

Thoracic Surgery Levels of Care

PROEDURE/SKILL	LEVEL OF CARE	SUPERVISION	MILESTONE/COMPETENCY
perform and document H&P	PGY 6-7	Oversight	PC, MK, P, SBP, PBL, C
obtain informed consent	PGY 6-7	Oversight	PC, MK, P, SBP, PBL, C
order, interpret labs	PGY 6-7	Oversight	PC, MK
order, interpret radiologic studies	PGY 6-7	Oversight	PC, MK
perform and document postop care	PGY 6-7	Oversight	PC, MK, P, SBP, PBL, C
dictate discharge, Op note	PGY 6-7	Oversight	PC, MK, P, SBP, PBL, C
discuss medical condition, prognosis with patient and family	PGY 6-7	Oversight	PC, MK, P, C
Cardiac Surgery General Management I	PGY 6-7	Direct	PC, MK
Basic level concepts: Cardiac Anatomy, Cardiac Physiology	PGY 6-7	Direct	PC, MK
Advanced level concepts: Advanced Anatomy, Advanced Physiology	PGY 6-7	Direct	PC, MK
CV02: Cardiac Surgery General Management II	PGY 6-7	Direct	PC, MK
Basic level concepts: Cardiac Pharmacology, Microbiology	PGY 6-7	Direct	PC, MK
Advanced level concepts: Pathology	PGY 6-7	Direct	PC, MK
CV03: Cardiac Surgery General Management III	PGY 6-7	Direct	PC, MK
Basic level concepts: Diagnosis, evaluation and treatment, Risk assessment, Cardiopulmonary resuscitation	PGY 6-7	Direct	PC, MK
Advanced level concepts: Risk assessment guidelines, Cardiac Rehabilitation	PGY 6-7	Direct	PC, MK
CV04: Cardiac Surgery General Management IV	PGY 6-7	Direct	PC, MK
Basic level concepts: Diagnosis, evaluation and treatment, Risk assessment, Cardiopulmonary resuscitation	PGY 6-7	Direct	PC, MK
Advanced level concepts: Risk assessment guidelines, Cardiac Rehabilitation	PGY 6-7	Direct	PC, MK
CV05: Cardiopulmonary Bypass/ Myocardial Protection/ Circulatory Support I	PGY 6-7	Direct	PC, MK
Basic level concepts: Introduction to CPB	PGY 6-7	Direct	PC, MK
Advanced level concepts: Pathophysiology of CPB	PGY 6-7	Direct	PC, MK
CV06: Cardiopulmonary Bypass/ Myocardial Protection/ Circulatory Support II	PGY 6-7	Direct	PC, MK
Basic level concepts: Myocardial Protection, IABP	PGY 6-7	Direct	PC, MK
Advanced level concepts: Management of Coagulopathy / HIT	PGY 6-7	Direct	PC, MK
CV07: Ischemic Heart Disease I	PGY 6-7	Direct	PC, MK
Basic level concepts: Diagnosis, investigation of IHD, Cardiac Imaging	PGY 6-7	Direct	PC, MK

Thoracic Surgery Levels of Care

Advanced level concepts: Management guidelines	PGY 6-7	Direct	PC, MK
CV08: Ischemic Heart Disease II	PGY 6-7	Direct	PC, MK
Basic level concepts: Role of PCI, hybrid approaches and non-operative treatment	PGY 6-7	Direct	PC, MK
Advanced level concepts: Combined coronary / carotid disease	PGY 6-7	Direct	PC, MK
CV09: Ischemic Heart Disease III	PGY 6-7	Direct	PC, MK
Basic level concepts: Surgical revascularization on / off pump Approaches	PGY 6-7	Direct	PC, MK
Advanced level concepts: Role of TMR, Repeat revascularization	PGY 6-7	Direct	PC, MK
CV10: Ischemic Heart Disease IV	PGY 6-7	Direct	PC, MK
Basic level concepts: Complications of IHD / MI Presentation / Diagnosis / Treatment	PGY 6-7	Direct	PC, MK
Advanced level concepts: Treatment options for complications of IHD / MI	PGY 6-7	Direct	PC, MK
CV11: Heart Valve Disease I	PGY 6-7	Direct	PC, MK
Basic level concepts: Aortic valve anatomy and physiology, AS pathophysiology, Diagnosis/assessment, Indications for operative management (AS)	PGY 6-7	Direct	PC, MK
Advanced level concepts: Results of Surgery (AS), Guidelines (AS), valve selection	PGY 6-7	Direct	PC, MK
CV12: Heart Valve Disease II	PGY 6-7	Direct	PC, MK
Basic level concepts: AI pathophysiology, Diagnosis/assessment, Indications for operative management (AI)	PGY 6-7	Direct	PC, MK
Advanced level concepts: Results of Surgery (AI), Guidelines	PGY 6-7	Direct	PC, MK
CV13a: Heart Valve Disease III	PGY 6-7	Direct	PC, MK
Basic level concepts: Mitral valve anatomy physiology, MR pathophysiology/natural history, Diagnosis and assessment, Indications for operative management (MR)	PGY 6-7	Direct	PC, MK
Advanced level concepts: Guidelines (MR), Treatment of Degenerative MR, Results of Surgery (MR), Percutaneous Treatment	PGY 6-7	Direct	PC, MK
CV13b: Heart Valve Disease III	PGY 6-7	Direct	PC, MK
Basic level concepts: Ischemic MR	PGY 6-7	Direct	PC, MK

Thoracic Surgery Levels of Care

Advanced level concepts: Operative Treatment Ischemic MR, Results of Surgery Ischemic MR	PGY 6-7	Direct	PC, MK
Thoracic Surgical Curriculum- CARDIAC	PGY 6-7	Direct	PC, MK
CV14: Heart Valve Disease IV	PGY 6-7	Direct	PC, MK
Basic level concepts: MS pathophysiology/natural history, Diagnosis and assessment, Indications for operative management (MS)	PGY 6-7	Direct	PC, MK
Advanced level concepts: Results of Surgery (MS), Guidelines (MS)	PGY 6-7	Direct	PC, MK
CV15: Heart Valve Disease V	PGY 6-7	Direct	PC, MK
Basic level concepts: Tricuspid valve anatomy and physiology, Pulmonary valve, Diagnosis and assessment, Indications for operative management (TV)	PGY 6-7	Direct	PC, MK
Advanced level concepts: Results of Surgery (TV), Guidelines (TV)	PGY 6-7	Direct	PC, MK
CV16: Heart Valve Disease VI	PGY 6-7	Direct	PC, MK
Basic level concepts: Endocarditis general indications, Antibiotics/prophylaxis	PGY 6-7	Direct	PC, MK
Advanced level concepts: Operative timing, Prosthetic Valve Endocarditis, Endocarditis Guidelines	PGY 6-7	Direct	PC, MK
CV17: Heart Valve Disease VII	PGY 6-7	Direct	PC, MK
Basic level concepts: TAVR	PGY 6-7	Direct	PC, MK
Advanced level concepts: TAVR Guidelines	PGY 6-7	Direct	PC, MK
CV18: Great Vessel Disease I	PGY 6-7	Direct	PC, MK
Basic level concepts: General overview, Vascular pathology, Natural history	PGY 6-7	Direct	PC, MK
Advanced level concepts: Imaging interpretation	PGY 6-7	Direct	PC, MK
CV19: Great Vessel Disease II	PGY 6-7	Direct	PC, MK
Basic level concepts: Management of Ascending Aneurysms Arch Aneurysms, Indications for surgery/risk assessment	PGY 6-7	Direct	PC, MK
Advanced level concepts: Aortic Dissection, Operative Technique, Neurologic Injury	PGY 6-7	Direct	PC, MK
CV20: Great Vessel Disease III	PGY 6-7	Direct	PC, MK
Basic level concepts: Management of Descending and Thoracoabdominal Aneurysms	PGY 6-7	Direct	PC, MK

Thoracic Surgery Levels of Care

Advanced level concepts: Endovascular Treatment	PGY 6-7	Direct	PC, MK
CV21: Great Vessel Disease IV	PGY 6-7	Direct	PC, MK
Basic level concepts: Acute Thromboembolic disease	PGY 6-7	Direct	PC, MK
Advanced level concepts: Chronic Thromboembolic Disease Imaging in Thromboembolic Disease	PGY 6-7	Direct	PC, MK
CV22: Cardiac Conduction System Disorders I	PGY 6-7	Direct	PC, MK
Basic level concepts: Anatomy of conduction pathways, Atrial conduction disorders, Ventricular conduction disorders	PGY 6-7	Direct	PC, MK
Advanced level concepts: Surgical treatment of atrial fibrillation	PGY 6-7	Direct	PC, MK
CV23: Cardiac Conduction System Disorders II	PGY 6-7	Direct	PC, MK
Basic level concepts: Pacemakers and AICD	PGY 6-7	Direct	PC, MK
Advanced level concepts: Complications of pacemakers and AICD	PGY 6-7	Direct	PC, MK
CV24: Diseases of the Pericardium and Myocardium I	PGY 6-7	Direct	PC, MK
Basic level concepts: Pathophysiology (tamponade, constrictive, restrictive), Diagnosis and imaging	PGY 6-7	Direct	PC, MK
Advanced level concepts: Pericardial disease patient management	PGY 6-7	Direct	PC, MK
CV25: Diseases of the Pericardium and Myocardium II	PGY 6-7	Direct	PC, MK
Basic level concepts: cardiac tumor knowledge	PGY 6-7	Direct	PC, MK
Advanced level concepts: cardiac tumor management/technical skills	PGY 6-7	Direct	PC, MK
CV26: Diseases of the Pericardium and Myocardium III	PGY 6-7	Direct	PC, MK
Basic level concepts: HOCM knowledge	PGY 6-7	Direct	PC, MK
Advanced level concepts: HOCM knowledge	PGY 6-7	Direct	PC, MK
CV27: Heart Failure and Cardiac Transplant I	PGY 6-7	Direct	PC, MK
Basic level concepts: Diagnosis and management of heart failure Non transplant surgical options	PGY 6-7	Direct	PC, MK
Advanced level concepts: Guidelines, Operative Techniques	PGY 6-7	Direct	PC, MK
CV28: Heart Failure and Cardiac Transplant II	PGY 6-7	Direct	PC, MK
Basic level concepts: General information (devices)	PGY 6-7	Direct	PC, MK
Advanced level concepts: General Information (outcomes)	PGY 6-7	Direct	PC, MK
CV29: Heart Failure and Cardiac Transplant III	PGY 6-7	Direct	PC, MK

Thoracic Surgery Levels of Care

Basic level concepts: LVAD knowledge Adult ECMO	PGY 6-7	Direct	PC, MK
Advanced level concepts: LVAD management/clinical skills	PGY 6-7	Direct	PC, MK
CV30: Heart Failure and Cardiac Transplant IV	PGY 6-7	Direct	PC, MK
Basic level concepts: Transplant knowledge	PGY 6-7	Direct	PC, MK
Advanced level concepts: Transplant knowledge	PGY 6-7	Direct	PC, MK
CV31: Cardiothoracic Trauma I	PGY 6-7	Direct	PC, MK
Basic level concepts: general management of Cardiothoracic Trauma, aortic and cardiac injury knowledge	PGY 6-7	Direct	PC, MK
Advanced level concepts: aortic injury patient management, cardiac injury patient management	PGY 6-7	Direct	PC, MK
CV32: Cardiothoracic Trauma II	PGY 6-7	Direct	PC, MK
Basic level concepts: chest wall and pulmonary injury knowledge, diaphragm injury knowledge	PGY 6-7	Direct	PC, MK
Advanced level concepts: chest wall and pulmonary injury management, diaphragm injury management	PGY 6-7	Direct	PC, MK
CV33: Cardiothoracic Trauma III	PGY 6-7	Direct	PC, MK
Basic level concepts: Esophageal injury knowledge, Tracheobronchial injury knowledge	PGY 6-7	Direct	PC, MK
Advanced level concepts: Esophageal injury management, Tracheobronchial injury management	PGY 6-7	Direct	PC, MK
TS36: Management of Esophageal Neoplasia I	PGY 6-7	Direct	PC, MK
TS37: Management of Esophageal Neoplasia II	PGY 6-7	Direct	PC, MK
TS38: Management of Esophageal Neoplasia III	PGY 6-7	Direct	PC, MK
TS39: Management of Esophageal Neoplasia IV	PGY 6-7	Direct	PC, MK
TS40: Management of Esophageal Neoplasia V	PGY 6-7	Direct	PC, MK
TS41: Lung transplant I	PGY 6-7	Direct	PC, MK
TS42: Lung transplant II	PGY 6-7	Direct	PC, MK

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KEY
Supervision:
Direct -the supervising physician is physically present with the resident and patient.
A faculty physician, other than another resident, is physically present during the key portions of the procedure or is immediately available.
Indirect -the supervising physician is physically within the hospital or other site of patient care and is immediately available to provide direct supervision.
Oversight - the supervising physician is available to provide review of procedures/encounters with feedback after care is provided.
Core Competencies:
1. Patient Care (PC)
2. Medical Knowledge (MK)
3. Practice-Based Learning & Improvement (PBL)
4. Systems-Based Practice (SBP)
5. Interpersonal & Communication Skills (IC)
6. Professionalism (P)