

# Common Selection Examination in Surgery

## Guide to candidates

The common selection examination in surgery is conducted to select the best/appropriate candidates to enter into the training programs of the surgical specialties which includes General surgery, Orthopedic surgery, Otolaryngology and Ophthalmology.

### Aim of the examination

The aim of the examination is to assess and determine whether a candidate possesses comprehensive knowledge, skills and attributes required to enter in to the surgical training programme.

The ideal candidate is expected to,

1. Demonstrate a comprehensive knowledge in **basic sciences**
2. Have acquired basic knowledge in **principles of surgery** and demonstrate its application
3. Demonstrate core knowledge in **common surgical conditions**
4. Have acquired **basic procedural skills** relevant to surgery at a level of an intern surgical officer
5. Demonstrate **professionalism** and effective **communication skills** necessary to carry out medical duties effectively

## **The format of the examination**

The candidates will be assessed under two main components.

- a) Multiple Choice Questions (MCQ)
- b) Objective Structured Clinical Examination (OSCE)

### **Multiple Choice Question assessment (MCQ)**

The MCQ paper would be conducted to test the knowledge and application skills of candidates.

A wide range of topics would be tested, with the level of knowledge expected at the Final MBBS.

There would be two parts. Namely,

#### **Part 1 – Basic and Applied Sciences**

Type of questions - Multiple True / False type

Number of questions – 60 (5 marks per question, one (1) negative mark for incorrect answers, minimum mark for a question would be zero (0))

Duration - 180 minutes

Topics -

- a. Anatomy – (20 questions)
- b. Physiology – (15 questions)
- c. Pathology – (15 questions)
- d. Pharmacology (as relevant to surgery) - (5 questions)
- e. Clinical microbiology (as relevant to surgery) – (5 questions)

## Part 2 – Principles of Surgery

Type of questions - Single Best Response type

Number of questions – 50 (3 marks per question)

Duration - 90 minutes

Topics covered

- a. Core principles of Surgery – (30 questions)
- b. Principles of trauma care – (10 questions)
- c. Principles of critical care – (5 questions)
- d. Imaging in surgery – (3 questions)
- e. Statistics and research methodology (2 questions)

*Criteria to pass the MCQ paper – The candidate should obtain an overall mark of  $\geq 60\%$  (should obtain  $\geq 50\%$  for individual components)*

## Objective Structured Clinical Examination (OSCE)

Number of stations – 12

Time allowed per station – 10 minutes (1 minute for preparation and 9 minutes to complete)

There would be **two examiners** at each station

The two examiners will mark independently

### Knowledge (6 stations)

Surgical anatomy (2 stations)

Surgical pathology (2 stations)

Clinical physiology / Critical Care (2 stations)

Skills (6 stations) – the level of the Final MBBS graduate

Communication skills (History taking, Information giving – to a patient (e.g., consent)/ to another health professional) (2 stations)

Data interpretation (written/visual information) (2 stations)

Medical duties (e.g. Specimen requests for pathology/ Requests for imaging/ Diagnosis/Operation notes) (1 station)

Procedures – expected from a surgical intern officer (e.g. Skin suturing, local anaesthesia, catheterization, IV cannulation, insertion of NG tube, Endotracheal intubation etc.) (1 station)

Each OSCE station would test **two or more of the domains listed below**.

- a. Knowledge and its application
- b. Clinical and procedural skills
- c. Professionalism – decision making, problem solving, situational awareness and judgement, organization, planning and patient safety
- d. Communication skills – terminology, clarity, empathy, gestures, etc.

Candidates must pass both the knowledge and skills station sections (5 out of 6 in both sections) in order to be successful.

**Example 01 (Multiple choice True/False type)**

Regarding salivary glands,

- a. Calculi are commoner in the submandibular gland
- b. Commonest parotid tumour is adenocystic carcinoma
- c. Marginal mandibular branch is at risk of injury during surgery of the submandibular gland
- d. Adenolymphoma (Warthin's tumour) is commoner in young women
- e. Acute bacterial parotitis is commonly caused by *S. aureus*

A patient with obstructive jaundice has an INR of 2.8. Patient is awaiting ERPC and stenting. Which of the following measures would offer a solution for the coagulopathy?

- a. Blood transfusion
- b. Fresh frozen plasma
- c. Intravenous Vitamin K daily
- d. Oral Vitamin K Daily
- e. Tranexamic acid

Regarding Magnetic Resonance Imaging,

- a. Is the best imaging modality for assessment of the spinal cord
- b. Claustrophobia is a contraindication
- c. Gives excellent soft tissue contrast
- d. Involves ionizing radiation
- e. Iodine based contrast is used in imaging

**Example 02 (Single best response type)**

A 9-year-old girl is brought to the emergency department with an isolated supracondylar fracture of the humerus. Her fingers are cold and there is numbness of the hand. SpO<sub>2</sub> reading on that side is 86%.

Which of the following is the most appropriate initial treatment strategy?

- a. Above elbow plaster of Paris back slab and elevation
- b. Exploration of the brachial artery and internal fixation of the humerus
- c. Manipulation under anesthesia and reassess the perfusion
- d. Open reduction and internal fixation of the humerus
- e. Stenting the brachial artery

## **Example of OSCE**

A station on skin suturing could test the following domains.

(Scenario – a 40-year-old man with diabetes presenting with an accidental cut injury on his forehead)

- Knowledge – of types of sutures, needles, selection of instruments
- Procedural skills – dexterity of handling the instruments
- Professionalism – care for sharps, consent
- Communication – clarity of explanations etc.

Simulated OSCE link –

[https://drive.google.com/file/d/1Bb8\\_-QAYZDRaNIXfPtrLm5Q8Hfj5TUo/view?usp=sharing](https://drive.google.com/file/d/1Bb8_-QAYZDRaNIXfPtrLm5Q8Hfj5TUo/view?usp=sharing)

## **SYLLABUS**

A comprehensive syllabus has been defined for the common examination in surgery by the sub-committee for common selection exam in surgery, Board of study – Surgery, PGIM

- The syllabus covers the disciplines of:
  - Basic and Applied sciences
  - Principles of surgery
  - Basic clinical and procedural skills
  - Professionalism and communication skills

The scope of competence is defined by the list of subjects and topics outlined under each discipline.

We recommend that candidates read beyond the given syllabus where appropriate (i.e. peer scrutinized review articles) such that they can aspire to an excellent standard in surgical practice.

<b>Category</b>	<b>Topics</b>
<b>1. Basic and Applied Sciences</b>	<ul style="list-style-type: none"><li>a) Anatomy (basic and applied)</li><li>b) Physiology (basic and applied)</li><li>c) Pathology (basic and surgical)</li><li>d) Pharmacology (as relevant to surgery)</li><li>e) Clinical microbiology (as relevant to surgery)</li><li>f) Imaging (as relevant to surgery)</li></ul>

<p><b>2.Principles of surgery</b></p>	<p><b>Part 1: Core principles of Surgery</b></p> <ul style="list-style-type: none"> <li>a. Principles of safe surgery</li> <li>b. Assessment of the surgical patient</li> <li>c. Pre-operative preparation</li> <li>d. Perioperative management</li> <li>e. Wound healing</li> <li>f. Use of antibiotics in surgery</li> <li>g. Infection control</li> <li>h. Nutritional management</li> <li>i. Fluid balance and blood products</li> <li>j. Coagulation</li> <li>k. Metabolic and endocrine disorders</li> <li>l. Organ and tissue transplantation</li> <li>m. Evidence based practice</li> <li>n. Statistics and research methodology (basics)</li> <li>o. Patient safety and Ethics</li> </ul> <p><b>Part 2: Principles of Critical and Trauma care</b></p> <ul style="list-style-type: none"> <li>a. Assessment and initial management in trauma</li> <li>b. Fractures</li> <li>c. Burns – classification and principles of management</li> <li>d. Soft tissue injuries</li> <li>e. Critical care</li> </ul>
<p><b>3.Basic clinical and procedural skills</b> (Expected from a surgical intern officer)</p>	<ul style="list-style-type: none"> <li>a) Clinical assessment</li> <li>b) Data interpretation</li> <li>c) Procedural skills</li> </ul>
<p><b>4.Professionalism and Communication skills</b></p>	<p>Duties of an intern surgical house officer</p> <p>Information giving – to a patient (e.g., consent)</p> <p>Information giving – to another health professional</p>



## Comprehensive syllabus under each discipline

<b>Part 1 – Basic and Applied Sciences</b>	
<b>General Overview/Objective</b>	<p>Acquire and demonstrate the ability to apply the basic sciences knowledge appropriate for the practice of surgery, under: -</p> <ul style="list-style-type: none"> <li>• Applied anatomy</li> <li>• Physiology</li> <li>• Pathology</li> <li>• Pharmacology</li> <li>• Microbiology</li> <li>• Imaging</li> </ul>
	<b>Applied Anatomy</b>
<b>Knowledge</b>	<p>Common and Important applied anatomical characteristics of the system/structure with relevance to:</p> <ul style="list-style-type: none"> <li>○ Embryology</li> <li>○ Location and relations</li> <li>○ Constituent parts (Macroscopic and Microscopic)</li> <li>○ Blood supply and lymphatic drainage</li> <li>○ Innervation, course and distribution</li> <li>○ When the structure is at risk, effects of injury, and common variants of clinical importance</li> </ul> <p><u>Systems</u></p> <ul style="list-style-type: none"> <li>○ Nervous System</li> <li>○ Skin &amp; Subcutaneous system</li> <li>○ Musculoskeletal System – Bones, Joints, Tendons, Ligaments, Skeletal muscle (Head and Neck, Vertebrae, Thoracic cavity, Pelvis, Upper limb, Lower limb)</li> <li>○ Cardiovascular System - Heart and major vessels</li> <li>○ Respiratory System</li> <li>○ Gastrointestinal System - Alimentary canal including Mouth, Pharynx, Salivary glands and Peritoneal cavity</li> <li>○ Liver and Biliary system including Pancreas</li> </ul>

	<ul style="list-style-type: none"> <li>○ Renal &amp; Urinary System</li> <li>○ Male and Female Reproductive System &amp; Breast</li> <li>○ Endocrine System (Hypothalamus, Pituitary gland, Thyroid gland, Parathyroid glands, Adrenal gland, Pancreas, adipose tissue)</li> <li>○ Arterial and Venous and Lymphatic systems</li> <li>○ Genetics</li> </ul>
<b>Text books and other learning resources</b>	<p>Sinnatamby C. (2011)- Last's Anatomy, Regional and Applied, 12th Edition. Churchill Livingstone</p> <p>Agur A, Dalley A. Grant's Atlas of Anatomy 15<sup>th</sup> edition</p>
	<b>Physiology</b>
<b>Knowledge</b>	<p><u>General physiology</u></p> <ul style="list-style-type: none"> <li>● Homeostasis</li> <li>● Thermoregulation</li> <li>● Nutrition, Metabolic pathways and abnormalities</li> <li>● Fluid balance and fluid replacement therapy</li> <li>● Acid base balance</li> <li>● Hemostasis</li> </ul> <p><u>Physiology of specific organ systems relevant to surgical care</u></p> <p>Cardiovascular System</p> <p>Endocrine System</p> <p>Gastro-intestinal System</p> <p>Neurophysiology</p> <p>Blood &amp; Lympho-reticular System</p> <p>Respiratory System</p> <p>Renal and Urinary Tract</p>
<b>Text books and other learning resources</b>	<p>Barrett KE, Barman SM, Boitano S, Brooks HL. Ganong's Review of Medical Physiology, 26th edn. McGraw-Hill, 2019.</p>

	<b>Pathology</b>
<b>Knowledge</b>	<p><u>General Pathology</u></p> <p>Cell and tissue regeneration and repair</p> <p>Cell injury, cell death (Necrosis and Apoptosis) and adaptations</p> <p>Pathologic calcification (Dystrophic, Metastatic)</p> <p>Inflammation (Acute and Chronic)</p> <p>Wound and fracture healing</p> <p>Edema</p> <p>Hemorrhage and shock</p> <p>Coagulation, Thrombosis and Embolism</p> <p>Disseminated intravascular coagulation</p> <p>Innate and adaptive immunity</p> <p>Hypersensitivity reactions and types</p> <p>Amyloidosis</p> <p>Neoplasia and carcinogenesis</p> <p>Tumor immunity</p> <p>Atherosclerosis</p> <p>Aneurysms</p> <p>Vascular disorders</p> <p><u>Pathology of specific organ systems relevant to surgical care:</u></p> <p>Example:</p> <ul style="list-style-type: none"> <li>• Renal stones</li> <li>• Renal cell carcinoma</li> <li>• Inflammatory bowel disease</li> <li>• Colonic polyps and neoplastic disease</li> </ul>
<b>Text books and other learning resources</b>	Kumar V, Abbas A, Aster J. (2020). Robbins and Cotran Pathologic Basis of Disease, 10th Edition, © Elsevier 2020

	<b>Pharmacology</b>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• Pharmacology (Pharmacokinetics, Pharmacodynamics, dose, side effects) and Safe prescribing of drugs used in the treatment of surgical diseases - analgesics, antibiotics, cardiovascular drugs, anticoagulants, respiratory drugs, renal drugs, drugs used for the management of endocrine disorders (including diabetes)</li> <li>• Pharmacology and safe administration of local anaesthetics</li> <li>• The principles of general anaesthesia</li> </ul>
<b>Text books and other learning resources</b>	Rang.HP; Dale MM; Ritter JM; and Moore PK (2018). Rang and Dale’s Pharmacology, 9th Edition, Churchill Livingstone
	<b><u>Microbiology</u></b>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• Surgically important microorganisms including blood borne viruses</li> <li>• Principles of infection and pathogenicity (Colonization, Biofilm, Commensals, Virulence and factors)</li> <li>• Preventing infection in surgical patients – asepsis and antisepsis (Cleaning, Disinfection, Sterilization, Skin preparation)</li> <li>• Surgical site infections</li> <li>• Tuberculosis</li> <li>• Hospital acquired infections</li> </ul>
<b>Text books and other learning resources</b>	Murray P, Rosenthal K, Pfaller M.(2020) Medical Microbiology, 9 <sup>th</sup> edition, © Elsevier
	<b><u>Imaging</u></b>
<b>Knowledge</b>	<p>Core knowledge of diagnostic imaging and interventional techniques</p> <ul style="list-style-type: none"> <li>• Imaging in general <ul style="list-style-type: none"> <li>▪ Principles of imaging</li> <li>▪ Advantages and disadvantages</li> </ul> </li> <li>• X –ray</li> </ul>

	<ul style="list-style-type: none"> <li>• Ultrasound</li> <li>• Computed tomography and MRI</li> <li>• Radionuclide imaging</li> </ul>
<b>Skills</b>	Interpretation of basic imaging of common surgical conditions
<b>Texts books and other learning resources</b>	Abdullah ABM. (2015) Radiology in Medical Practice. 5 <sup>th</sup> edition. © Elsevier India 2015

<b>Category</b>	<p><b>PRINCIPLES OF SURGERY</b></p> <ul style="list-style-type: none"> <li>• <b>Part 1: Core principles of Surgery</b></li> </ul>
<b>General overview/Objective</b>	To demonstrate the relevant knowledge, skills and attitudes in applying the principles of surgery when assessing and managing a patient in a surgical setting.
<b>Knowledge</b>	<p>Principles of safe surgery</p> <ul style="list-style-type: none"> <li>• Preparation of the surgeon</li> <li>• Principles of hand washing, scrubbing and gowning</li> </ul> <p>Assessment of the surgical patient</p> <ul style="list-style-type: none"> <li>• To demonstrate an understanding on assessment of a patient under the common surgical conditions (<b>annexure 1</b>) and be able to provide the relevant clinical care</li> </ul> <p>Pre-operative preparation</p> <ul style="list-style-type: none"> <li>• Cardiorespiratory physiology</li> <li>• Diabetes mellitus and other relevant endocrine disorders</li> <li>• Fluid balance and homeostasis</li> <li>• Pathophysiology of sepsis – prevention and prophylaxis</li> <li>• Thrombo-prophylaxis</li> <li>• Relevant Laboratory testing and imaging</li> <li>• Risk factors for surgery and scoring systems</li> <li>• Pre-medication and other pre-operative prescribing</li> </ul>

<p>Perioperative management</p> <ul style="list-style-type: none"><li>• Post-operative monitoring</li><li>• Fluid and Electrolyte balance</li><li>• Diabetes mellitus and other relevant endocrine disorders</li><li>• Pathophysiology of blood loss</li><li>• Pathophysiology of sepsis including shock</li><li>• Post-operative complications in general</li><li>• Methods of postoperative analgesia</li></ul> <p>Wound healing and Surgical wounds</p> <ul style="list-style-type: none"><li>• Classification of surgical wounds</li><li>• Principles of wound management</li><li>• Pathophysiology of wound healing</li><li>• Scars and contractures</li></ul> <p>Use of antibiotics</p> <ul style="list-style-type: none"><li>• Common pathogens in surgical patients</li><li>• Antibiotic sensitivities</li><li>• Antibiotic resistance</li><li>• Principles of prophylaxis and treatment</li></ul> <p>Infection control</p> <ul style="list-style-type: none"><li>• Local infection control protocols</li><li>• Aware of the risks of nosocomial infections</li></ul> <p>Nutritional management</p> <ul style="list-style-type: none"><li>• Methods of screening and assessment of nutritional status</li><li>• Pre and Post-operative nutrition</li><li>• Metabolic response to injury</li><li>• Methods of enteral and parenteral nutrition</li></ul> <p>Fluid balance and blood products</p> <ul style="list-style-type: none"><li>• Mechanism of haemostasis including the clotting cascade</li><li>• Components of blood products</li><li>• Principles of administration of blood products</li><li>• Alternatives to use of blood products – Crystalloids/Colloid</li></ul> <p>Coagulation</p> <ul style="list-style-type: none"><li>• Clotting mechanism (Virchow Triad)</li><li>• Effect of surgery and trauma on coagulation</li><li>• Tests for thrombophilia and other disorders of coagulation</li></ul>
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- Methods of investigation for suspected thromboembolic disease
- Prophylaxis of thromboembolism:
- Risk classification and management of DVT
- Knowledge of methods of prevention of DVT, mechanical and pharmacological
- Principles of treatment of venous thrombosis and pulmonary embolism including anticoagulation

#### Metabolic and endocrine disorders in relation perioperative management

- Pathophysiology of thyroid hormone excess and deficiency and associated risks from surgery
- Causes and effects of hypercalcaemia and hypocalcaemia
- Complications of corticosteroid therapy
- Causes and consequences of Steroid insufficiency
- Complications of diabetes mellitus
- Causes and effects of hyponatraemia
- Causes and effects of hyperkalaemia and hypokalaemia

#### Organ and tissue transplantation

- Principles of transplant immunology including tissue typing, acute, hyperacute and chronic rejection
- Principles of immunosuppression
- Brain stem death
- Tissue donation and procurement
- Indications for whole organ transplantation

#### Evidence based practice

- To understand the results of research as they relate to medical practice
- To use current best evidence in making decisions about the care of patients
- Critically reviews an article to identify the level of evidence
- Keeping up to date and understanding how to analyze information

#### Statistics and research methodology (basics)

- Differentiate audit and research and understands the different types of research approach e.g. qualitative and quantitative
- Knows how to use literature databases

	<p>Patient safety and Ethics</p> <ul style="list-style-type: none"> <li>• Clinical governance</li> </ul>
<p><b>Skills</b></p>	<p>Assessment of the surgical patient</p> <ul style="list-style-type: none"> <li>• To elicit a history that is relevant, concise, accurate and appropriate to the patient’s problem.</li> <li>• To produce timely, complete and legible clinical records</li> </ul> <p>Pre-operative preparation</p> <ul style="list-style-type: none"> <li>• To assess the patient adequately prior to operation and manage any pre-operative problems appropriately.</li> <li>• To take informed consent for common surgical conditions</li> <li>• Interpretation of pre-operative investigations</li> <li>• Appropriate preoperative prescribing including premedication</li> <li>• To propose and initiate surgical or non-surgical management as appropriate.</li> </ul> <p>Peri-operative management</p> <ul style="list-style-type: none"> <li>• To manage patient care in the peri-operative period</li> <li>• Documentation of operation records</li> <li>• Assessment and monitoring of patient’s condition</li> <li>• Administration of Post-operative analgesia</li> <li>• Detection of impending organ failure</li> <li>• Initial management of organ failure</li> <li>• Recognition, prevention and treatment of post-operative complications</li> </ul> <p>Fluid balance and Blood Products:</p> <ul style="list-style-type: none"> <li>• Appropriate use of blood products and fluid therapy</li> <li>• Management of the complications of blood product transfusion</li> </ul> <p>Coagulation</p> <ul style="list-style-type: none"> <li>• Recognition of patients at risk</li> <li>• Awareness and diagnosis of pulmonary embolism and DVT</li> <li>• Initiate and monitor treatment of venous thrombosis and pulmonary embolism</li> <li>• Initiation of prophylaxis</li> </ul> <p>Antibiotics:</p> <ul style="list-style-type: none"> <li>• Appropriate prescription of antibiotics</li> </ul>



	<p>Infection control</p> <ul style="list-style-type: none"> <li>• Performs simple clinical procedures whilst maintaining full aseptic precautions</li> </ul> <p>Nutritional management</p> <ul style="list-style-type: none"> <li>• Arrange access to suitable artificial nutritional support, preferably via a nutrition team including Dietary supplements, Enteral nutrition and Parenteral nutrition</li> </ul> <p>Patient safety and Ethics</p> <ul style="list-style-type: none"> <li>• Discusses risks of treatments with patients and is able to help patients make decisions about their treatment</li> <li>• Ensures the safe use of equipment</li> <li>• Acts promptly when patient condition deteriorates</li> <li>• Always escalates concerns promptly</li> </ul>
<b>Text books and other learning resources</b>	Bailey & Love’s short Practice Of Surgery 27th Edition

<b>Category</b>	<p><b>PRINCIPLES OF SURGERY</b></p> <ul style="list-style-type: none"> <li>• <b>Part 2: Principles of Critical and Trauma care</b></li> </ul>
<b>General overview/Objective</b>	To safely assess and initiate management of patients following trauma or in critical/emergency situation and be able to prioritize management accordingly.
<b>Knowledge</b>	<p>Assessment and initial management in trauma</p> <ul style="list-style-type: none"> <li>• Scoring systems for assessment of the injured patient</li> <li>• ATLS principles</li> <li>• Major incident triage</li> <li>• Organ specific trauma</li> </ul> <p>Fractures</p> <ul style="list-style-type: none"> <li>• Classification and Pathophysiology of fractures</li> <li>• Principles of management of fractures</li> <li>• Complications of fractures</li> </ul>

	<p>Burns</p> <ul style="list-style-type: none"> <li>• classification and principles of management</li> </ul> <p>Wounds and soft tissue injuries</p> <ul style="list-style-type: none"> <li>• Principles of management of soft tissue injuries</li> <li>• Principles of management of traumatic wounds</li> <li>• Human and animal bites</li> <li>• Compartment syndrome</li> </ul> <p>Critical care</p> <ul style="list-style-type: none"> <li>• Pathogenesis and types of shock</li> <li>• Shock and cardiovascular physiology</li> <li>• Metabolic response to injury</li> <li>• Adult respiratory distress syndrome</li> <li>• Anaphylaxis</li> <li>• CPR</li> </ul>
<b>Skills</b>	<ul style="list-style-type: none"> <li>• Resuscitation and early management of a patient who has sustained traumatic injuries - according to ATLS guidelines</li> <li>• Referral to appropriate surgical subspecialties</li> <li>• Management of the unconscious patient</li> <li>• CPR</li> <li>• Initial management of burns</li> <li>• Prevention and early management of the compartment syndrome</li> </ul>
<b>Text books and other learning resources</b>	ATLS guidelines, European resuscitation guidelines as relevant

<b>Category</b>	<b>Part 3: BASIC CLINICAL AND PROCEDURAL SKILLS</b>
<b>General overview/Objective</b>	Capacity to apply sound clinical knowledge and skills in carrying out medical duties expected by a surgical intern officer. The ability to perform manual tasks related to surgery which demands manual dexterity, hand/eye coordination and visual-spatial awareness.
	Topics
<b>Skills</b>	<ul style="list-style-type: none"> <li>• Data interpretation (written/visual information)</li> <li>• Procedural skills – expected at a level of a surgical intern officer <ol style="list-style-type: none"> <li>1. Incision of skin and subcutaneous tissue: <ol style="list-style-type: none"> <li>a. Ability to use scalpel</li> <li>b. Langer’s lines</li> <li>c. Choice of instrument</li> </ol> </li> <li>2. Closure of skin and subcutaneous tissue: <ol style="list-style-type: none"> <li>a. Accurate and tension free apposition of wound edges</li> <li>b. Options for closure</li> </ol> </li> <li>3. Knot tying: <ol style="list-style-type: none"> <li>a. Range and choice of material for suture and ligation</li> <li>b. Safe application of knots</li> <li>c. Needle choice</li> </ol> </li> <li>4. Administration of local anesthesia <ol style="list-style-type: none"> <li>a. Choice of anesthetic agents</li> <li>b. To safely administer appropriate local anesthetic agents</li> </ol> </li> <li>5. Urethral catheterization</li> <li>6. IV cannulation</li> <li>7. Insertion of NG tube</li> <li>8. Endotracheal intubation</li> </ol> </li> </ul>
<b>Text books and other learning resources</b>	Myint F. (2018) Kirk's Basic Surgical Techniques. 7th Edition. © Elsevier 2018

<b>Category</b>	<b>Part 4: PROFESSIONALISM AND COMMUNICATION SKILLS</b>
<b>General overview/Objective</b>	<p>Ability to assimilate information, identify what is important and convey it clearly; the capacity to adjust behavior and language (written/spoken) as appropriate to the needs of differing situations.</p> <p>Ability to actively and clearly engage the patient/ colleague(s) in open dialogue.</p> <p>Demonstration of effective judgement and decision making skills; the consideration of all appropriate facts before reaching a decision.</p>
	Topics
<b>Skills</b>	<ul style="list-style-type: none"> <li>• Communication skills <ul style="list-style-type: none"> <li>○ History taking and Physical examination</li> <li>○ Time management and decision making</li> <li>○ Clinical reasoning</li> <li>○ Therapeutics and safe prescribing</li> <li>○ Communication with patients (e.g., consent, breaking bad news)</li> <li>○ Communication with colleagues</li> </ul> </li> <li>• Medical duties <ul style="list-style-type: none"> <li>○ Filling of forms (Specimens/ Requests for imaging/ Diagnosis)</li> <li>○ Documentation of Operative notes</li> </ul> </li> </ul>
<b>Text books and other learning resources</b>	<p>Guidelines on Ethical Conduct for Medical and Dental Practitioners Registered with Sri Lanka Medical Council (As relevant)</p> <p>Generic professional capabilities framework - GMC  <a href="https://www.gmc-uk.org/.../generic-professional-capabilities-framework">https://www.gmc-uk.org/.../generic-professional-capabilities-framework</a>  (As relevant)</p>

## **Annexure 1 - Common surgical conditions**

### **Gastrointestinal disease**

<b>Presentations</b>	<b>Conditions</b>
Dysphagia	Common congenital anomalies
Vomiting	Benign and malignant diseases of the GI tract
Abdominal pain	Perianal conditions
Dyspepsia	Benign and malignant disease of the liver, gall bladder, pancreas, and spleen
Abdominal mass	Abdominal wall hernia and stomas
Abdominal distension	Acute abdominal emergencies including obstruction, peritonitis and perforation of a viscus.
Change in bowel habits	Acute presentation of gynaecological pathology relevant to surgery
Intestinal obstruction	
Upper and lower GI haemorrhage	
Anorexia and weight loss	
Jaundice	

### **Breast disease**

<b>Presentations</b>	<b>Conditions</b>
Mastalgia	Benign and malignant breast disease
Breast lump	Breast abscess
Nipple discharge	
Gynaecomastia	

### **Vascular disease**

<b>Presentations</b>	<b>Conditions</b>
Intermittent claudication	Common congenital anomalies
Ischaemic rest pain	Chronic occlusive arterial disease of cerebral, mesenteric, renal and limb arteries
Gangrene	Embolic and thrombotic arterial occlusive disease
Acute limb ischaemia	Diseases of the veins and lymphatics
Chronic leg ulceration	Vascular and neuropathic consequences of diabetes
Varicose veins	Abdominal and peripheral arterial aneurysms
Swollen limb	Amputations and rehabilitation
Pulsatile abdominal mass	
Transient ischaemic attacks	

## Cardiovascular and pulmonary disease

Presentations	Conditions
Breathlessness with leg swelling	Common congenital anomalies
Chest pain	Coronary heart disease
Cough and haemoptysis	Diseases of the heart valves
Cardiac arrhythmias and murmurs	Cardiac failure
	Benign and malignant lung disease including: <ul style="list-style-type: none"> <li>• obstructive airways disease</li> <li>• restrictive lung disease</li> <li>• acute and chronic respiratory infection</li> <li>• bronchial carcinoma</li> </ul>

## Genitourinary disease in males and females

Presentations	Conditions
Loin pain	Common congenital anomalies
Haematuria	Genitourinary malignancy
Lower urinary tract symptoms (painful micturition, frequency)	Urinary calculus disease
Urinary retention	Urinary tract infection
Renal failure	Benign prostatic hyperplasia
Scrotal swellings	Obstructive uropathy and urine diversion
Testicular pain	Testicular tumours and benign scrotal swelling
Penile pathology	Phimosis, penile ulcers and carcinoma

## Trauma and orthopaedics

Presentations	Conditions
Traumatic limb and joint pain and deformity	Common congenital anomalies
Chronic limb and joint pain and deformity	Fractures and joint dislocations
Back pain	Degenerative and inflammatory joint disease
	Bone and joint infection
	Compartment syndrome
	Spinal nerve root entrapment and spinal cord compression
	Primary and metastatic bone cancer
	Metabolic bone disease
	Common peripheral neuropathies and nerve injuries

### **Diseases of the skin, head and neck**

<b>Presentations</b>	<b>Conditions</b>
Skin lesions	Benign and malignant lesions of the skin including mouth, tongue and ear
Palpable neck lumps	Common congenital anomalies
Lesions of the oral cavity	Benign and malignant conditions of salivary glands
Upper airway obstruction	
Ear pain and hearing loss	

### **Neurology and neurosurgery**

<b>Presentations</b>	<b>Conditions</b>
Headache	Common congenital anomalies
Facial pain	Space-occupying lesions from bleeding and tumour
Visual impairment	Cranial and peripheral nerve palsies
Confusion and memory loss	General features of cerebral abscess and meningitis
Acute motor or sensory impairment	Stroke and transient ischaemic attacks
Coma	

### **Endocrine disease**

<b>Presentations</b>	<b>Conditions</b>
Thyroid nodules and goitre	Common congenital anomalies
Acute endocrine crises	Benign and malignant thyroid and parathyroid disease
	Adrenal gland disease
	Diabetes

### **Diseases of the Lymphoreticular system**

<b>Presentations</b>	<b>Conditions</b>
Lymphadenopathy	Benign and malignant tumours
Hepatosplenomegaly	Immunosuppression