

SUMANDEEPVIDYAPEETN

(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

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CURRICULUM

Master of Surgery (M.S.) GENERAL SURGERY

SYLLABUS AND CURRICULUM IN GENERAL SURGERY

METHOD OF TRAINING IN P.G. M.S.(GENERAL SURGERY.)

Programme outcome M.S.

The purpose of MS 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 M.S.

POS 1. A post graduate specialist having undergone the required training should be able to recognize the health needs of the community, acquire knowledge to handle effectively medical / surgical problems and should be aware of the recent advances pertaining to his specialty.

POS 2. Practice the speciality concerned ethically and in step with the principles of primary health care.

POS 3... The PG student should acquire the basic skills in teaching of medical / para-medical students and is also expected to know the principles of research methodology and self-directed learning for continuous professional development.

POS 4.. Play the assigned role in the implementation of national health programme, effectively and responsibly.

POS 5.. Organize and supervise the chosen/assigned health care services demonstrating adequate managerial skills in the clinic/hospital or the field situation.

POS 6.. Develop skills as a self-directed learner, recognize continuing education needs; select and use appropriate learning resources.

COURSE OUTCOME (CO): At the end of postgraduate training, the PG student should be able to: -

1. diagnose and appropriately manage common surgical ailments in a given situation.
2. provide adequate preoperative, post-operative and follow-up care of surgical patients.
3. identify situations calling for urgent or early surgical intervention and refer at the optimum time to the appropriate centers.
4. counsel and guide patients and relatives regarding need, implications and problems of surgery in the individual patient.
5. provide and coordinate emergency resuscitative measures in acute surgical situations including trauma.
6. organize and conduct relief measures in situations of mass disaster including triage.
7. effectively participate in the National Health Programs especially in the Family Welfare Programs.
8. discharge effectively medico-legal and ethical responsibilities and practice his specialty ethically.
9. must learn to minimize medical errors.
1. must update knowledge in recent advances and new techniques in the management of the patients.
2. must learn to obtain informed consent prior to performance of operative procedure.
3. perform surgical audit on a regular basis and maintain records (manual and/or electronic) for life.
4. participate regularly in departmental academic activities by presenting Seminar, Case discussion, Journal Club and Topic discussion on weekly basis and maintain logbook.
5. demonstrate sufficient understanding of basic sciences related to his specialty.
6. plan and advise measures for the prevention and rehabilitation of patients belonging to his specialty.

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The goal of postgraduate medical education shall be to produce component specialists and/or Medical teachers.

- i. Who 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.
- ii. Who shall have mastered most of the competencies, pertaining to the speciality, that are required to be practiced at the secondary and the tertiary levels of the health care delivery system;
- iii. Who shall be aware of the Contemporary advance and developments in the discipline concerned;
- iv. Who shall have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology; and
- v. Who shall have acquired the basic skills in teaching of the medical and paramedical professionals.
- vi. **Who are well versed in Evidence searching skills, evidence based teaching – learning methods, evidence based research and are competent to practice Evidence Based Surgical Practice.**

GENERAL OBJECTIVES OF POST-GRADUATE TRAINING EXPECTED FROM STUDENTS AT THE END OF POST-GRADUATE TRAINING

At the end of the postgraduate training in the discipline concerned the student shall be able to;

- i. Recognized the importance to the concerned the speciality in the context of the health needs of the community and the national priorities in the health sector.
- ii. Practice the speciality concerned ethically and in step with the principles of primary health care.
- iii. Demonstrate sufficient understanding of the basic sciences relevant to the concerned speciality.
- iv. Identify social, economic, environmental, biological and emotional determinants of health in given case, and take them into account while planning therapeutic, rehabilitative, preventive and primitive measure/strategies.
- v. Diagnose and manage majority of the conditions in the speciality concerned on the basis of clinical assessment, and appropriately selected and conducted investigations.
- vi. Plan and advise measures for the prevention and rehabilitation of patients suffering from disease and disability related to the speciality.
- vii. Demonstrate skills in documentation of individual case details as well as morbidity and mortality rate relevant to the assigned situation.
- viii. Demonstrate empathy and humane approach towards patients and their families and exhibit interpersonal behaviour in accordance with the societal norms and expectations and their families
- ix. Play the assigned role in the implementation of national health programme, effectively and responsibly.
- x. Organize and supervise the chosen/assigned health care services demonstrating adequate managerial skills in the clinic/hospital or the field situation.
- xi. Develop skills as a self-directed learning, recognize continuing education needs; select and use appropriate learning resources.
- xii. Demonstrate competence in basic concepts of research methodology and epidemiology, and be able to critically analyze relevant published research literature.
- xiii. Develop skills in using educational methods and techniques as applicable to the teaching of medical/nursing students, general physician and paramedical health workers.
- xiv. Function as an effective leader of a health team engaged in health care, research or training.



STATEMENT OF THE COMPETENCIESand

Keeping in view the general objectives of postgraduate training, each discipline shall aim at development of specific competencies which shall be defined and spelt out in clear terms. Each department shall produce a statement and bring it to the notice of the trainees in the beginning of the programme so that they can direct their efforts towards the attainment of these competencies.

COMPONENTS OF THE POSTGRADUATE CURRICULUM :

The major components of the Postgraduate curriculum shall be:

- Theoretical knowledge
- Practical and clinical skills
- Writing thesis/ Research articles,
- Attitudes including communications skills.
- Training in research methodology, Medical Ethics & Medical legal aspects.
- Trained in Evidence Based Education System, to be familiar with organised evidence searching skills, and research methodology.
- Every Post graduate student will be exposed to at least one encounter of Role Modelling in which a Consultant after raising a relevant Query will search for its evidence and demonstrate Evidence Searching methodologies, its importance and utility to the students,
- Competent to practice Evidence Based Surgery.

1. Essential Knowledge — GENERAL SURGERY TOPICS include the following:

MUST KNOW:

1/History of surgery

2/Clinical History and examination-detailed systematic history taking, clinical examination of various systems, coming to a provisional working diagnosis.

3/Rationale of diagnostic tests-Ordering diagnostic tests with prioritizing the needs, based on the clinical, hospital and the patient's socioeconomic condition

4/Informed consent/Medico legal issues-Understanding the implications of acts of omission and commission in practice. Issues regarding Consumer Protection Act. -Implications in a medico legal case like accidents, assault etc.

5/Concept of Essential Drugs and Rational use of drugs



/Communication skills with patients - Understanding clarity in communication, compassionate explanations and giving emotional support to at the time of suffering and bereavement.

7/Principles of evidence based medicine

Understanding journal based literature study; the value of text book, reference book articles; value of review articles; original articles and their critical assessment.

Understanding the value of retrospective, prospective, randomized controlled and blinded studies understanding the principles and meanings of various biostatistical tests applied in these studies.

MUST KNOW:

8/Preoperative workup

Concept of fitness for surgery; basic medical workup; workup in special situations like, diabetes, renal failure, cardiac and respiratory illness; risk stratification;

9/Principles of operative surgery like asepsis, antisepsis, and sterilization.

10 Surgical sutures, drains, prosthetic grafts.

11/Postoperative care - concept of recovery room care; airway management; assessment of wakefulness; management of cardiovascular instability in this period; criteria for shifting to a ward; pain management.

12/Basic surgical instrumentation

Principles of surgical instrumentation; Their maintenance and sterilization.

Surgical diathermy, lasers

13/Wound management - wound healing; factors influencing healing; basic surgical techniques; properties of suture materials ; appropriate use of sutures.

14/Assessment of head, chest and abdominal trauma and triage - Assessment of a trauma victim; resuscitation; care at the site; triage; care in the accident department; criteria for immediate surgery; immediate workup and logical referral criteria.



/Fluid and electrolyte balance / Acid - Base metabolism - The body fluid compartments; metabolism of water and electrolytes; factors maintaining homeostasis; causes for and treatment of acidosis and alkalosis.

16/Blood transfusion —

Blood grouping; cross matching; blood component therapy; complications of blood transfusion: blood substitutes; auto transfusions; cell savers.

17/Surgical infections—

Asepsis and antisepsis; microbiological principles; rational use of antibiotics; special infections like synergistic gangrene and diabetic foot infections. Hepatitis and AIDS

18/Principles of laparoscopy & endoscopy

Laparoscopic instrumentation; /Physiology of pneumoperitoneum; /Complications of laparoscopy; /Diagnostic and therapeutic applications./GI endoscopic instrumentation; Diagnostic and therapeutic applications of upper GI, Lower GI and ERCP studies.

19/Principles of oncology –

Cell kinetics; causation of tumors; principles of oncologic surgery, radiotherapy and chemotherapy; paraneoplastic syndromes; cancer pain management; palliative care
Principles of burn management - types of thermal injury; assessment of extent; immediate management; late management; skin cover; rehabilitation

20/Shock and Pulmonary failure - types of shock; diagnosis; resuscitation; pharmacologic support; ARDS and its causes; prevention; ventilator support.

21/Assessment of trauma;

Multiple injured patient! closed abdominal and chest injuries / penetrating injuries; fractures pelvis; urological injuries; vascular injuries; trauma scores

22/Acute abdomen —

Appendicitis/ Peritonitis / Perforated viscous / Intestinal obstruction



23/Hernias

simple and complicated - various types of hernias; their repair; prosthetic materials

24/Critical care

Cardio respiratory failure - management of shock; including monitoring; sepsis scores; pharmacological support.

25/Pain control

Acute and chronic pain: cancer and non-cancer pain; patient controlled analgesia.

26/Breast disease

Benign and malignant disease; diagnosis; investigation; screening for cancer; genetics of breast cancer

27/Thyroid disease

solitary nodule; investigations; multinodular goiter; Hashimoto's disease; cancer

28/The GastroIntestinal System.

Esophageal and gastro-duodenal disorders/Hepato-biliary disease Pancreatic disease/Colo-rectal disease/ Anal disease Soft-tissue neoplasms Endocrine disease.

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29/ THE SPECIALTY TOPICS INCLUDE THE FOLLOWING**GI endoscopy and Laparoscopy:**

Principles of GI endoscopy Complications including infective considerations /Diagnostic and therapeutic GI endoscopy including upper GI, lower GI and pancreato-biliary systems /Physiology of pneumoperitoneum/ Diagnostic laparoscopy /Laparoscopic therapeutic procedures.

DESIRABLE TO KNOW:

1/Principles of surgical audit - Understanding the audit of process and outcome. Methods adopted for the same. Basic statistics.

2/Medical ethics I Social responsibilities of surgeons



3/Use of computers in surgery —

Components of a computer; its use in practice — Principles of word processing, spread sheet functions, database and presentation;

The internet and its uses.

The value of computer based systems in bio medical equipment.

4/Principles of fracture management - fracture healing; principles of immobilization; complications; principles of internal fixation.

Airway obstruction I management - anatomy of the airway; principles of keeping the airway patent; mouth to mouth resuscitation; oropharyngeal airway; end tracheal intubation; cricothyroidotomy; tracheotomy.

5/Anesthesia - stages of anesthesia; pharmacology of inhalational, intravenous and regional anesthetics; muscle relaxants

6/Neurosurgery

Head and neck trauma: acute management and rehabilitation/Concept of brain death/ medico-legal implications /Peripheral nerve injuries /Neoplasms of the brain and meninges /Acute and chronic infections of the brain and meninges / Hydrocephalus Spinal injuries/ Monitoring intracranial tension

7/Urology

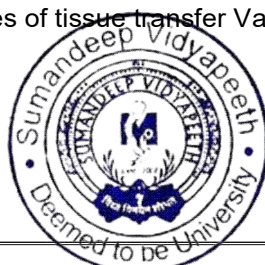
Urologicalinjuries/Urothelialtumours/Chemotherapy/Prostatchypertrophy/Hypospadias /Pyelonephritis / perinephric abscess / GU tuberculosis /Scrotal disease / Endourology /Peritoneal dialysis / CAPD / haemodialysis/Transplantation / harvesting kidney /Urinary diversion/Infertility / Vasectomy /Pyeloplasty hydronephrosis

8/Oncology

Breast, thyroid and GI malignancies /Chemotherapy / Adjuvant therapy Head and neck tumors Imaging CT/ MRI CT guided FNAB/C /Post excision reconstruction
Radiotherapy

9/Plastic Surgery

Burns management/Cleft lip and palate Congenital defects of hand/Details of skin flap Facial injuries /Hand injuries / tendon injury /hypospadias /Nerve repair Pressure sores
Principles of microsurgery Principles of tissue transfer Vascular repair



10/Cardio-thoracic surgery

Flail chest / thoracic trauma /Bronchogenic /carcinoma Lobectomies/Pneumonectomy /Endocarditis prophylaxis /Pulmonary function tests /Control of major haemorrhage Operations on the diaphragm /Coronary artery disease Valvular heart disease /Lobectomies and pneumonectomies/Oesophagealdisease/Operationsonthoracicaorta/Mediastinaltumours /Basics of congenital heart disease

11/Vascular Surgery

Vascular imaging /AV malformations /Exposure of major arteries and veins / vascular anastomosis /Varicose veins Chronic venous insufficiency. /Vascular emergencies - trauma, embolism/Peripheralvascular disease-Atherosclerosis.arteritis/Detailsofvascularprosthesis

12/Paediatric Surgery

Fluid and electrolyte management /Preparation for surgery / postop care /Hernias /Spinal fusion defects Ventral defects /Operative Skills /Undescended testis /Hypertrophic pyloric stenosis /Hirschsprung's disease /Diaphragmatic hernia /Tracheo esophageal fistula Anorectal anomalies Necrotizing enteritis /

13/Gynecological Surgery /Pelvic inflammatory disease /Ectopic pregnancy

Obstetric & Gynecology Ovarian Cysts /Caesarean section /Family planning.

NICE TO KNOW:

1/Health insurance, Health Care financing

2/Undertaking clinical audit.

3/Hospital Administration skills.

All essential Must Know aspects in General Surgery are emphasised To be taught, presented and practiced on Evidence based methodology andskills.

The Seminars are prepared by post graduate students with evidence searching and appraisal formats.All P.G. seminars will have evidence embedded in their presentation and all references related to the subject matter will be incorporated.

Attheendpftheseminarthe presentationwillbeevaluated/assessedbythefacultywitha checklist appraisalformat.

The Journal Club presentations will be carried out on a prescribed Evidence based format with emphasis on critical appraisal.

A designated teacher /facilitator will asses every postgraduate student for each journal club presentation.



2. Essential Skills

Operative Skills

<ul style="list-style-type: none">• Basic graduateskills• Wardprocedures• ICUprocedures• Emergency roomprocedures• Preoperative workupprocedures	<ul style="list-style-type: none">• Postoperative procedures• Minor surgicalprocedures• Major operating roomtechniques• General surgicalprocedures• Specialty surgicalprocedures
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a) Basic graduateskills

The student should have acquired the certain skills during his under graduation and internship.

These skills have to be reinforced at the beginning of the training period. These skills include:

Procedure	Category	Year	Number
Insertion of I.V.lines, nasogastric tubes, urinary catheters, etc.,	PI	I	50
Minor suturing and removal of sutures	PI	I	50
Removal of tubes and drains —	PI	I	50
Routine wound dressings	PI	I	50

- 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.: SBKS/MIRC/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)
- To introduce New chapter / topic 'Intellectual Property Rights (IPR) for all the First year Postgraduate Resident Doctors from academic year 2020-2021 of duration of 4hrs (Board of Studies letter no.: SBKS/DEAN/742/2021, dated 05/06/2021 and Vide Notification of Board of Management Resolution Ref no.: SVDU/R/3051-1/2020-21, dated - 29" July 2021)
 - List of topics :
 1. Introduction-Concept of Intellectual Property, Historical view of Intellectual Property system in India and International Scenario, Evolution of Intellectual Property Laws in India, Legal basis of Intellectual Property Protection, Need for Protecting Intellectual Property, Theories on concept of property - Major IP Laws in India.
 2. Types of IPR: Patents, Copyright, Trademark Industrial Designs, Trade Secrets.
 3. Patents: Concept of Patent, Criteria of Patentability, Inventions NOT patentable, Process of Obtaining a Patent, Duration of Patents, Rights of Patentee, Limitation of rights, Infringement and Enforcement.
 4. Copyrights: Meaning of Copyright, Copyright Vs. Moral rights,

Copyrighteligibility,TermofCopyright,RegistrationofCopyright, Infringement andRemedies

5. Trademark: Meaning of Trademark, Criteria for trademark, Procedure for Trademark Registration, Term of protection, Infringement andRemedies.
6. Industrial Designs: Meaning of Industrial Designs, Rights in Industrial Designs: Nature, Acquisition and duration ofrights.
7. Trade Secrets: Meaning of Trade Secrets, Need to protectTrade secrets, Criteria of Protection, Procedure for registration, Infringement.
8. Commercialization of IPR: Traditional IP and Evolving IP, Assignment, Licensing, Cross License, Patent Pool, Negotiations, Defensive Publications, TechnicalDisclosures, Patent Pooling, Patent Trolling, Brand Management, Brand and Pricing Strategies.

- With reference to the Notification vide no. MC!-18(1)12020-Med.1121415, dated 16.09.2020, related to 'Postgraduate Medical Education (Amendment) Regulations 2020'; all the postgraduate students pursuing MD / MS in broad specialties in Sumandeep Vidyapeeth Deemed to be University, as a part of course curriculum, shall undergo a compulsory Residential rotational posting in the 3rd or 4th or 5th semester of the Postgraduate programme, for a duration of three months, in the District Hospitals / District Health System, is confirmed and approved for execution.
- (Board of Studies letter no.:SBKS/DEAN/1576/2020,dated 0/10/2021 and Vide Notification of Board of Management Resolution : Ref no. SVDU/R/1271-1/2020-21, dated - 30th December 2020)

To consider and approve the tmpte Students admitted in the 2021-22 batch as per the NMC notifications vide letter F.No. NMC23(1)(25)12021/PG/053909 dated 2211212022 and Clarification issued by NMC vide tetter F. N o. N M C/23 (1) (25) 12021 I Med. I 00 1 866 d ated 1 9 I Ot t 2023 Resolution ' with reference to the NMC notifications vide letter F.No. NMC-23(1)(25)t2o21tpcto53g0g dated 2211212022 and Clarification issued by NMC vide letter F.No.NMC/23(1)(25)t2021/Med./001g66 dated 1910112023. the District Residency Program (DRP) shall be implemented for the students admitted in 2021-22 batch onwards. The said notification and clarification from NMC were considered and passed unanimously.

(BOS-Ref :SBKSMIRC/Dean/Outward No.1158/2022-23, Date of Academic council : 11/02/2023)

The communication from National Medical Commission vide no. NMC-23 (1) (25) / 2021 / PG / 053909, dated 22.12.2022 regarding Implementation of District Residency Programme, and National Medical Commission vide no. NMC-23(1)(25)/2021/Med./001866, dated 19.01.2023 regarding Clarification on implementation of District Residency Programme, is adopted for execution.

(BOM-Ref. No.: SVDU/R/2431-A/2022-23, Date of Academic council : 29/05/2023)

The resolution regarding introduction of Value Added Course on "Role of Ultrasonography in Emergency Care" for the Postgraduate students of MD Anesthesiology,-MD General [i"dijn", MD Respiratory Medicine and MS General surgery programs has been considered "no p"JS"J. ' Theoretical Knowledge and Practical Skills contents related to Value Added Gourse on "Role of Ultrasonography in Emergency Care" will be delivered to the PG Students of above mentioned subjects in the form of two days (16 Hours) workshop training by Emergency Medicine department during their Second year of postgraduation. o At the end of course,

Certificates will be awarded to all those students, who have completed the course successfully. The Public Notice issued by National Medical Commission vide no. NMC-23(1)(10A)/2021-Med./PG, dated 18.01.2023 regarding Relaxation for Postgraduate students (Batch 2020-21) in poster presentation to read one paper at a National / State conference and to present one research paper, which should be published / accepted for publication / sent for publication, during the Postgraduate studies; is considered and adopted for execution. The Postgraduate students of batch 2020-21 are exempted from one out of two requirements (poster presentation and to read a paper at a National / State conference), but the submission of the research paper is mandatory. 4. The proposal of introduction of Value Added Certificate Course titled - Role of Ultrasonography in Emergency Care for the Second year Postgraduate students of Anesthesiology, General Medicine, Respiratory Medicine and General Surgery of 16 hours duration, is considered and ratified for implementation from the Academic year 2023-24.

(BOS-Ref :SBKSMIRC/Dean/Outward No.1158/2022-23, Date of Academic council : 11/02/2023)

(BOM-Ref. No.: SVDU/R/2431-A/2022-23, Date of Academic council : 29/05/2023)

b) Ward Procedures

Ward work forms an important part of the training of the surgeon. In addition to the examination of the patient with proper recording of findings, diligent practice of the following is recommended.

Procedure	Category	Year	Number
Abdominal Paracentesis including Diagnostic Peritoneal Lavage	PI	I	5
Ability to teach UG's and Interns	PI	I+II+III	
Blood sampling – venous and arterial	PI	I	
Bone Marrow Aspiration	PI	I	2
Burns dressing	PI	I+II	50
Communication skills with patients, relatives, colleagues and paramedical staff	PI	I	
Ordering of the requisite laboratory and Radiological investigations and Interpretation of the reports in light of the clinical findings	PI	I+II	
Performing common ward procedures	PI	I +II+III	
Skills for Per – rectal examination and Proctoscopy	PI	I+II	NA
Thoracocentesis	PI	II	5
Universal precautions against communicable diseases	PI	I+II+III	NA
Venesection	PI	I+II+III	5

NA : Not Applicable

c) ICU Procedures

Procedure	Category	Year	Number
Insertion of Arterial lines	PI	II	10
Insertion of Central venous lines - -	PI	I	10
Insertion of Endotracheal tubes	PI	II	10
Insertion of Peritoneal Dial Catheters	A/PA	I, II, III	5
Intercostal Drainage	PI	II	5
Suprapubic Puncture/ Stab Cystostomy	PI	II	5
Tracheotomy	PI	I+ II	2+2
Working Knowledge of ventilators	PI	I+ II	
and various Monitors	PI	I+ II	
Interpretation of Arterial blood gases Correction of Electrolyte disturbances	PI	I+ II	
Prescribing Parenteral & enter nutrition	PI	I+ II	

PI = Performed Independently (Unsupervised)

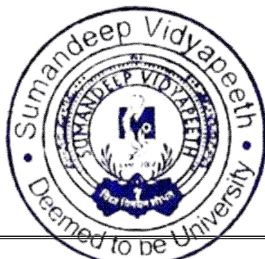
A : Assisted

O : Observed

PA: Performed under supervision / Assistance

d) Emergency Room Procedures

Procedure	Category	Year	Number
Application of Splints for Fractures	PI	I+II	
Arterial and Venous Lines	PI	I+II	
Assessment and initial management of Poly trauma	PI	I+II	
Cardiopulmonary Resuscitation	PI	I+II	
Management of Airway Obstruction	PI	I+II	
Management of Shock and Cardiac / Respiratory failure	PI	I+II	
Recognition and Initial management of Surgical Emergencies	PI	I+II+III	
Suturing Techniques	PI	I+II	



e) Pre-operative Workup

Procedure	Category	Year	Number
Ability for adequate pre-operative preparation in special situations like Diabetes, renal failure, cardiac and Respiratory failure etc. and risk Stratification	PI	I	NA
Communication skills with special reference to obtaining Informed Consent	PI	I	NA
Proper pre-operative assessment and preparation of patients including DVT prophylaxis. Blood transfusion and Antibiotics	PI	I	NA

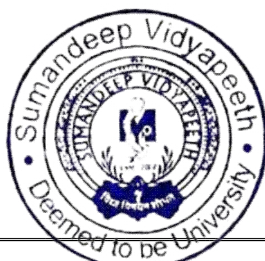
g) Minor O.T. procedures

Procedure	Category	Year	Number
Circumcision under local Anesthesia	PI	I	5
Drainage of Abscesses	PI	I	25
FNAC	PI	I	15
Major dressings	PI	I	20
Minor Anorectal Procedures (Hemorrhoids -Banding, Cryo therapy, suturing etc.; Anal dilatation and Fissures),	PI	I+II	10
Lymph node, ulcer, swellings etc. -Biopsies	PI	I+II	20
Reduction and plaster application of simple fractures and dislocations	PI	II	10
Removal of simple subcutaneous swellings	PI	I+II	10
Sigmoidoscopy and Upper G.I. endoscopy (preferable in an endoscopy room)	PA/A/O	II	10
Suturing Techniques	PI	I+II	20
Vasectomy	PI/PA	I+II	5
Wound debridement	PI	I+II	10

(i) General Surgical Operative Procedures

Procedure	Category	Year	Number
Appendicectomy	PA	I	10
Appendicectomy_____	PI	III	5+5
Cholecystectomy	PI	III	1-3
Closure of Colostomy	PA	III	2
Closure of peptic ulcer/under-running bleeding ulcer/ vagotomy	PI	III	3
Colostomy	PA	III	2
Cysts and sinuses of the neck	PA	III	2
Diagnostic laparoscopy	PA	III	3
Drainage of breast abscess / Excision breast lump	PI	I+II	10
Groin Hernia repair	PI	II/III	5+5
Gynaecomastia	PA	I	2
Haemorrhoidectomy / Fissurectomy / simple fistulectomy	See Minor OT Procedures		
Hemicolectomy	PA	III	4
Herniotomy / Orchidopexy in children	PA	III	5
Laparotomy for abdominal trauma / splenectomy	PI	III	5
Laparotomy for intestinal obstruction / Bowel resections / bowel anastomosis	PI	III	10
Management of complex wounds	PI	IIII	10
Mastectomy	PA/A	III	2
Opening and closing the abdomen	PI	I/II=III	15+15
Opening and closing the chest	PI	I/III	1
Parotidectomy	A	III	2
Release of bands and simple adhesive obstruction	PI	II	5
Thyroid lobectomy	PA	III	3-5
UGI endoscopy /Flexible sigmoidoscopy	A/O	II/III	10
Ventilation	PI	II	5
Wide excision of breast tumours /mastectomy	PA	III	3
Jejunostomy	PA	III	3-5

[Signature]
Vice-Chancellor



F) Post – operative Care

Procedure	Category	Year	Number
Airway management	PI	I-II	NA
Basic Physiotherapy	PI	I-II	NA
Management of epidural analgesia	PI	I-II	NA
Management of Fistulae	PI	I-II	NA
Management of postoperative hypotension	PI	I-II	NA
Management of postoperative hypertension	PI	I-II	NA
Postoperative pain control	PI	I-II	NA
Skills for Nutritional rehabilitation of patients	PI	I-II	NA
Skills for proper Fluid & Antibiotic	PI	I-II	NA
Stoma care	PI	I-II	NA

(h) Major Operating room techniques

Procedure	Category	Year	Number
Instrument arrangement and trolley layout	PA	I	NA
Skills in Sterilization techniques, O.T.Layout and Asepsis	O	I	NA
Skin preparation — painting and draping	PT	I	NA
Technique of scrubbing and gowning	P1	I	NA

j) Specialty Procedures

There will be repetition of the procedures listed under this category and those listed under General surgical procedures. The recommended total number is the higher number show against the same/similar procedure.

Laparoscopy And GI Endoscopy

Procedure	Category	Year	Number
Diagnostic and therapeutic Upper and Lower GI endoscopy	PA	III	30
Diagnostics laparoscopy	PA	III	5
Diagnostic Upper GI endoscopy	PA	III	10
Laparoscopic Cholecystectomy	A	III	3-5

Attested CTC

All the above will be designed as per Evidence based guidelines and protocols.

[Signature]

Vice-Chancellor

Sumandeep Vidyapeeth

An Institution Deemed to be University

VIII, Bikaner, Jalukar Waghodia,



he department will continuously endeavour to design its own Evidence based Protocol as per the local requirement.

Urology

Procedure	Category	Year	Number
Carcinoma penis	PA/A	II-III	3-5
Catheterization	PI	I	
Circumcision	PI	I	10
Diagnostic cystoscopy	PA/A	II	3
Inguinal block dissection Block Dissection	PA	II	1
Meatotomy	PI	II	3
Nephrectomy – partial / total	A/O	II	3
Nephrolithotmy	A/O	III	3
Orchidectomy	PA/A	II	3
Orchidopexy	A	II	3
Retroperitoneal lymph node dissection	O	II/III	1
Supra pubic cystostomy	PI	II	3
Total amputation of penis	A	II	1
TUR/Open prostatectomy	A	II+III	5
Ureterolithotomy	A	II+III	3
Urethral / Urogenital injuries	A	III	3
Urethral dilatation	PI	III	5
Varicocele	PA/A	III	3
Vasectomy	PI	I/II/III	10

Oncology

Functional neck node dissection	A-PI	II-III	3
Gastrectomy / Bowel resection	A-PI	II-III	3
Imprint cytology	PA	II	3
Metastatic workup	PA	II	5
Stoma care	PI	II	5
Thyroid surgery.	A	II-III	5
U/s guided biopsy	A/O	II	3

Plastic Surgery

Procedure	Category	Year	Number
Burn resuscitation	PI	I	5
Lip surgery	A	II	5
Local blocks in anaesthesia	PI	I	10
Minor hand injuries (specify)	PI	II	5
Nerve repair. :	A/PA	II-III	2
Post excision reconstruction	A/PA	II-III	2
Reimplantation of digits	O	II	1
Skin flap surgery	O/A	II-III	2
Split skin graft	PI	II	3
Stitch craft	PI	I	NA
Tendon repair	PA	II	2
Wound debridement	PI	I/II	10-10

Neurosurgery

Procedure	Category	Year	Number
Craniotomy	A/PA	II	2-4
Management of paraplegia	A	II	2
Peripheral nerve repair	A	II	2
Prevention of nerve injury – specific operations	A	II	2
Suturing complex scalp wounds	PI	II	2
Trephining	PA	II	2

Pediatric Surgery

Procedure	Category	Year	Number
Anorectal anomalies	A	II	2
Circumcision / meatoplasty	PA	II	10
Herniotomy	PA	II/III	2
Intercostal aspiration	PI	II	2
Laparotomy for peritonitis	PA	II	5
Lymph node biopsy	PI	II/III	5
Non operative treatment of volvulus	A/O	II	2
Orchidopexy	PA/A	II	5
Ostomies	PA	II	2
Paediatric emergencies	A/PA	II	10
pyloromyotomy	PA/A	II/III	5

Cardiothoracic surgery

Procedure	Category	Year	Number
Canulation of artery and vein	A	II	2
Chest injuries	PA	II/III	5
Empyema drainage / decortication	PI	II	2
Endotracheal intubation	PI	II	10
Intercostals drainage	PI	II+III	5
ITU duties	PI	II/III	NA
Lobectomies and pneumonectomies	O	II	2
Oesophageal surgery	O	/III	2
Opening and closing the chest	PA	II	2
Operations on the root of the neck	A	II/III	2
Pericardiectomy	O	II	2
Removal of FBs	A	III/III	2
Remove pulse generator (pacing)	PA/A	II	1
Rib resection	PA	II/III	2
Tracheostomy	PI	III	5
Undertake sternotomies	PA	II/III	2
Vein and arterial harvesting	PA/A	II/III	2
Ventilator management	PA	I	10

ascular Surgery

Procedure	Category	Year	Number
AV shunts for vascular access	PA	II/III	2
Bypass graft - prosthetic	A	II/III	2
Conservative amputations	PI	II/III	5
Embolectomy	PA	II/III	2
Post-traumatic aneurysms	A	II/III	2
Sympathectomy	PA	II/III	2
Use of heparin	PI	II/III	10
Varicose vein surgery	PI	II/III	2
Vascular suturing	PA	II/III	2
Vein graft	A/O	II/III	2
Vein patch repair	A/O	II/III	2

All the above will be designed as per Evidence based guidelines and protocols.

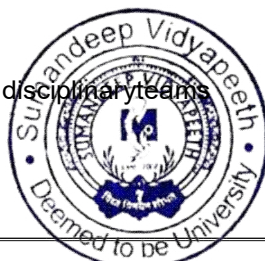
The Superspeciality departments will continuously endeavour to design its own Evidence based Protocol as per the local requirement.

3. Teaching and Learning activities—

a. Didacticlectures b. Journalclub c. Seminar d. CASEPRESENTATION e. Ward Rounds/GrandRounds f. Clinico-pathology, Clinico-Radiology conferences.	g. Inter DepartmentalAcademic h. Teaching ofUndergraduates i. CME/Conferences j. Dissertation,research Activities. k.Death reviewmeetings.
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a. Didactic lectures: Should be as minimum aspossible.

- Biostatistics
- Use oflibrary
- ResearchMethods
- Medical Code ofconduct
- National HealthPrograms
- Communicationsskills
- Integrated Lectures by multidisciplinaryteams



- **Essential Knowledge**

b. Journal Club:

c. Seminar :

d. Wardrounds:

- Service Rounds : The post Graduates must take care of the patients daily and work up the patients for presentation to the seniors
- Teaching rounds: Every Unit must have Grand Rounds for teaching

e. Clinico-pathology/Radiology: At least once a month for each post Graduate.

f. Interdepartmental meetings : At least once a week

g. Teaching Skills: Post Graduates must undertake undergraduate teaching by taking bedside clinics, demonstration, tutorial, lectures etc

h. RESEARCH : Post Graduate must fulfill MCI criteria of:

1 Poster presentation, 1 paper presentation at a state level conference and to have 1 paper publication, either published or accepted or sent for publication.

i. Conferences: Must be encouraged to attend conferences, C.M.E'S

j. Dissertation: This is essential as per the University PG guidelines.