

**GOALS AND OBJECTIVES FOR R2 CARDIOTHORACIC SURGERY
RESIDENT ON VA PALO ALTO CARDIOTHORACIC SURGERY SERVICE**

Description:

Residents will spend one-two months on this service, becoming proficient in the indications, workup, and postoperative care of common cardiac and thoracic surgical conditions. The resident will learn to manage ICU patients, including assisting in placement of chest tubes, central lines, and PA catheters. Residents will learn basic surgical and endoscopic skills, including saphenous vein harvest, wound closure, bronchoscopy/endoscopy, and handling of vascular tissues. Finally, residents will have the opportunity to practice cardiac procedures in the Cardiac Surgery Simulation Laboratory.

(1) Medical Knowledge

1. Anatomy, embryology, physiology and pathology of the pericardium, heart, great vessels, trachea, lungs, esophagus, and mediastinum.
2. The pharmacology, indications, and complications of drugs commonly used in the specialty.
3. The principles of preoperative assessment, anesthetic management, and postoperative management of cardiothoracic surgical patients.
4. The natural history of treated and untreated cardiac surgical conditions, including ischemic heart disease and its complications, valvular heart disease and conduction system disturbances,.
5. The natural history of treated and untreated thoracic surgical conditions, including lung cancer (primary and metastatic), esophageal cancer, esophageal dysmotility disorders, pleural effusions/empyemas, lung abscess, emphysema, and pneumothorax.
6. Advanced principles of surgery as they apply to the specialty, such as wound healing, hemostasis, electrolytes/fluid management, surgical nutrition, hyperalimentation, and thoracic oncology.
7. The technology, interpretation and complications of invasive and noninvasive diagnostic methods, including CT and MRI scanning, cardiac catheterization, coronary angiography, respiratory function tests, PET scan, and echocardiography.
8. The physiology, technology, indications, and complications of cardiac pacemakers.
9. Introduction to principles and complications of extracorporeal circulation and myocardial protection.

(2) Clinical Skills

1. Perform an appropriate relevant history and physical exam in the ward, ambulatory, and emergency department settings.
2. Arrive at an appropriate differential diagnosis.

3. Order appropriate laboratory, radiological, and other diagnostic procedures; demonstrate proper interpretation of the results.
4. Formulate a plan of management, demonstrating knowledge in the operative and non-operative management of the disease process.
5. Manage the patient throughout the hospital stay, including management in an intensive care unit setting, demonstrating knowledge and ability to anticipate, recognize, and manage potential complications of the disease processes and operative procedures.
6. Provide a plan for patient follow up.
7. Management of post-operative bleeding (medical and surgical).
8. Management of low-cardiac output syndrome (medical and surgical).
9. Troubleshooting pacemakers.
10. Assessment and treatment of post-operative arrhythmias.
11. Identification of critically ill and major complications of patients on the ward with appropriate acute management.

(3) Patient Care

Expected:

1. As the operating surgeon or first assistant, demonstrate an ability to anticipate surgical maneuvers, to take direction well, to make reasonable suggestions, and to contribute to a positive operating room atmosphere.
2. Remove the long saphenous vein, with attending supervision.
3. Insertion of central lines, PA catheter, arterial lines, insertion/removal chest tubes, and thoracentesis in the operative and ICU setting.
4. As the operating surgeon, perform flexible bronchoscopy, demonstrating knowledge of lobar segmental anatomy.
5. Observe common cardiac and thoracic surgical procedures, including CABG, aortic valve replacement, mitral valve replacement, lobectomy, esophagectomy, VATS lung wedge resection/biopsy.
6. Demonstrate ability to recognize errors in technique and possible consequences of specific technical mistakes.

Recommended:

1. Removal of intraaortic balloon pump.
2. Exposure of femoral vessels for CPB.
3. As the operating surgeon, perform posterior lateral thoracotomy.
4. As the operating surgeon, perform VATS lung wedge resection/biopsy.

(4) Professionalism

1. The ability to be honest, reliable, and respectful of the religious, racial and gender characteristics of patients, their families and other members of the health care team.
2. The ability to give and receive advice in a manner that is consistent with the harmonious operation of a health care team.

3. The ability to recognize when to seek assistance from more experienced colleagues.
4. Deliver highest quality care with ethics, integrity, honesty, and compassion.
5. Exhibit appropriate personal and interpersonal professional behaviors.
6. Understand the professional, legal, and ethical codes to which physicians are bound.

(5) Interpersonal and Communication Skills

1. Listen effectively.
2. Establish therapeutic relationship with patients and families.
3. Obtain and synthesize relevant history from patients and family.
4. Inform patients and families about their condition at an appropriate and understandable level.
5. Write clear consultation notes, progress notes, discharge summaries, and clinic notes.
6. Prepare and present ward rounds in an organized manner.
7. Participate actively in scheduled rounds.
8. Communicate effectively with allied health care professionals.

(6) Systems-based Practice

1. Utilize resources effectively to balance patient care and learning needs.
2. Allocate finite health care resources wisely.
3. Work effectively and efficiently in a health care organization.
4. Understand the importance and mechanisms to safely utilize resources in a cost-effective manner to benefit all patients.
5. Recommend practices to effectively utilize resources including undertaking studies to assess effectiveness of standard care procedures.

(8) Practice-Based Learning and Improvement

1. Develop effective self-directed learning strategies for continuing education and assessment of knowledge base.
2. Critically appraise sources of medical information and be aware of resources available.
3. Read about clinical cases.
4. Prepare and present scheduled rounds.
5. Participate actively in scheduled morbidity and mortality conferences.
6. Actively participate in journal club.
7. Participate effectively in facilitate learning of patients, teaching house staff/students and other health professionals.

Method of assessment of resident academic performance

1. Bi-yearly general competencies evaluation on Stanford Medhub.
2. Yearly in-service training exam.
3. Bi-yearly 360 degree evaluation (nurse and patient)
4. Bi-yearly mock oral exams
5. Quarterly technical simulation exam.