

Syllabus
DIPLOMA IN OPERATION THEATRE TECHNOLOGY
(SECOND YEAR)

Pre and Intra operative care

- Responsibilities of an Operating Room Assistant in OT in a surgical unit in peace and war.
- Reception and preparation of patients for operations, observation of patients during operations and management of patients in the immediate post-operative period in the recovery room.
 - Preparation of patients for anaesthesia and positioning of patients for different operations.
 - Application of bandages and dressings after operations.
 - Methods of application of tourniquets and their dangers.
 - Plaster of Paris technique and preparation of plaster of Paris bandages assist in the application and removal of plaster casts.
 - Methods of application and uses of different types of splints.
 - Duties and role of ORA in a Central Sterile Supply Room (CSSR).
 - Duties and role of ORA in Intensive Care Units
 - Care of Critically ill Patients in ICU including use of Ventilators
 - Use, Care and Maintenance of all OT and ICU related equipment including Gas & Cylinder systems
 - Responsibilities in cases of Cardiac Arrest, Trauma and Resuscitation
 - Triage of trauma and surgical cases
 - Organization and function of mobile surgical units: Role in War
 - Familiarity with Information Technology: Computer hardware and office-based software
 - **Administrative responsibilities of Operating Room Assistant in ;**
 - (i) Running of Operation Theatre,
 - (ii) Allotment of duties,
 - (iii) Maintenance of day-night duty cycles,
 - (iv) OT scheduling and precedence of surgical cases,
 - (v) OT Record Keeping and Workload reporting

PAPER-2

Anesthesia drugs, Equipment & special operation theatre tray set up

Introduction and Concepts of Anaesthesia

(b) Pre-anaesthesia Evaluation (PA Checkup)

(c) Pre-anaesthesia Medication and optimization of surgical patient

- (d) Types of Anaesthesia incl General Anaesthesia, Neuraxial Blocks (Spinal, Epidural and Combined Spinal Epidural Anaesthesia), Regional Blocks, Local Anaesthesia and Dissociative Anaesthesia
- (e) Arrangement and preparation of Drugs in OT
- (f) Equipment preparation for anaesthesia – Anaesthesia Machines, Circuits, Monitors, Transducers, Airway devices and Pre-anaesthesia Checks ('Cockpit Drill').
- (g) Conduct of General Anaesthesia incl observation and assessment of patient
- (h) Preparation and arrangement for neuraxial and regional anaesthesia
- (j) Conduct of Neuraxial Blocks – Spinal Epidural and CSE (k) Conduct of Regional Anaesthesia and plexus Blocks
- (l) Monitored Anaesthesia Care and Conscious Sedation
- (m) Airway Management including Airway Emergencies – incl Difficult Airway Cart (n) Record Keeping during Anaesthesia – incl Noseworthy Charts and OT Registers (o) Mask Ventilation and Endotracheal Intubation for airway management

PAPER-3

Infection control

Operation Theatre Work and OT Nursing. Must be conversant with: -

- (a) The operation theatre unit and its functioning
- (b) Cleanliness and sterilization of operation theatre and annexes
- (c) Lighting in an operation theatre, emergency lighting sets, trailer generator and lighting sets
- (d) Scrubbing Protocols
- (e) Helping surgeon and others to wash up and drape for operations, holding out cap mask, gown and gloves for surgeons and others and handling sterile articles
- (f) Washing, cleansing, testing, sorting and packing of gloves for sterilization
- (g) Preparation of dressings, gauze, swabs and packs and arranging and packing of drums for sterilization
- (h) Use, care, maintenance and sterilization of the commoner types of instruments, needles, sutures and ligatures used in the operating theatre
- (j) Use, care and maintenance of various types of surgical diathermy units, suction apparatus, endoscopes, laparoscopic instruments, surgical microscopes, headlamps, image intensifiers metallic implants.
- (k) Identification of instruments and methods of laying out trolley for common operations, examinations and procedures
- (l) Components, parts and methods of sterilization of tracheostomy sets
- (m) Components, parts and working of the standard operating, neurosurgical and orthopaedic tables

PAPER-4

Surgical procedures and monitoring

Surgical Skills: Must be trained to develop skill connected with common resuscitative procedure, general surgical operation such as:

(a) General Skills

- (i) Causation, signs and symptoms of hemorrhage and shock.
- (ii) Management of hemorrhagic Shock
- (iii) Broad principles of intravenous Fluids and blood administration and the commonly available IV Fluids.

(b) Operation Procedures: Must be able to perform independently, if reqd.

- (i) Drainage of small, superficial abscesses.
- (ii) Cleaning and suturing of small, superficial cuts, clean lacerated wound
- (iii) Dressing of dirty, contaminated wound
- (iv) Arrest of hemorrhage
- (v) Small, minor surgical procedures like excision of sebaceous cyst, corns, warts, small lipomas, ingrowing toenails
- (vi) Application of POP slabs and casts
- (vii) Urinary bladder catheterization and irrigation and emergency percutaneous suprapubic cystostomy
- (viii) Dressing of burns and scalds.
- (ix) Operative and nursing procedures for common disease of ear nose and throat viz examination of ear, nose, ear syringing, wax removal, removal of easily accessible foreign bodies in ear & nose, epistaxis control.
- (x) Common ophthalmologic procedures like eye padding and dressing, removal of corneal foreign bodies, lachrymal sac syringing.

Operative Procedures: Must be conversant with the theory & practical aspect of operative procedures in various fields & disciplines of surgery.

(a) General Surgery: Procedures like varicocele, circumcision, hernia, hydrocoele, anorectal surgery, varicose veins, amputation, surgery of breast.

Joint reconstruction & replacement

(a) Otorhinolaryngology (ENT): Introduction to ENT surgery, common surgeries on ear, nose and throat like surgery for otitis media, epistaxis, tonsillectomy, foreign body removal etc.

(b) Plastic And Reconstructive Surgery: Special features of plastic surgery, skin grafting techniques, burns, cosmetic surgery, various flaps, hand surgery, microsurgical flaps.

(c) Cardiothoracic And Vascular Surgery: Introduction to cardiothoracic and vascular Surgery, closed & open heart surgeries, CABG, Cardiac Catheterization and angioplasty, bronchoscopy.

(d) Oncosurgery: Introduction to cancer treatment surgical principles in oncology, common surgical procedures in oncology like mastectomies etc

(e) Urology: Diagnostic procedures in urology, endo-urological techniques, common open urological surgery for calculus, hydronephrosis, nephrectomy and renal transplant.

(f) Neurosurgery: Introduction to basics, burr holes, VP shunt, Spinal surgery, craniotomies special neurosurgical techniques.

(g) Laparoscopic Surgery: Introduction, equipment, various basic and advanced laparoscopic surgical procedures.

(h) Transplantation: Introduction, types of transplants, various organ transplantation, introduction to post transplant management.

(i) Peripheral Vascular Surgery: Introduction, types of vascular grafts, various peripheral vascular surgical procedures.

Resuscitation & Life Support

(a) Basic Life Support (BLS) and Resuscitation

(b) Advanced Cardiac Life Support

(ACLS) (c) Advanced Trauma Life

Support (ATLS)

(d) Use, Care and maintenance of ICU equipment incl Infusion pumps and ventilat

(h) Maintenance and functioning of Instrument Rooms

OT Design and Medico legal Aspects

(a) OT Illumination

(b) Medical Attendance to female patients

(c) Consent

(d) Death in OT

(e) Organ transplantation – medico legal aspects