

Cardiovascular & Thoracic Surgery

MCH CURRICULUM

A) Learning outcomes

At the end of the training period the MCh CVTS candidate should be able to:

1. Demonstrate competency in operative cardiovascular & thoracic surgery
2. Demonstrate commitment to KGMU values- Sincerity, Service, Sacrifice
3. Demonstrate personal commitment to high quality patient care.
4. Demonstrate a commitment to teaching and research for all genres of healthcare providers
5. Demonstrate ability to communicate at all levels
6. Demonstrate teamwork and interdepartmental collaboration
7. Ability to triage finite health care resources appropriately
8. Effectively and clearly document cases and their clinical progression
9. Perform full clinical assessment of a patient prior to surgical treatment and be able to understand, interpret and correlate outcomes of laboratory, radiological and cardiological investigations and diagnosis.
10. Should show keen interest in implementation of National Health Programmes
11. Involved in continuous self-improvement through publications, conferences, etc
12. Demonstrates ability to apply research methods, evidence-based medicine and statistical methods in day-to-day life.
13. Develop a sound understanding of information technology including its applications in clinical systems and for risk management or as required for the department/institution.
14. Manage professional and personal life in a balanced manner
15. Recognize one's own limits and seek appropriate help from relevant consultants

B) Syllabus

1. Thorax: Anatomy and radiological assessment for thoracic diseases; preoperative evaluation and peri- operative care of the thoracic surgical patient
2. Use of endoscopy for diagnosis & treatment of thoracic diseases
3. Thoracic trauma: evaluation & management
4. Trachea and its common diseases
5. Benign lung diseases
6. Lung tumours- primary & secondary
7. Tumours of the chest wall
8. Congenital chest wall deformities and tumours
9. Sternal disorders and deep sternal wound infection
10. Thoracic outlet syndrome and surgical management
11. Diseases of the pleura- benign and malignant
12. Diseases of the diaphragm and their surgical management
13. Benign and malignant diseases of the oesophagus
14. Mediastinum and mediastinoscopy, mediastinal masses and their management
15. Surgical anatomy & physiology of the heart and cardiac mechanics
16. Transfusion medicine and cardiac surgery including blood conservation
17. Coronary angiography and its use in assessment of cardiac diseases
18. Imaging in cardiovascular and thoracic surgery for diagnosis of diseases
19. Coronary artery disease: all aspects of interventional, medical and surgical management
20. Concepts of cardiac anaesthesia
21. Cardiac ICU and critical care
22. The science of Cardiopulmonary bypass & myocardial protection
23. Neurological deficits and stroke in cardiac surgery patients
24. Surgery of the aortic root and aorta for various diseases arch vessels
25. Cardiac injuries and their management
26. Natural History of valvular heart diseases in context to Indian scenario and medical, interventional and surgical management of the same
27. Management of native & prosthetic valve endocarditis
28. Cardiac arrhythmias
29. Heart failure. Use of ventricular assist devices, artificial heart and heart lung transplantation
30. Cardiac neoplasms
31. Cardiac embryology, development and genetics
32. Congenital cardiac lesions: surgical approaches and cardiopulmonary bypass for paediatric cardiac surgical patients
33. Paediatric cardiac and cardiac ICU care
34. Adult congenital cardiac surgery
35. Hybrid surgery
36. Disorders of the arteries and veins: congenital and acquired and their management
37. Vascular trauma and management
38. Endovascular therapy
39. Recent advances in cardiac surgery

40. Pacemaker and arrhythmia surgery in congenital heart disease
41. Social and preventive aspects of cardiac surgery

C) Teaching learning methods

1. Lectures – showing and telling
2. Case based discussions
3. Scenario based discussions
4. Problem based interaction
5. Interactive two-way lectures
6. Case presentations
7. Bedside teaching
8. Direct supervision in OT
9. Attendance in conferences/workshops

D) Interdisciplinary training

Posting of MCh residents periodically to Cardiology Department for exposure to Echocardiography, Pacemaker , ECG and Coronary Angiography procedures.

E) Assessment methods

As per MCI/NMC norms