

**Bharati Vidyapeeth (Deemed to be) University
Medical College
Department of Surgery**

Date: 20th May 2023

Syllabus for PhD in Surgery

1. General surgery

- Wound healing including recent advances
- surgical infections, causes of infections, Antibiotic therapy rationale including antibiotic prophylaxis, misuse, and abuse. Hospital acquired nosocomial infection causes and prevention including MRSA etc.
- Chronic specific infections TB, Filariasis
- Shock (septicaemic, hypovolaemic, Neurogenic, anaphylactic), etiology, pathophysiology and management . Blood and blood components, transfusion indication, contraindication, mismatch and prevention and management of complications of massive blood transfusion
- Surgical aspects of diabetes mellitus particularly management of diabetic foot and gangrene, preoperative control of diabetes, consequences of hypo- and hyperglycaemia in a postoperative setting
- Trauma. Mechanisms and management of missile, blast and gunshot injuries
- Organ transplantation: Basic principles including cadaver donation, related Human Organ Transplant Acts, ethical and medicolegal aspects.
- Nutritional support to surgical patients
- Acute arterial occlusion, diagnosis and initiate management. Investigations in case of arterial obstruction, amputation, vascular injuries: basic principles and management
- Venous disorders: Varicose veins
- Lymphatic: Diagnosis and principles of management of lymphangitis and lymphedema. Surgical management of Filariasis
- Burns: causes, prevention and management
- Undergo advanced trauma and cardiac support course (certified) before appearing

2. Head and Neck surgery

- Oral malignancies and Salivary gland neoplasms
- Thyroid and Parathyroid pathologies
- Thoracic outlet syndrome



- Head injury

3. Thorax

- Cancer breast diagnosis, staging and multimodality management (common neoadjuvant and adjuvant and palliative chemotherapy protocols and indications of radiation and hormonal therapy, pathology and interpretation of Tumour Markers, breast cancer support groups and counselling)
- Thoracic trauma

4. Gastrointestinal System

- Oesophagus – T.O.Fistula , GERD , Carcinoma oesophagus
- Stomach – Carcinoma stomach
- Intestinal obstruction
- Carcinoma colon , rectum and anal canal
- Inflammatory bowel diseases
- Abdominal trauma

5. Hepatobiliary and pancreatic diseases

- SOL in liver
- Obstructive jaundice
- Acute pancreatitis both due to gallstones and alcohol
 - Chronic pancreatitis
 - Carcinoma pancreas

6. Colon rectum and anal canal

- Anorectal malformations
- Carcinoma colon, Rectum and anal canal

7. Urogenital System

- Recent advances in management of stone disease
- BPH
- Renal malignancy
- Carcinoma testes
- Carcinoma Penis

8. Miscellaneous and Recent advances

- Open and Laparoscopic repair of incisional/primary ventral hernia
- Abdominal Wall Reconstruction
- Management of soft tissue sarcoma
 - Prosthetic materials used in surgical practice
 - Telemedicine, teleproctoring and e-learning

9. Day care surgery

10. Laser in surgery


11. Minimal invasive surgery

12. Transplant in surgery

13. Robotics in surgery

14. Artificial intelligence in surgery

15. Medicoligal aspect in surgery



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