

DIPLOMA IN ANAESTHESIOLOGY (DA)

Syllabus

It includes topics not only of Anaesthesiology but also those aspects of all the other branches of medicine relevant to Anaesthesia viz., Medicine and its allied subjects, Surgery and its allied branches, Paediatrics, applied Anatomy, Physiology, Pathology, Pharmacology, Microbiology etc. It is intended as a guide to candidates and it is not comprehensive. As and when there is newer development, it becomes eligible for inclusion. Hence, the candidates should be familiar themselves with the current content of the scientific journals and reviews of major topics, in Anaesthesia.

History of Anaesthesiology:

Basic Sciences related to Anaesthesia including Anatomy, Physiology, Pharmacology, Biochemistry, Pathophysiology, Immunology and Genetics.

Medicine applied to Anaesthesiology:

Physics related to Anaesthesiology, Electronics, Computers and Lasers, in Anaesthesiology, Internet/ Medline and its uses and applications

Anaesthesiology:

- i. Pre anaesthetic evaluation and preparation.
- ii. Principles and Practice of Anaesthesiology including pre, per and post operative care, of patients belonging to General Surgery and other subspecialties like Cardiothoracic surgery, neurosurgery, orthopaedics, Plastic surgery and surgical endocrinology, surgical oncology, paediatric, Obstetrics and Gynaecology, ENT, Ophthalmology, Urology, Dental Surgery, Laproscopy surgery etc.
- iii. Blood transfusion fluid and Electrolyte balance, - Acid base Balance.
- iv. Fires and Explosion in operation theatre.
- v. Operation theatre sterilization procedures.

Pain clinic organization and management. Pain pathway, and management of pain. Respiratory Therapy and management of both acute and chronic respiratory insufficiencies and ventilator commitments in ICU.

Critical Care Anaesthesiology and Trauma Care unit management.

- Different methods of anaesthetic Techniques.
- Regional anaesthesia including spinal, epidural and caudal etc.
- Local anaesthesia including nerve blocks.
- Anaesthesia in abnormal environments like high altitude anaesthesia etc. Complication in Anaesthesiology and their management both per and post operatively.
- Anaesthesia for day care surgery.

- Anaesthesia for diagnostic procedure like endoscopy, C.T. scan M.R.I etc. Informed consent/ medicolegal issues: understanding the implications of acts of omission and commission in practice. Issues regarding consumer protection

Implications in medico legal cases:

Communication skills with colleagues teachers, patients and patients relatives. Principles of Anaesthesia audit understanding and audit process and outcome; methods adopted for the same. Essentials of Research methodology:

- i) Basics of Biostatistics and its application.
- ii) Ability to undertake clinical and basic research.
- iii) Ability to publish result of one's work.

Principles of evidence based medicine and its application in anaesthetic practice. Medical ethics/social responsibilities of the anaesthesiologists.

Record keeping: Ability to keep records as scientifically as possible; knowledge of computers is beneficial.

Skills to be acquired

Basic Graduate skills:

- Insertion of IV lines
- Insertion of Nasogastric tube
- Monitoring vital signs

Anaesthesia Skills:

- Basic airway management

Difficulty airway management:

- Orotracheal / Nasotracheal intubation
- Airway equipments
- Local anaesthesia
- Regional Anaesthesia
- Neuraxial blockade
- Intravenous Regional Anaesthesia
- Total intravenous Anaesthesia
- Monitored Anaesthesia Care
- General Anaesthesia
- Perioperative monitoring

Critical Care procedures:

- Airway Management (Cricothyrotomy, tracheostomy)
- Fibreoptic bronchoscopy

- Arterial cannulation
- Central venous cannulation
- Pulmonary artery catheterisation
- Sampling & interpretation of ABG
- Fluid & Electrolyte management
- Ventilatory care
- Intercostal drainage
- Intensive Care Therapy
- Ultrasound and echo in ICU

Emergency room procedures:

- Management of airway obstruction
- Cardiopulmonary resuscitation (BLS & ACLS)
- Management of cardiac failure
- Management of respiratory failure
- Management of shock

Pain Therapy:

- Common modalities of acute & chronic pain therapy
- Perioperative pain management
- Labour analgesia
- TENS
- PCA
- Common nerve blocks
- Neurolytic & nerve ablation procedures
- Psychological aspects of pain therapy
- Palliative care

Learning Activity:

Every student shall actively participate in all the clinical, academic & teaching activities in the department. Periodic appraisal of both theory & clinical skills are to be done every 6 months by the senior faculty for which at least 50% marks are needed for appearing the final examination. Also the candidate should have at least 80% attendance in the clinical & academic activities of each year for appearing the examination.

The following teaching activities are recommended:

- Topic presentations
- Subject seminars
- Multidisciplinary symposiums
- Journal clubs
- Case presentations
- Problem oriented case discussions

- Morbidity & mortality meetings
- Critical Evaluation of complications
- Inter departmental discussions
- Teaching skill development
- Research oriented training
- CME programmes & conferences (at least one participation / presentation by the candidate)

Recommended books

- Anatomy for Anaesthetists (Ellis)
- Drugs & Anaesthesia (Wood)
- Physics for the Anaesthetist (Muschin & McIntosh)
- Miller's Anaesthesia
- A practice of Anaesthesia (Wylie-Churchill-Davidson)
- Clinical Anaesthesia (Barash, Cullen, Stoelting)
- Anaesthesia & Co-existing diseases (Stoelting)
- Clinical Anaesthesiology (Morgan)
- Understanding Anaesthesia equipments (Dorsch & Dorsch)
- Kaplan's Cardiac Anaesthesia
- Thoracic Anaesthesia (Kaplan)
- Obstetric Anaesthesia (Chestnut)
- Pediatric Anaesthesia (Gregory)
- Neurosurgical Anaesthesia (Hunter)
- Benumof's Airway management
- Textbook of Pain (Cusine)
- Anaesthesia & Intensive care (Yeatis)
- Acute Pain (Raymond Sinatra)
- Medicine for Anaesthetists (Vickers)
- Monitoring in Anaesthesia & critical care medicine (Casey D Blitt)
- Management of Trauma ((Wilson & Walt)
- Textbook of Critical care (Fink)

Journals

Indian journal of Anaesthesia
 Anaesthesia Analgesia
 British journal of anaesthesia
 Recent advances in Anaesthesiology
 Canadian journal of anaesthesia
 Act Anaesthesia Scandinavia
 Indian journal of palliative care
 Indian journal of Critical care
 Anaesthesia & intensive care medicine
 Journal of Anaesthesiology Clinical pharmacology
