OVERVIEW
The Thoracic Surgery selective is based at Health Sciences Centre. Students participate in the surgical management of patients with lung cancer and esophageal cancer, as well as other conditions common to general thoracic surgery practice.

The goal is to provide a closely supervised exposure to all aspects of the practice of Thoracic Surgery, including outpatient and inpatient care, consultation, pre-operative and post-operative care. The clerk is expected to participate in daily ward rounds, outpatient clinics, surgery and the Thoracic Surgery teaching schedule.

INTRODUCTION

Location(s):
Health Sciences Centre

Preceptors:

Attending Surgeons
Dr. Larry Tan, Associate Professor and Section Head for Thoracic Surgery
Dr. Sadeesh Srinathan, Assistant Professor and Residency Research Director
Dr. Gordon Buduhan, Assistant Professor and Residency Program Director

Contact Person:
Cherie Marynowski, Program Administrator
Phone: 204-787-1094
cmarynowski@hsc.mb.ca

LEARNING OBJECTIVES (CanMEDS)

Thoracic surgery is a specialty that deals with surgery for non-cardiac conditions of the thorax. The major focus of the service is thoracic malignancies, which include lung cancer, esophageal cancer, and mediastinal malignancies. We also assess and treat patients with a variety of other conditions, such as pneumothorax, penetrating chest trauma, pleural effusions and empyema, thoracic lymphadenopathy, endobronchial disease, and end-stage pulmonary disease.

Procedures range from minimally invasive and endoscopic surgeries to radical tumour resections and lung transplantation. There is a strong outpatient and operative component to this rotation.

Medical Expert
As Medical Experts, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills and professional attitudes in their provision of patient-centered care.

After completing this rotation, the Thoracic Surgery clerk will be able to:
- Conduct a history and physical examination, with an emphasis on outpatient assessment.
- Write regular progress notes.
- Formulate a differential diagnosis for common surgical problems.
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- Formulate a plan of management for common surgical problems, including investigation and treatment.
- Recognize the acutely ill or injured patient and develop a systematic approach to assessment and management.
- Develop familiarity with the conduct of common thoracic operations.
- Participate in post-operative care of the thoracic surgical patient.
- Develop familiarity with the issues concerning the care of patients with advanced cancer, including palliative care, resuscitation, and sharing bad news.

During this selective, the student will be exposed to most of the following:
- Anatomy and physiology of the lungs, pleural space, and esophagus.
- Diagnostic imaging of the chest, including CT interpretation and CXR interpretation.
- Laboratory procedures used in diagnosis of diseases of the chest, including endoscopy and function studies of the lung and esophagus.
- Pharmacology of drugs commonly used in the management of thoracic diseases, including neoplastic diseases.
- Infectious diseases, especially as they relate to Thoracic Surgery.
- Principles of oncology, including radiation therapy and chemotherapy.

During this selective, the student will have the opportunity to learn:
- General conduct of a surgical procedure, including scrubbing and sterile technique.
- Chest tube placement.
- Thoracentesis.
- Simple suturing.
- Knot-tying.

During this selective, the student will see and work up some or most of these disease presentations:
- Solitary pulmonary nodule.
- Pleural effusion.
- Hemoptysis.
- Airway obstruction/stridor.
- Dyspnea.
- Thoracic malignancies.
- Dysphagia.

During this selective, the student will see and work up some or most of these specific disease entities:
- Carcinoma of the lung, including staging, pathology, and management.
- Chronic obstructive pulmonary disease.
- Pneumothorax, hemothorax, and pleural effusions.
- End-stage lung disease, including lung transplantation.
- Infections of the thorax, including pneumonia, bronchitis, empyema, lung abscess, and mediastinitis.
- Penetrating and blunt chest trauma.
- Mediastinal neoplasms.
- Esophageal carcinoma.
- Esophageal motility disorders.
- Gastroesophageal reflux disease.
Communicator
Physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

As Communicators, students will facilitate the doctor-patient relation

- Establish rapport, trust and a therapeutic relationship with patients and families.
- Listen effectively.
- Elicit relevant information and perspectives of patients, families, and the health care team.
- Convey relevant information and explanations to patients, families and the health care team.
- Convey effective oral and written information about a medical encounter.
- Maintain clear, accurate, appropriate, and timely records of clinical encounters and operative procedures.
- Address challenging communication issues effectively.
- Obtain informed consent.
- Deliver bad news.
- Discuss adverse events.
- Discuss end-of-life care.
- Discuss organ donation.
- Addressing anger, confusion and misunderstanding using a patient centred approach.

Collaborator
Physicians effectively work within a healthcare team to achieve optimal patient care.

As Collaborators, students will work effectively within the surgical team to achieve optimal patient care.

- Demonstrate a team approach to health care.
- Participate effectively in an interprofessional and interdisciplinary health care team.
- Recognize and respect the diversity of roles, responsibilities, and competences of other health professionals in the management of the surgical patient.
- Work with others to assess, plan, provide, and integrate care of the surgical patient.

Leader
Physicians engage with others to contribute to a vision of a high-quality health care system and take responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars, or teachers.

As Leaders, students will participate in the activities of the surgical service, making decisions, allocating resources, and contributing to the effectiveness of the health care team:

- Employ information technology appropriately for patient care.
- Allocate finite health care resources.

Health Advocate
Physicians responsibly use their expertise and influence to advance the health and well-being of individual patients, communities and populations.
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As Health Advocates, students will responsibly use their expertise and influence to advance the health and well-being of individual patients, communities and populations.

- Concern for the best interest of patients
- Identifying health needs of individual patients, and advocate for the patient in cases where appropriate
- Promote and participate in patient safety

Scholar
Physicians demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.

As Scholars, students will demonstrate a lifelong commitment to learning

- Demonstrate the ability for continuing self learning
- Discuss the principles of surgery and the application of basic sciences to surgical treatment.
- Demonstrate appropriate presentation skills, including formal and informal presentations.
- Critically evaluate medical information and its sources and apply this appropriately to clinical decisions.
- Critically appraise the evidence in order to address a clinical question.
- Integrate critical appraisal conclusions into clinical care.

Professional
As Professionals, physicians are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behavior.

As Professionals, students are committed to health and well-being of individuals through ethical practice, profession-led regulation and high personal standards of behavior:

- Exhibit professional behaviors in practice, including honesty, integrity, commitment, compassion, respect and altruism.
- Demonstrate a commitment to delivering the highest quality care.
- Recognize and respond appropriately to ethical issues encountered in practice.
- Recognize and respect patient confidentiality, privacy and autonomy.
- Participation in peer review
- Manage conflicts of interest
- Maintain appropriate relations with patients.
- Demonstrate awareness of industry influence on medical training and practice
- Recognition of personal and clinical limitation

INFORMATION
These are locations, readings, evaluations, call responsibilities, etc.

Required Reading

Lawrence, Essentials of General Surgery, 3rd ed.
Chapters of particular relevance to this rotation include:
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- Chapter 12 - Esophagus
- Chapter 23 - Transplantation
- Chapter 26 - Surgical Procedures, Techniques & Skills

Lawrence, *Essentials Of Surgical Specialties*, 2nd ed.

Chapters of particular relevance to this rotation include:
- Chapter 6 - Cardiothoracic Surgery: Diseases of the Heart, Great Vessels and Thoracic Cavity


Chapters of particular relevance to this rotation include:
- Chapter 14 - Approach to the Patient with Respiratory Disease
- Chapter 16 - Diagnostic Techniques and Their Indications
- Chapter 19 - Disorders of the Pleural Space, Mediastinum and Chest Wall
- Chapter 20 - Neoplastic Diseases of the Lung
- Chapter 33 - Endoscopic and Imaging Procedures
- Chapter 34 - Diseases of the Esophagus
- Chapter 57 - Complications of Cancer
- Chapter 58 - Principles of Cancer Treatment
- Chapter 98 - Infections of the Lower Respiratory Tract

**Suggested Reading**

We have a package of review articles that can be picked up at the beginning of the rotation at the Thoracic Surgery Office, GE611. Please return this package at the end of your rotation.

These textbooks are available online:
  - Available online at [http://www.cts.net.org/sections/journalsandbooks/books/index.html](http://www.cts.net.org/sections/journalsandbooks/books/index.html)
- Clifton F. Mountain, *Lung Cancer*
  - Available online at [http://www.cts.net.org/sections/journalsandbooks/books/index.html](http://www.cts.net.org/sections/journalsandbooks/books/index.html)

**Thoracic Surgery Articles**, e-Medicine.com
- This is a listing of both cardiac surgery and general thoracic surgery articles

**Oncology Articles**, e-Medicine.com
- Please refer to the articles on
  - Esophageal cancer
  - Lung cancer, non-small cell
  - Lung cancer, small cell

**Pulmonology Articles**, e-Medicine.com
- Please refer to the articles on
  - Solitary pulmonary nodule
  - Pleural effusions
**Elective: Thoracic Surgery**

**Teaching Unit**

The Thoracic Surgery ward is based at Health Sciences Centre on GH6. We share this ward with the Respirology Service. Post-transplant patients are cared for on GA3.

The Thoracic Surgery clinics (Dr. Srinathan, Dr. Tan and Dr. Buduhan) are held in the Respiratory Outpatient Clinic (RSOPD).

**Evaluations**

- Please arrange an appointment with Dr. Tan to review the ITER.
- Service evaluation by student is to be handed in at the end of rotation to Surgical Education Office.

**Call Responsibilities**

No specific call responsibility, but the clerk may wish to be available after hours and on weekends for interesting cases.

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**WARD ACTIVITIES**

*These are examples of schedules, expectations, rotation details, etc. All the details below are subject to change.*

**Expectations**

Students should contact Diane Best at 787-3109 to find out the time and place to start the rotation.

**Service Activities**

**Ward Rounds**

Ward rounds start on GH6 usually between 0645 and 0700, but occasionally later. Clerks should discuss the start time for morning rounds with the senior resident.

**Clinic Schedule**

- **Dr. Unruh**  
  Respiratory Outpatients - RSOPD  
  Wednesdays 1200-1600  
  Friday 0900-1200

- **Dr. Tan** - Respiratory Outpatients - RSOPD  
  Tuesdays and Thursdays 1200-1600

- **Dr. Srinathan** - Respiratory Outpatients - RSOPD  
  Thursdays 0900-1200

**Teaching Sessions**

- Thoracic Surgery Rounds
- Thoracic Surgery Journal Club
- Thoracic Surgery Quality Assurance
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Variable location, usually GF427, HSC
Wednesday 0730-0830 or 0800-0900, or Monday 1600-1700.
Check Thoracic Surgery bulletin board for place & time.

**Academic Rounds**
Thoracic Surgery Rounds
Thoracic Surgery Journal Club
Thoracic Surgery Quality Assurance
Variable location, usually GF427, HSC
Wednesday 0730-0830 or 0800-0900, or Monday 1600-1700.
Check Thoracic Surgery bulletin board for place & time.

Surgery Grand Rounds
Wednesday 0745-0900
Usually Theatre C or Theatre A, BSB

Thoracic Tumor Conference
CancerCare Manitoba Theatre
Wednesday, 0900-1000
(conflicts with Seminar Series)

Lung Transplant Meeting
RS-205, HSC Respiratory Hospital
Monthly, Thursday 0745-0900

Respirology - Pathology Rounds
CancerCare (SBGH) Oncology Conference Room
Monthly, Wednesday 1130-1230

Operating Room Schedule (elective surgery)
Monday - Dr. Tan
Tuesday - Dr. Unruh
Wednesday - Dr. Tan
Thursday - Dr. Unruh
Friday - Dr. Srinathan

**Clinics**
Dr. Unruh
Respiratory Outpatients - RSOPD
Wednesdays 1200-1600
Friday 0900-1200

Dr. Tan
Respiratory Outpatients - RSOPD
Tuesdays and Thursdays 1200-1600

Dr. Srinathan
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Respiratory Outpatients - RSOPD
Thursdays 0900-120