

## **GOALS AND OBJECTIVES FOR PGY1 SURGERY RESIDENT ON THORACIC SURGERY SERVICE**

### **Description**

The thoracic surgery rotation at Stanford Hospital will serve as an introduction to general thoracic surgery (common and tertiary care patients), including preoperative workup and postoperative care. Residents will learn how to recognize and care for critically ill patients, including placement of chest tubes and obtaining central venous access. Finally, this rotation will teach basic surgical and endoscopic techniques.

### **(1) Medical Knowledge**

1. Anatomy, embryology, physiology and pathology of the trachea, lungs, esophagus, pleura, and mediastinum.
2. The pharmacology, indications, and complications of drugs commonly used in the specialty, including anti-arrhythmics, diuretics, anticoagulants, bronchodilators, and pain medications.
3. The general principles of preoperative assessment and postoperative management of thoracic surgical patients.
4. The natural history of treated and untreated diseases of the specialty, including lung cancer, esophageal cancer, emphysema/COPD, interstitial lung diseases, esophageal dysmotility disorders, and Barrett's esophagitis.
5. Principles of surgery, including hemostasis, wound healing, wound complications, electrolyte and fluid replacement, surgical nutrition, and oncology.
6. Understand common postoperative care issues in the thoracic surgery patient, including pain management, exercise expectations/limitations, need for home oxygen, indications for SNF/rehab facility.
7. Understanding of pulmonary function tests, ABGs, ventilation-perfusion tests, MVO<sub>2</sub> studies, and esophageal manometry studies.

### **(2) Clinical Skills**

1. Perform an appropriate relevant history and physical exam in the ward, ambulatory clinic, and emergency department settings.
2. Order appropriate laboratory, radiological and other diagnostic procedures.
3. Demonstrate knowledge in the interpretation of laboratory investigations, CXR, ECG, CT scan, MRI, and PET scan.
4. Arrive at an acceptable plan of management for the disease process, including differential diagnosis.
5. Manage the patient throughout as much of the hospital stay as possible demonstrating knowledge and ability to recognize potential complications of the disease process and operative procedures.
6. Demonstrate ability to perform daily resident work rounds efficiently, including dictation of operative cases performed, daily progress notes, dictation of discharge summary, prescription writing.
7. Provide a plan for patient follow-up.

8. Assessment/triage of urgent/emergent thoracic surgery patients.

### **(3) Patient Care**

#### *Expected:*

1. Function as a first or second assistant in the operating room for common thoracic surgery cases, including a lobectomy, VATS wedge resection/biopsy, mediastinoscopy, and esophagectomy.
2. As primary surgeon, resident should perform a minimum of 1 posterolateral thoracotomy and carry out several thoracotomy closures.
3. As primary surgeon, resident should perform flexible bronchoscopy, with understanding of bronchial segmental anatomy, tracheostomy.
4. Handle tissues and surgical instruments in an appropriate manner, and demonstrate adherence to sterile techniques.
5. Insertion and removal of chest tubes and performance of thoracentesis outside the operating room.
6. Manage cardiac arrhythmias and common postoperative conditions (atrial fibrillation/flutter, ventricular tachycardia/fibrillation, sinus bradycardia/tachycardia, wound infections, poor urine output, and post-operative bleeding).

#### *Recommended:*

1. Insertion of internal jugular, subclavian, and femoral central venous catheters; insertion of radial and femoral arterial lines in the ICU with supervision.
2. Perform VATS wedge resection/biopsy as primary surgeon.
3. Perform VATS pleural biopsy as primary surgeon.
4. Perform VATS talc pleurodesis and/or PleurX catheter placement as primary surgeon.

### **(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, learning needs and outside activities.
2. Allocate finite health care resources wisely.
3. Work effectively and efficiently in a health care organization.
4. Understand the importance of 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.

#### **(7) 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. Prepare and present scheduled teaching rounds/case conferences.
4. When possible, participate actively in scheduled morbidity and mortality conferences.
5. Actively participate in journal club.
6. Participate effectively in facilitate learning of patients, teaching house staff/students and other health professionals.

#### **Method of assessment of resident academic performance**

1. Ongoing verbal feedback regarding performance.
2. End of month written evaluation and summary verbal feedback on performance