# SUMANDEEP VIDYAPEETH

(Declared as Deemed to be University under Section 3 of the UGC Act 1956) Accredited by NAAC with a CGPA of 3.53 out of four-point scale at 'A' Grade Category - I deemed to be university under UGC Act - 2018 At & Post Piparia, Tal: Waghodia 391760 (Gujarat) India. Ph: 02668-245262/64/66, Telefax: 02668-245126, Website: www.sumandeepvidyapeethdu.edu.in



**CURRICULUM** 

## **Doctor of Medicine** (M.D.) ANESTHESIOLOGY Attested CTC

15/2/2021 15/2/2021 Sharane



Vice-Chancellor Sumandeep Vidyapeeth An Institution Deemed to be University Vill. Piparia, Taluka: Waghodia. Dist. Vadodara-391 760. (Gujarat)



**AMENDED UP TO DECEMBER -2020** 

## Programme outcome : MD

The purpose of MD education is to create specialists who would provide high quality health care and advance the cause of science through research & training. The goal of postgraduate medical education shall be to produce competent specialists and/or Medical teachers.

## Programme specific outcome : MD

**POS 1.** Scholars shall recognize the health needs of the community, and carry out professional obligations ethically and in keeping with the objectives of the national health policy.

**POS 2.** Scholars shall have acquired the basic skills in teaching of the medical and paramedical professionals.

**POS 3.** Practice the specialty concerned ethically and in step with the principles of primary health care.

**POS 4.** Demonstrate sufficient knowledge of the basic sciences relevant to the concerned specialty.

**POS 5.** Develop skills in using educational methods and techniques as applicable to the teaching of medical/nursing students, general physicians and paramedical health workers.

COURSE OUTCOME (CO): At the end of the course, students should have fair knowledge of

- 1. Basic sciences (Anatomy, Physiology, Biochemistry, Microbiology, Pathology, Pharmacology, Statistics and Physics) as applied to Anaesthesia.
- 2. The student should acquire in-depth knowledge including recent advances.
- 3. The student shall acquire basic skill with the bedside procedures (diagnostic and therapeutic) and have knowledge of all latest diagnostics and therapeutics procedures available including radiological methods.
- 4. The student should learn the basic methodology of teaching and develop skill in teaching medical/paramedical students.
- 5. The student should be familiar with the latest teaching (computer and power point presentation) modes including simulators training and evidence based medical education.
- 6. The student should develop attitude that leads to appropriate communication with colleagues to function in a group in Operating Room /Intensive Care Unit, and develop the ability to function as a leader in the operating room.

Attested CTC

1. asaner

Vice-Chancellor Sumandeep Vidyapeeth An Institution Deemed to be University VIII. Piperia, Taluka: Waghodia. Dist. Vadodara-391 760. (Gujarat)



## **Curriculum**

## DEPARTMENT OF ANAESTHESIOLOGY

S.B.K.S. Medical College & Dhiraj General Hospital Pipariya, Waghodia

Clinical Posting for P.G. Students

First year first term for three months in repeated teacher O.T.

- 1. Pre-operative Examination
- 2. Preparation of Trolly
- 3. Preparation of Drugs

Second term :- To give Spinal Anaesthesia & General Anaesthesia – 3 months Surgery, Ortho & Obst & Gynaec

Third term :- Rotation in specialized Anaesthesia O.T., ENT, Eye, Neuro, ICU in rotation

Rotation in teachers O.T.

- To introduce Basic life support (BLS) and Advanced Cardiac Life Support (ACLS) training for all the First year Postgraduate Resident Doctors from academic year 2017-18. (Board of Studies letter no.: SBKSMIRC/Dean/1777(A)/2017, dated 28/11/2017 and Vide Notification of Board of Management Resolution Ref: No.: SV/8813/2017-18, dated 06/04/2018)
- ANAESTHESIOLOGY
- ٠
- Objectives :-
- At the end of the course, the learners shall be able to :
- 1. Have familiarity with different types of anaesthesia, drugs, indications,
- administration, side effects & contraindications.
- 2. To perform Cardiopulmonary resuscitation (Adult & Pediatric)
- 3. Set up I.V. infusion and Peripheral cannulation (Adult & Pediatric)
- 4. Airway Management in the unconscious patient
- 5. To perform endotracheal intubation (Adult & Pediatric)
- 6. To perform simple nerve blocks.

## Attested CTC

Lasaner

Vice-Chancellor Sumandeep Vidyapeeth An Institution Deemed to be University <u>VIII. Piperio, Taluka: Waghodia.</u> Dist. Vadodara-391 760. (Gujarat)



## Knowledge

Kilowieuge		<b>_</b>
Subject	Must Know	Desirable to Know
Subject	KNOW	to Know
Anatomy of upper airway – Normal & Abnormal (Endotracheal Intubation)		
Physiology of Respiration – O2 & CO2 transport (Oxygen therapy)		
Premedication		
Pre operative evaluation		
Muscle relaxants		
Stages of Anaesthesia and general anaesthetic agents		
Administration of GA, Balanced anaesthesia and IPPV		
Regional anaesthetics : Infiltration, Digital, Ankle Block, Peripheral nerve block .		
Spinal Anaesthesia & Epidural Anaesthesia		
Monitoring the post operative patient		
Post operative complications & recovery room		
CPCR and use of simple ventilators		
ICU, Role of Anesthesia		
Shock		
Blood transfusion, fluid and electrolyte balance (basics)		
Management of unconscious patient including airway		
Basic principles of management of poisoning		
Acute pain relief		
Chronic pain relief & palliative care principles		
Patient as a person		
Autonomy of decision – Do not resuscitate + Organ harvesting		
Propagation of life		
Cancer & terminal care		
Consent for surgery & anaesthesia		
Safety measures in operation theatre Use of Nerve locator, use of PNS		

Attested CTC

Sharaney 12/2021

Vice-Chancellor Sumandeep Vidyapeeth An Institution Deemed to be University -Vill. Pipario, Taluka: Waghodia.





#### **Examination Skills**

	Perform	Perform	Assist	Observe
Skills	independently	under	the	
		supervision	expert	
Head and neck positioning				
Bag and mask using self inflating bag				
Selection & use of oxygen delivery devices				
Recognition & management of respiratory obstruction				
Insertion of oral Airway				
Insertion of nasopharyngeal airway				
Suctioning				
Use of laryngoscope				
Use of orotracheal tube, use of LMA, use of DLT				
ETT Suctioning				
Peripheral venous cannulation, Central venous				
cannulation,				
Local anaesthetic infiltration (for cannulation)				
Setting up an intravenous medicines				
Recognize common complication				
Use of defibrillator				
Surface anaesthesia				
Digital Block				
Infilatration Anaesthesia				
Interpretation of ABG, CVP, Pulse oximeterand				
Capnograph, IABP				
Consent for procedures				
Motivation for blood & organ donation				
Interpersonal Relationship				
History taking & Preanaesthetic evaluation				
Documentation & maintenance of records				
Medical Team / Mass Casualty Management				
Hemorrhage & Shock				
Anaphylaxis				
Status asthmatics				
First aid				
Use of LMA				
Use of DLT (Double Lumen Tubes)				
Central Venous Cannulation				

Skills to be learnt initially on the models and later on performed under supervision before performing independently, provision of skills laboratories in the Medical Colleges will

haraney 15/2/2021

Vice-Chancellor Sumandeep Vidyapeeth At Institution Deemed to be University VIII. Piperio, Taluka: Waghodia. Dist. Vadodara-391 760. (Gujarat)



### Record of Training & Assessment

- Timetable of attendance, logbook of topics & skills teaching
- Feedback from trainers
- Formal end of module presentation
- Appraisal of module by student

### Assessment

Formative at the end of capsule course and clinical postings Summative at the end of the course

Tools

### Theory

Problem solving MCQs, Structured Long questions Problem solving long questions Short answer questions **Practical** Long case Short case OSCE

Summative examination to be included along with surgery

Teaching learning methods

Structured interactive sessions

Small group discussions

Self – learning tools like :

- (a) Assignment
- (b) Problem based learning
- (c) Written case scenarios
- (d) Simulated patient management problems
- (e) Tutorials, workshops
- (f) One to one teaching in theatre
- (g) Attendance at Departmental Morbidity, Audit & Journal Club Meeting.

Learning resource materials

Textbooks

Internet

CDs

Videos

Skill Laboratories

Method of Examination for DA/M.D

## List of seminar

- 1. CVS
  - 1. Anaesthetic Management of closed mitral valvotomy.
  - 2. Anaesthetic Management of patient with open heart surgery.
  - 3. Anaesthetic Management of ASD.

Attested CTG. Anaesthetic Management of VSD.

- 5. Anaesthetic Management of PDA.
- 6. Anaesthetic Management of patient of valve replacement.

Anaesthetic Management of cardiac patient posted for non cardiac surgery.



Vice-Chancellor Sumandeep Vidyapeeth At Institution Deemed to be University Will Piperio, Taluka: Waghodia. Dist. Vadodara-391 760. (Gujarat)



- 2. RS
- 1. Anaesthetic Management of bronchial asthma.
- 2. Anaesthetic Management of patient with bronchiactasis posted for lobectomy.
- 3. Anaesthetic Management of patient of carcinoma lung posted for pneumectomy.
- 4. Anaesthetic Management of thoracic injury
- 3. CNS
  - 1. Anaesthetic Management of shunt surgery
  - 2. Anaesthetic Management of head injury
  - 3. Anaesthetic Management of patient posted for craniotomy
  - 4. Anaesthetic Management of patient with trigeminal neuralgia
  - 5. Anaesthetic Management of posterior fossa surgery
- 4. GIT
  - 1. Anaesthetic Management of patient with jaundice
  - 2. Anaesthetic Management of patient with cirrhosis of liver
- 5. GUT
  - 1. Anaesthetic Management of TURP
  - 2. Anaesthetic Management of renal transplantation
  - 3. Anaesthetic Management of patient with pheochromocytoma

## 6. OBSTETRICS & GYNAEC

- 1. Anaesthetic Management of patient with PIH posted for LSCS
- 2. Anaesthetic Management of obstetric emergency
- 3. Anaesthetic Management of patient with IHD & HT with DM posted for Hysterectomy

## 7. OPHTHALMOLOGY

- 1. Anaesthetic Management of cataract surgery
- 2. Anaesthetic Management of squint surgery
- **3.** Anaesthetic Management of perforated eye injury

## 8. ENT

- 1. Anaesthetic Management of patient for tonsillectomy
- 2. Anaesthetic Management of carcinoma larynx
- 3. Anaesthetic Management of patient with foreign body in oesophagus
- 4. Anaesthetic Management of foreign body in bronchus

## 9. HEAMOPOIETIC SYSTEM

- 1. Anaesthetic Management of patient with anaemia
- 2. Anaesthetic Management of patient with hemophilia
- 3. Anaesthetic Management of patient with thallessemia.

## **10. ORTHOPAEDIC**

- 1. Anaesthetic Management of patient with ankylosis spondylitis.
- 2. Anaesthetic Management of cervical spine surgery
- 3. Anaesthetic Management of THR & TKR
- 11. SHORT CASES
  - 1. Anaesthetic Management of patient with abscess.
  - 2. Anaesthetic Management of patient with piles/fissure
  - 3. Anaesthetic Management of patient with hernia
  - 4. Anaesthetic Management of patient with hydrocele
  - 5. Anaesthetic Management of patient with burns- dressing & debridement
- Rested CTAnaesthetic Management of patient with ICD tube
  - 7. Anaesthetic Management of patient with D&C or D&E

12. PROCEDURE( STANDBY)

Bronchography



## S.B.K.S Medical Institute & Research Center

## <u> Pipariya TA. Waghodia</u>

## Dist : Vadodara(India-391760)

## Dept Of Anaesthesiology

## LECTURES:

- 1. History of Anaesthesia:-
  - Physiology & pathophysiology
- 2. C.V.S. -cardiac physiology & pathophysiology & its clinical Implements. -control of circulation
- 3. Respiratory System:-
  - -physiology of respiration
  - -pulmonary physiology & pathophysiology
  - -physiology of oxygen transport in blood
  - Oxygen therapy
- 4. Nervous System:-

-physiology of autonomic nervous system

-physiology of Neuro muscular transmission & nerve conduction

-anatomy of Neuro muscular junction

-physiology of pain & pain pathway

## 5. Blood:-

- Pathophysiology of anemia & its clinical implements.

6. Obs & Gyn:-

-physiological changes during pregnancy

- 7. G.I. Tract: motor physiological of GI tract
  - Physiology of liver
- 8. GUT: - renal physiology, fluids & Electrolytes.

-Acid based Balance

Attostoctomy of Spinal & Epidural Space.

10. Anatomy of larynx 202

Vice-Chancellor Sumandeep Vidyapeeth An Institution Deemed to be University Vill. Piparia, Taluka: Waghodia. Dist. Vadodara-391 760. (Gujarat)



## **BASIC PHARMACOLOGY**

- 1. Pre-medic ants
- 2. i.v induction anaesthetic agents
- 3. inhalational anaesthetic agents
- 4. local anaesthetic agents
- 5. muscle relaxant & antagonist
- 6. Pharmacology of emergency drugs.

## ANAESTHETIC CONSIDERATION & TECHNIQUES

- 1. Principle of Airway Management & Tracheal Intubation
- 2. Artificial respiration & ventilation
- 3. Emergency resuscitation
- 4. Hypothermia technique
- 5. Hypotensive technique
- 6. Essential monitoring
- 7. Measurement of depth of anaesthesia
- 8. Regional anaesthesia & analgesia
  - -spinal anaesthesia
  - -caudal anaesthesia
  - -epidural anaesthesia
  - -blocks

## SUB-SPECIALITY ORIENTED MANAGEMENT OF ANAESTHESIA.

- 1. Trauma anaesthesia
- 2. Anaesthesia for orthopedics surgery
- Anaesthesia for Neuro surgery
- 4. Anaesthesia for cardio-thoracic surgery
- 5. Anaesthesia for Vascular surgery
- 6. Anaesthesia for plastic surgery
- 7. Anaesthesia for dental & oro-facial surgery
- 8. Anaesthesia for ENT & laser surgery.
- 9. Anaesthesia for ophthalmic surgery
- 10. Neonatal anaesthesia
- 11. Obstetrics anaesthesia
- 12. Anaesthesia for laparoscopic procedures & Surgery
- 13. Geriatric anaesthesia
- 14. Anaesthesia for patient with renal disease
- 15. Anaesthesia for patient with liver disease
- 16. Anaesthesia for organ transplantation

## Attested CTC

asaner

Vice-Chancellor Sumandeep Vidvapeath Institution Deemed to be University Vill. Piparia, Taluka: Waghodia.





## PERI- OPERATIVE & INTENSIVE CARE

- 1. Metabolism & metabolic response to trauma
- 2. Nutritional support
- 3. Ventilator Management
- 4. Critical care
- 5. Head injury
- 6. Transmission of infection
- 7. Management & complication of commonly ingested & inhaled poisons.
- 8. Management of cardio respiratory arrest
- 9. Acute post operative pain
- 10. Chronic pain management
- 11. Management of postoperative patient in recovery room

## **INSTRUMENTS IN ANAESTHESIA**

## ANAESTHESIA & SOCIETY

- 1. Medico legal aspect of anaesthesia
- 2. Inform Consent
- 3. Medical Ethics & anaesthesia
- 4. Clinical trials & statistics
- 5. Journal reading
- 6. Article writing.

PAIN CLINIC

## Attested CTC

2 202

Vice-Chancellor Sumandeep Vidyapeeth An Institution Deemed to be University Vill. Piparia, Taluka: Waghodia. Dist. Vadodara-391 760. (Gujarat)

