

OMAN MEDICAL SPECIALTY BOARD
SCIENTIFIC COMMITTEE FOR GENERAL SURGERY
RESIDENCY PROGRAM IN GENERAL SURGERY

INTRODUCTION

The practice of general surgery has evolved over the last three decades in the Sultanate of Oman in keeping with International standards and outcomes. The Scientific Committee for General Surgery under the auspices of Oman Medical Specialty Board has been delegated the responsibility of developing a new enhanced General Surgery Training Program. The approved training program will ensure in-depth knowledge, high standard of skills and attitudes essential for a surgeon and meet the Oman Medical Specialty Board's accreditation criteria and International standards.

Surgical Residency Training in Oman Medical Specialty Board provides the opportunity for a candidate to acquire a range of clinical and operative skills, which with time will allow the Trainee to perform as a competent independent Surgeon. The new program has been updated in such a way as to match our needs in Oman and to produce an independent surgeon.

The ultimate aim of the Scientific Committee for General Surgery is to improve the quality of General Surgery care throughout the country by developing and setting the professional and educational standards for the training and certification of General Surgery Specialists according to Oman Medical Specialty Board criteria. The Scientific Committee for General Surgery and its four sub-committees (curriculum, accreditation, examination and progress & assessment) have evaluated residency programs in general surgery elsewhere in the world, and have restructured the new residency program to meet most of the requirements of future Omani General Surgeons. The Committee has approved 5 years as the duration needed to meet such requirements. The Trainee will proceed with graded responsibilities, knowledge and skills over these five years. There will be an interim assessment at each rotation and at the end of each year. External assessment and evaluation of the program will be obtained in keeping with other residency programs elsewhere in the globe. The Trainee will have to fulfill all the requirements set by the committee in order to proceed during his/her rotations and ultimately to finish his/her training, and be eligible for certification as a competent general surgeon.

The scientific committee for general surgery will ensure a smooth conduct of the program. And there will be a continuous reciprocal feedback and assessments from trainers to trainees and from trainees to trainers. The program will undergo periodical reviews and updates according to future needs.

Hope for the best to all...

Curriculum of surgical residency program

OMSB

GENERAL OUTLINE

Five years (60 months or 65 (13x5) periods of 4 weeks) of residency training whereof at least 37 periods (in **bold**, below) of general surgery rotations.

Conferences: Two international conferences.

Candidates must fulfill a minimum of 75% of each rotation.

Maximum 4 weeks of annual leave.

SUMMARY OF CLINICAL ROTATIONS

R1

3 periods of general surgery

2 periods of general surgery

2 periods of urology

3 periods of trauma surgery (incl 1 period of ortho trauma)

1 period of general surgery

2 period of vascular surgery

R2

4 periods of general surgery

3 periods of ICU (incl 1 period in Khoula ICU)

2 periods of surgical endoscopy

3 periods of pediatric surgery

1 period of elective

R 3

3 periods of regional general surgery

4 periods of general surgery

3 periods of research

3 periods of electives

R 4

3 periods of surgical oncology (breast)

3 periods of endocrine surgery

3 periods of trauma surgery

4 periods of general surgery focusing on *laparoscopy*

R 5

3 periods of vascular surgery

10 periods of general surgery

JUNIOR

R 1 rotations

3 periods of general surgery

2 periods of general surgery

2 periods of urology

3 periods of trauma surgery (incl 1 period of ortho trauma)

1 period of general surgery

2 periods of vascular surgery

Generic Surgical Skills and Knowledge

Surgery Specialty Training Program

Basic sciences

Basic surgical skills

The Assessment and Management of the Surgical Patient

Perioperative care

Assessment of multiple injured patients including children

Bleeding diathesis

Venous Thrombo Embolism

Nutrition

Academic activity

Management of the dying patient

Endocrine and Metabolic Disorders

Child Protection

R1 Emergency Trauma

Assessment of patients with possible intra-abdominal injuries

Assessment and initial management of common fractures

Assessment and initial management of head injury

R1 Emergency Other

Superficial sepsis, including necrotising infections

Peritonitis

Assessment of the acute abdomen

Acute appendicitis

R1 General

Lesions of the skin and subcutaneous tissues

Outpatient skills

R1 Urology

Conditions Affecting the Scrotum

Bladder and Urethra

Male Genital Tract

Urinary Tract

R1 Vascular

Venous disease

Venous thrombosis + embolism

Courses

ATLS (prior to trauma rotation)

Basic surgical skills course

R 2 rotations

4 periods of general surgery

3 periods of ICU (incl 1 period in Khoula ICU)

2 periods of surgical endoscopy

3 periods of pediatric surgery

1 period of electives

Electives to choose from in accredited facilities in Oman or abroad: neurosurgery, orthopedic surgery, plastic surgery, cardio-thoracic surgery, gynecology, radiology (US for surgeons), urology, general surgery, vascular.

R2 Emergency Trauma

Abdominal injuries especially splenic, hepatic and pancreatic injuries

R2 Emergency Other

Assessment of the acute abdomen

Acute Appendicitis

Peritonitis

Acute presentation of gynecological disease

Superficial sepsis, including necrotising infections

R2 General

Elective hernia

The Basics of Endoscopy

R2 Colorectal

Colorectal neoplasia

Benign anorectal

R2 Oesophago-gastric

Perforated peptic ulcer

R2 Hepatopancreatobiliary

Acute gallstone disease

R2 General Surgery of Childhood

Abdominal pain

Child with groin condition

Intussusception

Urological conditions

Abdominal wall conditions

Child with vomiting

Constipation

Head and neck swellings

Trauma

Miscellaneous pediatric conditions

R2 Colorectal

Benign anorectal

Benign colon

Colorectal neoplasia

Inflammatory bowel disease

Functional disorders

Stomas

Gastroscopy

Colonoscopy

Courses:

Care of critically ill surgical patient (3 days)

Surgical endoscopy

R 3 rotations

3 periods of regional surgery (general surgery)

4 periods of general surgery

3 periods of research

3 periods of electives

Electives to choose from in accredited facilities in Oman or abroad: neurosurgery, orthopedic surgery, plastic surgery, cardio-thoracic surgery, gynecology, radiology, urology, general surgery, vascular.

R3 Emergency Trauma

Abdominal injuries especially splenic, hepatic and pancreatic injuries

Blunt and penetrating injuries

R3 Emergency Other

Surgery Specialty Training Program

Acute intestinal obstruction

Strangulated hernia

Gastrointestinal bleeding

R3 General

Lesions of the skin and subcutaneous tissues

Abdominal wall

Conditions affecting the reticulo-endothelial + hemopoetic systems

Venous thrombosis + embolism

Genetic aspects of surgical disease

Oncology

R3 Oesophago-gastric

Upper GI hemorrhage

R3 Hepatopancreatobiliary

Liver trauma

Injuries to the biliary tract

Acute pancreatitis

Liver metastases

Elective Hepato-Biliary and Pancreatic Disorders

R3 Vascular

Chronic lower limb ischemia

Ruptured abdominal aortic aneurysm

Acute limb ischemia

SENIOR

Surgery Specialty Training Program

R 4 rotations

3 periods of surgical oncology (breast)

3 periods of endocrine surgery

3 periods of trauma surgery (Khoula)

4 months general surgery focusing on *laparoscopy*

R4 Breast

Benign breast lumps

Breast pain and nodularity

Acute breast infection

Conditions affecting the nipple

Breast cancer

Borderline and premalignant conditions of the breast

Congenital, developmental and esthetic problems of the breast

Oncoplastic + reconstructive surgery

R4 Endocrine

Endo

Thyroid

Parathyroid

Neck swellings

Parathyroid

Adrenal

MEN syndromes

Pancreatic endocrine

R4 Emergency Trauma

Surgery Specialty Training Program

Trauma

Blunt and penetrating injuries

Abdominal injuries especially splenic, hepatic and pancreatic injuries

Injuries of the urinary tract

Vascular injury

Abdominal US

Course:

Basic laparoscopy

R 5 rotations

3 periods of vascular surgery

10 periods of general surgery

R5 Emergency Other

Peritonitis

Assessment of the acute abdomen

Acute presentation of gynecological disease

Acute intestinal obstruction

Strangulated hernia

Gastrointestinal bleeding

Superficial sepsis, including necrotising infections

R5 General

- Conditions affecting the reticulo-endothelial + hemopoetic systems
- Elective hernia
- Nutrition
- Outpatient skills

R5 Oesophago-gastric

OG

- Perforated peptic ulcer
- Upper GI hemorrhage
- Oesophageal emergencies
- Acute gastric volvulus
- Elective oesophagogastric disorders
- Nutrition for GI surgeons

R5 Hepatopancreatobiliary

- Liver trauma
- Injuries to the biliary tract
- Acute pancreatitis
- Elective hepatobiliary and pancreatic disorders
- Acute gallstone disease
- Nutrition for GI surgeons
- Liver metastases
- Pancreatic endocrine

R5 Vascular

Vasc A

- Diabetic foot
- Acute limb ischemia
- Cardiology
- Hematology
- Stroke medicine
- Intervent CVAccess
- Venous disease

Vasc B

- Carotid atherosclerosis
- Carotid body tumors + aneurysms
- Aortic aneurysm
- Femoral aneurysm
- Popliteal aneurysm
- False aneurysm
- Mesenteric ischemia
- Upper limb ischemia/TOS
- Sympathectomy

- Chronic lower limb ischemia
- Access for dialysis

Vasc C

- Carotid trauma
- Intervent Rad AA
- Intervent Rad PVD-lower limb
- Intervent Rad venous thrombo-embolism
- Ruptured abdominal aortic aneurysm
- Acute compartment syndrome

Vasc D

- Access for Dialysis C+D
- Renal artery disease
- Vascular trauma

Vasc E

- Disorders of the Lymphatic Channels
- Intervent Carotid
- Intervent Rad Hemodialysis
- Intervent Rad Renovasc

R5 Transplant

- Organ retrieval for transplant
- Liver transplantation
- Pancreatic transplantation
- Renal transplantation

Courses

- Advanced surgical skills

SYLLABUS CONTENT

The **knowledge** level expected is indicated on the following four point scale :

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

The **clinical skills and technical skills and procedures** are indicated on the following four point scale :

1. has observed
2. can do with assistance
3. can do whole but may need assistance

4. competent to do without assistance including complications

Section-1

GENERIC SURGICAL SKILLS AND KNOWLEDGE (R1&R2)

BASIC SCIENCES

Objective

Underpinning basic science knowledge appropriate for the practice of general surgery.

Applied anatomy: Knowledge of anatomy appropriate for surgery

Physiology: Knowledge of physiology relevant to surgical practice

Pathology: Knowledge of pathological principles underlying system specific pathology

Microbiology: Knowledge of microbiology relevant to surgical practice

Radiology: Knowledge of diagnostic and interventional radiology

Knowledge

Applied anatomy:

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

Physiology:

- 4 Homeostasis
- 3 Thermoregulation
- 3 Metabolic pathways
- 4 Blood loss
- 4 Sepsis
- 4 Fluid balance and fluid replacement therapy
- 3 Metabolic abnormalities

Pathology:

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

Microbiology:

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

Radiology:

- 3 Principles of diagnostic and interventional radiology

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:

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

Closure of skin and subcutaneous tissue:

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

Knot tying:

- 4 Choice of material for tensile strength, handling characteristics and knotting

Haemostasis:

4 Techniques

Tissue retraction:

4 Choice of instruments

Use of drains:

4 Indications

4 Types

4 Management/removal

Tissue handling:

4 Choice of instruments

📍Clinical Skills

Incision of skin and subcutaneous tissue:

4 Ability to use scalpel, diathermy and scissors

Closure of skin and subcutaneous tissue:

4 Accurate and tension free apposition of wound edges

Knot tying:

4 Single handed

4 Double handed

4 Instrument

4 Superficial

4 Deep

Haemostasis:

4 Control of bleeding vessel (superficial)

4 Diathermy

4 Suture ligation

- 4 Tie ligation
- 4 Clip application

Tissue retraction:

- 4 Tissue forceps
- 4 Placement of wound retractors

Use of drains:

- 4 Insertion
- 4 Fixation
- 4 Removal

Tissue handling:

- 4 Appropriate application of instruments and respect for tissues

Skill as assistant:

- 4 Anticipation of needs of surgeon when assisting

📍 ***Technical Skills and Procedures***

📍 ***Professional Skills***

THE ASSESSMENT AND MANAGEMENT OF THE SURGICAL PATIENT

📍 ***Objective***

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

📍 ***Knowledge***

- 3 Anatomy
- 3 Pathogenesis of shock
- 1 Differences in children

📍 ***Clinical Skills***

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

📍 *Technical Skills and Procedures*

📍 *Professional Skills*

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:

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

Intraoperative care:

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

Postoperative care:

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

Blood Products:

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

Antibiotics:

- 4 Common pathogens in surgical patients
- 4 Antibiotic sensitivities

- 4 Antibiotic side-effects
- 4 Principles of prophylaxis and treatment

📍Clinical Skills

Preoperative assessment and management:

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

Intraoperative care:

- 4 Safe conduct of intraoperative care

Postoperative care:

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

Blood Products:

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

Antibiotics:

- 4 Appropriate prescription of antibiotics

📍Technical Skills and Procedures

📍Professional Skills

Preoperative assessment and management:

- 0 Communication with patient and relatives
- 0 Liason with physicians and ITU staff

Intraoperative care:

- 0 Communication with other staff members

Postoperative care:

- 0 Communication with patient and relatives
- 0 Liason with physicians and ITU staff

Blood Products:

- 0 Communication with patient and relatives

ASSESSMENT OF MULTIPLE INJURED PATIENTS INCLUDING CHILDREN

📍Objective

Safely assess the multiply injured patient.

📍Knowledge

- 3 Anatomy
- 3 Pathogenesis of shock
- 1 Differences in children

📍Clinical Skills

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

📍Technical Skills and Procedures

- 3 Central venous line insertion
- 3 Chest drain insertion
- 2 Diagnostic peritoneal lavage

📌 Professional Skills

BLEEDING DIATHESIS

📌 Objective

Understand, recognize 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
- 3 Pathology of impaired haemostasis e.g. haemophilia, liver disease, massive haemorrhage

Treatment:

- 3 Understands use of blood products

📌 Clinical Skills

Diagnosis:

- 4 Recognition of conditions likely to lead to the diathesis
- 3 Recognition of abnormal bleeding during surgery

Treatment:

- 3 Avoidance by correct surgical techniques
- 3 Corrective measures, e.g. warming, packing

📍 ***Technical Skills and Procedures***

📍 ***Professional Skills***

Diagnosis:

0 Communication with laboratory staff

Treatment:

0 Communication with anesthetist, 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:

2 Clotting mechanism (Virchow Triad)

2 Effect of surgery and trauma on coagulation

2 Tests for thrombophilia and other disorders of coagulation

Diagnosis:

2 Methods of investigation for suspected thromboembolic disease

Treatment:

4 Anticoagulation, heparin and warfarin

2 Role of V/Q scanning, CT angiography and thrombolysis

2 Place of pulmonary embolectomy

Prophylaxis:

3 Knowledge of methods of prevention, mechanical and pharmacological

📍Clinical Skills

Coagulation:

4 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:

4 Awareness at all times of the importance of prophylaxis

📍Technical Skills and Procedures

📍Professional Skills

Coagulation:

0 Protocol management

Diagnosis:

0 Ability to organize and time appropriate investigation

Treatment:

0 Prioritisation of investigation and treatment

0 Patient counselling

Prophylaxis:

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

NUTRITION

📍Objective

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

📍Knowledge

3 Effects of malnutrition, both excess and depletion

3 Methods of screening and assessment

📍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

1 Arrange access to suitable artificial nutritional support, preferably via a nutrition team: Parenteral nutrition

📍Technical Skills and Procedures

📍Professional Skills

ENDOCRINE AND METABOLIC DISORDERS

📌 Objective

To identify, investigate and manage surgical 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:

4 Pathophysiology of thyroid hormone excess and associated risks from surgery

Hypothyroidism:

4 Pathophysiology of thyroid hormone deficiency and associated risks from surgery

Hypercalcaemia:

3 Causes and effects of Hypercalcaemia

Cortico-steroid therapy:

4 Complications

4 Steroid insufficiency

Diabetes Mellitus:

4 Complications

Hyponatraemia:

4 Pathophysiology of fluid and electrolyte balance

4 Causes of hyponatraemia

📍 ***Clinical Skills***

Thyrotoxicosis:

4 History and examination

3 Investigation of thyrotoxicosis

Hypothyroidism:

4 History and examination

4 Investigation

Hypercalcaemia:

3 Investigation of hypercalcaemia

3 Treatment of hypercalcaemia

Cortico-steroid therapy:

4 Peri-operative management of patients on steroid therapy

Diabetes Mellitus:

4 Peri-operative management of diabetic patients

Hyponatraemia:

4 Treatment

📍 **Technical Skills and Procedures**

📍 **Professional Skills**

0 Liaise with endocrinologists

0 Liaise with diabetic team

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 analyze published evidence

Teaching:

3 Ability to teach small groups

📍Technical Skills and Procedures

📍Professional Skills

Section-2

TRAUMA SURGERY (R1&R2)

ASSESSMENT OF MULTIPLE INJURED PATIENTS INCLUDING CHILDREN

📍Objectives

Safely assess the multiply injured patient

📍Knowledge

- 3 Anatomy
- 3 Pathogenesis of shock
- 1 Difference in children

📍Clinical Skills

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

📍 ***Technical Skills and Procedures***

- 3 Central venous line insertion
- 3 Chest drain insertion
- 2 Diagnostic peritoneal lavage

📍 ***Professional Skills***

ASSESSMENT OF PATIENTS WITH POSSIBLE INTRA-ABDOMINAL INJURIES

📍 ***Objective***

Safely assess and manage the multiply injured patient, with particular regard to possible abdominal injuries

📍 ***Knowledge***

- 3 Anatomy of abdomen
- 3 Pathogenesis of shock
- 1 Difference in children
- 2 Principles of management of severely injured patients
- 3 Importance of mechanism of injury

📍 ***Clinical Skills***

- 4 History and examination
- 3 Investigation
- 3 Appropriate use of ultrasound and CT for assessment of abdominal injury
- 2 Indications for intervention in abdominal injury

📍 ***Technical Skills and Procedures***

- 2 Diagnostics peritoneal lavage
- 1 Laparotomy / Laparoscopy

📍Professional Skills

ABDOMINAL INJURIES ESPECIALLY SPLENIC, HEPATIC AND PANCREATIC INJURIES

📍Objective

Recognise, investigate abdominal injuries and institute treatment .

📍Knowledge

- 3 Aetiology
- 3 Mechanisms of injury and possible consequences, eg GSW, stabbing, seat belt injuries
- 3 Clinical features
- 3 Pathophysiology of shock
- 3 Indications for use of uncross matched blood
- 3 Coagulopathy
- 3 Abdominal anatomy
- 3 Pathophysiology of peritonitis and sepsis

📍Clinical Skills

- 4 Resuscitation
- 4 Investigation
- 2 Recognition of injuries requiring management by other specialties
- 2 Management of hollow organ injury

📍 *Technical Skills and Procedures*

- 4 Central venous line insertion
- 3 Diagnostic peritoneal lavage
- 2 Laparotomy – trauma
- 1 Liver trauma - debridement/packing
- 1 Pancreatectomy - distal
- 2 Splenectomy
- 1 Splenic repair
- 2 Management of hollow organ injury

📍 *Professional Skills*

BLUNT AND PENETRATING INJURIES

📍 *Objective*

Assessment and initial management of blunt and penetrating injury.

Closed thoracic injury: Assessment and initial management of blunt injury of the thorax.

Penetrating thoracic injury: Assessment and initial management of penetrating injury of the thorax.

Closed and penetrating abdominal injury: Assessment and initial management of blunt and penetrating injury of the soft tissue and skeleton.

📍 *Knowledge*

Closed thoracic injury:

- 3 Anatomy
- 2 Concept of low energy, high energy transfer injury
- 3 Pathogenesis of shock

Penetrating thoracic injury:

- 2 Anatomy

- 2 Concept of low energy, high energy transfer injury
- 3 Pathogenesis of shock

Closed and penetrating abdominal injury :

- 3 Anatomy
- 2 Concept of low energy, high energy transfer injury
- 3 Pathogenesis of shock

Blunt and penetrating soft tissue and skeletal injury:

- 3 Anatomy
- 2 Concept of low energy, high energy transfer injury
- 3 Pathogenesis of shock

📍Clinical Skills

Closed thoracic injury:

- 3 Assessment and initial management of multiply injured patient
- 2 Recognise need for operative intervention and organize

Penetrating thoracic injury:

- 3 Assessment of initial management of multiply injured patient
- 3 Recognise and treat sucking chest wound
- 2 Recognise need for operative intervention and organize

Closed and penetrating abdominal injury:

- 3 Assessment and initial management of multiply injured patient
- 2 Recognise need for laparotomy and organize

Blunt and penetrating soft tissue and skeletal injury:

- 3 Assessment and initial management of multiply injured patient
- 3 Arrest of hemorrhage by pressure and tourniquet
- 3 Appropriate immobilization during assessment
- 2 Recognition of major vascular trauma
- 2 Assessment of ischaemic limb

🎯 *Technical Skills and Procedures*

Closed thoracic injury:

4 Chest drain insertion

Penetrating thoracic injury :

4 Chest drain insertion

Closed and penetrating abdominal injury:

3 Diagnostic peritoneal lavage

🎯 *Professional Skills*

Section-3

GENERAL SURGICAL EMERGENCIES OTHER THAN TRAUMA (R1 & R2)

SUPERFICIAL SEPSIS, INCLUDING NECROTIZING INFECTIONS (R1)

🎯 *Objective*

Recognition and management of simple infective lesion of skin

Infected Sebaceous cyst/carbuncle: Recognition and management of infected sebaceous cyst/carbuncle

Superficial Abscess: Recognition and management of superficial abscess.

Cellulitis: Recognition and management of cellulites

Infected Ingrown Toenail/Paronychia: Recognition and Management of infected ingrown toenail/paronychia

🎯 *Knowledge*

Infected Sebaceous cyst/carbuncle :

3 Natural history

- 3 Bacteriology
- 3 Medical conditions associated

Superficial Abscess:

- 4 Aetiology
- 4 Natural history
- 4 Bacteriology

Cellulitis:

- 3 Aetiology
- 3 Medical conditions associated
- 3 Immunocompromised patients
- 4 Bacteriology
- 4 Antibiotic therapy

Infected Ingrown Toenail/Paronychia :

- 4 Aetiology
- 4 Bacteriology
- 4 Atherosclerosis
- 4 Diabetes

🎯Clinical Skills

Infected Sebaceous cyst/carbuncle :

- 4 History and examination
- 3 Medical management of diabetes perioperatively

Superficial Abscess :

- 4 History and examination

Cellulitis :

- 4 History + examination
- 4 IV Therapy

Infected Ingrown Toenail/Paronychia

4 History + examination

📍 ***Technical Skills and Procedures***

Infected Sebaceous cyst/carbuncle:

- 4 Abscess – drainage (not breast /anal /abdominal)
- 4 Benign skin or subcutaneous lesion - excision biopsy

Superficial Abscess :

- 4 Abscess – drainage (not breast /anal / abdominal)

Infected Ingrown Toenail /Paronychia:

- 4 Ingrowing toenail - avulsion /wedge resection/phenolisation

📍 ***Professional Skills***

PERITONITIS (R1)

📍 ***Objective***

Recognition of peritonitis and initiation of treatment

📍 ***Knowledge***

- 3 Anatomy of abdomen and pelvis
- 2 Differential diagnosis
- 3 Pathophysiology and treatment of intraperitoneal sepsis, generalized sepsis and septicaemic shock
- 3 Conditions which do not require surgery

📍 ***Clinical Skills***

- 4 History and exam
- 4 Recognition of severity of illness
- 2 Investigation
- 4 Resuscitation including antibiotics, invasive monitoring

- 3 Treatment symptoms
- 2 Timing of intervention
- 2 Recognition of success /failure of nonoperative treatment
- 1 Ability to perform emergency laparotomy
- 2 Recognition of management of complications

📍*Technical Skills and Procedures*

- 1 Laparotomy/laparoscopy
- 1 Gastro/duodenum-perforated PU closure

📍Professional Skills

ASSESSMENT OF THE ACUTE ABDOMEN (R1)

📍Objective

Ability to assess the acute abdomen, resuscitation the patient and judge whether immediate operation is necessary.

📍Knowledge

- 3 Abdominal anatomy
- 3 Aetiology
- 3 Pathophysiology of shock
- 3 Pathophysiology of peritonitis and sepsis
- 3 Differential diagnosis

📍Clinical Skills

- 4 History and examination
- 4 Resuscitation
- 2 Investigation
- 2 Recognition of indication for surgery
- 1 Ability to perform emergency laparotomy/laparoscopy

📍Technical Skills and Procedures

- 4 Central venous line insertion
- 1 Laparotomy /laparoscopy

📍Professional Skills

Informed consent

ACUTE APENDICITIS (R1)

📍Objectives

Can safely recognise acute appendicitis as a cause of the acute abdomen and deal with some cases with supervision .

📍Knowledge

- 3 Anatomy of abdomen and its contents
- 3 Natural history of appendicitis
- 3 Pathophysiology of appendicitis
- 3 Effects of overwhelming sepsis and its management

📍Clinical Skills

- 4 History taking, examination and investigation pertinent to acute abdomen
- 4 Resuscitation
- 3 Postoperative management

📍Technical Skills and Procedures

- 2 Appendicectomy

📍Professional Skills

ASSESSMENT OF THE ACUTE ABDOMEN (R2)

📍Objective

Assessment and resuscitation of the patient with acute abdomen, management including supervised laparotomy in straight forward cases .

📍Knowledge

- 3 Abdominal anatomy
- 3 Aetiology
- 3 Pathophysiology of peritonitis and sepsis
- 3 Differential diagnosis

📍Clinical Skills

- 4 History and examination
- 4 Resuscitation
- 2 Investigation
- 3 Recognition of indication for surgery
- 2 Ability to perform emergency laparotomy/laparoscopy

📍Technical Skills and Procedures

- 4 Central venous line insertion
- 2 laparotomy /laparoscopy

📍Professional Skills

ACUTE APPENDICITIS (R2)

📍Objectives

Ability to diagnose appendicitis and treat the patient from start to finish

📍Knowledge

- 4 Anatomy of abdomen and pelvis
- 4 Effects of overwhelming sepsis and its management
- 4 Natural history of appendicitis
- 4 Pathophysiology of appendicitis

📍 ***Clinical Skills***

- 4 Resuscitations
- 4 History taking, examination and investigation pertinent to acute abdomen
- 4 Postoperative management

📍 ***Technical Skills and Procedures***

- 4 Appendectomy

📍 ***Professional Skills***

Consent

PERITONITIS (R2)

📍 ***Objectives***

Recognition of peritonitis and management including supervised straightforward emergency laparotomy

📍 ***Knowledge***

- 4 Anatomy of abdomen and pelvis
- 3 Differential diagnosis
- 4 Pathophysiology and treatment of intra – peritoneal sepsis, generalized sepsis and septic shock
- 4 Conditions which do not require surgery

📍 ***Clinical Skills***

- 4 History and exam
- 4 Recognition of severity of illness
- 3 Investigation
- 4 Resuscitation including antibiotics, invasive monitoring
- 4 Treat symptoms
- 3 Timing of intervention
- 2 Recognition of success / failure of non operative treatment
- 2 Ability to perform emergency laparotomy
- 2 Recognition and management of complications

📍 *Technical Skills and Procedures*

- 2 Gastro/duodenum-perforated PU closure
- 1 Hartmanns procedure

📍 *Professional Skills*

ACUTE GALLSTONE DISEASE (R2)

ACUTE GALLSTONE DISEASE (R2)

📍 *Objective*

Diagnose and early management of acute gallstone disease, including acute cholecystitis, empyema, acute biliary colic and cholangitis.

📍 *Knowledge*

- 2 Anatomy
- 2 Pathophysiology
- 2 Microbiology
- 2 Complications
- 2 Postoperative problems

📍 *Clinical Skills*

- 4 History & examination
- 4 Investigation
- 4 Resuscitation
- 2 Decision making re conservative v. surgical treatment and early v. delayed operation
- 2 Non-operative treatment including ERCP, cholecystostomy

- 2 Operative options
- 3 Postoperative management

📍 *Technical Skills and Procedures*

- 1 Cholecystectomy
- 1 Biliary-CBD-exploration
- 1 Cholecystostomy

📍 *Professional Skills*

Perforated peptic ulcer (R2)

📍 *Objective*

Diagnosis and management of simple perforated peptic ulcer, including operation

Diagnosis and preop management: Diagnosis of perforated peptic ulcer.

Operative management: Operation for simple perforated peptic ulcer cases.

Postoperative management: Postoperative management of patients who have had surgery for simple perforated peptic ulcer.

📍 *Knowledge*

Diagnosis and preop management

- 3 Anatomy of abdominal wall and intra abdominal organs
- 3 Patho-physiology of ulcer development and management
- 4 Management of shock
- 4 ASA Grade of patient
- 3 Treatment of underlying process

Operative management :

- 3 Other pathologies found in upper abdomen
- 3 Knowledge of types and positions of perforation

Postoperative management :

3 Post operative complications

📍Clinical Skills

Diagnosis and preop management

4 Assessment of acute abdomen

4 History and examination

4 Recognise from history and examination likely differential diagnosis

4 Identify appropriate investigations

4 Resuscitation

Operative management

3 Recognise position of perforation

Postoperative management

4 Post op pain management

3 Recognition of complications

📍Technical Skills and Procedures

Diagnosis and preop management:

4 Central venous line insertion

Operative management :

3 Gastro/duodenum-perforated PU closure

📍Professional Skills

Diagnosis and preop management:

Discussion with patient and relatives

Operative management:

Consent

Discussion with patient and relatives

Be able to advocate nonoperative management in multiple morbidity patient

Postoperative management

Discuss with patient and relatives

ACUTE PRESENTATION OF GYNAECOLOGICAL DISEASE (R2)

📌 Objectives

Recognise that gynaecological disease may present to the general surgeon .

Pelvic inflammatory disease/Endometriosis/Salpingitis: Diagnosis and initial management of pelvic sepsis.

Obstruction secondary to Ovarian Carcinoma: Recognition that bowel obstruction maybe due to ovarian carcinoma.

Intra abdominal hemorrhage due to ruptured Ovarian cyst or Ectopic Pregnancy: Recognise the possibility of ectopic pregnancy and refer to the appropriate team.

Iatrogenic injury: Recognise that an iatrogenic injury may be the cause of the patients symptoms and consultant with senior

📌 Knowledge

Pelvic inflammatory disease / Endometriosis /salpingitis :

4 Anatomy and physiology of pelvic organs

2 Infective intra abdominal conditions

1 Appropriate management of likely conditions/ antibiotics treatment / referral pathway

Obstruction secondary to Ovarian Carcinoma :

- 4 Anatomy and physiology of pelvic organs
- 2 Understand investigation of the obstructed colon
- 2 Understand modern management of Ovarian carcinoma

Intra abdominal haemorrhage due to ruptured Ovarian cyst or Ectopic Pregnancy :

- 4 Anatomy and physiology of pelvic organs
- 1 Management of abnormality discovered

Iatrogenic Injury :

- 4 Anatomy and physiology of abdominal organs

📍Clinical Skills

Pelvic inflammatory disease/Endometriosis/salpingitis :

- 4 Assessment of acute abdomen - history and examination
- 2 Organize pelvic ultrasound /pregnancy test/ CT /Tumour markers
- 1 Ability to perform diagnosis laparoscopy and/or laparotomy

Obstruction secondary to Ovarian Carcinoma:

- 4 Assessment of acute abdomen – history and examination
- 2 Nonoperative management
- 2 performed emergency laparotomy

Intra Abdominal haemorrhage due to ruptured Ovarian cyst or Ectopic Pregnancy :

- 4 Assessment of acute abdomen - history and examination
- 2 Organise pelvic ultrasound / Pregnancy Test

Iatrogenic Injury :

- 2 Recognition of nature and extent of injury

📍 *Technical Skills and Procedures*

- 2 Laparotomy/laparoscopy
- 1 Hartmanns procedure
- 1 Sigmoid colectomy

📍 *Professional Skills*

SUPERFICIAL SEPSIS, INCLUDING NECROTIZING INFECTIONS (R2)

📍 *Objectives*

Diagnosis of gas gangrene and other necrotizing infections

📍 *Knowledge*

- 3 Natural history of condition
- 3 Vulnerable individuals
- 3 Physiology of associated conditions, diabetes atherosclerosis, steroid therapy, immunocompromised etc.
- 3 Knowledge of bacteriology and toxins involved
- 3 Mechanisms of septic shock
- 3 Massive blood transfusion complications
- 3 Knowledge of appropriate antibiotic therapy
- 2 Knowledge of necrotizing fasciitis

📍 *Clinical Skills*

- 2 History and examination
- 2 Recognition of the early warning signs
- 1 Radical excisional surgery

📍 *Technical Skills and Procedures*

1 Fournier's gangrene/necrotising fasciitis / debridement

Professional Skills

Informed consent

Advised patient and relatives of likely prognosis

Advocate changes in social habits

Referto drug therapycentre

Liase with Plastic surgeons and bacteriologist and ITU staff

Section-4

GENERAL

LESIONS OF THE SKIN AND SUBCUTANEOUS TISSUES (R1)

Objective

Recognise benign lesions of skin and subcutaneous tissue and treat when appropriate.

Diagnosis of benign lesions of skin and subcutaneous tissues: Recognise benign lesions of skin and subcutaneous tissue.

Treatment of benign lesions of skin and subcutaneous tissues:
Appropriate management of benign lesions of skin and subcutaneous tissue.

Knowledge

Diagnosis of benign lesions of skin and subcutaneous tissues:

4 Anatomy and histology of skin and subcutaneous tissues

3 Pathology of common lesions, such as naevi, sebaceous cysts, vitiligo, Campbell de Morgan spots, basal cell papillomas

Treatment of benign lesions of skin and subcutaneous tissues:

- 4 Techniques of local anesthesia
- 4 Knowledge of non-surgical treatments

📍Clinical Skills

Diagnosis of benign lesions of skin and subcutaneous tissues:

- 4 Examination technique
- 3 Ability to identify those lesions requiring treatment, either surgical or by dermatologist

Treatment of benign lesions of skin and subcutaneous tissues:

- 4 Local anaesthetic techniques

📍Technical Skills and Procedures

Treatment of benign lesions of skin and subcutaneous tissues:

- 4 benign skin or subcutaneous lesion-excision biopsy

📍Professional Skills

OUTPATIENT SKILLS

📍Objective

Take appropriate history and carry out relevant examination, including sigmoidoscopy and proctoscopy where needed, initiate appropriate investigations.

📍Knowledge

- 2 Relevant anatomy, physiology and clinical knowledge for the system involved

📍Clinical Skill

- 3 Focused history taking and examination
- 2 Organise appropriate investigations

📍 *Technical Skills and Procedures*

- 3 Sigmoidoscopy-rigid
- 3 Haemorrhoids-OP treatment(injection, banding or infrared coagulation)

📍 *Professional Skills*

ST1

ELECTIVE HERNIA (R2)

📍 *Objective*

Diagnosis + management of abdominal wall hernia, including operative management of primary inguinal hernia.

📍 *Knowledge*

- 3 Anatomy of inguinal region including inguinal canal, femoral canal, abdominal wall and related structures e.g. adjacent retroperitoneum and soft tissues
- 3 Relationship of structure to function of anatomical structures
- 3 Natural history of abdominal wall hernia including presentation, course and possible complications
- 3 Treatment options
- 3 Current methods of operative repair including open mesh, laparoscopic mesh and posterior wall application, to include the underlying principles, operative steps, risks, benefits, complications and process of each

📍 *Clinical Skills*

4 Diagnose and assess a patient presenting with abdominal wall hernia, including inguinal, femoral, epigastric, umbilical, paraumbilical and incisional hernias

3 Supervise the postoperative course in hospital and on follow-up

📍 ***Technical Skills and Procedures***

2 Hernia repair-epigastric

2 Hernia repair-femoral

2 Hernia repair-incisional

1 Hernia repair-incisional recurrent

3 Hernia repair-inguinal

1 Hernia repair-inguinal recurrent

2 Hernia repair-umbilical/paraumbilical

📍 ***Professional Skills***

COLORECTAL NEOPLASIA (R2)

📍 ***Objective***

Knowledge of the principles of diagnosis and management of common colorectal neoplasia.

Epidemiology of Colorectal and Polyyps: Knowledge of the epidemiology of colorectal cancer and polyps.

Aetiology: Knowledge of the aetiology of colorectal neoplasia

Colorectal Cancer Screening: Knowledge of the principles of colorectal cancer screening.

Clinical Presentation: Recognise the symptoms and signs of colorectal cancer at different sites.

Staging and Prognostic Factors: Understanding of staging and prognostic factors for colorectal cancer.

Management of Colon Cancer: Knowledge of the principles of management of colon cancer .

The Detection and Treatment of Recurrent and Metachronous Colon: Knowledge of the risks and patterns of recurrent colorectal cancer and basic palliative care .

Miscellaneous Malignant Lesions of the colon and rectum : Diagnosis and surgical treatment of the more common manifestation of carcinoid tumour .

Anal Neoplasia : Knowledge of the pathophysiology of anal neoplasia.

Knowledge

Epidemiology of Colorectal Cancer and Polyps :

4 Epidemiology of colorectal and polyps including incidence and prevalence, influence of socio-economic, racial and geographic factors

Aetiology :

Aetiology factors in colorectal neoplasia :

4 Diet: fat, fibre, calcium, selenium, vitamins (antioxidants), dietary inhibitors, alcohol and smoking, prostaglandin inhibitors

4 Adenoma- carcinoma sequence: evidence, categorise adenomas into low risk, intermediate and high risk and discuss screening procedures, significance of metaplastic polyps

4 Susceptibility to colorectal cancer (CRC): family history, Personal Past History (CRC, Polyps, Other Cancers), groups at risk

3 Hereditary nonpolyposis colorectal cancer (HNPCC): clinical features

4 Familial adenomatous polyposis: clinical definition, extracolonic lesion, cancer risk

Colorectal Cancer Screening :

Current screening strategies for the following :

4 The general population

4 Persons at moderate risk

4 Persons at high risk

Clinical Presentation :

4 Distribution of CRC within the colon

Staging and Prognostic Factors :

4 Current staging systems (Dukes, TNM)

4 Clinical prognostic factors: age, mode of presentation, clinical stage, blood transfusion

4 Histological/biochemical features: histological grade, mucin secretion, signet-cell histology, venous invasion

2 The significance of extent of disease including patterns of spread: direct continuity, intramural, transmural, distal margins, circumferential margins, transperitoneal, lymphatic, haematogenous implantation

Management of Colon Cancer :

3 The indications and contraindications for surgical treatment

4 Pre and post op care

3 Operative technique

3 Outcomes and complications of colon cancer

The Detection and Treatment of Recurrent and Metachronous Colon:

4 Patterns of recurrence

4 Risks and detection of metachronous lesions

Anal Neoplasia :

4 Anatomical, aetiology and epidemiologic features: The significance of the anatomical distinction between the anal margin and the anal canal tumors

4 Anatomical, aetiology and epidemiologic features: The differential lymphatic of the anal canal and margin

4 The histological transition of the anal canal

Clinical Skills

Clinical Presentation:

4 Recognise the clinical signs and symptoms of patients presenting with colorectal cancer

The Detection and Treatment of Recurrent and Metachronous Colon:

4 Methods for detection of recurrence : CEA, colonoscopy, imaging
4 Palliative care

Miscellaneous Malignant Lesion of the Colon and rectum :

3 Recognise the clinical presentation, assess prognostic factors and manage carcinoid- ileal, appendiceal, carcinoid syndrome

📍 *Technical Skills and Procedures*

📍 *Professional Skills*

BENIGN ANORECTAL (R1& R2)

📍 *Objective*

Competency in the diagnosis and some medical and surgical treatment of common benign anorectal disease.

Haemorrhoids: Diagnosis and the outpatient treatment of haemorrhoids

Anal Fissure: Diagnosis and the medical treatment of anal fissure

Abscess and fistula: Diagnosis and management of simple perineal abscess

Hidradenitis Suppurativa: Diagnosis of hidradenitis suppuritiva.

Pilonidal Disease: Diagnosis and the medical and surgical treatment of pilonidal disease.

Anal Stenosis : Knowledge of the anal stenosis

Pruritus Ani: Diagnosis and the medical management of pruritis ani

Sexually Transmitted Disease: Diagnosis and the medical surgical treatment of condylomata acuminata.

📍 *Knowledge*

Haemorrhoids :

- 4 Aetiology of internal and external haemorrhoids
- 4 Anatomical distinctions between internal and external haemorrhoids
- 4 Classifications for internal haemorrhoids
- 2 Modifications of therapy with: Inflammatory bowel disease (IBD), Pregnancy, HIV, Coagulopathies

Anal Fissure:

- 3 Aetiology of anal fissure
- 4 Anatomical location of a classic anal fissure

Abscess and Fistula:

- 4 The origin of cryptoglandular abscess and fistula
- 4 Classification of anorectal cryptoglandular abscess-based on anatomical spaces
- 4 Parks classification of anal fistula
- 4 The natural history of surgically-treated anal abscess, including the risk of fistula formation
- 2 Operative strategy for anal fistula based on sphincter involvement/location
- 3 Complications resulting from abscess /fistula surgery : recurrence, incontinence

Pilonidal Disease :

- 4 Pathophysiology of pilonidal disease

Anal Stenosis:

- 4 Aetiology

Pruritus Ani :

- 4 Aetiology and clinical presentation of pruritus ani

Sexually Transmitted Diseases :

- 4 Aetiology of condylomata acuminata

🟢 *Clinical Skills*

Haemorrhoids:

- 4 Assessment of the signs and symptoms of the following : thrombosed external haemorrhoids, internal haemorrhoids by stage, skin tags
- 3 Management of haemorrhoids including the indications and contraindications for : rubber-band, ligation, injection sclerotherapy, infrared coagulation, operative haemorrhoidectomy
- 4 Perform two of the OPD techniques
- 3 Manage the complications resulting from OPD management: bleeding, pain, sepsis

Anal Fissure:

- 4 Assessment of the signs and symptoms of anal fissure
- 3 Arrange the nonoperative management of anal fissure, including indications, contraindications and complications of stool modifications/softeners, topical anaesthetics, topical pharmacology
- 3 Indications, contraindications and complications of the following: lateral internal sphincterotomy, anal stretch

Abscess and fistula :

- 4 Differentiate cryptoglandular abscess and fistula from other causes
- 3 Assessment of abscess/fistula by techniques designed to elucidated pathological anatomy : Goodall's rule and digital examination
- 4 Management of anorectal abscess including preoperative and post operative care and the appropriate procedure based on anatomical spaces
- 4 Modify therapy for: Fournier's gangrene, necrotizing fasciitis
- 3 Assess rectovaginal fistula in terms of aetiology and location

Hidradenitis Suppurativa :

- 4 Assess the symptoms and signs of hidradenitis suppurativa

Pilonidal Disease :

- 4 Assess the symptoms and signs of pilonidal disease: abscess, sinus
- 4 Perform surgical management of pilonidal disease

Pruritus Ani :

- 4 Arrange medical management and surgical management of pruritus ani with attention to :hygiene, diet, anatomical(obesity, deep anal cleft), coexisting anal pathology, systemic disease, gynaecologic-associated, infections, postantibiotic, syndrome, contact dermatitis, dermatology, radiation, neoplasm, idiopathic pruritus ani

Sexually Transmitted Disease :

- 4 Diagnosis of condylomata acuminata
- 4 Medical (topical chemicals)and surgical treatment option for condylomata acuminata

📍*Technical Skills and Procedures*

Haemorrhoids :

- 3 Haemorrhoids - OP treatment (injection, banding or infarred coagulation)
- 1 Haemorrhoidectomy - operative
- 3 Abscess-drainage through perineal region

Pilonidal Disease :

- 4 Pilonidal sinus-lay open
- 3 Pilonidal sinus-excision+suture

Sexually Transmitted Diseases :

- 4 Anal skin tags /warts-excision

📍*Professional Skills*

Haemorrhoids

Consent

Anal Fissure :

Consent

Abscess and Fistula :

Consent

Hidradenitis Suppurativa :

Consent

Pilonidal Disease :

Consent

Anal Stenosis :

Consent

Pruritus Ani :

Consent

Sexually Transmitted Disease

Consent

Patient confidentially

Section-5

PLACEMENT IN UROLOGY (R1)

The purpose of a 2 month placement in urology is to provide:

- training in the diagnosis and optimum management of common urological emergencies
- further training in techniques for draining the urinary bladder
- training in the diagnosis and management of a range of common conditions affecting the male uro-genital tract
- insights into the practice of urological surgery

Knowledge

- Applied physiology, anatomy (developmental and regional) and pathology of the urogenital tract
- Pharmacology of agents used in the treatment of urological disorders
- An outline understanding of investigative systems used in urology, including imaging and measuring techniques

- The applied theory underpinning the operative equipment used in urology
- The natural history, presentation and treatment of common urological conditions

📍Clinical Skills

The ability to:

- Diagnose conditions falling within the range of common urological emergencies. This would include the formulation of an appropriate plan for investigation, the interpretation of results and the construction of an appropriate management plan
- To diagnose and manage appropriately patients commonly presenting to urology outpatients. This would include the ability to differentiate between those patients requiring further urgent investigation and those who do not
- To provide appropriate perioperative care for patients undergoing urological investigation and surgery

📍Technical Skills

- Carry out a straightforward cystourethroscopy and recognise abnormalities in the bladder and urethra
- Ureteric catheterisation in the presence of normal anatomy
- Techniques for gaining access to and drainage of the urinary bladder in the presence of urethral abnormality
- The ability to perform circumcision .
- Operative treatment of testicular torsion, hydrocele, epididymal cyst and testicular tumour

📍Professional Skills

In the context of urological practice:

- Demonstrate good team working skills, including teaching where appropriate and accepting and acting on feedback
- Demonstrate a caring, professional attitude to patients and their relatives.
- Demonstrate a satisfactory work ethic e.g. commitment to the patient, support of colleagues and task completion.
- Demonstrate good time-management

CONDITIONS AFFECTING THE SCROTUM

📌 *Objective*

Diagnosis and management of testicular torsion. Diagnosis and management of hydrocele. Diagnosis and management of epididymal cyst. Diagnosis and management of some cases of undescended testis in adults. Diagnosis and appropriate referral of testicular tumours. Diagnosis and management of straightforward cases of epididymo-orchitis.

📌 *Knowledge*

Torsion of the Testicle:

- 4 Anatomy of the Scrotum and Testicle
- 4 Pathophysiology of Torsion
- 4 Differential Diagnosis

Hydrocele:

- 4 Anatomy of the Scrotum and Testicle
- 4 Pathophysiology of Hydrocele
- 4 Differential Diagnosis

Epididymal Cysts:

- 4 Anatomy and embryology of the Scrotum and Testicle
- 3 Pathophysiology of degenerative conditions of the scrotum
- 4 Differential Diagnosis

4 Complications of surgery for epididymal cyst

Undescended Testicle in the adult:

4 Anatomy and embryology of the Scrotum and Testicle

4 Pathophysiology of undescended testicle

4 Differential Diagnosis

4 Indications for specialist consultation

Tumours of the Testicle:

4 Anatomy of the Scrotum and Testicle

4 Pathophysiology of common tumours of the testicle

4 Differential Diagnosis

Epididymo-orchitis:

4 Anatomy of the Scrotum and Testicle

4 Aetiology of epididymo-orchitis

4 Pathophysiology of local infection

4 Differential Diagnosis

📍Clinical Skills

Torsion of the Testicle:

4 History and physical Signs

3 Investigation

4 Treatment including surgery

Hydrocele:

4 Elicit appropriate history and physical Signs

4 Management including conservative treatment or drainage where appropriate

Epididymal Cysts:

- 4 History and physical Signs
- 4 Arrange investigation if necessary
- 4 Management including surgery if indicated

Undescended Testicle in the adult:

- 4 History and physical Signs
- 3 Arrange investigations if necessary
- 3 Management including surgery

Tumours of the Testicle:

- 4 History and physical Signs
- 3 Arrange investigations
- 4 Refer to specialist once diagnosis made

Epididymo-orchitis:

- 4 History and physical Signs
- 4 Arrange investigations
- 3 Treatment including referral to specialist if appropriate

📍 *Technical Skills and Procedures*

Torsion of the Testicle:

- 4 Testis-orchidopexy
- 4 Testis-orchidectomy

Hydrocele:

- 4 Testis-hydrocoele repair

Epididymal Cysts:

- 3 Testis-epididymal cyst excision

Undescended Testicle in the adult:

- 3 Testis-orchidopexy
- 4 Testis-orchidectomy

Professional Skills

Torsion of the Testicle:

Consent
Prioritisation in theatre

Hydrocele:

Consent

Epididymal Cysts:

Consent

Undescended Testicle in the adult:

Liason with urologists
Consent

Tumours of the Testicle:

Liason with urologist and oncologist

Epididymo-orchitis:

Liason with urologist

BLADDER AND URETHRA

Objective

To recognise and institute initial man
Diagnosis and emergency management of urethral stricture.
Diagnosis of urinary retention and ability to relieve retention.

Knowledge

Surgery Specialty Training Program

Urethral Stricture:

- 3 Causes and natural history of urethral stricture
- 3 Treatment options of urethral stricture

Urinary Retention:

- 4 Pathophysiology of bladder outlet obstruction, including prostatism, stone disease and conditions of the urethral stricture

📍Clinical Skills

Urethral Stricture:

- 4 Recognition of the condition before or during instrumentation

Urinary Retention:

- 3 Diagnose retention and categorise into acute or chronic
- 4 Appropriate techniques for the relief of urinary retention, including urethral and suprapubic catheterisation

📍Technical Skills and Procedures

Urethral Stricture:

- 4 Appropriate history, Examination
- 4 Urethral catheterisation
- 4 suprapubic catheter

Urinary Retention:

- 4 Suprapubic catheter

📍Professional Skills

Consent

MALE GENITAL TRACT

📍Objective

Ability to assess conditions of the foreskin and perform circumcision, male sterilisation.

Ability to assess conditions of the foreskin and perform circumcision.

Ability to perform male sterilisation.

📍 Knowledge

Conditions affecting the Adult Foreskin:

4 Anatomy and Embryology of the Foreskin

4 Knowledge of conditions affecting the foreskin (Balanitis Xerotica Obliterans, Congenital Phimosis, Carcinoma of the Penis)

3 Complications of the condition and treatment

Male Sterilisation:

3 Anatomy and embryology of the Scrotum and Testicle

3 Pathophysiology Spermatogenesis and male and female reproduction

3 Male and female sterilisation Techniques

3 Complications of sterilization

📍 Clinical Skills

Conditions affecting the Adult Foreskin:

4 Appropriate History and Examination

3 Management including treatment

3 Recognise Cancer of the Penis

Male Sterilization:

4 Appropriate History and examination

4 Management of complications

📍 Technical Skills and Procedures

Conditions affecting the Adult Foreskin:

4 Circumcision - adult

Male Sterilization:

4 Vasectomy

📌 Professional Skills

Conditions affecting the Adult Foreskin:

Counseling of patient and partner and consent for circumcision

Male Sterilization:

Counseling and consent

URINARY TRACT

📌 Objective

Diagnosis of possible urinary calculi or urinary tract infection and provision of appropriate emergency treatment.

Diagnosis of possible urinary tract calculi, particularly complications which require urgent urological consultation.

Diagnosis and treatment of uncomplicated urinary tract infection.

📌 Knowledge

Urinary Tract Calculi:

3 Pathophysiology of nephro-uretero lithiasis.

4 Presentation and clinical course of condition

2 Management options

3 Complications of urinary tract calculi

Urinary tract infection:

4 Causes and pathophysiology of urinary tract infections, including the complications

4 Presentation of urinary tract infection

- 3 Antibiotics and their relevant pharmacology
- 3 Indications for further investigation of urinary tract infection

📍Clinical Skills

Urinary Tract Calculi:

- 4 Diagnosis of possible urinary tract calculi
- 3 Investigation of possible urinary tract calculi
- 4 Emergency treatment of uncomplicated urinary tract calculi
- 4 Detection of severe complications such as obstructed kidney, renal failure, perinephric abscess

Urinary tract infection:

- 4 Diagnosis of urinary tract infection
- 4 Management of uncomplicated urinary tract infection

📍Technical Skills and Procedures

📍Professional Skills

Urinary Tract Calculi:

Liason with urologist
Consent

Urinary tract infection:

Liason with urologists

Section-6

VASCULAR SURGERY (R1&R2)

VENOUS DISEASE (R1)

📌Objective

Primary varicose veins : ability to assess and manage primary varicose veins .

📌Knowledge

- 4 Aetiology
- 4 Anatomy of the venous system
- 4 Indications for surgery for varicose veins
- 4 Complications of varicose veins

📌Clinical Skills

- 4 Examination of the venous system of the lower limbs
- 3 Select patients who require preoperative investigations such as Duplex scanning
- 4 Select patients who require surgery
- 4 Non-operative management

📍Technical Skills and Procedures

Varicose veins-primary varicose veins

- 4 Vvs-long saphenous –SFJ ligm+/-strip+/-avulsions
- 4 Vvs-SP ligation+/-strip+/-avulsions
- 4 Vvs-multiple stab avulsions

CHRONIC LOWER LIMB ISCHAEMIA (R2)

📍Objective

Ability to identify the chronically ischaemic limb and perform femoral exploration and anastomosis under supervision .

Arteriosclerosis : Knowledge of the basic pathophysiology of chronic lower limb ischaemia.

Chronic Lower Limb Ischaemia-Assessment : Diagnosis and principles of investigations of chronic lower limb ischaemia .

Chronic Lower Limb Ischaemia-Surgery: Basic knowledge of possible surgical intervention for chronic limb ischaemia

Chronic Lower Limb Ischaemia-Conservative Management: Ability to arrange suitable conservative management of chronic lower limb ischaemia.

Amputation: Recognise indications for amputation and know how to perform common amputations with assistance for less common procedures.

📍Knowledge

Atherosclerosis:

- 3 Pathology of atherosclerosis (atherothrombosis) and complications .
- 3 Recognise risk factors for arterial disease
- 2 Natural history of lower limb arterial disease
- 3 Critical limb ischaemia

Chronic Lower Limb Ischaemia-Assessment :

- 4 Anatomy of arteries supplying the lower limb
- 2 Role of ultrasound and angiography and other imaging (e.g. MRA)
- 1 Role of angioplasty.

Chronic Lower Limb Ischaemic-Surgery :

- 3 Indications for Intervention
- 2 Surgical approaches to infra-inguinal vessels
- 3 Types of anaesthesia
- 2 Potential complications of vascular surgery
- 1 Technical components of vascular anastomosis and commonly occurring problems

Chronic Lower Limb Ischaemia - Conservative Management:

- 2 Basic principles of management of hypertension and hyperlipidaemia and diabetes
- 4 Epidemiology of tobacco smoking
- 3 Role of antiplatelet drug

Amputation :

- 3 Types of amputation and advantages of each
- 3 Potential complications of amputation

Clinical Skills

Chronic Lower Limb Ischaemia - Assessment :

- 4 Ability to take a relevant history and examine vascular system
- 2 Use of ankle pressure measurements
- 3 Duplex ultrasound

- 1 Interpretation of angiograms
- 2 Selection for surgery and angioplasty

Chronic Lower Limb Ischaemia? Surgery :

- 2 Expose femoral vessels
- 2 Vascular anastomosis

Chronic Lower Limb Ischaemia-Conservative Management:

- 2 Management of graft surveillance program/ clinic
- 2 Ability to run risk factor clinic

📍*Technical Skills and Procedures*

Chronic Lower Limb Ischaemia-Assessment:

- 1 Percutaneous angiography

Chronic Lower Limb Ischaemia - Surgery :

- 1 Occlusive-Aorto-femoral bypass
- 1 Occlusive-Axillo-femoral bypass
- 1 Lower limb-femoro-femoral cross-over graft

Amputation:

- 2 Amputation-digit (s)
- 1 Amputation-BK
- 1 Amputation-AK

RUPTURED ABDOMINAL AORTIC ANEURYSM (R2)

📍*Objective*

For recognition, initial resuscitation and referral of ruptured aortic aneurysm:

- *The diagnosis of ruptured aortic aneurysm
- *The assessment and preoperative management of most patients with ruptured aortic aneurysm
- *To assist at surgery for ruptured aortic aneurysm

- *Have knowledge of the principles of postoperative management of ruptured aortic aneurysm
- *The recognition of complications following surgery for ruptured aneurysm .

Knowledge

Diagnosis

- 4 Patients at risk
- 4 Clinical features
- 3 Role and timing of investigation

Initial management

- 3 Hypovolaemia relevant to the condition
- 4 Understands importance of immediate intervention

Operation

- 3 Anatomy of the abdomen and major vessels
- 2 Basic physiology of aortic clamping
- 3 Coagulopathy

Postoperative care

- 2 Nutrition
- 3 Fluid Balance
- 3 Respiratory and renal physiology
- 3 Cardiac function

Complications

- 3 Early and late complications
- 2 Indications for investigation such as CT scan

Diagnosis

- 4 History and examination

Initial Management

2 Patient Selection

Operation

- 3 Assist at operation
- 3 Recognises signs of coagulopathy
- 3 Able to initiate basic treatment of coagulopathy

Postoperative Care

- 2 Understands need for nutritional support
- 3 Fluid requirements
- 2 Able to work in an ITU environment

Complications

- 2 Clinical recognition of complications
- 2 Recognise need for early and late re-intervention
- 1 Carry out appropriate surgery with other disciplines as necessary

📍 ***Technical Skills and Procedures***

Operation

- 1 AAA-bifurcated graft-complete operation
- 1 AAA-tube graft-complete operation

ACUTE LIMB ISCHAEMIA (R2)

📍 ***Objective***

The ability to recognize acute limb ischaemia and initiate emergency management.

To recognize and initiate emergency treatment for acute limb ischaemia

To recognize some of the complications of treatment of acute limb ischaemia

The understanding of the management of thrombolysis

Knowledge

Acute limb ischaemia

- 3 Pathophysiology of acute ischaemia
- 3 Anatomy of the arterial system
- 2 Risk factors for acute limb ischaemia
- 4 Knowledge of causes of acute limb ischaemia
- 3 Indications for emergency intervention
- 2 Indications for embolectomy, thrombolysis, primary amputation
- 2 Subsequent management and investigation of patient with acute limb ischaemia

Complications of acute limb ischaemia

- 2 Ischaemia reperfusion injury and systemic effects
- 1 Ways of attenuating effect of reperfusion

Thrombolysis

- 3 knowledge of methods and agents used for Thrombolysis
- 3 Describe indications for Thrombolysis
- 3 Describe complications of Thrombolysis

Clinical Skills

Acute Limb Ischaemia

- 4 History and examination to detect acute limb ischaemia
- 2 Arrange appropriate urgent investigations: duplex, angiogram
- 3 Can recognize when intervention is not appropriate

Complications of acute limb ischaemia:

- 2 Manage Patient when embolectomy fails
- 1 Manage patient with rhabdomyolysis
- 1 Perioperative thrombolysis
- 1 Emergency bypass

Thrombolysis

- 3 Manage patient undergoing Thrombolysis
- 2 Management of complications of Thrombolysis

Technical Skills and procedures

Acute Limb Ischaemia

- 2 Thromb-embolectomy –arterial-femoral
- 2 Peroperative angiogram

Complications of acute limb ischaemia

- 3 Fasciotomy

Section-7

PLACEMENT IN PAEDIATRIC SURGERY (R2)

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 :

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:
 - *Patients
 - *Relatives/carers
 - *Colleagues, including ward & OP teams
- In respect of common clinical presentations, including:
 - *The child with abdominal pain
 - *Abdominal wall pathologies
 - *The Vomiting child
 - *Common Urological conditions

- *Trauma
- *Constipation
- *Head / Neck swellings
- *Intussusception
- *Ingrowing toenail
- *Abscess
- *Groin conditions:
 - *Hernia
 - *Hydrocoele
 - *Penile inflammatory conditions
 - *Undescended testis
 - *Acute scrotum

-The ability to:

- *Construct a differential diagnosis
- *Interpret investigations
- *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 3-month module in Paediatric Surgery.

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
Appendectomy

INTUSSUSCEPTION

📍Objective

To be able to assess a child presenting acutely with intussusception 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 Role of radiology both for diagnosis and interventional management
- 2 Technique for non-operative reduction

📍Clinical Skills

- 3 Ability to assess child and recognise severity of illness, to include indications for operative intervention
- 2 Ability to take appropriate resuscitative measures and form a viable treatment plan
- 3 Ability to communicate with all relevant groups

📍Technical Skills and Procedures

📍Professional Skills

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

CHILD WITH ABDOMINAL PAIN

📍Objective

To be able to assess a child presenting with abdominal pain 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

3 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(see Section

📍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 and Procedures

2 Appendicectomy

3 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

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 outcome (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 and Procedures

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

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:

3 Ability to assess child and reach appropriate diagnosis

3 Ability to form a treatment plan

3 Ability to communicate with all relevant groups

ACUTE SCROTUM:

3 Ability to assess child and reach appropriate diagnosis

3 Ability to form a treatment plan

3 Ability to communicate with all relevant groups

📍*Technical Skills and Procedures*

2 Inguinal Hernia

1 Orichidopexy

2 Operation of testicular torsion

2 Circumcision

📍*Professional Skills*

3 A commitment to the highest standard of care

3 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:

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

SUPRA-UMBILICAL HERNIA:

- 3 Developmental anatomy
- 2 Natural history to include contrast with umbilical hernia
- 2 Indications and outcomes of surgery

EPIGASTRIC HERNIA:

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

📍Clinical Skills

UMBILICAL HERNIA:

- 3 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:

- 3 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:

- 3 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 and Procedures

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 and Procedures*

- 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

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

📍Technical Skills and Procedures

- 2 Manual evacuation
- 2 Open rectal biopsy

📍Professional Skills

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

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 and Procedures

- 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

ABSCCESS

📍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
- 2 Ability to communicate with all relevant groups

📍Technical Skills and Procedures

- 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 and Procedures***

- 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

Section-8

THE BASICS OF ENDOSCOPY (R2)

📍 ***Objective***

Attendance at a basic endoscopic skills course and some experience in gastroscopy and flexible sigmoidoscopy.

- Knowledge of the principles of flexible endoscopy
- Ability to consent a patient for endoscopy
- Ability to sedate a patient safely for endoscopy
- Ability to perform proctoscopy
- Ability to perform rigid sigmoidoscopy
- Some experience in diagnostic gastroscopy

-Some experience in flexible

Knowledge

Equipment

3 Structure and function of an endoscope, processor and accessories, including diathermy

Consent

3 Medical and legal issues concerning consent and provision of information

Sedation and Monitoring

4 Sedative and analgesic drugs and side – effects

4 Appropriate patient monitoring

4 Treatment of adverse effects

Proctoscopy

4 Indications for Proctoscopy

4 Complications of Proctoscopy

Rigid Sigmoidoscopy

4 Indications for rigid sigmoidoscopy

4 Patient preparation and documentation

Gastroscopy

4 Indications for gastroscopy

4 Complications of gastroscopy

4 Patient preparation and documentation

4 Basic skills in Endoscopy course

Flexible Sigmoidoscopy

4 Indications for flexible sigmoidoscopy

4 Complications of flexible sigmoidoscopy

- 4 Patient preparation and documentation
- 4 Basic skills in endoscopy course

📍Clinical Skills

Equipment

- 3 Clean and disinfect equipment in accordance with BSG guidelines

Consent

- 4 Ability to consent a patient for endoscopy

Sedation and Monitoring

- 4 Ability to safely and effectively sedate a patient for endoscopy
- 4 Monitor appropriately before, during and after procedure

📍Technical Skills and Procedures

Equipment

- 3 Use equipment in accordance with manufacturer's instructions

Prostoscopy

- 4 Prostocsopy
- 4 Haemorrhoids - OP treatment (injection, banding or infrared coagulation)

Rigid sigmoidoscopy

- 4 Sigmoidoscopy - rigid

Gastroscopy

- 2 Gastroscopy - diagnosis

Flexible sigmoidoscopy

- 2 Sigmoidoscopy- flexible

Professional Skills

Section-9

PROPOSAL ON RESIDENT RESEARCH PROGRAM (R1&R2)

INTRODUCTION

The OMSB surgical resident has three periods of research time (12 weeks) during the third year of the program. The rationale for this is that :

- Participation in research helps enhance critical thinking so as to better evaluate the medical literature and clinical practice.
- Successfully completing research can assist in obtaining a desirable fellowship position

- Quality assurance is becoming increasingly important in health care
- Research activities may be an important in road to larger scientific projects by some residents, which will be beneficial to both them and the medical community in Oman.

REQUIREMENTS

The OMSB surgical resident should present to the Program Director, or whoever he decides, a structured synopsis of the his research project outlining how the three periods will be spent. The synopsis must be written using font 12, be double spaced and should contain a minimum of the following headlines: Background, Materials and Methods, Preliminary results (if applicable), Discussion and References. The synopsis must be endorsed by a faculty member holding a Ph.D. . After written endorsement, the resident may seek project supervision by faculty at OMSB-affiliated hospitals in Oman or abroad.

The endorsed synopsis must be submitted to the Program Director, or whoever he decides, no later than the last day of May during the second year of the surgical residency program to ensure that all projects are planned and initiated in due time and that the time allocated for research is used efficiently .

Research Presentation

During the second half of year three of the surgical residency program , the academic half day will be a full day and oral and written presentations of the residents research will take place. An oral presentation of 10 minutes, will be followed by 15 minutes of structured opposition by three fellow residents and the auditorium.

The Program Director will together with a scientific committee evaluate all the written and oral presentations and give pass or fail grades. Residents who fail will be subject to remediation and those not complying subject to probation. Final year residents not completing the above requirements will not be eligible for OMSB certification.

Published manuscripts should be submitted to the Sultan Qaboos Medical Journal .

📍 *Resources to assist in research activities*

It is recommended that a scientific committee be established by OMSB to facilitate resident scientific activities pertaining to this and other programs as concerns choice of research projects, supervisors, statistician support etc.

This committee should also be responsible for giving lectures in research related topics in the didactic lecture series during year one and two of The residency program. Relevant lectures topics would include e.g. statistics, epidemiology etc.

The committee may also consider giving limited funds to conduct certain types of laboratory research and the due application support presentation of research results at international conferences in cases of particularly interesting results .

Professional Competencies to be acquired during the core training (R1 & R2)

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, 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)

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

2. Ethics and Professional Bodies

Objective

To recognize, analyze and know how to deal with unprofessional behaviors 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

- Recognizes, 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
- Recognizes, analyses and knows how to deal with unprofessional behaviors in clinical practice, taking into account local and national regulations

Professional Competencies to be acquired during the intermediate stage of surgical training

(R3 & R4)

In total it includes core competencies and added to it what is written 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

Communicator (Good Clinical Care; Maintaining Good Medical Practice)

1. Effective doctor/patient communication

Objective

To establish a doctor/patient relationship characterized 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

Surgery Specialty Training Program

- 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 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 trainees 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
- Recognizes 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 and Audits

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

- 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

Behaviors

- 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

- 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

- 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

Surgery Specialty Training Program

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 OMSB 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

Professional Competencies to be acquired during the final stage of surgical training

In total it includes core competencies and added to it what is written 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)

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 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)
- Surgery Specialty Training Program

- 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

- 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

Core Program Lecture Series

The core program in General Surgery Training of the Oman Medical Specialty Board is the initial two year period of postgraduate training in which the resident is expected to acquire the knowledge, skills and attitudes underlying the basics of the practice of surgery. In the structure of these two years, there should be a weekly academic half-day for activities including topic presentations, case discussions, Morbidity and Mortality meetings, as well as a didactic lecture series exploring the basic fields required as background for future surgeons. The lecture series will run for 2 years.

Core training in Surgery should provide opportunities for residents to achieve the objectives outlined in this document. It relates predominantly to either pre-, intra-, or postoperative care,

with several aspects of the care of surgical patients and specific areas of surgical illness addressed separately in greater detail. Relevant knowledge related to the traditional surgical basic science disciplines (e.g. anatomy, physiology, biochemistry, pharmacology, pathology, etc) is addressed. Residents must demonstrate the knowledge, skills and attitudes to their specialty or subspecialty. In addition, all residents must demonstrate an ability to incorporate gender, cultural and ethnic perspectives in research methodology, data presentation and analysis.

The knowledge base of surgical sciences changes continuously. It is anticipated that the objectives and contents of the core program will be regularly reviewed and updated.

As approved by the Scientific Committee for General Surgery, the lectures will run for one hour during the academic half day, starting in September and finishing in May each year. The committee has approved a total of 48 lectures to be delivered over the 2 year period. Each lecture is for one hour (45 minutes lecture + 15 minutes discussion). The lectures should aim to be interactive and to provoke further reading and preparation by the candidates. Each lecture should start with objectives and finish with a quiz or MCQs. The following should be covered:

1. Introduction to History, Art and Philosophy of General Surgery

Outline of History and evolution of surgery, and the philosophy of surgery and why do you want to be a surgeon.

2. Communication and Inter-Personal Skills **

- demonstrate the capacity and willingness to work effectively with other professionals in a way that optimum care of the patient is ensured
- demonstrate the ability to recognize personal limits in skills and knowledge and the need to obtain expert assistance

3. Professionalism **

- How does it impact on your personal life, on your relations with patients, colleagues and community being a general surgeon?
- How do you carry your daily activities on a professional prospect basis ?

4. Legal and Ethical responsibilities **

Identify the ethical and legal principles relating to confidentiality and access to health records, record-keeping, informed consent, obtaining permission for autopsy, autonomy, paternalism, beneficence, non-maleficence, withholding resuscitative measures, organ donation, brain death, professional misconduct, allocation of resources, effective communication, relation of patient care and cost effectiveness.

5. Informed Consent

- How, what, when and why do you explain a procedure properly to your patient!
- What are the components of an informed consent?

6. Biostatistics, Epidemiology, and Critical Appraisal - 1

- Understand the principles of biostatistics and research design and commonly used statistical tests and terminology as necessary to critically appraise the clinical and experimental surgical literature.
- Understand the principles of biostatistics and epidemiology applicable to the use of diagnostic tests, screening and disease prevention programs, patterns of disease (e.g. trauma, cancer), risk assessment, scoring systems (e.g. physiologic and anatomic scoring of trauma, neurological function, etc), prediction of outcome, etc
- Identify the meaning and appropriate usage of commonly used terms, including sensitivity, specificity, positive predictive value, negative predictive value, false positive, false negative, confidence limits, standard deviation, SEM retrospective, prospective, intention to treat, power, randomized trial, control, blind, double-blind
- Identify types 1 and 2 statistical errors and the factors influencing them
- Identify the requirements for the appropriate usage of common statistical comparison, including t test, chi-square, ANOVA, correlation, regression, non-parametric testing.

7. Biostatistics, Epidemiology, and Critical Appraisal - 2

8. How to read an article ?

9. Research Methodology **

A scientific methodological way of persuading everyone into basic and clinical research and how to correlate research with patient care.

10. Maintenance of Competence

Show motivation, ability and skills for self-learning, and self-updating.

11. Pre-operative Anesthetic Assessment

- Understand factors relating to the assessment of operative risk, including the use of formal classifications such as ASA Physical Status
- Understand the principles related to anesthetic pre-medication
- How to prepare high risk patients and disease-specific patients to undergo surgery
- Peri-operative management of anesthesia complications (malignant hyperthermia)

12. Medical Problems in the Surgical Patient; Preparation for Surgery-1 (Preoperative Cardiac Assessment)

Recognize and understand the implications for peri-operative care of :

- Cardiovascular disorders: e.g. arrhythmias, ischemic heart disease, congestive heart failure, hypertension, peripheral vascular disease, valvular abnormalities including previous valve replacement
- What tests do you order for your patient, what are the indications for coronary revascularization before undergoing other elective surgical procedures.
- Identify the principles of management of cardiac arrest

Understand the basis for and limitations of preoperative screening tests

Recognize and understand the implications for peri-operative care of:

- Respiratory disorders: e.g. asthma, chronic obstructive lung disease, restrictive lung disease, renal insufficiency or failure
- Endocrine-metabolic disorders: e.g. diabetes mellitus, obesity, adrenal insufficiency, hypothyroidism, hyperthyroidism
- Hematological disorders
- Hepatic and gastrointestinal disorders
- Autoimmune disorders
- Neurological disorders
- Psychiatric disorders

Recognize the implications to surgery of important or commonly used drugs such as:

ASA, warfarin sodium (Coumadin®), heparin, dipyridamole (Persantine®), nonsteroidal anti-inflammatory agents, beta adrenergic blockers, ACE inhibitors, nitrates, diuretics, calcium channel blockers, digoxin, antiarrhythmic agents, alcohol, oral contraceptives, corticosteroids, antipsychotics, antidepressants, anxiolytics, salbutamol, ipratropium bromide, insulin, oral hypoglycemic agents, thyroxine.

13. Medical Problems in the Surgical Patient; Preparation for Surgery – 2

- Recognize and understand the implications to surgery of the physiologic changes of aging

- Recognize and understand the implications to surgery of pregnancy and its physiologic changes
- Recognize and understand the implications to surgery of physiologic differences between pediatric and adult patients

Understand the basis for the development of the following postoperative complications, identify their risk factors and prescribe measures to prevent them:

bacterial endocarditis, myocardial ischemia and infarction, deep venous thrombosis, pulmonary embolism, atelectasis, pneumonia (including pulmonary mechanics, gas exchange, defence mechanisms, and the effects of different surgical procedures).

14. Thromboprophylaxis in surgical patients

Classification of patients and procedures for high risk for venous thrombosis, identifying risk factors for DVT in surgical patients, indications for prophylaxis, methods of prophylaxis, reviewing current literature on DVT and PE

15. Conduct of a Surgical Procedure - 1

- Understand the principles and techniques of asepsis and antisepsis, including the use, advantages and disadvantages of various antiseptic solutions
- Understand the principles governing the use of diathermy-coagulation and measures necessary to avoid related injuries
- Understand the basis for the development of compression or traction injuries during surgical procedures and measures necessary to avoid such injuries (e.g. patient positioning)
- Understand the basic indications, contraindications and complications relating to the use of various forms of local, regional and general anesthesia
- Understand the basic principles governing the selection and use of drugs commonly employed during a surgical procedure, and measures necessary to avoid complications related to their use:
- Local anesthetic agents, sedatives, narcotics, neuromuscular blocking agents
- Understand and identify the principles of management of the following intraoperative complications:
- Unexpected bleeding, malignant hyperthermia, arrhythmia, hypotension, cardiac arrest, hypoxemia, adverse drug reactions
- Identify the sites and techniques for establishing intravenous access in resuscitation, elective surgical settings, and long-term intravenous therapy; understand the rationale for selecting specific sites techniques, contraindications, potential complications, and measures to avoid such complications

16. Conduct of a Surgical Procedure - 2

17. Postoperative Care – 1 (Pain Management)

- Understand the principles of management of pain in surgical patients including pharmacologic and non-pharmacologic means
- Identify the indications, techniques of administration (oral, parenteral, epidural, patient-controlled, etc), contraindications and complications of analgesic drugs

18. Postoperative Care – 2

- Wound healing, fluid management, metabolic and nutritional care, and medical problems in surgical patients.
- Understand the bases for the development of postoperative problems such as the following and identify the measures to diagnose appropriately and prescribe the measures necessary to treat such problems:
- Deep vein thrombosis, pulmonary thromboembolism, atelectasis, pneumonia, hypoxemia, hypercarbia, respiratory failure, oliguria, myocardial ischemia and infarction, congestive heart failure, arrhythmias, hypotension, hypertension, fever, bacteremia, delirium, gastroduodenal stress ulcer, pressure palsy and ulcers, ileus, parotitis
- Identify a postoperative management plan which will include attention to the following:
 - vital signs
 - analgesia and sedation
 - nutrition and maintenance of the hydroelectrolyte balance
 - wound care and drains or catheters
 - recovery and convalescence
 - Communicate effectively and humanely with the patient, his or her relatives or any other concerned persons on the nature of the surgery done and the patient's course during the postoperative period

19. Inflammation and Cytokines

20. Wound Management and Healing - 1

- Identify the events and mediators of normal wound healing, their time course, and their clinical relevance
- Differentiate healing by primary closure, delayed primary closure, and secondary intention and identify indications for their planned use
- Understand the basis for the use of various suture materials, staples, other methods of wound closure, drains and drainage methods, and the implications for wound healing and related complications
- Identify the factors associated with impaired wound healing and wound dehiscence, and measures to minimize their effect
- Identify the principles of wound management including the use of skin grafts and tissue flaps

21.. Wound Management and Healing - 2

22.. Hemostasis and Use of Blood Products - 1

- The use of drugs affecting hemostasis
- Identify the events of normal hemostasis and their time course
- Identify the characteristic features of disorders of hemostasis (bleeding disorders and hypercoagulable states) such as the following, in terms of history, examination, and laboratory testing, and prescribe appropriate treatment in relation to elective and/or emergency surgery or acute surgical illness: hemophilia A, von Willebrand's disease, hemophilia B (Christmas disease), idiopathic thrombocytopenic purpura, disseminated intravascular coagulation
- Identify the constituent elements, indications, advantages, and disadvantages related to the use of blood and blood products, including autologous and auto-transfusion and blood substitutes.
- Understand the principles of cross-matching of blood and the indications, contraindications, and complications of the administration of uncross-matched, type-specific, and cross-matched blood
- Identify the likelihood of various complications of blood transfusion, diagnose by means of clinical presentation and appropriate tests, and prescribe appropriate measures to avoid or treat such complications, including immediate and delayed hemolytic reactions, non-hemolytic reactions, transmission of infectious diseases, complications of massive transfusion.

23. Hemostasis and Use of Blood Products - 2

24. Fluid Management and Acid-Base Problems -1

- Understand the physiologic basis for fluid, electrolyte, and acid-base management of the surgical patient, including body water compartments: composition, osmotic activity and oncotic pressure of body fluids; water and electrolyte exchange; mechanisms of osmoregulation and volume regulation; buffer systems and mechanisms of acid-base homeostasis
- Prescribe appropriate fluid and electrolyte management in terms of maintenance requirements, correction of existing deficits, replacement of ongoing losses, and monitoring of fluid and electrolyte status
- Diagnose and prescribe appropriate treatment for fluid, electrolyte, and acid-base disturbances, on the basis of clinical manifestations and interpretation of blood gases and serum and urine biochemistry, including metabolic acidosis and alkalosis, respiratory acidosis and alkalosis, mixed acid-base disturbances, hyponatremia, hypernatremia, syndrome of inappropriate ADH release, diabetes insipidus
- Identify the composition of conventional intravenous solutions and understand the indications for their use and potential adverse effects in surgical patients.

25. Fluid Management and Acid-Base Problems -2

26. Hemodynamics; Oxygen Transport; Shock - 1

- Fluid therapy, use of blood products, and routes of venous access

- Identify and distinguish shock arising from various causes in pathophysiologic terms and by interpretation of a relevant history, physical examination, and investigations; prescribe appropriate management
- Identify the physiologic effects of acute hemorrhage of varying degrees and resulting clinical findings
- Identify the hemodynamic and clinical effects, potential indications, and adverse effects of commonly used vasoactive drugs
- Identify potential indications, contraindications, techniques, and complications of invasive and non-invasive hemodynamic and physiologic monitoring, including ECG, transcutaneous oxygen saturation, BP monitoring noninvasive or by arterial line, end-tidal CO₂, central venous pressure, pulmonary artery catheter
- Identify and interpret the information obtained from physiologic and hemodynamic monitoring, as above, and identify the limitations of such information
- Identify lung volumes, flow rates, and pressures and their significance in terms of predicting, preventing and managing relevant clinical problems in surgical patients
- Identify the components of the oxygen transport pathway and the factors which influence their function, relate abnormalities of the oxygen transport pathway to clinical problems in surgical patients, and identify measures to prevent or diagnose and treat such problems
- Understand basic concepts related to the use of mechanical ventilation.

27. Hemodynamics; Oxygen Transport; Shock - 2

28. Intensive care for surgical patients

29. Metabolic and Nutritional Care - 1

- Identify the stimuli which initiate and contribute to the metabolic responses to surgical illness, and prescribe measures to limit such stimuli
- Identify the roles of the neuro-endocrine axis and of the activation of cytokines and other mediators in the metabolic responses to surgical illness, and identify approaches to clinical care based on such knowledge
- Identify the metabolic responses to surgical illness, relate their magnitude to the nature of the clinical problem, and describe their time course
- Distinguish the metabolic changes which accompany simple starvation from those accompanying acute surgical illness
- Identify the metabolic and physiologic effects of bed rest, indications for its use and complications
- Identify the factors in clinical and laboratory assessment which contribute to an evaluation of the nutritional state
- Identify the implications of malnutrition for the surgical patient
- Identify the indications and rationale for deferring an elective surgical procedure to provide nutritional support
- Identify protein and energy requirements of surgical patients and relate them to conventional parenteral and enteral preparations
- Identify the potential significance of micronutrients such as vitamins A, C, D, and K; zinc; folic acid in the care of surgical patients

- Understand the rationale and clinical indication for and the use of various enteral and parenteral routes of nutritional support
- Identify complications related to the use of enteral and parenteral nutrition and their management
- Identify the management of acute metabolic problems including disturbances of calcium, potassium, sodium, glucose and magnesium

30. Metabolic and Nutritional Care - 2

31. Trauma Lecture Series -1 (Introduction)

- Identify and apply the principles of triage
- Identify the indications for transporting trauma patients to higher level centers and the means to ensure safe and efficient transport
- Understand the relevance of knowledge of circumstances relating to and the mechanisms of trauma including the biomechanics of injury
- Identify emergency treatment priorities, diagnostic criteria, and the immediate management of potential, suspected, or documented life threatening injuries e.g. airway obstruction, fractured cervical spine, pneumothorax, open and tension, flail chest, shock and overt hemorrhage, massive hemothorax, cardiac tamponade, aortic transection
- Identify the elements of history and physical examination, initial diagnostic and therapeutic steps, establishment of treatment priorities, and principles of early management relevant to decreased level of consciousness, closed head injury, including subdural and epidural hematoma, basal skull fracture, blunt or penetrating abdominal injury, including oesophageal rupture and diaphragm rupture, pelvic fractures, spinal cord injury, extremity injuries and traumatic amputation, peripheral nerve injuries, arterial and venous injuries, including extremities and great vessels, chest injury including pulmonary contusion, tracheobronchial injury, urinary tract injury, facial injury
- Identify and apply the principles of tetanus prophylaxis

32. Trauma Lecture Series -2 (Cardiac, thoracic and vascular injuries)

33. Trauma Lecture Series -3 (Abdominal injuries)

34. Trauma Lecture Series -4 (cervical spine, spinal, Neurosurgical injuries, Fractures and dislocations)

- Management of cervical spine injuries
- Management of spine injury and acute paralysis.
- Identify the factors influencing cerebral blood flow and intracranial pressure, and the basic management of the patient with raised intracranial pressure
- Basic management of epidural, subdural and intracerebral hematomas
- Outline basic initial care of fractures and joint injuries
- Identify the principles of management of open wounds

- Identify the potential clinical settings for the development of compartment syndrome, clinical findings suggestive of the diagnosis, and appropriate diagnostic and therapeutic measures

35. Management of Burns

- Identify the pathophysiology and principles of management of thermal, electrical, and chemical injuries of varying depths and sizes and at various sites
- Distinguish first-, second- and third-degree burns on a clinical and anatomical basis and apply methods to estimate the burn surface area
- Identify clinical factors relevant to respiratory tract sequelae of a burn injury, and their diagnostic and therapeutic implications
- Identify the principles of management of frostbite and hypothermia.

36. Sepsis and Surgical Infections - 1

- Identify the implications for surgical patients of infections such as the following, and recognize their basis in terms of transmission, prophylaxis, diagnosis and treatment:
- Nosocomial pneumonia, catheter and prosthetic device infections, pseudomembranous colitis, viral hepatitis, HIV, AIDS, tuberculosis, CMV, herpes simplex virus, clostridial infections, necrotizing fasciitis, systemic fungal infections
- Identify the proper management of human and animal bite wounds and the microflora involved
- Identify characteristic metabolic and hemodynamic patterns of sepsis and septic shock and the effects of sepsis and septic shock on the function of various organ systems
- Identify the physiologic and cellular events and mediators of local and systemic inflammatory responses
- Identify acute and chronic inflammation in pathologic terms
- Identify local and systemic host defense against the development of infection
- Identify the risk factors for surgical wound infection and expected rates of surgical wound infection according to the classification of wound types; understand the rationale for and prescribe measures to minimize its occurrence; and prescribe appropriate treatment
- Identify the patterns of antimicrobial activity, potential adverse effects and drug interactions, and clinical dosing considerations for antibiotics
- Identify the principles of infection control relevant to surgical patients.

37. Sepsis and Surgical Infections - 2

38. Systemic Inflammatory Response Syndrome

39. Immunology for Transplant

40. Transplantation and Implantation – 1 (Introduction)

- Identify and differentiate autografts, allografts, and xenografts

- Identify the organs and tissues of which allografts transplantation is currently clinically successful, indications for transplantation, and early and late success rates
- Identify the tissues of which autograft transplantation is currently clinically successful, indications for transplantation, and features of their healing
- Identify the principles and methods of organ preservation
- Identify the role and significance of the major histocompatibility complex in clinical transplantation
- Identify the indications for, biocompatibility of, and complications of the implantation of prosthetic materials including silicone, hydroxyapatite, polytetrafluoroethylene (PTFE).

41. Transplantation and Implantation – 2 (Immuno-suppression)

- Identify the current approaches to immuno-suppression, including specific medications and their mechanisms of action
- Identify the complications of transplantation, immuno-suppression, and commonly used immunosuppressive drugs

42. Transplantation and Implantation - 3 (Liver, Kidney, Pancreas and Cardiac)

43. Transplantation and Implantation – 4 (Diagnosis and Management of Rejection)

- Identify the role of the host immune system in accelerated acute, acute, and chronic allograft rejection
- Identify the clinical findings, implications, and principles of management of allograft rejection

44. Cancer - 1 (Biology of cancer, Oncogenesis)

- Identify the purposes and principles of cancer staging
- Differentiate neoplasia, hyperplasia, metaplasia, and dysplasia and identify their implications
- Identify the etiologic factors for malignancy including, for example, the roles of immunodeficiency, familial influences, geographic factors, physical carcinogenesis, chemical carcinogenesis, viruses
- Identify the current principles of the biology of oncogenesis including the potential role of oncogenes
- Delineate the principles of investigation of a patient with a suspected malignant condition in relation to diagnosis, prognosis and management, including techniques of biopsy
- Identify and contrast the gross and microscopic pathologic features of a malignant versus a benign neoplasm
- Identify the current principles of the biology of tumour growth, spread, and metastasis
- Identify the usual and/or characteristic patterns of metastasis of common malignancies
- Delineate the investigation of a patient with potential or suspected metastatic malignancy
- Identify and apply the principles of the surgical management of malignant disease
- Identify and contrast the principles, general indications, modes of action, techniques and potential complications of radiotherapy, chemotherapy, and immunotherapy

- Identify common paraneoplastic syndromes and their associated malignancies

45. Cancer – 2 (Different Cancer Nomenclature and Staging)

46. Cancer – 3 (Basics of Chemotherapy, Basics of Radiotherapy)

47. Cancer – 4 (Specific Tumors)

48. Genetics for Surgery

** These lectures will be covered by the Core Program for OMSB , which will include the following as well :

- Professionalism
- Ethics
- Quality Management
- Health Informatics
- Palliative Care and Pain Management
- Principles of Research
- Evidence Based Medicine
- Health Safety
- Communication Skills for Doctors

We are waiting for how, who, when and where these core lectures will be delivered .

OMAN MEDICAL SPECIALTY BOARD

BOARD IN GENERAL SURGERY

RESIDENT PORTOFOLIO

NOTE:

1. It is the resident responsibility to maintain an accurate and complete record of information required to submit each rotation logbook, and to keep an updated portofolio.
2. All recorded information for the purposes of the logbook and resident portofolio must be identified and comply with the relevant jurisdictional privacy laws.
3. Each rotation logbook summary, together with the minimum logbook data, must be reviewed by the Resident's Supervisor(s) at the completion of each rotation, to verify the recorded information.
4. The required information for the logbook summary must be submitted to the Program Director office within 2 weeks of completing a rotation, and to the chairman office every six months. Failure to comply with this requirement may result in the non-accreditation of the training period towards Specialist General Surgical Training.

5. If a Resident performs a major proportion or significant component of a procedure (e.g. major part of the dissection, an anastomosis) the Resident is permitted to be recorded as being the primary surgeon for the procedure. If in doubt consult Surgical Supervisor.

6. The proportion of major procedures undertaken as the primary surgeon by the Resident will depend on the Resident's operative experience and the observed skill level.

7. Surgical Training Residency provides the opportunity for a Resident to acquire a range of clinical and operative skills, which over time will allow the Trainee to perform as a competent surgeon. So the Resident is required to be able to undertake a surgical procedure as a sum of these skills rather than necessarily being credentialed as being competent for every possible surgical procedure.

8. Failure to submit signed forms within 2 weeks of ending each rotation may result in the rotation not being accredited towards surgical training; please send forms to the program director office, which then will be directed every six months to the chairman office for regular evaluation.

Name:

OMSB No.:

YEAR OF ENTRY INTO PROGRAM:

Scheduled Rotations:

Year 1:

Year 2:

Year 3:

Year 4:

Year 5:

"I confirm to the best of my knowledge that the information recorded is complete and accurate"

Signature of Resident:

Date:

COURSES AND CONFERENCES:

Basic Surgical Skills:

Advanced Surgical skills:

Intensive Care Course:

Advanced Trauma Life Support:

Others:

RESEARCH PROJECT(S):

Topic:

Supervisor:

Outcome:

SPECIFIC ROTATIONS

Rotation:

Block(s):

Hospital / Unit:

Name:

OMSB No.:

Level:

Consultant Names:

Name of Supervisor:

"I confirm to the best of my knowledge that the information recorded is complete and accurate"

Signature of Resident:

Date:

Signature of Supervisor:

Date:

"Each log book should be handled to the program director office within two weeks of finishing each rotation"

ACADEMIC ACTIVITIES

Topic presentations:

Morbidity and Mortality Rounds:

Journal Club Presentations:

PROCEDURE	PERFORMED	ASSISTED	OBSERVED	SUPERVISED
<u>ABDOMINAL:</u>				
Major Ventral hernia repair				
Femoral hernia Repair				
Inguinal hernia Repair				
Umbilical, paraumbilical, epigastric hernia				
Other specify				
Small bowel resection				
Adhesiolysis				
Open splenectomy				
Laparoscopic splenectomy				
Diagnostic laparotomy				
Diagnostic Laparoscopy				
Open Appendicectomy				
Laparoscopic Appendicectomy				
Other - specify				
Management of Acute gastro-intestinal bleeding				
Management of Intra-abdominal sepsis				

Management of Wound complications (sepsis, dehiscence, necrosis)				
Others specify				
<u>OESOPHAGO-GASTRIC:</u>				
Open anti-reflux operation				
Laparoscopic anti-reflux operation				
Large hiatal hernia repair				
Oesophagectomy				
Myotomy				
Other oesophageal –specify				
Bariatric surgery				
Gastro-enterostomy				
Partial gastrectomy – Bilroth I				
Partial gastrectomy – Bilroth II				
Total gastrectomy				
Under-run gastro-duodenal bleeding vessel				
Oversew gastro-duodenal ulcer perforation				
Other gastric – specify				
<u>COLORECTAL:</u>				
Abdomino-perineal Resection (abdominal)				
Abdomino-perineal Resection (perineal)				
Anterior resection				
Colonic bypass				
Hartmann’s procedure				

Reversal of Hartmann's				
Right hemicolectomy				
Partial colectomy				
Procto-colectomy				
Total colectomy				
Defunctioning colostomy / ileostomy				
Revision of colostomy / ileostomy				
Trans-anal tumour resection				
Laparoscopic assisted colectomy				
Laparoscopic colostomy / ileostomy				
Haemorrhoidectomy				
Banding/injection of haemorrhoids				
Perianal abscess				
fistula in ano				
Other anal operations				
Other colorectal – specify				
Management of Gastro-intestinal obstruction				
Management of Colonic pseudo-obstruction				
Management of Intestinal fistula				
Management of Intestinal ischaemia / infarction				
Other specify				
<u>HEPATO-PANCREATO-BILIARY:</u>				

Laparoscopic Cholecystectomy				
Laparoscopic Cholecystectomy +/- cholangiogram				
Open cholecystectomy				
Open cholecystectomy +/- cholangiogram				
Open bile duct exploration				
Laparoscopic bile duct exploration				
Choledocho-jejunostomy				
Choledocho-duodenostomy				
Other biliary – specify				
Major hepatic resection				
Hepatico-jejunostomy				
Other liver – specify				
Pancreatico-duodenectomy				
Operation for pancreatic pseudocyst				
Other pancreatic – specify				
Management of mild Acute pancreatitis				
Management of severe Acute pancreatitis				
Management of Chronic pancreatitis				
Other specify				
<u>TRANSPLANT:</u>				
Multi organ Donor				
Laparoscopic Kidney Donation				

Open Donor Nephrectomy				
Kidney Transplant				
Liver Transplant				
Pancreas Transplant				
Other specify				
<u>BREAST:</u>				
Drainage of breast abscess				
Tru-cut Breast biopsy				
Open Breast biopsy				
Subareolar excision of ducts				
Wide excision / quadrantectomy				
Excision following needle localization				
Simple mastectomy				
Subcutaneous mastectomy				
Modified radical mastectomy				
Axillary dissection				
Axillary lymph node sampling				
Sentinel lymph node biopsy				
Breast reconstruction				
Other breast – specify				
<u>ENDOCRINE:</u>				
Open Adrenalectomy				
Laparoscopic Adrenalectomy				
Parathyroidectomy				

Total Thyroidectomy				
Subtotal Thyroidectomy				
Thyroidectomy – lobectomy				
Other endocrine – specify				
<u>HEAD & NECK:</u>				
Parotid Gland excision				
Salivary gland excision				
Neck dissection				
Tracheostomy				
Other head & neck – specify				
<u>TRAUMA:</u>				
Laparotomy				
Thoractomy				
Burr holes				
Craniectomy / craniotomy				
Major wound debridement / repair				
Fasciotomy				
Major limb amputation				
Tracheostomy				
Tendon repair				
Nerve repair				
Vascular repair				
Repair fractures – specify				

Other trauma – specify				
Management of Burn injuries				
Management of Bony +/- soft tissue +/- internal organ injuries				
Other specify				
<u>Miscellaneous:</u>				
Lymph node biopsy – cervical				
Lymph node biopsy – Axillary				
Lymph node biopsy - Femoral				
Simple excision				
Abscess drainage				
Wound exploration				
Management of Soft tissue infection				
Pilonidal sinus				
Ingrowing toenail				
Open circumcision				
Plastibell circumcision				
Other specify				
<u>VASCULAR:</u>				
Access Surgery for Haemo-Dialysis				
Ruptured Aortic Aneurysm Repair				
Elective Aortic Aneurysm Repair				
Axillo-femoral bypass				
Aorto-iliac reconstruction				

Aorto-femoral bypass				
Ilio-femoral bypass				
Femoro-femoral bypass				
Femoro-distal bypass graft				
Other bypass – specify				
Carotid endarterectomy				
Embolectomy / thrombectomy				
Angioplasty				
Visceral revascularization				
Major venous reconstruction				
Cervical/ First rib resection				
Subclavian artery surgery				
Above knee amputation				
Below knee amputation				
Transmetatarsal amputation				
Ray Amputation				
Digital Amputations				
Other amputation - specify				
Varicose vein stripping				
Wound debridement				
Other vascular – specify				
Management of Chronic limb ulcer				
Management of Critical limb ischaemia				
Other specify				

<u>Surgical Endoscopy:</u>				
Oesophagoscopy +/- biopsies				
Oesophago-Gastroscopy +/- biopsies				
ERCP +/- biopsies				
ERCP + sphincterotomy				
ERCP + stent insertion				
Oesophageal dilatation				
Oesophageal stent insertion				
Endoscopic removal of foreign body				
Endoscopic variceal therapy				
Endoscopic haemostasis for acute bleeding				
Endoscopic removal of / ablation of lesion				
Endoscopic gastrostomy / jejunostomy				
Colonoscopy +/- biopsies				
Colonoscopic polypectomy				
Flexible sigmoidoscopy +/- biopsies				
Colonoscopic dilatation				
Colonoscopic stent insertion				
Colonoscopic removal of foreign body				
Colonoscopic removal of / ablation of lesion				
Sigmoidoscopic decompression of volvulus				
Other – specify				
<u>UROLOGICAL:</u>				
Transurethral resection of prostate				
Transurethral resection of bladder tumor				

open cystectomy				
Nephrectomy				
Orchidectomy				
Ureteric operation – specify				
Exploration of testis				
Hydrocoele/cyst				
Vasectomy				
Testicular fixation for torsion				
Varicocele				
Cystoscopy				
Other urological – specify				
<u>PAEDIATRIC:</u>				
Abdominal – specify				
Herniotomy				
Orchidopexy				
Urological (not circumcision) – specify				
Other pediatric – specify				
<u>GYNAECOLOGICAL:</u>				
Hysterectomy				
Salpingo-oophorectomy				
Excision ectopic pregnancy				
Caesarean section				
Other gynecological – specify				

<u>NEUROSURGERY:</u>				
Laminectomy				
Tumor resection – specify				
Other neurosurgical – specify				
<u>ORTHOPAEDIC:</u>				
Total Hip Replacement				
Hemiarthroplasty				
Dynamic Hip screw				
Arthroscopy				
Total Knee Replacement				
ORIF				
External Fixator				
Spine Surgery				
Other - specify				
<u>PLASTIC:</u>				
Abdominoplasty				
Micro-vascular anastomosis				
Myo-cutaneous flap				
Major soft tissue debridement (not trauma)				
Soft tissue tumor resection				
Lymph node dissection (not for breast)				
Skin graft				
Other plastic – specify				
