Description
The Thoracic Surgery rotation at Stanford Hospital offers a broad experience and education in the preoperative, surgical, and postoperative care of thoracic surgical patients including those with diseases of the lung, chest wall, mediastinum, diaphragm, and esophagus. Although thoracic surgical oncology (lung cancer, esophageal cancer, thymoma, chest wall tumors) represents a majority of the work, experience and education is also gained with benign diseases such as esophageal leiomyomas, diverticula, and perforations; gastroesophageal reflux; emphysema and benign lung neoplasms; hyperhidrosis; diaphragmatic paralysis; benign mediastinal cysts and masses; and myasthenia gravis.

Goals
The goal of the Thoracic Surgery rotation is to provide the R-3 resident with means to:

- Develop knowledge and experience in the evaluation and management of inpatient and outpatients with surgical diseases of the chest, including both chronic and acute (emergent) presentations.
- Serve as primary operating surgeon on procedures such that at the end of the rotation the R-3 is capable of independently performing moderately complex thoracic procedures such as VATS lung and pleural biopsies, VATS sympathectomies, thoracotomies for non-anatomic lung resections, and decortications.
- Develop sufficient understanding of the scope, advantages, and disadvantages of thoracic surgery as a career to make an informed decision about whether to pursue this in the future.

Objectives
The Thoracic Surgery R-3 rotation has the following objectives:

- The R-3 residents will gain the operative skills listed above by serving as primary surgeon on cases appropriate to his/her level and ability and as assistant on more complex operative cases. The resident will be expected to read preoperatively both about the specific patients he/she will operate upon and about the cognitive and technical aspects of the disease processes those patients suffer from.
- The R-3 resident will share with the thoracic surgery fellow the responsibility for presentation of interesting thoracic surgery cases at the thoracic surgery clinic case educational conference and at general surgery morbidity and mortality conference. He/she will also participate in CT surgery morbidity and mortality conference, GI and Thoracic Tumor Boards, and any of the scheduled CT surgery educational conferences that cover thoracic surgery topics.
- The R-3 residents will have primary responsibility for the management of inpatient consultations in conjunction with the thoracic surgery fellow and the attending surgeons.
The R-3 resident will serve as the thoracic surgery service’s direct liaison with the ICU service and communicate with that team, the thoracic surgery fellow, and the thoracic surgery attendings in managing thoracic surgery patients in the north ICU.  
- The R-3 resident will participate in the education of the intern on the thoracic surgery service.  
- The R-3 resident will attend attending office hours when these occur when he/she is not in the operating room.  This is the venue where most teaching regarding preoperative evaluation and work-up will be conveyed.

Residents are evaluated in the six core competencies (Medical knowledge, Patient care, Interpersonal communication skills, Professionalism, Practiced based learning and Systems based practice) using specific web-based evaluation forms. An outline of core competencies with rotation objectives, instructional activities, and evaluations is below.

### Specific Goals and Objectives for R-3 Residents

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<tr>
<th>GOALS</th>
<th>R-3 OBJECTIVES</th>
<th>INSTRUCTIONAL ACTIVITIES</th>
<th>EVALUATION</th>
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| **Knowledge:** To acquire and apply knowledge of established and evolving basic and applied clinical sciences that relate to the practice of thoracic surgery. | • Perform thoracic surgical procedures as primary surgeon including VATS and open non-anatomic pulmonary resections, VATS pleural biopsies and decortications, VATS sympathectomy. Perform several different types of thoracotomy incisions multiple times as primary surgeon. Assist on anatomic pulmonary resections and complex esophageal procedures. R-3’s with superior skills may perform anatomic pulmonary resections as primary surgeon.  
• Perform common bedside thoracic procedures as primary surgeon including awake bronchoscopy, chest tube placement, thoracentesis.  
• Learn about management of thoracic surgery emergencies by being first-call for both | Independent reading  
Review of cases evening before surgery with fellow/attendings  
Teaching during daily ward rounds with attendings, in operating room, and in office hours.  
Conferences including thoracic surgery case conference, CT surgery M and M conference, Thoracic Tumor Board, GI Tumor Board. | Weekly feedback by fellow/attending/rotation director and Rotation evaluation by each Surgery attending.  
[https://stanford.medhub.com](https://stanford.medhub.com) |
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| Core Competencies | Patient Care: To provide compassionate, appropriate and effective care to patients in the listed categories. | • Evaluate and manage all in-patient thoracic surgery consultations at SUMC.  
• Manage, in coordination with ICU team and thoracic surgery attendings/fellow NICU patients  
• Perform complete directed history and physical examinations on thoracic surgery clinic patients when not in operating room (at least 2 days per week), review all accompanying clinical and image-based information regarding patients, and develop an independent management plan appropriate for each patient. | Daily rounds with the thoracic surgery Team.  
Presentation of consult, ICU, and clinic patients to attending surgeon with direct interaction and development and execution of plan of care. | Weekly feedback by fellow/rotation director and Rotation evaluation by each thoracic surgery attending.  
(https://stanford.medhub.com) |
|                       | emergent and non-urgent thoracic surgery consults  
• Gain knowledge of staging and non-surgical adjuvant therapies for lung and esophageal cancer  
• Gain knowledge of preoperative imaging, invasive evaluation, and physiologic work-up required for potential thoracic surgery patients. | | |
Effective Interpersonal and Communication skills: Residents must communicate in a way that leads to effective information exchange of oncologic and endocrine surgery care plan to patients, their families, and professional associates.

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<th>Effective Interpersonal and Communication skills:</th>
<th>Instruct interns and medical students on floor and ICU management of patients.</th>
<th>Daily rounds with thoracic surgery team.</th>
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<td>Residents must communicate in a way that leads to effective information exchange of oncologic and endocrine surgery care plan to patients, their families, and professional associates.</td>
<td>Provide ICU and consult patients' family members regular updates of patient's condition.</td>
<td>Meetings with patient families in conjunction with attending surgeons.</td>
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<td>• Discuss appropriate peri-operative concerns with team &amp; consultants.</td>
<td>Work effectively with team members (attending, fellow, interns, NPs, and floor nurses) to communicate care plan.</td>
<td>Weekly feedback by fellow/rotation director, and Rotation evaluation by each thoracic surgery attending. (<a href="https://stanford.medhub.com">https://stanford.medhub.com</a>)</td>
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GOALS Core Competencies

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<th>Practice based learning and improvement:</th>
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<td>In order to improve patient care practices, residents must be able to critically evaluate their own performance as well as appraise and incorporate clinical scientific evidence.</td>
<td>• Identify complications and determine impact on recovery. • Use information technology to rapidly assimilate current medical literature as it relates to patient care.</td>
<td>Help select cases for both CT surgery M and M and General Surgery M and M conferences Present cases at General Surgery M and M conferences Attending will request occasional reviews of literature in a field pertinent to a particular patient to be presented at the thoracic surgery case conference.</td>
<td>Weekly feedback by Chief Resident/rotation director, and Rotation evaluation by each thoracic surgery attending. (<a href="https://stanford.medhub.com">https://stanford.medhub.com</a>)</td>
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<td>Professionalism: Residents must show a commitment to professional responsibilities, adherence to ethical principles and sensitivity to diversity.</td>
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| • Learn to manage complex patient problems specifically related to relaying information to families regarding unexpected outcomes in a quaternary care hospital.  
• Learn appropriate demeanor even in adverse or stressful situations.  
• Act with sensitivity and responsiveness to patient’s culture, age, gender and disabilities.  
• Maintain accountability to patients, medical professionals.  
• Learn to work respectfully with physicians from other specialties.  
• Learn proper methods of obtaining informed consent for procedures and for research studies and confirm advanced directives, if present. |
| Work with NPs to get data regarding complications into the Society of Thoracic Surgeons National Database |
| Daily rounds with thoracic surgery team and attending surgeons.  
Multidisciplinary conferences such as Tumor Boards allowing interaction with physicians from other disciplines.  
Participate with attendings in obtaining informed consent in clinic.  
Serve as primary member of team dealing, with attendings, with ICU patients who may have mortal complications or require consideration of DNR status.  
Function continually in an ethnically diverse hospital environment. |
| Weekly feedback by Chief Resident/program direction, and Rotation evaluation by each thoracic surgery attending. ([https://stanford.medhub.com](https://stanford.medhub.com)) |
| Systems-based Practice: | • Be introduced to outpatient assessment, risk stratification and surgical planning for complex surgical procedures. | Aid NPs in collection and analysis of data for STS National Database.  
Learn lobectomy and esophagectomy pathways and assure that they are being followed in daily care of patients.  
Daily rounds with the thoracic surgery Team and attending surgeons.  
Attendance in clinic with attending surgeons. | Weekly feedback by fellow/chief resident/attending and monthly rotation evaluation by each Gold Surgery attending.  
[https://stanford.medhub.com](https://stanford.medhub.com) |
|------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|
| A resident must be able to demonstrate an awareness of and responsiveness to the system of health care and the ability to effectively call on system resources to provide optimal care. | • Learn how care protocols and pathways improve quality and efficiency of care.  
• Become cognizant of the costs of various interventions and try to eliminate wasteful use of resources  
• Act as an organizational problem solver for patients.  
• Understands how care practice affects staffing and health care costs. | | |