



University of Illinois, Metropolitan Group Hospitals Residency in General Surgery

Rotation Title: TRAUMA/CRITICAL CARE

Level of Training: PGY I, PGY II, PGY III, PGY IV

Attending in Charge of Rotation: Dr. Richard Fantus

Faculty: Dr. Richard Fantus, Dr. Michelle Mellett, Dr. Rebecca Rico, Dr. Juan Santiago, Dr. Marc Adajar, Dr. Maria Osipova, Dr. Samuel Kingsley, Dr. Elizabeth Gwinn

Rotation Description:

Illinois Masonic Medical Center, located in the near North side, is one of Chicago's Level I Trauma Centers. The trauma service is a busy service that can, at times, be demanding. However, the efforts put forth by the resident will pay off in that the trainee will experience a good mix of blunt and penetrating trauma. The residents will take an active role in running the trauma codes while in the ER. Trauma patients, depending on their acuity, will be admitted to either the General Surgery/Trauma Wards or the Surgical ICU. The patients admitted to the floors are managed by the PGY I, and at times PGY II, residents under close supervision by the in house trauma attending. The PGY III and PGY IV residents, again under close supervision by the in house trauma attending, will manage the Surgical ICU. The Surgical ICU experience will also include a number of Neurosurgical ICU patients. Accordingly, the senior residents will

have opportunities to manage these patients. All the intensive care patients are additionally monitored by central electronic surveillance (eICU) by board certified intensivists.

Conferences will include Bi-monthly Trauma/Critical Care/Neurosurgical ICU morbidity and mortality conference, weekly lectures on topics in critical care, and weekly lectures on various topics in trauma surgery. Residents are required to play an active role in participating in these lectures and conferences.

Assessment:

Monitoring of the accomplishment of the stated objectives will be performed using the following methods:

1. 360 degree evaluation: End of rotation assessment of resident's performance with respect to the stated objectives by faculty, nurses, fellow residents, medical students and patients.
2. Case Logs: Auditing of operative cases pertinent to the trauma in the Surgical Operative Log.
3. Written Examination: Performance on the annual ABSITE examination section on Trauma and Critical Care.
4. Complete the coursework and testing to obtain basic and advanced cardiac life support and fundamental critical care support certification, ATLS.
5. Technical competency in FAST (focused assessment sonography in trauma)

Surgical Skills Advancement:

The resident will exhibit surgical performance skills based on the following guidelines:

1. Utilize the simulation lab for improvement and experience with surgical procedures, offering the opportunity for advancement along the skills lab curriculum outlined in the simulation OSAT.
2. By the end of the rotation, have completed (per necessity) the OSAT/OSCA for the following procedures:
 - a. PGY I/II: ATLS, ACLS, Orientation boot camp
 - b. PGY III: FAST, central line placement, ventilator management, and percutaneous tracheostomy
 - c. PGY IV: FAST, central line placement, ventilator management, percutaneous tracheostomy, and operative dictation

Competency Based Learning Objectives

Medical Knowledge

PGY I Residents:

- Participate in Resident Competency Program (RCP)
- Complete Basic Science Readings and Lectures
- Be adept at basic anatomy, physiology, pharmacology, and pathology as it relates to inpatient management of general surgery problems and postoperative care of trauma
- Understand how to care for concomitant medical problems
- Be adept on how to write TPN orders and planning nutritional therapy
- Prepare and successfully pass ACLS and ATLS courses
- Systematically read the Miller's Surgical Text
- Complete Modules in SCORE Website

PGY II Residents:

- Participate in Resident Competency Program (RCP)
- Complete Basic Science Readings and Lectures
- Be adept at basic anatomy, physiology, pharmacology, and pathology as it relates to inpatient management of general surgery problems and postoperative care of trauma
- Understand how to care for concomitant medical problems
- Be adept on how to write TPN orders and planning nutritional therapy
- Prepare and successfully pass ACLS and ATLS courses
- Systematically read the Miller's Surgical Text
- Complete Modules in SCORE Website

PGY III/IV Residents:

- Attend and participate in Basic Science reading assignments and didactic lectures
- Understand the physiology of critically ill post-op patients
- Understand the pathophysiology of hemodynamic, respiratory, renal, hepatic and nutritional failure
- Demonstrate thorough knowledge of infectious diseases, endocrine dysfunction, hematologic abnormalities, neurologic and psychiatric problems and ICU pharmacology in the SICU
- Understand moral, ethical, legal and public policy issues in the SICU
- Complete required assignments in SCORE Curriculum

PATIENT CARE

PGY I Residents:

- Perform basic procedural skills including central IV lines, arterial lines, chest tubes, sigmoidoscopy, and anoscopy

- Conduct rudimentary intraoperative procedures including removal of skin, subcutaneous tumors, incision and drainage of abscesses, uncomplicated inguinal hernias, and tube thoracostomy
- Demonstrate mastery of skin and wound closure
- Perform routine history and physical examinations
- Assess and initiate treatment for routine medical problems in surgical patients
- Demonstrate the ability to follow patients sequentially

PGY II Residents:

- Perform basic procedural skills including central IV lines, arterial lines, chest tubes, sigmoidoscopy, and anoscopy
- Conduct rudimentary intraoperative procedures including removal of skin, subcutaneous tumors, incision and drainage of abscesses, uncomplicated inguinal hernias, and tube thoracostomy
- Demonstrate mastery of skin and wound closure
- Perform routine history and physical examinations
- Assess and initiate treatment for routine medical problems in surgical patients
- Demonstrate the ability to follow patients sequentially

PGY III/IV Residents:

- Develop proficiency in the assessment and initial stabilization of critically ill surgical patients
- Apply patient care practices as it relates to critically ill patients in the SICU: hemodynamic support with inotropes and vasopressors, shock management, ventilator management, renal replacement therapy, nutritional support
- Apply patient care practices as it relates to critically ill patients in the SICU: treatment of infectious diseases and sepsis, endocrine dysfunction, hematologic abnormalities, neurologic and psychiatric problems.
- Gain proficiency in ICU procedures of arterial lines, central venous lines, pulmonary artery catheters, bronchoscopy, use of ultrasound
- Develop an understanding of intra-aortic balloon pumps in post-op cardiac patients

INTERPERSONAL AND COMMUNICATION SKILLS

PGY I Residents:

- Display a friendly disposition that is conducive to successful interaction with team members and patients
- Demonstrate the ability to handle and resolve conflict with patients
- Communicate the treatment plans with the support staff and be able to listen and respond to the patients and support staff's questions in a positive manner
- Interact effectively with patients and family members from a diverse

background

- Gather essential information from patients,; and accurately document patient encounters
- Interact with nurses, residents, attending surgeons and ancillary staff to achieve the health-related goals of the patient.

PGY II Residents:

- Display a friendly disposition that is conducive to successful interaction with team members and patients
- Demonstrate the ability to handle and resolve conflict with patients
- Communicate the treatment plans with the support staff and be able to listen and respond to the patients and support staff's questions in a positive manner
- Interact effectively with patients and family members from a diverse background
- Gather essential information from patients,; and accurately document patient encounters
- Interact with nurses, residents, attending surgeons and ancillary staff to achieve the health-related goals of the patient.

PGY III/IV Residents:

- Develop and maintain effective communication with ICU residents, nurses and other personnel
- Respond to pages immediately and address patient issues with appropriate timeliness
- Update attending intensivists, primary attendings and surgical resident teams as needed
- Develop skills of effective sign-out and updating on call team

PROFESSIONALISM

PGY I Residents:

- Relate as a team member with other residents from other departments
- Relate with the patients and support staff politely and with respect
- Respond to pages and consults in a timely manner
- Respond to criticism and correction with calm and attentive demeanor
- Demonstrate appropriate dress and decorum while on duty
- Handle all patient information confidentially and not discuss it in hallways or other public places
- Use and know the chain of command on the resident service
- Demonstrate kindness, empathy and maturity in the interrelationship with patients with routine surgical problems
- Demonstrate the ability to maintain composure in an emergency department environment

PGY II Residents:

- Relate as a team member with other residents from other departments
- Relate with the patients and support staff politely and with respect
- Respond to pages and consults in a timely manner
- Respond to criticism and correction with calm and attentive demeanor
- Demonstrate appropriate dress and decorum while on duty
- Handle all patient information confidentially and not discuss it in hallways or other public places
- Use and know the chain of command on the resident service
- Demonstrate kindness, empathy and maturity in the interrelationship with patients with routine surgical problems
- Demonstrate the ability to maintain composure in an emergency department environment

PGY III/IV Residents:

- Maintain professionalism in all interactions with ICU personnel
- Answer all pages promptly
- Complete and maintain timely clinical documentation

PRACTICE-BASED LEARNING AND IMPROVEMENT

PGY I Residents:

- Remain current on medical literature as it relates to surgical diseases and complications
- Be adept with online medical databases
- Teach medical students how to write surgical progress notes
- Describe and be familiar with resource management practices

PGY II Residents:

- Remain current on medical literature as it relates to surgical diseases and complications
- Be adept with online medical databases
- Teach medical students how to write surgical progress notes
- Describe and be familiar with resource management practices

PGY III/IV Residents:

- Remain current on medical literature and cases related to surgical critical care
- Develop proficiency in the assessment and initial stabilization of critically ill surgical patients

SYSTEMS-BASED PRACTICE

PGY I Residents:

- Integrate closely with the total team of students, residents, and attending, caring for patients with routine surgical problems
- Utilize the expertise of other services and support personnel
- Demonstrate good patient advocacy skills
- Recognize and understand how different health insurance companies affect the treatment plan for patients

PGY II Residents:

- Integrate closely with the total team of students, residents, and attending, caring for patients with routine surgical problems
- Utilize the expertise of other services and support personnel
- Demonstrate good patient advocacy skills
- Recognize and understand how different health insurance companies affect the treatment plan for patients

PGY III/IV Residents:

- Consult with other members of the health care team to provide cost-efficient health care for patients
- Apply cost-effective care in ordering tests and planning interventions
- Gain proficiency in the use of the hospital's EMR and ICU order sets

READING MATERIALS:

Educational materials, which will function as guides for resident education during this course, include but are not limited to:

1. The SCORE General Surgery Resident Curriculum Portal accessed at <https://portal.surgicalcore.org/home>
2. Schwartz's Principles of Surgery
3. Zollinger's Atlas of Surgical Operations
4. The Surgical Core Curriculum accessed via Access Surgery through the University of Illinois-Chicago website

OUTCOMES:

Outcomes for the various goals and procedures in this curriculum will be assessed along the following standards:

1. Superior: the resident exhibits conceptual understanding beyond that which is described in this bulletin, and practice performance, which is at a

- standard for a resident at a more advanced PGY year.
2. Above Average: the resident has shown understanding and performance that is above what is expected for the rotation.
 3. Competent: the resident exhibits conceptual understanding and practice based performance standards that are minimal, for the appropriate PGY year, for advancing towards general surgical practice.
 4. In Need of Remediation: the resident has failed to grasp the basic concepts and practices necessary to advance past this rotation for the PGY year, and shows need of repeating or training augmentation.