**Trauma Surgical Intensive Care Unit (TSICU) Rotation Objectives**

The TSICU rotation is designed to familiarize fellows in Anesthesia Critical Care with the management of trauma patients. The population of patients admitted to the TSICU includes any patients presenting with traumatic injuries, whether or not surgery is immediately indicated. This includes orthopedic trauma, blunt and penetrating trauma, neurotrauma, and resuscitation of patients with acute traumatic shock.

**Learning Objectives**

**Patient Care**

Fellows should be able to demonstrate efficient and thorough history taking and physical examination skills in the evaluation of multiple critically ill trauma patients at the same time and be able to triage them effectively. They must be able to develop an appropriate differential diagnosis and initial treatment plan and order and interpret appropriate additional workup, and institute appropriate therapy. Fellows must be proficient in procedural skills including arterial puncture, central venous catheter placement, endotracheal intubation, thoracentesis, chest thoracostomy tube placement, lumbar puncture, intravenous and intraosseous catheter placement, bronchoscopy, and basic wound care, as well as the ability to run an effective code.

**Medical Knowledge**

Fellows should obtain experience and expertise in the following topics commonly encountered in the management of the trauma patient:

3. Management of TBI (Traumatic Brain Injury), e.g. traumatic Subdural and Subarachnoid Bleeds.
4. Resuscitation and Monitoring of the traumatically injured patient with hemorrhage and shock.
5. Ventilation and management strategies of pulmonary contusions, aspiration and other pulmonary insults encountered in the critical ill trauma patient.
7. Management of multiple system organ dysfunction which can accompany traumatic shock – e.g. liver and kidney failure.
8. Management of common traumatic orthopedic injuries and their complications, including long bone fractures, compound fractures and rib fractures.
9. Understand spine clearance (cervical and TLS) and management of cervical and thoracic spine injuries with spinal cord compromise.
10. Emergent airway management in the traumatically injured patient.
11. Understand the appropriate prophylaxis strategies for the traumatically injured patient, including thromboembolic, VAP and stress ulcer prophylaxis.
12. Understanding of nutritional requirements for the traumatically injured patient.
13. Understand the management of alcohol toxicity and withdrawal.
14. Understand and manage the social and ethical issues that arise in the care of traumatically injured patients.
15. Learn the requirements and criteria for organ donation in the brain dead / severely injured trauma patient.
Practice-based Learning and Improvement

Fellows must exhibit a commitment to investigation and evaluation of one’s own patient care as well as appraisal and assimilation of scientific evidence and improvements in patient care. They should be able to apply knowledge of study designs and statistical methods to the appraisal of such studies and other information on diagnostic and therapeutic effectiveness. The TSICU fellow should be able to utilize information technology infrastructure to facilitate patient care. Finally, fellows should regularly participate in fellow-level journal clubs, Quality Improvement (QI) projects such as Root Cause Analysis of cases and should present cases in Critical Care Morbidity and Mortality conferences.

Interpersonal and Communication Skills

Fellows must demonstrate interpersonal and communication skills that result in the effective, respectful, and efficient exchange of information and collaboration with patients, their families, and other health professionals. They must respect the diverse and cultural, ethnic, spiritual, emotional, and age-specific differences in patients and other members of the health care team and be able to negotiate and resolve conflicts that may arise. Furthermore, fellows should be able to understand and effectively use feedback provided by others. These skills should result in the fellow’s effective participation in and leadership of the healthcare team.

Professionalism

Fellows must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Specifically, they must skillfully address ethical issues for patients and families in an adult intensive care unit such as goals of care and end-of-life discussions. Fellows must also exhibit professionalism in all aspects of interaction with colleagues and other team members, behaving in a manner befitting an advanced healthcare professional. This can be exhibited by setting a tone of respect and collegiality for the healthcare team members, willingly seeing patients and families to discuss a patient’s care, protecting staff, family, and patient interests and confidentiality, and completing medical records punctually and with appropriate and honest documentation.

Systems-based Practice

Fellows must practice in a way that demonstrates an awareness of and responsiveness to the larger context and system of health care and an ability to effectively call on system resources to provide care that is of optimum value. For the TSICU rotation, this means developing an understanding of resource utilization in the hospital (particularly regarding transfers of patients to and from the intensive care unit) as well as in the community at large (when handling potential transfers from and to outside hospitals). The fellow must be able to understand and develop cost-effective care and demonstrate appropriate use of ICU protocols and practice strategies designed to facilitate and advance the care and outcome of the critically ill patient.