

	Liver abscess Hepatic encephalopathy Hepatocellular carcinoma
Diseases of kidney	Nephritic syndrome Infections of the kidney Acute and chronic renal failure Kidney stones
Diseases of endocrine system	Disorders related to hyper and hypo secretions of Pituitary gland Thyroid gland Parathyroid gland Adrenal cortex with special emphasis on steroid therapy Adrenal medulla Islets of langerhans with special emphasis on diabetes mellitus

SYLLABUS/COURSE DETAILS FOR: **GENERAL SURGERY:**

Introduction:

General surgery is the science of treating injury, deformity, and disease using operative procedures. General surgery is frequently performed to alleviate suffering when a cure is unlikely through medication alone.

Surgical operative procedures may range from routine procedures performed in a physician's office, such as vasectomy, to more complicated operations requiring a medical team in a hospital setting, such as laparoscopic cholecystectomy (removal of the gallbladder).

Areas of the body treated by general surgery include the stomach, liver, intestines, appendix, breasts, thyroid gland, salivary glands, some arteries and veins, and the skin. The brain, heart, eyes, and feet, to name only a few, are areas that require specialized surgical repair.

New surgical methods and techniques are less invasive than previous practices, permitting procedures that were normally impossible in the past. For example, microsurgery is now routinely used in re-attaching severed body parts by successfully reconnecting small blood vessels and nerves.

CORE KNOWLEDGE AND PRINCIPLES OF SURGERY

1. Eliciting a thorough medical history, carrying out a meticulous clinical examination, diagnosis and treatment planning.
2. Application of invasive and non-invasive diagnostic modalities in surgical practice
3. Cross infection control and sterilization
4. Surgical instruments and their use
5. Sutures and suturing techniques
6. Protocols of operation theatre ward work, patient clerking and out-patient clinics Introduction to basic surgical skills
7. Principles of anaesthesia

8. Pathophysiology and management of shock including fluid and electrolyte imbalance.
9. Nutrition of surgical patients

HEALING AND REPAIR OF WOUNDS

Mechanism of healing and repair in both hard and soft tissues Complications of wound healing and their management

INFECTIONS

Clinical presentation, diagnosis and treatment of bacterial, viral, fungal, and protozoa infections including hospital infections.

Cellulitis, spread of infection through fascial planes, Ludwig's angina, and intracranial complications of dental infection Hospital infections

Intracranial complications, dental infection Osteomyelitis. Chronic sinuses and fistulae of the oral & maxillofacial region.

TRAUMA CARE

Principles of pre-hospital, emergency and definitive care of trauma victims with special emphasis on the management of airway, bleeding and circulation and CPR protocols. Principles of management of head, chest and abdominal injuries

Principles of nutrition and fluid intake in trauma victims

Presentation, diagnosis and treatment of maxillofacial trauma including fractures of maxilla, mandible and the zygomatic complex Principles of fracture healing

HEMORRHAGE, SHOCK, BURNS

Causes, presentation, diagnosis and management of primary and secondary hemorrhage; vasovagal, cardiogenic, septic, anaphylactic, neurogenic hypoglycemic, and hypovolemic shock Presentation and management of burns victims.

ORAL & MAXILLOFACIAL PATHOLOGY

Epidemiology, classification, clinical presentation, diagnosis and treatment of benign and malignant tumors of oral cavity including epithelial, soft tissue, and bone tumors. Special emphasis should be laid down on the oral squamous cell carcinoma, basal cell carcinoma, melanoma and osteosarcoma

Epidemiology, classification, clinical presentation, diagnosis and treatment of odontogenic tumors and cysts with special emphasis on ameloblastoma, Pindborg tumor, dentigerous cyst, radicular cyst and keratocyst.

Maxillary sinusitis, carcinoma and other pathological lesions of maxillary sinus Sialadenitis, sialolithiasis, sialosis, Sjogren's syndrome, Mickulicz syndrome.

Cystic lesions like mucocele, ranula of salivary glands. Epidemiology, classification, clinical presentation, diagnosis and treatment of benign and malignant tumors of salivary glands.

NECK PATHOLOGY

Cervical lymphadenopathy, thyroid gland, thyroglossal cyst, parathyroid gland, branchial cyst, dermoid cyst, , sternomastoid tumor, cervical rib, carotid body tumor, carotid aneurysm, thymic swellings, cystic hygroma, pharyngeal pouch, spinal abscess etc. Carcinomata of the esophagus and larynx

DEVELOPMENTAL PATHOLOGY

Developmental defects of oral and para-oral structure with special emphasis on the cleft lip and palate.

THORAX:

Post op chest infections
Basal lung collapse
Pneumothorax
Haemothorax
Chest tube intubation

ABDOMEN

Diagnosis and investigations of dysphagia
Carcinoma of esophagus
Achalasia
Diagnosis and management of Upper GIT Bleeding
Peptic ulcer diseases
Intestinal obstruction
Acute appendicitis
Ulcerative colitis
Liver abscess
Hydatid cyst
Portal hypertension
Hepatocellular carcinoma
Obstructive jaundice
Cholelithiasis
Cholecystitis
Acute pancreatitis

Course Content
Core Knowledge and Principles of Surgery
Healing And Repair Of Wounds
Infections
Trauma Care
Hemorrhage, Shock, Burns
Oral & Maxillofacial Pathology
Neck Pathology
Developmental Pathology
Thorax:
Abdomen

Clinical Assignments: General surgical OPD, wards and emergency

ESSENTIAL SKILLS TO BE ACQUIRED:

1. Eliciting a thorough medical history, carrying out a meticulous clinical examination, diagnosis and treatment planning.
2. Provide First Aid: Resuscitation (ABC) of poly-trauma, CPR.
3. Collect samples of blood, urine, sputum, pus swab etc.
4. Should be able to administer drugs by intramuscular and intravenous routes
5. Understand the principles of pre-operative preparations, sterilization, and disinfection techniques.

6. Understand principles of wound care, skin suturing and suture removal, incision and drainage of superficial abscesses, excision of small soft tissue lumps, needle biopsies, aspiration of localized fluids, etc.
7. Should observe common surgical procedures, treatment of fracture / dislocation
8. Should observe administration of general/local anesthesia.

RECOMMENDED BOOKS

- ❖ Text book of general surgery by Bailey & Love
- ❖ An Introduction to the Symptoms & Signs of Surgical Disease Norman Browse
- ❖ Clinical Methods in General Surgery by S. DAS
- ❖ Clinical Methods in General Surgery by Hamilton & Bailey
- ❖ Text book of Surgery by Ijaz Ahsan

DETAILS & DESCRIPTION OF COURSES FOR GENERAL SURGERY

Contents	Specific Learning Outcomes	Suggested Lecture Hours
Surgical Infections	Definition of infection The factors that determine wound infection The classification of sources of infection The indications for and choice of prophylactic antibiotics The characteristics of the common surgical pathogens and their sensitivities The spectrum of commonly used antibiotics in surgery and the principles of therapy The management of abscesses The importance of aseptic and antiseptic techniques delayed primary or secondary closure in contaminated wounds	4
Sterilization	Definition Difference between disinfection and sterilization Methods of sterilization Scrubbing and gowning techniques	6

Sutures & Suturing Technique	<ul style="list-style-type: none"> Identification of sutures Characteristics of sutures Techniques of hand knotting Suturing techniques 	4
Principles of Anesthesia	<ul style="list-style-type: none"> Definition Types of anesthesia Technique of regional blocks Technique of intubation Technique of IV line Technique of CV line Complications of anesthesia Pain control Pre-operative evaluation Perioperative monitoring Side effects of anesthetic drugs 	6
Bleeding disorders & management	<ul style="list-style-type: none"> Different types of bleeding disorders Investigations for bleeding disorder Management of bleeding disorders 	6
Wound Healing	<ul style="list-style-type: none"> Definition Types of healing Pathogenesis of healing process Factors affecting healing process Examination of wound Management of wound Management of pressure sores Scars Adverse scars 	2
Bacterial Infection	<ul style="list-style-type: none"> Clinical presentation Diagnosis Technique of taking pus sample for culture Treatment of bacterial infection Technique of incision and drainage Abscess 	2
Viral Infection	<ul style="list-style-type: none"> Clinical presentation Diagnosis Treatment Preventive measures 	1

Fungal Infection	Clinical presentation Diagnosis Treatment Side effects of antifungal drugs Preventive measures	2
Protozoa Infection	Clinical presentation Diagnosis Treatment Prevention	1
Hospital infections	Methods of spread Prevention Hand washing technique Isolation of patients	2
Intracranial complications of dental infection	Causes Organisms involved Complications Treatment	1
Osteomyelitis	Definition Types Diagnosis Management	2
Sinus	Definition of sinus Causes of sinus Examination of sinus Technique of sinogram Treatment	2
Fistula	Definition Causes Clinical features Examination of fistula Diagnosis Technique of Fistulogram Treatment	2
Ulcers	Definition Causes Clinical features Examination of ulcers Diagnosis Treatment	3

Neoplasia	Definition Difference between Benign and malignant tumors Carcinogens Characteristics of malignancy Methods of spread Diagnosis Treatment of benign and malignant tumors	4
Shock	Definition Classification Clinical features Pathophysiology Management	2
Fluid therapy	Dehydration Water intoxication Types of IV fluids Post op fluids therapy	2
Electrolyte balance	Hypokalemia Hyperkalemia Hyponatremia Hypernatremia Metabolic acidosis Metabolic alkalosis Respiratory acidosis Respiratory alkalosis	2
Chronic Specific Infection		3
Tetanus		1
Gas Gangrene		1
Neck	Differential diagnosis of neck swelling Cervical lymphadenopathy Tuberculosis lymphadenitis Branchial cyst and fistula Cystic hygroma Carotid body tumors Sublingual dermoid Cervical rib Lymphoma Metastatic lymph nodes Diagnosis and management of metastatic lymph nodes Neck dissections	8

Thyroid	Hypothyroidism Thyrotoxicosis Examination of thyroid gland Multinodular goiter Solitary nodules Graves diseases Cancers of thyroid gland Thyroiditis Thyroidectomy Complication of thyroidectomy Thyroglossal cyst and fistula	6
Parathyroid Gland	Hyperparathyroidism Hypoparathyroidism	2
Oral Cavity	Ulcers of tongue Leukoplakia Erythroplakia Carcinoma of tongue Examination of oral cavity Ludwig's angina Carcinoma lip Carcinoma cheek Odontogenic tumors & cyst Ameloblastoma Pindborg tumors dentigerous cyst Radicular cyst keratocyst	8
Diseases of the salivary gland	Surgical anatomy of salivary gland Infections of parotid gland Tumors of parotid gland Infections of submandibular gland Tumors of submandibular gland Obstruction of submandibular duct Examination of salivary gland	5
Benign & malignant tumors of skin	Lipoma Nero fibroma Basal cell carcinoma Squamous cell carcinoma	2
Thorax	Post op chest infections Basal lung collapse Pneumothorax Haemothorax Chest tube intubation	2
Esophag	Diagnosis and investigations of	1

us	dysphagia Carcinoma of esophagus Achalasia	
Stomach	Diagnosis and management of Upper GIT Bleeding Peptic ulcer diseases	1
Intestine	Intestinal obstruction Acute appendicitis Ulcerative colitis	1
Liver	Liver abscess Hydatid cyst Portal hypertension Hepatocellular carcinoma	1
Gall bladder	Obstructive jaundice Cholelithiasis Cholecystitis	1
Pancreas	Acute pancreatitis	1
Trauma including Faciomaxillary injury	Soft tissue injury face Fracture maxilla Fracture mandible Management of Faciomaxillary injury Diseases of temporomandibular joint Types of injury Primary survey and resuscitation Secondary survey Triage Management Examination of trauma patient Neck trauma Chest trauma Abdominal trauma Head injuries Cervical injury Vascular injury	7
Nutrition	Assessment of nutrition Indications Methods Complication of TPN	4
Cleft lip Cleft palate	Types Complications Management	4
Tracheostomy	Anatomy Indications Technique Post op complication Post op care of tracheostomy	4

Essential Skills to be Aquired

Skills	Objectives	Competencies
History Taking	Carve diagnosis	5
Communication with patient	Develop patient –doctor relationship	5
Informed consent	Ethical consideration	5
Counseling	Legal consideration	5
Perform general physical examination	To identify the general signs	5
Examination of cervical lymph nodes	To differentiate between inflammatory and metastatic lymphadenopathy	5
Examination of swelling	To find out physical signs of different swellings	5
Examination of wound	To differentiate between healing wound and infected wound	5
Examination of ulcer	To identify different types of ulcer especially head and neck region	5
Examination of sinus and fistula	To know different types of sinuses and fistulae in head and neck region	5
Examination of thyroid gland	To differentiate multinodular goiter from diffuse goiter To identify the signs of hyperthyroidism and hypothyroidism	5
Examination of salivary glands	To identify physical signs of different diseases of salivary glands	5
Examination of oral cavity	To identify different lesions of tongue, palate and buccal cavity	5
Examination of cranial nerves	Hypoglossal nerve Facial nerve Vagus nerve Trigeminal nerve	5
Abdominal examination		5
Take blood sample	Draw sample and label	3
Secure I/V line	Passing I/V cannula	3
Record vital signs	Pulse, Temperature Blood pressure	5
Adjust drip set	Able to adjust drops	3

To passing NG tube	For feeding or decompression of stomach	3
To Pass Foley's catheter	Monitor out put	3
To pass endotracheal tube	To secure airway	1
To pass chest tube	For management of pneumothorax	1
Tracheostomy	To secure airway	1
Haemorrhage control	To know the different methods to control bleeding	1
Suturing	Simple interrupted Vertical mattress Continuous Subcuticular	3
Hand tie	Two hand tie	3
Incision making	Handling of knife	3
Gloving and gowning	Aseptic measure	3
Scrubbing	Aseptic measure	3
Incision and drainage	Management of abscess	1
Barrel bandage	Fracture mandible	4
Turban bandage	Scalp wounds	4
Fine needle aspiration	For diagnosis of swellings	3
True cut biopsy	For diagnosis of swelling	3
Incision biopsy	Oral cavity lesions	1
Lymph nod biopsy	For diagnostic purpose	1
Thyroidectomy	To understand steps	1
Wound debridement	Principles	1
Parotidectomy	To understand steps	1

COMPETENCY LEVEL:

- 1- Observer Status
- 2- Assistant
- 3- Perform under supervision
- 4- Perform under indirect supervision
- 5- Perform independently

SYLLABUS / COURSE DETAILS FOR:

COMMUNITY DENTISTRY:

Introduction: