to form a viable investigation and treatment plan
- Ability to communicate with all relevant groups

**Technical Skills**
No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources
Thoracic Anomalies

Chest Wall anomalies E.g. pectus excavatum, Pectus carinatum

Objective
To understand the presenting symptoms of thoracic anomalies in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To identify the place of surgery
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

Knowledge
- Likely modes of presentation
- Differential diagnosis
- Place and value of investigations
- Knowledge of appropriate referral pathways
- Outcomes of surgery

Clinical Skills
- Ability to assess child
- Ability to form a viable investigation and treatment plan
- Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
- A commitment to the highest standard of care
- The generation and dissemination of knowledge

Pulmonary abnormalities, Congenital and acquired lung cysts E.g. CCAM Bronchopulmonary dysplasia

Objective
To understand the presenting symptoms of thoracic anomalies in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To identify the place of surgery
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

Knowledge
- Likely modes of presentation
- Differential diagnosis
- Place and value of investigations
- Knowledge of appropriate referral pathways
- Outcomes of surgery
- Knowledge of developmental embryology and pertinent anatomy

Clinical Skills
- Ability to assess child
- Ability to form a viable investigation and treatment plan
- Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
### Tracheal anomalies

**Objective**

To understand the presenting symptoms of thoracic anomalies in childhood and their management

To be able to formulate a differential diagnosis and an investigation and management plan

To identify the place of surgery

To be able to communicate the above information at the required level to patients/parents/other team members/referral source

To be able to practice with integrity, respect and compassion

**Knowledge**

1. Likely modes of presentation
2. Differential diagnosis
3. Place and value of investigations
4. Knowledge of developmental embryology and pertinent anatomy
5. Knowledge of appropriate referral pathways
6. Outcomes of surgery

**Clinical Skills**

1. Ability to assess child
2. Ability to form a viable investigation and treatment plan
3. Ability to communicate with all relevant groups

**Technical Skills**

No content

**Professional Skills**

A commitment to the highest standard of care

The generation and dissemination of knowledge

A commitment to serve the interests and welfare of patients

Optimum utilization of resources

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### Inhaled /aspirated /ingested foreign body

**Objective**

To understand the presenting symptoms of thoracic anomalies in childhood and their management

To be able to formulate a differential diagnosis and an investigation and management plan

To identify the place of surgery

To be able to communicate the above information at the required level to patients/parents/other team members/referral source

To be able to practice with integrity, respect and compassion

**Knowledge**

1. Likely modes of presentation
2. Differential diagnosis
3. Place and value of investigations
4. Knowledge of developmental embryology and pertinent anatomy
5. Knowledge of appropriate referral pathways
6. Outcomes of surgery

**Clinical Skills**

1. Ability to assess child
2. Ability to form a viable investigation and treatment plan
3. Ability to communicate with all relevant groups

**Technical Skills**

No content

**Professional Skills**

A commitment to the highest standard of care

The generation and dissemination of knowledge

A commitment to serve the interests and welfare of patients

Optimum utilization of resources
### Orthopaedic Surgery

**Objective**
- To understand the basic principles involved in other Paediatric Surgical Specialties
- To understand how these disciplines interact with General Paediatric Surgery and Paediatric Urology
- To be able to refer to other specialties appropriately

**Knowledge**
- To understand the basic principles of major conditions in the specialty
- To understand the referral mechanisms to the discipline
- To be aware of the influence of conditions on child health

**Clinical Skills**
- To recognise the associated anomalies when dealing with children
- To construct an appropriate investigation and referral plan

**Technical Skills**
No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

---

### Paediatric Cardiac Surgery

**Objective**
- To understand the basic principles involved in other Paediatric Surgical Specialties
- To understand how these disciplines interact with General Paediatric Surgery and Paediatric Urology
- To be able to refer to other specialties appropriately

**Knowledge**
- To understand the basic principles of major conditions in the specialty
- To understand the referral mechanisms to the discipline
- To be aware of the influence of conditions on child health

**Clinical Skills**
- To recognise the associated anomalies when dealing with children
- To construct an appropriate investigation and referral plan

**Technical Skills**
No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

---

### Paediatric Neurosurgery

**Objective**
- To understand the basic principles involved in other Paediatric Surgical Specialties
- To understand how these disciplines interact with General Paediatric Surgery and Paediatric Urology
- To be able to refer to other specialties appropriately

**Knowledge**
- To understand the basic principles of major conditions in the specialty
- To understand the referral mechanisms to the discipline
- To be aware of the influence of conditions on child health
**Clinical Skills**
2 To recognise the associated anomalies when dealing with children
2 To construct an appropriate investigation and referral plan

**Technical Skills**
No content

**Professional Skills**
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

**Paediatric Plastic Surgery**

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**Paediatric E.N.T. Surgery**

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To be able to refer to other specialties appropriately

Knowledge
2 To understand the basic principles of major conditions in the specialty
2 To understand the referral mechanisms to the discipline
2 To be aware of the influence of conditions on child health

Clinical Skills
2 To recognise the associated anomalies when dealing with children
2 To construct an appropriate investigation and referral plan

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Transplantation

Objective
To understand the principles of diagnosis and management in a number of conditions as they present to the General Paediatric Surgeon

Knowledge
2 To understand the basic principles of transplantation both surgical and medical
2 To understand the referral mechanisms to the discipline
2 To understand the ethical principles involved

Clinical Skills
2 To construct an appropriate investigation and referral plan

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Spina Bifida

Objective
To understand the principles of diagnosis and management in a number of conditions as they present to the General Paediatric Surgeon

Knowledge
2 To understand the basic principles of management
2 To understand the local networks for managing the condition
2 To be aware of the influence of conditions on child health

Clinical Skills
2 To recognise the associated anomalies when dealing with children
2 To construct an appropriate investigation and referral plan

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Vascular anomalies

Objective
To understand the principles of diagnosis and management in a number of conditions as they present to the General Paediatric Surgeon

Knowledge
2 To understand the pathophysiology of the condition
2 To know the differential diagnosis
2 To understand the indications and outcomes of therapy

**Clinical Skills**
2 To recognise associated anomalies
2 To construct an appropriate investigation and referral plan including identifying the need for surgery

**Technical Skills**
No content

**Professional Skills**
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

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**Child Abuse**

**Objective**
To understand the principles of diagnosis and management in a number of conditions as they present to the General Paediatric Surgeon

**Knowledge**
2 To understand the basic principles of diagnosis and management
2 To understand the referral mechanisms within local setting
2 To be aware of legal responsibilities

**Clinical Skills**
2 To recognise the possibility of the condition
2 To construct an appropriate investigation and referral plan

**Technical Skills**
No content

**Professional Skills**
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources
## Research and Audit

### Evidence Based Medicine (EBM)

**Objective**

To be able to use evidence, guidelines and audit to benefit patient care

**Knowledge**

3 Principles of EBM
3 Types of clinical trials

**Clinical Skills**

2 Critically appraise evidence
3 Competent in use of appropriate data sources (paper and via electronic sources)
2 Ability to discuss evidence with colleagues and parents/patients at appropriate level

**Technical Skills**

No content

**Professional Skills**

Willing to use evidence to support patient care

### Audit

**Objective**

To be able to use evidence, guidelines and audit to benefit patient care

**Knowledge**

3 Audit cycle
3 Data sources for audit
3 Understand data confidentiality

**Clinical Skills**

3 Demonstrate the skills of design of audit and analysis of outcomes

**Technical Skills**

No content

**Professional Skills**

Be aware of the relevance of audit to:
Patient care
Clinical Governance
Resource management

### Guidelines

**Objective**

To be able to use evidence, guidelines and audit to benefit patient care

**Knowledge**

3 Benefits and limitations of guidelines
3 Methods of determining best practice

**Clinical Skills**

3 Use local guidelines where available
2 Be involved in development of guidelines

**Technical Skills**

No content

**Professional Skills**

Consider whether guidelines suit the individual patient case

### Research

**Objective**

To be able to use evidence, guidelines and audit to benefit patient care

**Knowledge**

3 Place of research in aiding patient management
3 Differing methods of research and their different uses

**Clinical Skills**

3 Involvement in departmental research projects
<table>
<thead>
<tr>
<th>3 Utilise critical analysis skills to determine research question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technical Skills</strong></td>
</tr>
<tr>
<td>No content</td>
</tr>
<tr>
<td><strong>Professional Skills</strong></td>
</tr>
<tr>
<td>Be aware of the relevance of research and the importance of ethical application of research methods</td>
</tr>
</tbody>
</table>
### Teaching and Training

#### Teaching

**Objective**

To acquire the knowledge, skills and attitudes to become life-long learners and teachers

**Knowledge**

1. Principles of adult learning
2. Learner centred approach to teaching

**Clinical Skills**

1. Use all opportunities for teaching
2. Ability to plan and deliver teaching programme
3. Use appropriate methodology for the needs and current skill level of the learners
4. Ability to give and receive feedback

**Technical Skills**

No content

**Professional Skills**

Willingness, enthusiasm and patience to teach

#### Presentations

**Objective**

To acquire the knowledge, skills and attitudes to become life-long learners and teachers

**Knowledge**

1. Features of an effective presentation
2. Appropriate media for different styles of presentation

**Clinical Skills**

1. Practice presentations at various opportunities e.g. journal clubs etc

**Technical Skills**

No content

**Professional Skills**

Confidence in presentation

Welcome feedback
Operative skills

Pre-operative care

Objective
To ensure the trainee has reached a level of competence in a range of basic operative procedures.

Knowledge
3 Indications for surgery
3 Required preparation for surgery to include necessary pre-operative investigations
3 Outcomes and complications of surgery
3 Knowledge of the admission process

Clinical Skills
3 Synthesis of history and examination into operative management plan
3 Ability to explain procedure and outcomes to patient and parents at an appropriate level
3 To be able to take informed consent
3 To construct an appropriate theatre list
3 To follow the admission procedure

Technical Skills
No content

Professional Skills
Takes time to explain procedures to patient
Encourages questions
Takes parent and patient views into account in decision making

Intra-operative care

Objective
To ensure the trainee has reached a level of competence in a range of basic operative procedures.

Knowledge
3 Anatomy to be encountered during procedure
3 Steps involved in operative procedure
3 Knowledge of alternative procedures in case of encountering difficulties
3 Potential complications of procedure

Clinical Skills
3 Necessary hand-eye dexterity to complete procedure
3 Appropriate use of assistance
3 Communication with other members of theatre team

Technical Skills
No content

Professional Skills
Awareness of progress of procedure
Willingness to work with assistants and other theatre personnel to achieve outcomes
Self-awareness of when to seek advice/assistance

Post-operative care

Objective
To ensure the trainee has reached a level of competence in a range of basic operative procedures.

Knowledge
3 Outcomes of procedure
3 Likely post-operative progress from disease process and intervention
3 Physiological and pathological changes in condition as a result of intervention

Clinical Skills
3 Assessment of patient and physiological parameters
3 Appropriate intervention to deal with changing parameters
3 Communication skills for dealing with team members, patients and parents
3 Ability to prioritise interventions

Technical Skills
No content

Professional Skills
Willingness to act as part of a team or lead team where necessary
Self-awareness of when to seek advice/assistance
5. Final Stage

Four point scales

What the 4 point scale means for Knowledge

1. Knows of
2. Knows basic concepts
3. Knows generally
4. Knows both specifically and broadly

What the 4 point scales means for Clinical Skills and Technical Skills and Procedures

1. Has observed
2. Can do with assistance
3. Can do whole but may need assistance
4. Competent to do whole without assistance, including managing complications
5.1 Overview

Overview of Final Stage

The aim of the final stage is enable the trainee to further develop the skills knowledge and attitude required to complete training and move to practise as a Consultant Paediatric Surgeon in the U.K health system.

This final phase of training is when trainees continue to build on the competences achieved in the first phases of the programme, gaining both competences not achieved at earlier stages and further exposure to the more specialised areas of practice. The goals as outlined in previous stages remain pertinent, as it is expected that the trainees will continue to build on their experience and move beyond competent practice to the level of an advanced practitioner, in many of the areas.

The planning of these final attachments is important as it provides an opportunity to remedy areas of training deficiency from earlier in the programme, or the development of a special interest.

The curriculum goals are again presented in a modular fashion for ease of reference and recording of achievement rather than as a suggested teaching package. There will obviously be areas of duplicate coverage and again this curriculum should be viewed as a framework to aid understanding rather than as a prescriptive document. Though the information on the individual conditions is largely unchanged from the intermediate stage, the objectives of these 'modules' have been altered to reflect the expectation that the trainees will be exhibiting a more advanced level of performance.

The different sections will contain a mixture of information on relevant conditions, symptom patterns and associated surgical operations. Overall these goals outlined are simply guides to progress and should be used by trainees, trainers and Programme Directors to help plan rotational placements to ensure a full breadth of training.

The following modules are included:

- Gastrointestinal
- Neonatology
- General Urology
- Thoracic
- Oncology
- Endocrine
- Surgical Disciplines
- Research and Audit

By the end of the final stage of training trainees including those who are following an academic pathway will have:

- Achieved the level of an advanced practitioner in the management of the common surgical problems of childhood
- Acquired the skills to practice with integrity, respect and compassion
- Gained sufficient theoretical knowledge and practical experience to be able to enter for the examination in paediatric surgery as set by the Intercollegiate Board in Paediatric Surgery.
- Developed skills and experience in areas of more specialised practice – with a view to developing a sub-specialty interest if appropriate.
- Achieved the level of advanced practitioner in operations common to Paediatric practice, and be developing competence in procedures appropriate to sub-specialty training.
The list detailed here will not be achieved by all trainees, as many will be looking to specialise in a particular area. Individual circumstance will dictate the experience each trainee will gain. As a guide the trainee will by the end of this phase be expected to both initiate and lead in the operative management. In addition they will be expected to demonstrate the self-awareness of the need for support and advice of senior colleagues.

Elective Procedures

- Neonatal
  - Repair of Oesophageal atresia (+/- fistula)
  - Colonic interposition/ gastric pull up
  - Repair of recurrent fistula
  - Aortopexy
  - Congenital Diaphragmatic hernia repair
  - Repair of eventration of diaphragm
  - Duodeno-dudenostomy
  - Management of congenital atresias of intestine
  - Management of duplications
  - Management of necrotising enterocolitis
  - Neonatal pull-through for Hirschsprungs disease

- General Abdominal
  - Achalasia management
  - Gastric disconnection
  - Feeding jejunostomy
  - ACE procedure
  - Bowel lengthening procedure
  - Posterior sagittal anorectoplasty
  - Pull through for Hirschsprungs disease
  - Management of Crohns disease of small and large intestine
  - Colonic resection for Ulcerative colitis and ileoanal pouch formation
  - Colonoscopy

- Thoracic
  - Management of empyema
  - Resection of lung lesions
  - Management of chest wall deformity
  - Management of airway anomalies

- Endocrine
  - Resection of salivary gland lesions
  - Thyroid/parathyroid surgery
  - Management of hyperinsulinism

- Oncology
  - Hepatoblastoma
  - Wilms tumour
  - Adrenal tumours – benign/malignant
  - Soft tissue tumours
  - Sacrococygeal tumour

- Hepatobiliary
  - Biliary atresia
  - Choledochal cyst

- Urology
  - Pyeloplasty
  - Partial Nephrectomy
  - Management of renal calculi
  - Destruction of posterior urethral valves
- Bladder extrophy closure
- Bladder augmentation / artificial sphincter insertion
- Epispadias repair
- Complex hypospadias repair
### 5.2 Conditions

**Gastrointestinal**

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<tr>
<td><strong>Knowledge</strong></td>
<td>3 Pathophysiology</td>
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<tr>
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<td>3 Investigation and management</td>
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<tr>
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<td>3 Indications for operative intervention</td>
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<tr>
<td><strong>Clinical Skills</strong></td>
<td>3 Ability to synthesise history and investigations into appropriate management plan</td>
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<td>3 Ability to communicate information to parents/child</td>
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<td>4 Patterns of symptoms and relation to likely pathology and age of child</td>
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<td>4 Place and value of investigations</td>
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<td>4 Place of operative intervention, and associated outcomes</td>
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<td><strong>Clinical Skills</strong></td>
<td>4 Ability to assess ill child</td>
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<td>4 Ability to communicate with ill child (see Section 1)</td>
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<td>4 Ability to form a viable investigation and treatment plan</td>
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<td>4 Ability to communicate with all relevant groups</td>
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To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

Knowledge
4 Patterns of symptoms and relation to likely pathology and age of child
3 Differential diagnosis to include medical anomalies and socio-psychological aspects of symptom
4 Place and value of investigations

Clinical Skills
4 Ability to assess child
4 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups.
3 To include community aspects of further management

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Gastro-intestinal bleeding

Objective
To understand the presenting symptoms of common gastrointestinal conditions in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

Knowledge
3 Patterns of symptoms and relation to likely pathology and age of child
3 Differential diagnosis
4 Place and value of investigations
3 Place of operative intervention, and associated outcomes

Clinical Skills
4 Ability to assess ill child
4 Ability to communicate with ill child (see Section 1)
4 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Intestinal obstruction

Objective
To understand the presenting symptoms of common gastrointestinal conditions in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

Knowledge
4 Patterns of symptoms and relation to likely pathology and age of child
4 Differential diagnosis
4 Place and value of investigations
4 Place of operative intervention, and associated outcomes

Clinical Skills
4 Ability to assess ill child
4 Ability to communicate with ill child (see Section 1)
4 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

---

**Inflammatory Bowel Disease**

**Objective**
*To understand the presenting symptoms of common gastrointestinal conditions in childhood and their management*
*To be able to formulate a differential diagnosis and an investigation and management plan*
*To be able to treat the child appropriately up to and including operative intervention in selected cases*
*To be able to communicate the above information at the required level to patients/parents/other team members/referral source*
*To be able to practice with integrity, respect and compassion*

Knowledge
3 Patterns of symptoms and relation to likely pathology and age of child
3 Differential diagnosis
3 Place and value of investigations
3 Place of operative intervention, and associated outcomes

Clinical Skills
4 Ability to assess ill child
4 Ability to communicate with ill child (see Section 1)
4 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

---

**Short bowel Syndrome**

**Objective**
*To understand the presenting symptoms of common gastrointestinal conditions in childhood and their management*
*To be able to formulate a differential diagnosis and an investigation and management plan*
*To be able to treat the child appropriately up to and including operative intervention in selected cases*
*To be able to communicate the above information at the required level to patients/parents/other team members/referral source*
*To be able to practice with integrity, respect and compassion*

Knowledge
Liver disease e.g. Biliary atresia Choledochal cyst Inflammatory/infectious liver disease

**Objective**
To understand the presenting symptoms of common gastrointestinal conditions in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

**Knowledge**
3 Patterns of symptoms and relation to likely pathology and age of child
3 Differential diagnosis
3 Place and value of investigations
3 Place of operative intervention, and associated outcomes

**Clinical Skills**
4 Ability to assess ill child
4 Ability to communicate with ill child (see Section 1)
4 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups

**Technical Skills**
No content

**Professional Skills**
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources
## Urinary tract Infection

**Objective**

- To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to treat the child appropriately up to and including operative intervention in selected cases
- To be able to communicate the above information at the required level to patients/parents/other team members/referral source
- To be able to practice with integrity, respect and compassion

**Knowledge**

- 4 Patterns of symptoms and relation to likely pathology and age of child
- 4 Relevance of different symptom patterns
- 4 Differential diagnosis
- 4 Place and value of investigations

**Clinical Skills**

- 4 Ability to assess child
- 4 Ability to form a viable investigation and treatment plan
- 4 Ability to communicate with all relevant groups

**Technical Skills**

- No content

**Professional Skills**

- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

## Haematuria

**Objective**

- To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to treat the child appropriately up to and including operative intervention in selected cases
- To be able to communicate the above information at the required level to patients/parents/other team members/referral source
- To be able to practice with integrity, respect and compassion

**Knowledge**

- 4 Patterns of symptoms and relation to likely pathology and age of child
- 4 Differential diagnosis
- 4 Place and value of investigations

**Clinical Skills**

- 4 Ability to assess child
- 4 Ability to form a viable investigation and treatment plan
- 4 Ability to communicate with all relevant groups

**Technical Skills**

- No content

**Professional Skills**

- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

## Hypospadias

**Objective**
To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

Knowledge
3 Likely modes of presentation
3 Different anatomical variants
4 Place and value of investigations/operative intervention

Clinical Skills
4 Ability to assess child
4 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Upper tract obstruction (to include Pelvi-ureteric junction obstruction and Vesico-ureteric junction obstruction)

Objective
To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

Knowledge
4 Likely modes of presentation
4 Place and value of investigations/operative intervention
4 Differential diagnosis

Clinical Skills
4 Ability to assess child
4 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Posterior urethral valves

Objective
To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

Knowledge
4 Likely modes of presentation
4 Place and value of investigations/ operative intervention
4 Differential diagnosis

Clinical Skills
4 Ability to assess child
4 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Urinary tract calculus disease

Objective
To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/ parents/ other team members/ referral source
To be able to practice with integrity, respect and compassion

Knowledge
4 Likely modes of presentation
3 Aetiological and biochemical factors
3 Place and value of investigations/ operative and non-operative intervention
3 Differential diagnosis

Clinical Skills
4 Ability to assess child
4 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Bladder dysfunction (incl. neuropathic bladder)

Objective
To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/ parents/ other team members/ referral source
To be able to practice with integrity, respect and compassion

Knowledge
0 Likely modes of presentation
0 Differential diagnosis
0 Place and value of investigations
0 Knowledge of appropriate referral pathways

Clinical Skills
0 Ability to assess child
0 Ability to form a viable investigation and treatment plan
0 Ability to communicate with all relevant groups

**Technical Skills**

No content

**Professional Skills**

0 A commitment to the highest standard of care
0 The generation and dissemination of knowledge
0 A commitment to serve the interests and welfare of patients
0 Optimum utilization of resources

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**Renal failure**

**Objective**

To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/ parents/ other team members/ referral source
To be able to practice with integrity, respect and compassion

**Knowledge**

3 Likely modes of presentation
3 Differential diagnosis
3 Place and value of investigations
3 Knowledge of referral criteria to renal medical colleagues

**Clinical Skills**

4 Ability to assess child
4 Ability to communicate with all relevant groups

**Technical Skills**

No content

**Professional Skills**

A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

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**Bladder extrophy (to include outlet anomalies e.g. epispadias)**

**Objective**

To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to treat the child appropriately up to and including operative intervention in selected cases
To be able to communicate the above information at the required level to patients/ parents/ other team members/ referral source
To be able to practice with integrity, respect and compassion

**Knowledge**

3 Likely modes of presentation
3 Differential diagnosis
3 Place and value of investigations

**Clinical Skills**

4 Ability to assess child
4 Ability to communicate with all relevant groups

**Technical Skills**

No content

**Professional Skills**

A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources
### Duplication of urinary tract

**Objective**
- To be able to assess a child presenting to the OP clinic or acutely with symptoms referable to the urinary tract
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to treat the child appropriately up to and including operative intervention in selected cases
- To be able to communicate the above information at the required level to patients/parents/other team members/referral source
- To be able to practice with integrity, respect and compassion

**Knowledge**
- 3 Likely modes of presentation
- 3 Embryological derivation and anatomical variants
- 3 Place and value of investigations/operative intervention
- 3 Differential diagnosis

**Clinical Skills**
- 4 Ability to assess child
- 4 Ability to form a viable investigation and treatment plan
- 4 Ability to communicate with all relevant groups

**Technical Skills**
- No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources
### Neonatal Surgery

<table>
<thead>
<tr>
<th><strong>Congenital Diaphragmatic Hernia</strong></th>
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</table>
| **Objective**                      | To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period  
To be able to construct an appropriate management plan for these children  
To understand the place of operative management in the neonatal period and be able to carry this out in selected cases  
To be able to practice with integrity, respect and compassion  |
| **Knowledge**                      | 4 Mode of presentation both pre- and post natal  
4 Patho-physiology of the condition and anatomical variants  
4 Associated anomalies  
4 Outcome data on the condition  
4 Differing management strategies  
4 Role of pre-natal counselling  |
| **Clinical Skills**                |  |
| 4 Ability to assess child          |  |
| 4 Ability to form a viable investigation and treatment plan |  |
| 4 Ability to communicate with all relevant groups |  |
| **Technical Skills**               | No content |
| **Professional Skills**            | A commitment to the highest standard of care  
The generation and dissemination of knowledge  
A commitment to serve the interests and welfare of patients  
Optimum utilization of resources |

<table>
<thead>
<tr>
<th><strong>Intestinal Atresias</strong></th>
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| **Objective**                      | To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period  
To be able to construct an appropriate management plan for these children  
To understand the place of operative management in the neonatal period and be able to carry this out in selected cases  
To be able to practice with integrity, respect and compassion  |
| **Knowledge**                      | 4 Mode of presentation both pre- and post natal  
3 Anatomical variants  
4 Associated anomalies  
4 Outcome data on the condition  
4 Differing management strategies  
4 Role of pre-natal counselling  |
| **Clinical Skills**                |  |
| 4 Ability to assess child          |  |
| 4 Ability to form a viable investigation and treatment plan |  |
| 4 Ability to communicate with all relevant groups |  |
| **Technical Skills**               | No content |
| **Professional Skills**            | A commitment to the highest standard of care  
The generation and dissemination of knowledge  
A commitment to serve the interests and welfare of patients  
Optimum utilization of resources |
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<thead>
<tr>
<th>Meconium Ileus</th>
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</table>
| **Objective**  | To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period  
To be able to construct an appropriate management plan for these children  
To understand the place of operative management in the neonatal period and be able to carry this out in selected cases  
To be able to practice with integrity, respect and compassion |
| **Knowledge**  | 4 Mode of presentation both pre- and post natal  
4 Patho-physiology of the condition and anatomical variants  
4 Associated anomalies  
4 Outcome data on the condition  
4 Differing management strategies  
4 Role of pre-natal + genetic counselling |
| **Clinical Skills** | 4 Ability to assess child  
4 Ability to form a viable investigation and treatment plan  
4 Ability to communicate with all relevant groups |
| **Technical Skills** | No content |
| **Professional Skills** | A commitment to the highest standard of care  
The generation and dissemination of knowledge  
A commitment to serve the interests and welfare of patients  
Optimum utilization of resources |

<table>
<thead>
<tr>
<th>Malrotation</th>
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</table>
| **Objective**  | To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period  
To be able to construct an appropriate management plan for these children  
To understand the place of operative management in the neonatal period and be able to carry this out in selected cases  
To be able to practice with integrity, respect and compassion |
| **Knowledge**  | 4 Mode of presentation  
4 Patho-physiology of the condition and anatomical variants  
4 Associated anomalies  
4 Outcome data on the condition  
4 Differing management strategies |
| **Clinical Skills** | 4 Ability to assess child  
4 Ability to form a viable investigation and treatment plan  
4 Ability to communicate with all relevant groups |
| **Technical Skills** | No content |
| **Professional Skills** | A commitment to the highest standard of care  
The generation and dissemination of knowledge  
A commitment to serve the interests and welfare of patients  
Optimum utilization of resources |

<table>
<thead>
<tr>
<th>Hirschsprungs disease</th>
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</table>
| **Objective**  | To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period  
To be able to construct an appropriate management plan for these children  
To understand the place of operative management in the neonatal period and be able to carry this out in selected cases |
| **Knowledge**  | 4 Mode of presentation  
4 Patho-physiology of the condition and anatomical variants  
4 Associated anomalies  
4 Outcome data on the condition  
4 Differing management strategies |
| **Clinical Skills** | 4 Ability to assess child  
4 Ability to form a viable investigation and treatment plan  
4 Ability to communicate with all relevant groups |
| **Technical Skills** | No content |
| **Professional Skills** | A commitment to the highest standard of care  
The generation and dissemination of knowledge  
A commitment to serve the interests and welfare of patients  
Optimum utilization of resources |
To be able to practice with integrity, respect and compassion

**Knowledge**
- Mode of presentation both pre- and post natal
- Patho-physiology of the condition and anatomical variants
- Associated anomalies
- Outcome data on the condition
- Differing management strategies
- Role of genetic counselling

**Clinical Skills**
- Ability to assess child
- Ability to form a viable investigation and treatment plan
- Ability to communicate with all relevant groups

**Technical Skills**
No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

**Oesophageal Atresia and Tracheo-oesophageal fistula**

**Objective**
*To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period*
*To be able to construct an appropriate management plan for these children*
*To understand the place of operative management in the neonatal period and be able to carry this out in selected cases*
*To be able to practice with integrity, respect and compassion*

**Knowledge**
- Mode of presentation both pre- and post natal
- Patho-physiology of the condition and anatomical variants
- Associated anomalies
- Outcome data on the condition
- Differing management strategies
- Role of pre-natal counselling

**Clinical Skills**
- Ability to assess child
- Ability to form a viable investigation and treatment plan
- Ability to communicate with all relevant groups

**Technical Skills**
No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

**Anorectal Malformations**

**Objective**
*To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period*
*To be able to construct an appropriate management plan for these children*
*To understand the place of operative management in the neonatal period and be able to carry this out in selected cases*
*To be able to practice with integrity, respect and compassion*

**Knowledge**
- Mode of presentation both pre- and post natal
- Patho-physiology of the condition and anatomical variants
- Associated anomalies
<table>
<thead>
<tr>
<th>Necrotising Enterocolitis</th>
<th>Neonatal Abdominal Wall Defects</th>
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<td><strong>Objective</strong></td>
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<td>To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period</td>
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<td>To be able to construct an appropriate management plan for these children</td>
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<td>To understand the place of operative management in the neonatal period and be able to carry this out in selected cases</td>
<td>To understand the place of operative management in the neonatal period and be able to carry this out in selected cases</td>
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<td>To be able to practice with integrity, respect and compassion</td>
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<td>4 Patho-physiology of the condition</td>
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<td>4 Outcome data on the condition</td>
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<td>4 Differing management strategies</td>
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<td>4 Ability to assess child</td>
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<td>A commitment to serve the interests and welfare of patients</td>
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<tr>
<td>Optimum utilization of resources</td>
<td>Optimum utilization of resources</td>
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</table>
### Intersex anomalies

**Objective**

To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period

To be able to construct an appropriate management plan for these children

To understand the place of operative management in the neonatal period and be able to carry this out in selected cases

To be able to practice with integrity, respect and compassion

**Knowledge**

- Mode of presentation both pre- and post natal
- Patho-physiology of the condition and anatomical variants
- Associated anomalies
- Outcome data on the condition
- Differing management strategies
- Role of genetic counselling

**Clinical Skills**

- Ability to assess child
- Ability to form a viable investigation and treatment plan
- Ability to communicate with all relevant groups

**Technical Skills**

No content

**Professional Skills**

- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

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### Antenatal management

**Objective**

To understand the diagnosis and management of children presenting with congenital abnormalities in the neonatal period

To be able to construct an appropriate management plan for these children

To understand the place of operative management in the neonatal period and be able to carry this out in selected cases

To be able to practice with integrity, respect and compassion

**Knowledge**

- Likely modes of presentation of different conditions
- Place and value of investigations
- Types of and indications for antenatal intervention
- Role of ante-natal counselling

**Clinical Skills**

- Ability to counsel and inform parents
- Ability to form a viable investigation and treatment plan
- Ability to communicate with all relevant groups

**Technical Skills**

No content

**Professional Skills**

- A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources
### Oncology

#### Wilms Tumour

**Objective**
- To understand the presentation and management of childhood tumours
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to practice with integrity, respect and compassion

**Knowledge**
- 4 Mode of clinical presentation
- 4 Differential diagnosis
- 3 Relevant basic science knowledge of oncogenesis
- 4 Outcome data of treatment modalities
- 4 Role of surgery

**Clinical Skills**
- 4 Ability to assess child
- 4 Ability to form a viable investigation and treatment plan
- 4 Ability to communicate with all relevant groups

**Technical Skills**
- No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

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#### Neuroblastoma

**Objective**
- To understand the presentation and management of childhood tumours
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to practice with integrity, respect and compassion

**Knowledge**
- 4 Mode of clinical presentation
- 4 Differential diagnosis
- 3 Relevant basic science knowledge of oncogenesis
- 4 Outcome data of treatment modalities
- 4 Role of surgery

**Clinical Skills**
- 4 Ability to assess child
- 4 Ability to form a viable investigation and treatment plan
- 4 Ability to communicate with all relevant groups

**Technical Skills**
- No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

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#### Hepatoblastoma

**Objective**
- To understand the presentation and management of childhood tumours
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to practice with integrity, respect and compassion

**Knowledge**
Soft tissue tumours

Objective
To understand the presentation and management of childhood tumours
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to practice with integrity, respect and compassion

Knowledge
3 Mode of clinical presentation
3 Differential diagnosis
3 Relevant basic science knowledge of oncogenesis
3 Management strategies and basic outcome data of treatment modalities

Clinical Skills
4 Ability to assess child
4 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups

Technical Skills
No content

Professional Skills
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Haematological malignancies

Objective
To understand the presentation and management of childhood tumours
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to practice with integrity, respect and compassion

Knowledge
3 Mode of clinical presentation
3 Differential diagnosis
3 Relevant basic science knowledge of oncogenesis
3 Management strategies and basic outcome data of treatment modalities

Clinical Skills
4 Ability to assess child
4 Ability to communicate with all relevant groups

Technical Skills
No content
<table>
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<th><strong>Osteosarcoma</strong></th>
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<tr>
<td><strong>Objective</strong></td>
<td>To understand the presentation and management of childhood tumours</td>
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<td>To be able to formulate a differential diagnosis and an investigation and management plan</td>
<td>To be able to practice with integrity, respect and compassion</td>
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<tr>
<td><strong>Knowledge</strong></td>
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<td>3 Mode of clinical presentation</td>
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<td>3 Differential diagnosis</td>
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<td>3 Relevant basic science knowledge of oncogenesis</td>
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<td>3 Management strategy and basic outcome data of treatment modalities</td>
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<td>3 Role of surgery</td>
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<tr>
<td><strong>Clinical Skills</strong></td>
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<td>4 Ability to assess child</td>
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<td>4 Ability to communicate with all relevant groups</td>
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<td><strong>Objective</strong></td>
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<td>4 Mode of clinical presentation</td>
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<tr>
<td>4 Differential diagnosis</td>
<td></td>
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<tr>
<td>4 Relevant basic science knowledge of oncogenesis</td>
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<tr>
<td>4 Outcome data of treatment modalities</td>
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<tr>
<td>4 Role of surgery</td>
<td></td>
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<tr>
<td><strong>Clinical Skills</strong></td>
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<tr>
<td>4 Ability to assess child</td>
<td></td>
</tr>
<tr>
<td>4 Ability to form a viable investigation and treatment plan</td>
<td></td>
</tr>
<tr>
<td>4 Ability to communicate with all relevant groups</td>
<td></td>
</tr>
<tr>
<td><strong>Technical Skills</strong></td>
<td>No content</td>
</tr>
<tr>
<td><strong>Professional Skills</strong></td>
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<tr>
<td>A commitment to the highest standard of care</td>
<td></td>
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<tr>
<td>The generation and dissemination of knowledge</td>
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<tr>
<td>A commitment to serve the interests and welfare of patients</td>
<td></td>
</tr>
<tr>
<td>Optimum utilization of resources</td>
<td></td>
</tr>
</tbody>
</table>
## Endocrine conditions

### Disease of the thyroid gland

**Objective**
- To understand the presenting symptoms of endocrine conditions in childhood and their management
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to identify the need for surgery and influence of endocrine conditions on surgery
- To be able to communicate the above information at the required level to patients/parents/other team members/referral source
- To be able to practice with integrity, respect and compassion

**Knowledge**
- 3 Likely modes of presentation
- 3 Differential diagnosis
- 3 Place and value of investigations
- 3 Knowledge of appropriate referral pathways

**Clinical Skills**
- 4 Ability to assess child
- 4 Ability to form a viable investigation and treatment plan
- 4 Ability to communicate with all relevant groups

**Technical Skills**
- No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

### Parathyroid disease

**Objective**
- To understand the presenting symptoms of endocrine conditions in childhood and their management
- To be able to formulate a differential diagnosis and an investigation and management plan
- To be able to identify the need for surgery and influence of endocrine conditions on surgery
- To be able to communicate the above information at the required level to patients/parents/other team members/referral source
- To be able to practice with integrity, respect and compassion

**Knowledge**
- 3 Likely modes of presentation
- 3 Differential diagnosis
- 3 Place and value of investigations
- 3 Knowledge of appropriate referral pathways

**Clinical Skills**
- 4 Ability to assess child
- 4 Ability to form a viable investigation and treatment plan
- 4 Ability to communicate with all relevant groups

**Technical Skills**
- No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources

### Diabetes

**Objective**
To understand the presenting symptoms of endocrine conditions in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to identify the need for surgery and influence of endocrine conditions on surgery
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

**Knowledge**
3 Likely modes of presentation
3 Differential diagnosis
3 Place and value of investigations
3 Knowledge of appropriate referral pathways

**Clinical Skills**
4 Ability to assess child
3 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups

**Technical Skills**
No content

**Professional Skills**
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

### Disorders of Growth

**Objective**
To understand the presenting symptoms of endocrine conditions in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to identify the need for surgery and influence of endocrine conditions on surgery
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

**Knowledge**
3 Likely modes of presentation
3 Differential diagnosis
3 Place and value of investigations
3 Knowledge of appropriate referral pathways

**Clinical Skills**
4 Ability to assess child
3 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups

**Technical Skills**
No content

**Professional Skills**
A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

### Disorders of secondary sexual development

**Objective**
To understand the presenting symptoms of endocrine conditions in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To be able to identify the need for surgery and influence of endocrine conditions on surgery
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

**Knowledge**
- 3 Likely modes of presentation
- 3 Differential diagnosis
- 3 Place and value of investigations
- 3 Knowledge of appropriate referral pathways

**Clinical Skills**
- 4 Ability to assess child
- 3 Ability to form a viable investigation and treatment plan
- 4 Ability to communicate with all relevant groups

**Technical Skills**
No content

**Professional Skills**
- A commitment to the highest standard of care
- The generation and dissemination of knowledge
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources
Thoracic Anomalies

<table>
<thead>
<tr>
<th>Chest Wall anomalies E.g. pectus excavatum, Pectus carinatum</th>
</tr>
</thead>
</table>
| **Objective**  
To understand the presenting symptoms of thoracic anomalies in childhood and their management  
To be able to formulate a differential diagnosis and an investigation and management plan  
To identify the place of surgery  
To be able to communicate the above information at the required level to patients/parents/ other team members/ referral source  
To be able to practice with integrity, respect and compassion |
| **Knowledge**  
4 Likely modes of presentation  
4 Differential diagnosis  
4 Place and value of investigations  
4 Knowledge of appropriate referral pathways  
4 Outcomes of surgery |
| **Clinical Skills**  
4 Ability to assess child  
4 Ability to form a viable investigation and treatment plan  
4 Ability to communicate with all relevant groups |
| **Technical Skills**  
No content |
| **Professional Skills**  
A commitment to the highest standard of care  
The generation and dissemination of knowledge |

<table>
<thead>
<tr>
<th>Pulmonary abnormalities, Congenital and acquired lung cysts E.g. CCAM Bronchopulmonary dysplasia</th>
</tr>
</thead>
</table>
| **Objective**  
To understand the presenting symptoms of thoracic anomalies in childhood and their management  
To be able to formulate a differential diagnosis and an investigation and management plan  
To identify the place of surgery  
To be able to communicate the above information at the required level to patients/parents/ other team members/ referral source  
To be able to practice with integrity, respect and compassion |
| **Knowledge**  
4 Likely modes of presentation  
4 Differential diagnosis  
4 Place and value of investigations  
3 Knowledge of developmental embryology and pertinent anatomy  
4 Knowledge of appropriate referral pathways  
4 Outcomes of surgery |
| **Clinical Skills**  
4 Ability to assess child  
3 Ability to form a viable investigation and treatment plan  
4 Ability to communicate with all relevant groups |
| **Technical Skills**  
No content |
| **Professional Skills**  
A commitment to the highest standard of care  
The generation and dissemination of knowledge |
Tracheal anomalies

Objective

To understand the presenting symptoms of thoracic anomalies in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To identify the place of surgery
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

Knowledge

4 Likely modes of presentation
4 Differential diagnosis
4 Place and value of investigations
4 Knowledge of developmental embryology and pertinent anatomy
4 Knowledge of appropriate referral pathways
4 Outcomes of surgery

Clinical Skills

4 Ability to assess child
4 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups

Technical Skills

No content

Professional Skills

A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources

Inhaled/aspirated/ingested foreign body

Objective

To understand the presenting symptoms of thoracic anomalies in childhood and their management
To be able to formulate a differential diagnosis and an investigation and management plan
To identify the place of surgery
To be able to communicate the above information at the required level to patients/parents/other team members/referral source
To be able to practice with integrity, respect and compassion

Knowledge

4 Likely modes of presentation
4 Differential diagnosis
4 Place and value of investigations
4 Knowledge of developmental embryology and pertinent anatomy
4 Knowledge of appropriate referral pathways
4 Outcomes of surgery

Clinical Skills

4 Ability to assess child
4 Ability to form a viable investigation and treatment plan
4 Ability to communicate with all relevant groups

Technical Skills

No content

Professional Skills

A commitment to the highest standard of care
The generation and dissemination of knowledge
A commitment to serve the interests and welfare of patients
Optimum utilization of resources
Research and Audit

**Evidence Based Medicine (EBM)**

**Objective**
To be able to use evidence, guidelines and audit to benefit patient care

**Knowledge**
4 Principles of EBM
4 Types of clinical trials

**Clinical Skills**
4 Critically appraise evidence
4 Competent in use of appropriate data sources (paper and via electronic sources)
4 Ability to discuss evidence with colleagues and parents/patients at appropriate level

**Technical Skills**
No content

**Professional Skills**
Willing to use evidence to support patient care

---

**Audit**

**Objective**
To be able to use evidence, guidelines and audit to benefit patient care

**Knowledge**
4 Audit cycle
4 Data sources for audit
4 Understand data confidentiality

**Clinical Skills**
4 Demonstrate the skills of design of audit and analysis of outcomes

**Technical Skills**
No content

**Professional Skills**
Be aware of the relevance of audit to:
Patient care
Clinical Governance
Resource management

---

**Guidelines**

**Objective**
To be able to use evidence, guidelines and audit to benefit patient care

**Knowledge**
4 Benefits and limitations of guidelines
4 Methods of determining best practice

**Clinical Skills**
4 Use local guidelines where available
3 Be involved in development of guidelines

**Technical Skills**
No content

**Professional Skills**
Consider whether guidelines suit the individual patient case

---

**Research**

**Objective**
To be able to use evidence, guidelines and audit to benefit patient care

**Knowledge**
4 Place of research in aiding patient management
4 Differing methods of research and their different uses

**Clinical Skills**
3 Involvement in departmental research projects
3 Utilise critical analysis skills to determine research question

**Technical Skills**
No content

**Professional Skills**
Be aware of the relevance of research and the importance of ethical application of research methods
## Operative skills

### Pre-operative care

**Objective**

To ensure the trainee has reached a level of competence in a range of basic operative procedures.

**Knowledge**

- 3 Indications for surgery
- 3 Required preparation for surgery to include necessary pre-operative investigations
- 3 Outcomes and complications of surgery
- 3 Knowledge of the admission process

**Clinical Skills**

- 3 Synthesis of history and examination into operative management plan
- 3 Ability to explain procedure and outcomes to patient and parents at an appropriate level
- 3 To be able to take informed consent
- 3 To construct an appropriate theatre list
- 3 To follow the admission procedure

**Technical Skills**

No content

**Professional Skills**

- Takes time to explain procedures to patient
- Encourages questions
- Takes parent and patient views into account in decision making

### Intra-operative care

**Objective**

To ensure the trainee has reached a level of competence in a range of basic operative procedures.

**Knowledge**

- 3 Anatomy to be encountered during procedure
- 3 Steps involved in operative procedure
- 3 Knowledge of alternative procedures in case of encountering difficulties
- 3 Potential complications of procedure

**Clinical Skills**

- 3 Necessary hand-eye dexterity to complete procedure
- 3 Appropriate use of assistance
- 3 Communication with other members of theatre team

**Technical Skills**

No content

**Professional Skills**

- Awareness of progress of procedure
- Willingness to work with assistants and other theatre personnel to achieve outcomes
- Self-awareness of when to seek advice/assistance

### Post-operative care

**Objective**

To ensure the trainee has reached a level of competence in a range of basic operative procedures.

**Knowledge**

- 3 Outcomes of procedure
- 3 Likely post-operative progress from disease process and intervention
- 3 Physiological and pathological changes in condition as a result of intervention
<table>
<thead>
<tr>
<th><strong>Clinical Skills</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Assessment of patient and physiological parameters</td>
</tr>
<tr>
<td>3 Appropriate intervention to deal with changing parameters</td>
</tr>
<tr>
<td>3 Communication skills for dealing with team members, patients and parents</td>
</tr>
<tr>
<td>3 Ability to prioritise interventions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Technical Skills</strong></th>
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</thead>
<tbody>
<tr>
<td>No content</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Professional Skills</strong></th>
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</thead>
<tbody>
<tr>
<td>Willingness to act as part of a team or lead team where necessary</td>
</tr>
<tr>
<td>Self-awareness of when to seek advice/assistance</td>
</tr>
</tbody>
</table>
### Management

<table>
<thead>
<tr>
<th><strong>NHS Structure</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td>To understand the current structure and function of the NHS</td>
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<td>To develop an understanding of leadership qualities required of a consultant</td>
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<td>To develop the ability to support colleagues and peers in the delivery of care</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Knowledge</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>30 Current structure of NHS</td>
</tr>
<tr>
<td>3 Role of DoH</td>
</tr>
<tr>
<td>3 Role of Strategic Health Authority</td>
</tr>
<tr>
<td>3 Role of regulatory agencies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Clinical Skills</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Ability to identify impact of structures / changes on delivery of care</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Technical Skills</strong></th>
</tr>
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<tbody>
<tr>
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### Trust Managerial Structures

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<table>
<thead>
<tr>
<th><strong>Knowledge</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Local managerial structures</td>
</tr>
<tr>
<td>3 Alternative model(s) of management</td>
</tr>
<tr>
<td>3 Roles of Executive /Non -executive board members</td>
</tr>
<tr>
<td>3 Roles of different depts e.g. Finance</td>
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<tr>
<td>3 Human resources</td>
</tr>
<tr>
<td>3 Risk management etc.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Clinical Skills</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Ability to interact appropriately with Trust structures to help in service delivery</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th><strong>Technical Skills</strong></th>
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### Leadership

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<table>
<thead>
<tr>
<th><strong>Knowledge</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Differences between leadership and management</td>
</tr>
<tr>
<td>3 Different styles of leadership and their uses</td>
</tr>
<tr>
<td>3 Personal leadership styles</td>
</tr>
<tr>
<td>3 Roles of leaders in teams</td>
</tr>
</tbody>
</table>
### NHS Leadership Qualities Framework

**Clinical Skills**
- Ability to identify own style of leadership
- Ability to utilise appropriate style to management of managerial issues
- Ability to lead a team of peers and colleagues in a project (research/audit/managerial)

**Technical Skills**
- No content

**Professional Skills**
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources
- A commitment to work with colleagues and peers to help resolve managerial issues
- A commitment to treat peers and colleagues with respect

---

**Supporting training**

**Objective**
*To develop the skills required to support training of peers and colleagues.*

**Knowledge**
- Principles of coaching, training and mentoring
- Principles and uses of assessment and appraisal
- Differing styles of feedback and their appropriate use
- Knowledge of career pathways
- Indicators of ‘poor performance’
- Teaching styles and their uses (see section 1.6)

**Clinical Skills**
- Ability to train junior trainees
- Ability to provide appropriate guidance to trainees through use of techniques of feedback, appraisal and assessment
- Ability to support poor performers appropriately
- Ability to give career advice
- Ability to support colleagues through use of appraisal and revalidation mechanisms

**Technical Skills**
- No content

**Professional Skills**
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources
- A commitment to work with colleagues and peers to help resolve managerial issues
- A commitment to treat peers and colleagues with respect

---

**Interview process**

**Objective**
*To be able to participate appropriately in interview process.*

**Knowledge**
- Role of interview in selecting candidates for training
- Use of different types of interview
- Role of panel members
- Legal requirements of panel members with respect to Employment and Equal Opportunities legislation

**Clinical Skills**
- Ability to ask appropriate questions depending on style of interview
- Ability to provide feedback for both successful and unsuccessful candidates
- Completion of paperwork for committee

**Technical Skills**
- No content

**Professional Skills**
- A commitment to serve the interests and welfare of patients
- Optimum utilization of resources
- A commitment to treat all involved in the interview process with respect
6. Special Interest Stage

Four point scales

What the 4 point scale means for Knowledge

1. Knows of
2. Knows basic concepts
3. Knows generally
4. Knows both specifically and broadly

What the 4 point scales means for Clinical Skills and Technical Skills and Procedures

1. Has observed
2. Can do with assistance
3. Can do whole but may need assistance
4. Competent to do whole without assistance, including managing complications
6.1 Overview
6.2 Conditions
7. Professional and Generic Skills

7.1. Initial

Professional Competencies to be acquired during the initial stage of surgical training.

Medical Expert (Good Clinical Care; Maintaining Good Medical Practice)

The specialty specific knowledge, clinical skills and technical skills and procedures relating to symptoms and conditions that a trainee will encounter during this stage of training are listed separately. The competencies listed below are generic competencies, which underpin the specialty specific competencies.

Skills

- Elicits a history that is relevant, concise, accurate and appropriate to the patient’s problem

Behaviour

- Demonstrates effective consultation skills in presenting well documented assessments and recommendations in written and/or verbal form in response to a request from another healthcare provider
- Demonstrates the attitudes and the skills necessary to retrieve and implement the information necessary to provide healthcare services to patients in meeting the needs and expectations of the community
- Demonstrates insight into his/her limitations by self assessment

Communicator (Good Clinical Care; Maintaining Good Medical Practice)

1. Effective doctor/patient communication

Objective

To establish a doctor/patient relationship characterised by understanding, trust, respect, empathy and confidentiality

Skills

- Able to gather information regarding the patient’s beliefs, concerns and expectations about the condition and consider the influence of factors such as the patient’s age, gender, ethnic, cultural and socio-economic background and spiritual values on that illness
- Able to elicit information regarding the beliefs, concerns and expectations of patients with regard to their presenting conditions.
- Able to evaluate factors such as the patient’s age, gender, ethnic, cultural, socio-economic and spiritual values and the impact that these may have on the management of that patient and condition.
- Able to deliver information to the patient and family humanely and in a way that is understandable, encourages discussion and promotes the patient’s participation in decision making to the level appropriate for the situation.
- Able to work with patients who present significant communication challenges such as anger or confusion, or an ethno-cultural background different from the doctor’s own.
2. Communication with Colleagues

Objective

To appreciate the importance of co-operation with other healthcare professionals involved in patient care and to ensure that the roles of these professionals are clear, consistent, understood by all involved, and that, appropriate and timely information is delivered to patients and their families.

Skills

- Able to communicate effectively with colleagues within and outside of the team
- Able to evaluate the roles and responsibilities of individuals within the clinical team and to ensure that these are understood by all concerned in the context of individual and general patient care.

Collaborator (Good Clinical Care; Working with Colleagues)

Objective

To achieve competence in the formulation and implementation of appropriate care plans in the clinical situation, in collaboration with members of an interdisciplinary team, incorporating assessment, investigation, treatment and continuing care.

Skills

- To achieve a goal related to patient care, a research problem, an educational activity or an administrative responsibility by using the expertise and being aware of the limitations of all members of an interdisciplinary team

Manager (Working with Colleagues; Probity)

Objective

be able to work effectively as a member of a team or a partnership and to accomplish tasks whether one is a team leader or a team member

Health Advocate (Good Clinical Care; Probity)

Objective

To demonstrate an understanding of determinants of health and public policy in relation to individual patients by identifying the patient’s status with respect to one or more determinants of health (i.e. unemployment)

Skills

- Adapts the assessment and management accordingly (i.e. the medical history to the patients social circumstances); and
- Assesses the patient’s ability to access various services in the health and social system and offer appropriate assistance.

Scholar (Maintaining Good Medical Practice; Teaching and Training, Appraising and Assessing; Probity)

1. Clinical
**Objective**

To demonstrate a rigorous approach to clinical problem solving

**Skills**

- Can pose a clinical question
- Recognises and identifies gaps in knowledge and expertise around a clinical question
- Formulates a plan to fill the gap by:
  - conducting an appropriate literature search based upon a clinical question
  - assimilating and critically appraise the literature
  - developing a system to store and retrieve relevant literature
  - consulting others (physicians and other healthcare professionals) in a collegiate manner
- Proposes a solution to the clinical question
- Implements the solution in practice. Evaluate the outcome and reassess the solution (re-enter the loop at c-i or c-ii)
- Identifies practice areas for research

2. **Education and Teaching**

**Objective**

Can demonstrate an understanding of, and the ability to apply, the principles of adult education, with respect to oneself and others

**Skills**

- Uses his/her understanding of preferred learning methods in dealing with students, trainees and colleagues

Professional (Relationships with Patients; Probity)

1. **Discipline-Based Objectives**

**Objective**

Displays attitudes commonly accepted as essential to Professionalism

**Skills**

- Use appropriate strategies to maintain and advance professional competence
- Continually evaluates one’s abilities, knowledge and skills and know one’s limitations of professional competence

2. **Personal Professional Boundary Objectives**

**Objective**

To balance personal and professional roles and responsibilities and to demonstrate ways of attempting to resolve conflicts and role strain

**Skills**

- Adopts specific strategies to heighten personal and professional awareness and explore and resolve interpersonal difficulties in professional relationships
3. **Ethics and Professional Bodies**

*Objective*

To recognise, analyse and know how to deal with unprofessional behaviours in clinical practice, taking into account local and national regulations

*Knowledge*

- Knows and understand the professional, legal and ethical codes of the General Medical Council and any other codes to which the physician is bound

*Skills*

- Recognises, analyses and attempts to resolve in clinical practice ethical issues such as truth telling, consent, advanced directives, confidentiality, end-of-life care, conflict of interest, resource allocation, research ethics etc
- Understands and is able to apply relevant legislation that relates to the health care system in order to guide one’s clinical practice
- Recognises, analyses and knows how to deal with unprofessional behaviours in clinical practice, taking into account local and national regulations
7.2. Intermediate

Professional Competencies to be acquired during the intermediate stage of surgical training. (New competencies are in bold)

<table>
<thead>
<tr>
<th>Medical Expert (Good Clinical Care; Maintaining Good Medical Practice)</th>
</tr>
</thead>
</table>

The specialty specific knowledge, clinical skills and technical skills and procedures relating to symptoms and conditions that a trainee will encounter during this stage of training are listed separately. The competencies listed below are generic competencies, which underpin the specialty specific competencies.

**Skills**

- Elicits a history that is relevant, concise, accurate and appropriate to the patient’s problem

**Behaviour**

- Demonstrates effective consultation skills in presenting well documented assessments and recommendations in written and/or verbal form in response to a request from another healthcare provider
- Demonstrates the attitudes and the skills necessary to retrieve and implement the information necessary to provide healthcare services to patients in meeting the needs and expectations of the community
- Demonstrates insight into his/her limitations by self assessment

<table>
<thead>
<tr>
<th>Communicator (Good Clinical Care; Maintaining Good Medical Practice)</th>
</tr>
</thead>
</table>

1. **Effective doctor/patient communication**

**Objective**

To establish a doctor/patient relationship characterised by understanding, trust, respect, empathy and confidentiality

**Skills**

- Able to gather information regarding the patient’s beliefs, concerns and expectations about the condition and consider the influence of factors such as the patient’s age, gender, ethnic, cultural and socio-economic background and spiritual values on that illness
- Able to elicit information regarding the beliefs, concerns and expectations of patients with regard to their presenting conditions.
- Able to evaluate factors such as the patient’s age, gender, ethnic, cultural, socio-economic and spiritual values and the impact that these may have on the management of that patient and condition.
- Able to deliver information to the patient and family humanely and in a way that is understandable, encourages discussion and promotes the patient’s participation in decision making to the level appropriate for the situation.
- Able to work with patients who present significant communication challenges such as anger or confusion, or an ethno-cultural background different from the doctor’s own.

2. **Communication with Colleagues**

**Objective**
To appreciate the importance of co-operation with other healthcare professionals involved in patient care and to ensure that the roles of these professionals are clear, consistent, understood by all involved, and that, appropriate and timely information is delivered to patients and their families.

**Skills**

- Able to communicate effectively with colleagues within and outside of the team
- Able to evaluate the roles and responsibilities of individuals within the clinical team and to ensure that these are understood by all concerned in the context of individual and general patient care.

**Collaborator (Good Clinical Care; Working with Colleagues)**

**Objective**

To achieve competence in the formulation and implementation of appropriate care plans in the clinical situation, in collaboration with members of an interdisciplinary team, following assessment, investigation, treatment and continuing care.

**Skills**

- To achieve a goal related to patient care, a research problem, an educational activity or an administrative responsibility by using the expertise and being aware of the limitations of all members of an interdisciplinary team

**Manager (Working with Colleagues; Probity)**

**Objective**

To be able to work effectively as a member of a team or a partnership and to accomplish tasks whether one is a team leader or a team member.

**Health Advocate (Good Clinical Care; Probity)**

**Objective**

To demonstrate an understanding of determinants of health and public policy in relation to individual patients by identifying the patient’s status with respect to one or more determinants of health (i.e. unemployment)

**Knowledge**

- Demonstrates an understanding of determinants of health and public policy in relation to:
  - Practice populations by work with specialty society and other organizations in identifying current “at risk” groups within a given specialty practice and applying the available knowledge about prevention to “at risk” groups within the practice; and contributing “group data” for better understanding of health problems within the population
  - General Population by describing in broad terms the key issues currently under debate regarding changes in the National Health System, indicating how these might affect societal health care outcomes and advocating to decrease the burden of illness (at a community or societal level) of a condition or problem relevant to
his/her specialty society, community based advocacy group, or other public education bodies, or private organizations

- Demonstrates an understanding of the determinants of health by identifying the most important determinants of health (i.e. poverty, unemployment, early childhood education, social support systems), being familiar with underlying research evidence, and applying this understanding to common problems and conditions in the trainee's specialty

- Demonstrates an understanding of public health policy by describing how public policy is developed; identifying current policies that affect health, either positively or negatively (i.e. communicable diseases, tobacco, substance abuse); and citing examples of how policy was changed as a result of actions by physicians

Skills

- Adapts the assessment and management accordingly (i.e. the medical history to the patients social circumstances); and
- Assesses the patient’s ability to access various services in the health and social system and offer appropriate assistance.

Scholar (Maintaining Good Medical Practice; Teaching and Training, Appraising and Assessing; Probity)

1. Clinical

Objective

To demonstrate a rigorous approach to clinical problem solving

Skills

- Can pose a clinical question
- Recognises and identifies gaps in knowledge and expertise around a clinical question
- Formulates a plan to fill the gap by:
  - conducting an appropriate literature search based upon a clinical question
  - assimilating and critically appraise the literature
  - developing a system to store and retrieve relevant literature
  - consulting others (physicians and other healthcare professionals) in a collegiate manner
- Proposes a solution to the clinical question
- Implements the solution in practice. Evaluate the outcome and reassess the solution (re-enter the loop at c-i or c-ii)
- Identifies practice areas for research

2. Education and Teaching

Objective

Can demonstrate an understanding of, and the ability to apply, the principles of adult education, with respect to oneself and others.

To be able to develop and deliver a teaching module or unit and supporting lecture notes for an undergraduate or peer teaching session.

Skills
o Uses his/her understanding of preferred learning methods in dealing with students, trainees and colleagues
o Plans educational activities which clearly set out aims and intended learning outcomes
o Prepares appropriate teaching materials which meet learners’ needs

**Behaviours**

o Shows a commitment to teaching and learning

3. Research

**Objective**

To demonstrate a rigorous approach to research through: a successful application to the ethics committee; or a successfully completing a formal audit application; or presenting to a local mortality and morbidity meeting; or presenting to a national meeting.

**Skills**

o To be able to pose a research question (clinical, basic or population health)
  ▪ Develops a proposal to solve the research question:
    ▪ Conduct an appropriate literature search on the research question
    ▪ Identify, consult and collaborate with appropriate content experts to conduct the research
    ▪ Propose the methodological approach to solve the question
  ▪ Carries out the research outlined in the proposal
  ▪ Defends and disseminate the results of the research
  ▪ Identifies areas for further research that flow from the results

**Professional (Relationships with Patients; Probity)**

1. **Discipline-Based Objectives**

**Objective**

Displays attitudes commonly accepted as essential to professionalism

**Skills**

o Use appropriate strategies to maintain and advance professional competence
  o Continually evaluates one’s abilities, knowledge and skills and know one’s limitations of professional competence

2. **Personal Professional Boundary Objectives**

**Objective**

To balance personal and professional roles and responsibilities and to demonstrate ways of attempting to resolve conflicts and role strain

**Skills**

o Adopts specific strategies to heighten personal and professional awareness and explore and resolve interpersonal difficulties in professional relationships
3. **Ethics and Professional Bodies**

*Objective*

To recognise, analyse and know how to deal with unprofessional behaviours in clinical practice, taking into account local and national regulations

*Knowledge*

- Knows and understand the professional, legal and ethical codes of the General Medical Council and any other codes to which the physician is bound

*Skills*

- Recognises, analyses and attempts to resolve in clinical practice ethical issues such as truth telling, consent, advanced directives, confidentiality, end-of-life care, conflict of interest, resource allocation, research ethics etc
- Understands and is able to apply relevant legislation that relates to the health care system in order to guide one’s clinical practice
- Recognises, analyses and knows how to deal with unprofessional behaviours in clinical practice, taking into account local and national regulations
7.3. Final

Professional Competencies to be acquired during the final stage of surgical training. (New competencies are in bold)

Medical Expert (Good Clinical Care; Maintaining Good Medical Practice)

The specialty specific knowledge, clinical skills and technical skills and procedures relating to symptoms and conditions that a trainee will encounter during this stage of training are listed separately. The competencies listed below are generic competencies, which underpin the specialty specific competencies.

Skills

- Elicits a history that is relevant, concise, accurate and appropriate to the patient’s problem

Behaviour

- Demonstrates effective consultation skills in presenting well documented assessments and recommendations in written and/or verbal form in response to a request from another healthcare provider
- Demonstrates the attitudes and the skills necessary to retrieve and implement the information necessary to provide healthcare services to patients in meeting the needs and expectations of the community
- Demonstrates insight into his/her limitations by self assessment
- **Demonstrates medical expertise in situations other than those involving direct patient care**

Communicator (Good Clinical Care; Maintaining Good Medical Practice)

1. **Effective doctor/patient communication**

Objective

To establish a doctor/patient relationship characterised by understanding, trust, respect, empathy and confidentiality

Skills

- Able to gather information regarding the patient’s beliefs, concerns and expectations about the condition and consider the influence of factors such as the patient’s age, gender, ethnic, cultural and socio-economic background and spiritual values on that illness
- Able to elicit information regarding the beliefs, concerns and expectations of patients with regard to their presenting conditions.
- Able to evaluate factors such as the patient’s age, gender, ethnic, cultural, socio-economic and spiritual values and the impact that these may have on the management of that patient and condition.
- Able to deliver information to the patient and family humanely and in a way that is understandable, encourages discussion and promotes the patient’s participation in decision making to the level appropriate for the situation.
- Able to work with patients who present significant communication challenges such as anger or confusion, or an ethno-cultural background different from the doctor’s own.

2. **Communication with Colleagues**
Objective

To appreciate the importance of co-operation with other healthcare professionals involved in patient care and to ensure that the roles of these professionals are clear, consistent, understood by all involved, and that appropriate and timely information is delivered to patients and their families.

Skills

- Communicates effectively with colleagues within and outside of the team
- Evaluates the roles and responsibilities of individuals within the clinical team and to ensure that these are understood by all concerned in the context of individual and general patient care.

Collaborator (Good Clinical Care; Working with Colleagues)

Objective

To achieve competence in the formulation and implementation of appropriate care plans in the clinical situation, in collaboration with members of an interdisciplinary team, following assessment, investigation, treatment and continuing care.

To understand how healthcare governance influences patient care, research and educational activities at a local, regional and national level

Skills

- To achieve a goal related to patient care, a research problem, an educational activity or an administrative responsibility by using the expertise and being aware of the limitations of all members of an interdisciplinary team
- Ability to accept, consider and respect the opinion of others team members, while contributing specialty-specific expertise him/herself in an interdisciplinary team meeting
- Ability to communicate with members of an interdisciplinary team in the resolution of conflicts, provide feedback, and where appropriate, assume a leadership role

Manager (Working with Colleagues; Probity)

Objectives

To be able to work effectively as a member of a team or a partnership and to accomplish tasks whether one is a team leader or a team member.

To make clinical decisions and judgments based upon sound evidence for the benefit of individuals and the population served.

Skills

- Is able to function effectively in a healthcare organization from individual clinical practice to organisations at the local, regional and national level
- Through understanding the structure, financing, and operation of the NHS and its facilities, is able to function effectively within it playing an active role in its change
- Ability to access and apply a broad base of information to the care of patients in community care, hospital and other healthcare settings
- Uses population based approaches to healthcare services and recognises their implication for medical practice
• Uses planning, budgeting, evaluation to maximise the outcomes of a patient care

Health Advocate (Good Clinical Care; Probity)

Objective

To demonstrate an understanding of determinants of health and public policy in relation to individual patients by identifying the patient’s status with respect to one or more determinants of health (i.e. unemployment)

Skills

• Adapts the assessment and management accordingly (i.e. the medical history to the patients social circumstances); and
• Assesses the patient’s ability to access various services in the health and social system and offer appropriate assistance.

Scholar (Maintaining Good Medical Practice; Teaching and Training, Appraising and Assessing; Probity)

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Objective

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 o Implements the solution in practice. Evaluate the outcome and reassess the solution (re-enter the loop at c-i or c-ii)
 o Identifies practice areas for research

2. Education and Teaching

Objective

Can demonstrate an understanding of, and the ability to apply, the principles of adult education, with respect to oneself and others.

To develop and deliver a teaching module or unit and supporting lecture notes for an undergraduate or peer teaching session.

To supervise and mentor learners (trainees) in a work setting.

To teach trainees in a work setting
Skills

- Uses his/her understanding of preferred learning methods in dealing with students, trainees and colleagues
- Plans educational activities which clearly set out aims and intended learning outcomes
- Prepares appropriate teaching materials which meet learners’ needs
- Provides effective feedback to learners
- Optimises opportunistic teaching and learning in
  - Operating theatre
  - Bedside
  - Outpatients
- Can highlight ways in which their clinical teaching might be improved
- Able to evaluate the use of reflective practice, learning agreements, portfolios and journals
- Uses different methods of assessment appropriate to what is being assessed e.g. knowledge, skills, judgment and professionalism
- Can differentiate between appraisal and assessment

Behaviours

- Shows a commitment to teaching and learning
- Shows a willingness to supervise the work of less experienced colleagues
- Shows sensitivity to the needs of learner and responds appropriately.

3. Research

Objective

To demonstrate a rigorous approach to research through: the publication of a paper in a peer review journal; or participation in a systematic review with defined outcomes; publishing guidance at trust, regional, specialty or national level.

Skills

- To be able to pose a research question (clinical, basic or population health)
- Develops a proposal to solve the research question:
  - Conduct an appropriate literature search on the research question
  - Identify, consult and collaborate with appropriate content experts to conduct the research
  - Propose the methodological approach to solve the question
- Carries out the research outlined in the proposal
- Defends and disseminates the results of the research
- Identifies areas for further research that flow from the results

Professional (Relationships with Patients; Probity)

1. Discipline-Based Objectives

Objective

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Skills
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2. **Personal Professional Boundary Objectives**

**Objective**

To balance personal and professional roles and responsibilities and to demonstrate ways of attempting to resolve conflicts and role strain

**Skills**

Adopts specific strategies to heighten personal and professional awareness and explore and resolve interpersonal difficulties in professional relationships

3. **Ethics and Professional Bodies**

**Objective**

To recognise, analyse and know how to deal with unprofessional behaviours in clinical practice, taking into account local and national regulations

**Knowledge**

Knows and understand the professional, legal and ethical codes of the General Medical Council and any other codes to which the physician is bound

**Skills**

Recognises, analyses and attempts to resolve in clinical practice ethical issues such as truth telling, consent, advanced directives, confidentiality, end-of-life care, conflict of interest, resource allocation, research ethics etc
Understands and is able to apply relevant legislation that relates to the health care system in order to guide one’s clinical practice
Recognises, analyses and knows how to deal with unprofessional behaviours in clinical practice, taking into account local and national regulations