Elective: Surgery - Surgical Intensive Care Unit

OVERVIEW
The Surgical Intensive Care Unit at the Health Sciences Centre provides intensive care support for all critically ill surgical patients. The most common patient populations include:

- Multiple trauma patients
- Emergent and elective neurosurgery patients
- Severe burns
- Emergent vascular surgery patients
- Post-operative thoracic surgery patients including lung transplant
- Post-operative general surgery patients (acute and elective)

INTRODUCTION

**Location(s):**
Health Science Centre

**Preceptors:**
The Critical Care Attendings cover the entire unit for a one week period and function as preceptor. Because of the weekly coverage, it is not possible to assign a specific preceptor.

**Attending Surgeons**
Dr. Perry Gray, Associate Professor
Dr. Brendan McCarthy, Assistant Professor
Dr. Luis Oppenheimer, Professor
Dr. Ross Stimpson, Assistant Professor

**Contact Person:**
Holly Thibert, Program Assistant
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LEARNING OBJECTIVES (CanMEDS)

**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.

**General Objectives**
- To obtain an understanding of the multi-system problem based approach to the critically ill surgical patient.
- Emphasis should be placed on assessment and organization of care of
  - Multiple trauma patients
  - Emergent and elective neurosurgery patients
  - Severe burns
  - Emergent vascular surgery patients
Elective: Surgery - Surgical Intensive Care Unit

- Post-operative thoracic surgery patients including lung transplant
- Post-operative general surgery patients (acute and elective)

Clinical clerks will be able to:
- Perform an appropriate history and physical examination on a critically ill surgical patient.
- Perform or outline the approach to an acute assessment of a critically ill surgical patient.
- Be able to present a critically ill surgical patient in a problem-oriented fashion at morning rounds.
- Observe/participate (optional) in the insertion of arterial lines, central lines and/or intubation of a critically ill patient.
- Discuss the various shock states and be able to establish their diagnosis.

Communicator
Physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

- 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
  - Obtaining informed consent
  - Delivering bad news
  - Disclosing adverse events
  - Discussing end-of-life care
  - Discussing organ donation
- Addressing anger, confusion and misunderstanding

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

- Understand the 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.

- Employ information technology appropriately for patient care.
- Allocate finite health care resources appropriately
Elective: Surgery - Surgical Intensive Care Unit

Health Advocate
Physicians 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
- 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.

- Ability for continuing self learning
- Learning 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 behaviour.

- 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 limitations

INFORMATION

Required Reading
Lawrence Essentials of General Surgery, 3rd Ed. Chapters of particular relevance to this rotation include:
- Chapter 2 - Preoperative Medical Evaluation of Surgical Patients
- Chapter 3 - Fluid & Electrolytes
- Chapter 4 - Nutrition
- Chapter 5 - Surgical Bleeding & Blood Replacement
- Chapter 6 - Shock
Elective: Surgery - Surgical Intensive Care Unit

- Chapter 7 - Wounds & Wound Healing
- Chapter 8 - Surgical Infections
- Chapter 9 - Trauma
- Chapter 10 - Burns

Suggested Reading
- The ICU Book by Marino.

Teaching Unit

The Surgical Intensive Care Unit at Health Sciences Centre is located on the second floor of the Ann Thomas Building. Key card access is required for entry into the building and the unit.

Evaluations

- The student will be evaluated by the attending staff with input from the resident staff at the end of the rotation.
- The evaluation form is usually completed by Dr. Gray.
- Service evaluation by student to be completed at the end of the rotation.

Call Responsibilities

Optional
Clerks scheduled for call on Thursday nights are expected to stop taking call at 22:00, so that they will be available for teaching the next day.
Clerks scheduled for call on Fridays will start taking call after teaching.

WARD ACTIVITIES

Service Activities
Morning Rounds
Rounds start at 0900 every morning in the SICU.

Details

- Students should contact the Director of the Surgical Intensive Care Unit at the beginning of their rotation for orientation to the service and at the end of the rotation to receive their evaluation.
- The student will function under the direct supervision of a resident in critical care or the attending staff.
- Students are expected to attend all morning rounds (0900 hours) and all sign out rounds (1600 hours) unless post call.
- The Clinical Clerk Tutorials are mandatory and students are excused from any clinical activities to attend these valuable sessions.
- The student will contact the Administrative Assistant for the Director of the SICU for an end of rotation evaluation, if not received within 10 days of completing the rotation.