# 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

At & Post Piparia, Tal: Waghodia 391760 (Gujarat) India. Ph: 02668-245262/64/66, Telefax: 02668-245126, Website: www.sumandeepvidyapeethdu.edu.in



CURRICULUM

# PG Diploma in ANAESTHESIOLOGY

Attested CTC

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# <u>Curriculum</u>

#### Programme outcome PG DIPLOMA

The purpose of PG Diploma education is to create specialists who would provide high quality health care and advance the cause of science through research & training.

# Programme specific outcome PG DIPLOMA

**POS 1.** A post graduate diploma student after undergoing the required training should be able to deal effectively with the needs of the community and should be competent to handle the problems related o his specialty including recent advances.

**POS 2.** He should also acquire skill in teaching of medical/paramedical students.

**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.

**COURSE OUTCOME (CO) :** A post graduate diploma student upon successfully qualifying in the DCP examination should have acquired the following broad theoretical competencies and should be:

- 1. The student should acquire in-depth knowledge including recent advances.
- 2. fair knowledge of basic sciences (Anatomy, Physiology, Biochemistry, Microbiology, Pathology, Pharmacology, Statistics and Physics) as applied to Anaesthesia.
- 3. The student should be fully conversant 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 competence 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.

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#### Clinical Posting for DIPOLOMA ANAESTHESIA

•	1 <sup>st</sup> Year 1 <sup>st</sup> term	Pre-Operative Examination Preparation of Trolly Preparation of Drugs
•	1 <sup>st</sup> Year 2 <sup>nd</sup> term	To give Spinal Anaesthesia & General Anaesthesia O.T. Surgery, Obst & Gyn & Ortho
•	2 <sup>nd</sup> Year	Rotation in specialized Anaesthesia OTs ENT, Eye, Nuro, ICU rotation wise

For D.A

- \_ Period of study is 2 years
- \_ In Examination, There is 3 papers

#### DEPARTMENT OF ANAESTHESIOLOGY

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

#### D.A. Method of Examination

There will be Three Papers.

Theory	Total Marks	300
Paper I	Basic Science	100
Paper II	Pharmacology, Pathophysiology	100
Paper III	Clinical Anaesthesia & Analgesia	100

# **Practical Examinations**

- 1. One long case 50 marks
- 2. One short case 50 marks

## <u>Table Viva</u>

- 1. One Instruments & Trolly 50 marks
- 2. Specimens

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#### 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.

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# DEPARTMENT OF ANAESTHESIOLOGY

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

#### Method of Examination

There will be four papers.

# Theory Total Marks

<u>400</u>

Paper – I	Basic Science		100
Paper – II	Pharmacology, Pathophysiology	100	
Paper – III	Anaesthesia & Analgesia	100	
Paper – IV	Recent Advances in Anaesthesia & Analgesia	100	

## **Practical Examinations**

One long case	100 marks
Short long case	50 two short case
	50 on spot diagnosis
Table Viva	1. Instruments & Trolly 50 marks
	2. Specimens
Table Viva	Viva – Drugs, X-Ray, ECG 50 marks
Total Marks	300

## ANAESTHESIOLOGY

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.

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# Knowledge

Subject	Must Know	Desirable 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 Anaestnesia and general anaestnetic agents		
Authinistration of GA, balanceu andestnesia and IPPV Regional anaosthetica : Infiltration Digital Anklo Plack Perinheral		
nerve		
block		
Spinal Anaesthesia & Enidural 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		
Euthanasia		
Cancer & terminal care		
Consent for surgery & anaesthesia		
Satety measures in operation theatre		
Use of Nerve locator, use of PNS		

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#### **Examination Skills**

	Perform	Perform	Assist	Obser
Skills	independently	under	the	ve
		supervisio	exper	
		n	t	
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 Attractioning Independently, provision of skills laboratories in the Medical Colleges will facilitate this process.

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#### 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.

Anaesi jetic Management of patie 8 with aortic aneurysm.

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- 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

#### Pipariya TA. Waghodia

#### 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. 2021

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#### 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
- 3. 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

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## 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

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