

Basic Anesthesia Technology

Course Code: BOTT201

Course Contents

UNIT 1

- ❖ Pre-operative room arrangement
- ❖ Pre-use check as per recommendations
- ❖ Components of general anesthesia
- ❖ Pre oxygenation

UNIT 2

- ❖ Work station
- ❖ Boyle's Vaporizer
- ❖ Magill's breathing circuit Bain's breathing circuit pediatric anesthesia circuit
- ❖ Carbon dioxide absorption canister

UNIT 3

- ❖ Suction apparatus-foot operated electrically operated
- ❖ Ambu bag laryngoscope hand tracheal tubes

UNIT 4

- ❖ General anaesthesia
- ❖ Complications of GA
- ❖ Regional anesthesia –spinal and epidural anesthesia
- ❖ Complications
- ❖ Dye allergies
- ❖ Embolization

UNIT 5

- ❖ Airway management
- ❖ Different types of artificial Airways
- ❖ Technique of intubation
- ❖ Mallampatti grading
- ❖ Awake Intubation

Unit 6

- ❖ Sterilization –types Autoclave ,Hot air oven
- ❖ Ethylene oxide Sterilization
- ❖ Disinfection and various disinfectants

- ❖ Fumigation of OR
- ❖ Thermoregulation
- ❖ Lay out of OR

Practical

- ❖ Work station
- ❖ Boyle's Vaporizer
- ❖ Magill's breathing circuit Bain's breathing circuit pediatric anaesthesia circuit
- ❖ Carbon dioxide absorption container
- ❖ General anaesthesia
- ❖ Regional anaesthesia
- ❖ Sterilization

Environmental & Bio Medical Waste Management

Course Code: BOTT202

Course Contents

Environmental Science

- ❖ Environmental Science & its importance
- ❖ Protect our environment environmental laws related to the control of pollution
- ❖ Green House Effect
- ❖ Acid Rain
- ❖ Renewable Resources and Non- Renewable Resources
- ❖ Eco System –Aspects of Eco System
- ❖ Bio Diversity
- ❖ Biotic and A biotic environment
- ❖ Water Pollution
- ❖ Noise pollution
- ❖ Air pollution
- ❖ Land pollution –Soil Conservation ,soil erosion, Afforestation
- ❖ Ecological Pyramid
- ❖ Bio-Gas
- ❖ Food chain ,Food web

Biomedical Waste Management

- ❖ Bio medical wastes
- ❖ Biomedical waste management
- ❖ Collection of bio medical waste
- ❖ Incineration
- ❖ Biomedical Staff

OT Instruments And Technique

Course Code: BOTT203

Course Contents

UNIT 1

- ❖ Sterilization - Types Dry Heat ,Moist Heat
- ❖ Sterilization And Disinfections Used In OT
- ❖ Operation Room

UNIT 2

INSTRUMENTS USED FOR PREPAIRING SURGICAL

- ❖ Cheatles Forceps
- ❖ Rampely
- ❖ Ssponge Holding Forceps
- ❖ Mayo's Towel Clip
- ❖ Esmach's Bandage,
- ❖ Simple Tourniquet, Pneumatic Tourniquet

UNIT 3

INCISION MAKING METHOD AND INSTRUMENTS :

- ❖ Bard Parker Knife Handle
- ❖ Major Abdominal Incision
- ❖ Artery Forceps And Their Types
- ❖ Instruments Used In Homeostasis
- ❖ Kocher's Forceps,
- ❖ Electric Cautery
- ❖ Suction Machine

UNIT 4

RETRACTORS:

- ❖ Single Hook Retractors
- ❖ Czerny's Retractor,
- ❖ Nerve Hookretractors
- ❖ Morris Retractors
- ❖ Deaver's Retractors.

UNIT 5

WOUND MANAGEMENT

- ❖ Wound Types Of Wound
- ❖ Seissors And Its Types
- ❖ Sucking Material And Techniques
- ❖ Disinfectants And Irritants
- ❖ Dressing Procedures
- ❖ Different Types Of Bandages
- ❖ Surgical Needle & Needle Holders
- ❖ Various Types Of Suture Material
- ❖ Various Types Of Drains Using In Surgery

Practical

- ❖ Sterilization
- ❖ Surgical instruments – various surgeries
- ❖ Powered Instruments
- ❖ Gloving Technique, Scrubbing Technique
- ❖ Various Equipments Used In OT

Pharmacology Related To Anaesthesia

Course Code: BOTT204
Course Content

UNIT 1

INDUCTION AGENTS

- ❖ Propofol
- ❖ Ketamine
- ❖ sodium Thiopentone
- ❖ Midazolam
- ❖ Etomidate

UNIT 2

Anti-Sialagagues

- ❖ Routes of drug Administration
- ❖ Glycopyrrolate
- ❖ Atropine

UNIT 3

- ❖ Regional anaesthetics-
- ❖ Local Aanaesthetics-

UNIT 4

NARCOTICS

- ❖ Morphine
- ❖ Fentanyl
- ❖ Pentazocine

UNIT 5

Muscle relaxants

- ❖ Depolarizing
- ❖ Non Depolarizing

UNIT 6

- ❖ Vasodilators
- ❖ Beta blockers
- ❖ Anti hypertensive drugs
- ❖ Ca⁺ blockers

UNIT 7

Diuretics

- ❖ Frusimide
- ❖ Ethacrynic acid

Practical

- ❖ Induction Agents
- ❖ Muscle relaxants
- ❖ Diuretics
- ❖ Narcotics
- ❖ Drugs used in Regional Anaesthesia

Introduction to OT Technology

Course Code: BOTT205

Course Contents

UNIT 1

- ❖ Role and responsibilities of anaesthesia technician
- ❖ Scrubbing, Gloving ,Gowning
- ❖ History of anaesthesia
- ❖ CSSD
- ❖ Cleaning-Methods of cleaning and sterilization of surgical instruments
- ❖ Sterilization & Disinfectants of surgical instruments
- ❖ Use of various instruments-knife, blade ,scissor, needle holders, forceps,Retractors

UNIT 2 –

Boyles Machine –

- ❖ High pressure system
- ❖ Intermediate pressure system
- ❖ Low pressure system
- ❖ Safety features of machine

- ❖ Vaporizers Types,

Breathing circuits

- ❖ Open circuit
- ❖ Semi open circuit
- ❖ Closed circuit /circle system
- ❖ Semi closed mapleson ABC
- ❖ Bains circuit
- ❖ Jacks & Rees Circuit
- ❖ AMBU
- ❖ Soda lime

UNIT 3

Monitoring

- ❖ Blood pressure - IBP, NIBP monitoring
- ❖ Ecg, monitoring
- ❖ Pulse monitoring
- ❖ Oximeter monitoring
- ❖ Capnography
- ❖ Temperature monitoring
- ❖ Angiography

UNIT 4

- ❖ Artificial air ways (oral and Nasal end tracheal tubes
- ❖ oxygen therapy
- ❖ Nebulizers
- ❖ Laryngoscopes
- ❖ Reservoir bags

UNIT 5

- ❖ Pre anesthetic assessment
- ❖ Pre medication
- ❖ Iv fluids-Crystalloids colloids
- ❖ Iv canula- Different sizes with different color coding

Practical

- ❖ Scrubbing, Gloving ,Gowning

- ❖ Open circuit
- ❖ Semi open circuit
- ❖ Closed circuit /circle system
- ❖ Semi closed mapleson ABC
- ❖ Bains circuit
- ❖ Jacks & Rees Circuit
- ❖ AMBU
- ❖ Soda lime
- ❖ Nebulizers
- ❖ Laryngoscopes

Hospital Posting(Practical)

Course Code: BOTT251

Course Content:

Course Contents:

Students shall be deputed to various labs anesthesia department wherein they shall undergo practical training of handling patients, collection and processing of investigation and equipment. Identification of patient's particulars based on UHID number, Lab Number and transfer of samples from collection to different labs. Process of performing various tests in different labs Each student is required to maintain a logbook of the various posting. Student's performance shall be evaluated on continuous basis by the faculty posted in various sections. The faculty shall submit the assessment records of each student posted in his/her section on monthly basis to the HOD. Marks will be awarded out of 50.

*** Latest editions of all the suggested books are recommended.**

