EDUCATIONAL GOALS AND OBJECTIVES FOR ROTATIONS ON: GENERAL SURGERY TRAUMA BAY AND EMERGENCY GENERAL SURGERY ED CONSULT ROTATION SURGERY EMERGENCY DEPARTMENT QUICK CONSULT TEAM (SURGERY EDQC)

Goal

The goal of the Surgery EDQC rotation is to develop the knowledge, skills, and *attitudes* necessary to evaluate, diagnose, and manage Trauma patients, patients with general surgical disease, and patients with potential surgical disease that present to the Emergency Department. Objectives will be assessed in terms of medical knowledge, procedural skills, interpersonal and communication skills, professionalism, patient care, systems-based practice and improvement though evaluations by faculty, mid-level providers, nursing staff, peers, and students.

Objectives for PGY-2: At the end of the PGY-2 year, residents will:

Patient Care

- Participate in the trauma resuscitations with graded responsibilities to help improve the skills needed for early resuscitation.
- Identify the principles of rapid diagnosis, interpretation of clinical findings, laboratory values, and radiologic results in the emergency room setting.
- Perform a focused, efficient, accurate initial history and physical of a full spectrum of patients admitted to the hospital and or receiving Emergency Department consults including patients with blunt and penetrating mechanisms, and full gamut of acute care surgical patients.
- Recognize and manage common postoperative conditions in the surgical patient such as fever, hypotension, hypoxia, confusion, and oliguria with direct supervision.
- Perform basic surgical skills and minor procedures that are frequently done in the Emergency Department and in the Trauma Bay in order to demonstrate proficiency in suturing of simple and complex skin lacerations, airway management, use of Doppler/E-FAST ultrasound, administration of local anesthetic, universal precautions, and aseptic technique
- Perform basic bedside procedures with direct supervision and indirect supervision where appropriate such as venipuncture, arterial puncture, incision and drainage, minor skin excisions, placement of an IV, placement of an NGT, placement of a foley catheter, central venous access, tube throacostomy, and laceration repair.
- Accurately diagnoses many core surgical conditions and initiate appropriate management for some core surgical conditions according to the SCORE curriculum.
    - Aortic injury
    - Bladder injury
    - Burns

    - Cardiac tamponade
    - Colon and rectal injury
    - Diaphragmatic injury
    - Esophageal injury
    - Frostbite and hypothermia
    - Gastric injury
    - Geriatric trauma
    - Hemothorax and pneumothorax
    - Hepatic injury
    - Initial assessment and management of trauma
    - Myocardial injury
    - Pancreatic and duodenal injury
    - Pediatric trauma
    - Pelvic fractures
    - Pulmonary injury
    - Renal injury
    - Retroperitoneal hematoma
    - Rib and sternal fractures
    - Small intestinal injury
    - Splenic injury
    - Trauma in pregnancy
    - Upper aerodigestive tract injury
    - Ureteral & Urethral injury
    - Vascular injury-abdomen, extremities, neck, thorax
    - Animal and insect bites/stings
    - Brachial plexus injury
    - Extremity fractures/traumatic amputations
    - Head injury—penetrating and closed
    - Human bites
    - Smoke inhalation injury and CO poisoning
    - Spine fracture
    - Sprains, strains, dislocations
    - Tracheal and bronchial injury
- Develop a diagnostic plan and implement initial care for patients seen in the Emergency Department.
- Recognize and manage common postoperative problems such as fever, hypotension, hypoxia, confusion, oliguria and wound infections with assistance from more senior staff members who are available for consultation but not physically present.
- Demonstrate respect for tissue and skilled instrument handing.
- Be able to move through portions of common Emergency Department procedures and simple & complex laceration repair, line placement, tube thoracostomy, intubation, and operations with coaching and make straightforward intraoperative decisions, performing some of the core operations in the SCORE curriculum with minimal assistance.

- Bladder injury repair
- Management of duodenal trauma
- Exploratory laparoscopy
- Exploratory laparotomy
- Focused abdominal sonography for trauma (FAST)
- GI tract injury repair
- Hepatic injury repair/packing
- Lower extremity fasciotomy
- Neck exploration for injury
- Splenectomy/splenorrhaphy
- Temporary closure of the abdomen
- Wounds, major—debride/suture
- Abdominal Aorta/Vena Cava injury repair
- Cardiac Injury Repair
- Carotid artery injury repair
- Esophageal injury repair
- Pancreatic injury/operation
- Renal injury, repair, resection
- Truncal and peripheral vessels repair
- Ureteral injury repair

Medical Knowledge

- Have basic knowledge about many of the core diseases in the SCORE curriculum and make a diagnosis and recommend appropriate initial management.
    - Aortic injury
    - Bladder injury
    - Burns
    - Cardiac tamponade
    - Colon and rectal injury
    - Diaphragmatic injury
    - Esophageal injury
    - Frostbite and hypothermia
    - Gastric injury
    - Geriatric trauma
    - Hemothorax and pneumothorax
    - Hepatic injury
    - Initial assessment and management of trauma
    - Myocardial injury
    - Pancreatic and duodenal injury
    - Pediatric tauma
    - Pelvic fractures
    - Pulmonary injury
    - Renal injury
    - Retroperitoneal hematoma
    - Rib and sternal fractures

    - Small intestinal injury
    - Splenic injury
    - Trauma in pregnancy
    - Upper aerodigestive tract injury
    - Ureteral and Urethral injury
    - Vascular injury-abdomen, extremities, neck, thorax
    - Animal and insect bites/stings
    - Brachial plexus injury
    - Extremity fractures/traumatic amputations
    - Head injury—penetrating and closed
    - Human bites
    - Smoke inhalation injury and CO poisoning
    - Spine fracture
    - Sprains, strains, dislocations
    - Tracheal and bronchial injury
- Recognize variation in the presentation of common surgical conditions.
- Have basic knowledge of the operative steps, peri-operative care, and post-operative complications for many of the core operations in the SCORE curriculum.
    - Bladder injury repair
    - Management of duodenal trauma
    - Exploratory laparoscopy
    - Exploratory laparotomy
    - Focused abdominal sonography for trauma (FAST)
    - GI tract injury repair
    - Hepatic injury repair/packing
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    - Ureteral injury repair

<u>Practice-based Learning and Improvement</u>

- Communicate educational material accurately and effectively at the appropriate level for learner understanding.

- Attend conferences including Morbidity and Mortality conference, Grand Rounds and service specific conferences and accurately and succinctly present patient cases in conferences.
- Independently reads the literature and uses sources to answer questions related to patients.
- *Develop a learning plan based on feedback with some external assistance.*
- *Identify gaps in personal technical skills and work with a faculty member to develop a skills learning plan.*
- *Evaluate own surgical results and the quality and efficacy of care of patients through appraisal and assimilation of scientific evidence.*
- Use relevant literature to support discussions and conclusions at M&M and/or other QI conferences.
- Perform basic steps in a QI project.
- Understand how to modify own practice to avoid errors.

Professionalism

- Maintain composure in accordance with ethical principles even in stressful situations.
- Exhibit compassion and empathy toward patients and their families.
- Recognize the limits of knowledge and ask for help when needed.
- Monitor own personal health and wellness and appropriately mitigates fatigue and/or stress.
- *Effectively and efficiently manages own time and assures fitness for duty.*
- Be prompt in attending conferences, meetings, operations, and other activities.
- Respond promptly to requests from faculty members and departmental staff members.

Interpersonal and Communication Skills

- Customize communication by taking into account patient characteristics.
- Provide timely updates to patients and their families during Emergency Department visits.
- Exhibit behaviors that invite information sharing with health care team members.
- Perform hand-off best practices.
- Effectively describe various aspects of the procedure and perioperative care to the patient and family.
- Lead a preoperative/preprocedure “time out.”
- Perform clear informed consent discussion for basic procedures.

Systems-based Practice

- Know the necessary resources to provide optimal coordination of care and how to access them.

- Be aware of specialized services like durable medical supplies, PT.OP, wound care clinics, and specialty surgical services, home antibiotic infusion, and surgical specialty clinics.
- Understand how patient care is provided in the system and recognizes certain specific system failures that can affect patient care.
- Follow protocols and guidelines for patient care.

RESIDENT EXPECTATIONS AND RESPONSIBILITIES: SURGERY EMERGENCY DEPARTMENT QUICK CONSULT TEAM

- 2nd year resident who will work down in the emergency department 10am-7pm. 7-8pm for sign out and finishing documentation
- Will work Thursday through Tuesday
    - Will be physically located in the ED (in the main doctors' work area)
    - Will have a SPEC phone (August 1st), until then they will pick up a phone every shift provided by the ED
- Resident will go to every trauma activation
    - Trauma Team Roles
        - Level 1:
            - ED Attending/Pit Boss-Primary Survey and intubation if needed
            - Surgical Attending-Overall in charge of resuscitation and procedures
            - PGY-1 Trauma Resident-Secondary Survey, procedures
            - NP-Assisting the PGY-1 with secondary survey and procedures
        - Level 2:
            - ED Attending/Pit Boss-Primary Survey and intubation if needed
            - Surgical Attending-Overall in charge of resuscitation and procedures
            - PGY-1 Trauma Resident-Secondary Survey, procedures
        - Level 3:
            - Pit Boss role will be directed by the ED attending
- Resident will serve as an "early surgical consult"
    - Examples of this include generalized abdominal pain or post-operative concerns/complications
    - Faculty, APPs, and residents who are rotating in the ED will consult the pit boss early on cases as they might be a surgical case
    - Pit boss will discuss with faculty, discuss ordering, discuss medications, dispo, teaching, etc.
    - Resident will follow the case through to disposition
    - If the workup is negative and patient is being discharged home:
        - Resident will discuss case with ED provider
        - If a phone conversation with surgery is necessary, resident will discuss over the phone with surgery attending
            - Phone consultation will go in ED provider's note, but not require a separate note from resident
        - Resident will not consult surgical attending for formal staffing
            - Surgical attending will not be required to see the patient
        - Resident will not write a note

        - ED provider will discharge the patient with appropriate follow-up (maybe surgical)
    - If the workup has a finding the requires an official surgical consult
        - Pit boss resident will discuss case with ED provider
        - Resident will consult the attending and staff the patient formally with the attending
        - Resident will write a consult note or H&P (depending on the patient disposition) on the patient (and send to the surgical attending to be signed)
        - Resident and surgical attending will develop an operative, admission, or dispo plan together and communicate the plan to the ED provider
- Resident will see all “early consults” including pediatric patients
    - If a case requires a transfer to an outside facility, resident will facilitate the transfer under the guidance of the ED attending
- Resident will serve as an “early surgical consult” for specialized surgical services except for ENT and podiatry
    - Same process as above for neurosurgery, ortho, plastics, OB/Gyn, cardiothoracic, peripheral vascular, etc.
- Resident will serve as a proceduralist in the ED
    - EM provider will consult resident to primarily perform procedures such as laceration repair, abscess drainage, etc.
    - EM provider will consult resident to assist in procedures such as ortho reduction or sedation
    - After completing a procedure, the resident will write a procedure note and send it to the EM attending to sign
- Resident will be allowed to occasionally go to the OR
    - In this case, before going to the OR, the resident will clearly communicate with the EM provider(s) on any case they are following together about the status of that case and EM provider will take over sole care of that case