Non-cardiac Thoracic Surgery Curriculum
This applies to PGY 5 residents rotating on this service

* This curriculum is still being developed as this is a new rotation, starting in July 2007.

PATIENT CARE, MEDICAL KNOWLEDGE & TECHNICAL SKILLS:

1. Understand the anatomy and physiology of the cutaneous, muscular, and bony components of the chest wall and their relationships to adjacent structures
2. Know all operative approaches to the chest wall; recognize normal and abnormal anatomy of the chest wall
3. Understand arterial, venous, and bronchial anatomy of lungs and their interrelationships
4. Understand lymphatic anatomy of lungs, major lymphatic nodal stations, and lymphatic drainage routes of lung segments
5. Know common pathogens that produce lung infections; describe their presentation and pathologic processes; describe treatment and indications for operative intervention
6. Understand natural history, presentation, and treatment of chronic obstructive lung disease
7. Understand pathologic results and alterations of pulmonary function tests
8. Understand indications for resection of pulmonary metastases
9. Understand indications for and principles of anti-reflux operations
10. Know clinical presentation, causes, diagnosis, and treatment of motility disorders of esophagus; management of paraesophageal hernias
11. Know clinical presentation, diagnosis and management of esophageal perforation
12. Discuss types of benign esophageal neoplasms, their clinical presentation, diagnosis, and treatment
13. Understand types of malignant esophageal neoplasms, their presentation, diagnosis, histologic appearance, and treatment
14. Review principles of nutritional management of patients with esophageal neoplasms
15. Know indications for different thoracic incisions including anatomy and physiological impact
16. Know indications for plain radiography, CT scan, magnetic resonance imaging, and PET scanning for staging of lung cancer
17. Know indications, interpretation, and use of nuclear medicine, ventilation/perfusion scanning to determine operability of candidates for pulmonary resection
18. Understand methods of invasive staging such as mediastinoscopy, Chamberlain procedure, scalene node biopsy, thoracoscopy
19. Discuss the general diagnostic and operative approaches to treating blunt and penetrating trauma to the thorax and its contents
20. Describe specific surgical management of trauma to the thorax and its contents
21. Integrate the pathophysiology and surgical management for: aortic aneurysms, aortic dissections, trauma to heart and great vessels, occlusive disease
22. Evaluate infiltrates, infectious processes, and neoplastic processes in the thorax, and recommend appropriate management.
23. Discuss and list thoracic tumor types, staging for each, including descriptions of nodal drainage sites and levels.
24. Recognize pectus excavatum and pectus carinatum, understanding possible physiologic disturbances; identify diagnostic tests to identify these physiologic disturbances.
25. Understand the etiology, evaluation, differential diagnosis, and diagnostic criteria for thoracic outlet syndrome; recognize varied presentations of the syndrome; be prepared to interpret appropriate diagnostic tests.
26. Summarize the causes and appropriate management of cardiac arrhythmias, including: pharmacotherapeutics, pacemakers, cardioversion, defibrillators.
27. Describe the diagnosis and discuss therapy of such surgical complications as: fistulas, esophageal leak/stenosis/obstruction, loculated hemothorax, postoperative bleeding, empyema, air leaks, bronchial obstructions, endstage COPD/pulmonary fibrosis.
28. Identify indications for and be prepared to interpret results of plain and positional chest x-rays, gastrointestinal contrast studies, CAT, MRI, and PET scans.
29. Discuss quality assurance, cost-cutting measures, and patient-care pathways as they relate to thoracic surgery.

INTERPERSONAL & COMMUNICATION SKILLS:

1. Establish rapport with patients and their families.
2. Perform a patient-centered medical interview.
3. Engage patients in shared decision-making, and participate in family discussions.
4. Effectively and considerately communicate with team staff in a manner that promotes care coordination.
5. Discuss patient’s fears regarding outcome of surgery.

PROFESSIONALISM:

1. Demonstrate respect and compassion for all patients.
2. Exhibit competency in working with patients regarding advanced directives, DNR status, futility, and withholding/withdrawing therapy.
3. Understand and compassionately respond to issues of culture, age, sex, sexual orientation, and disability for all patients and their families.
4. Identify patient’s fear associated with the diagnosis of cancer.
5. Identify and assist with the psychological stress of patients with chronic disease as it affects their personal life, their family life, and their socioeconomic environment.

**PRACTICE-BASED LEARNING:**

1. Understand TNM staging of lung carcinoma and its application to diagnosis, therapeutic planning, and management of patients with lung carcinoma; know signs of inoperability
2. Understand complications of pulmonary resection and their management

**SYSTEMS BASED PRACTICE:**

1. Demonstrate understanding of medical delivery systems as they relate to both inpatient and outpatient resources.
2. Work well with multidisciplinary teams, coordinating care and effectively working with other surgeons and other providers in a team setting.
3. Learn the basics of office practice and outpatient surgery.