

## **Learning Experience: Trauma**

### **Learning Experience Leader:**

### **Synopsis of Learning Experience:**

#### **PGY 1 Core Competencies:**

##### Medical Knowledge:

1. Describe common injuries that present with a variety of wounding mechanisms including blunt and penetrating trauma.
2. Outline the workup of a trauma patient in the emergency department and describe how it differs depending on mechanism of injury, physiologic stability.
3. Explain the body's response to a traumatic insult, including description of inflammation/SIRS response and coagulopathy.
4. Demonstrate understanding of differences in treatment and outcomes in patients of different ages with similar injury patterns.
5. Discuss indications for operative and nonoperative management of thoracic, abdominal, and vascular injuries.
6. Describe common complications that occur in hospitalized patients following injury.
7. List risk factors for substance abuse withdrawal in the trauma patient.
8. Describe indications for blood transfusion and intravenous fluid administration in the injured patient.

##### Patient Care:

1. Assist the trauma SAR with completion of primary survey.
2. Perform and communicate the results of the secondary survey.
3. Obtain a focused history from trauma patients or their family members as appropriate.
4. With supervision, place central venous lines and tube thoracostomies.
5. Assist with operative procedures as needed.
6. Round daily on trauma floor and stepdown unit patients, making appropriate treatment decisions and communicating the results of assessments to senior team members.
7. Enter admission and discharge orders for trauma floor and stepdown unit patients.
8. With appropriate supervision and guidance, interpret radiologic studies on injured patients.
9. Assist multidisciplinary team in planning and executing discharge plans.

##### Practice Based Learning:

1. Become familiar with the literature regarding management of injured patients including those studies referenced by faculty, fellows, and senior residents on daily rounds.

##### Interpersonal and Communication Skills:

1. Accurately communicate patient care information to all members of the patient care team.
2. Work in conjunction with case management personnel to establish a safe discharge plan.
3. Perform focused patient presentations on rounds with trauma faculty.
4. Become an active participant in medical student education and involve them in patient care as appropriate.

Professionalism:

1. Demonstrate a commitment to being a part of the trauma team by attending all trauma codes and delivering excellent patient care.
2. Attend daily multidisciplinary trauma rounds as well as Acute Care Surgery conference.

Systems-Based Practice:

1. Work as a team with multi-disciplinary trauma team to include (but not limited to) physicians, mid-level providers, students, nurses, respiratory therapists, pharmacists, physical, occupational, and speech therapists, case managers, and social workers to provide patient care and discuss treatment plans.

**PGY 4 Core Competencies:**

Medical Knowledge:

1. Describe and explain the mechanics/ballistics associated with various wounding agents.
2. Develop a detailed understanding of the pathophysiologic effects of blunt and penetrating trauma to include the effects of different degrees of shock and response to resuscitation.
3. Discuss the management of associated medical conditions seen in the trauma patient such as diabetes and chronic obstructive pulmonary disease.
4. List indications for operative intervention in the injured trauma patient for both blunt and penetrating injury to each anatomic region.
5. List indications for nonoperative management of injuries in the injured trauma patient for both blunt and penetrating injury to each anatomic region.
6. Describe how angioembolization can be used as an adjunct to management of the injured patient.
7. Explain trauma preventive measures, both medical and legal (eg., the use of helmets and seat belts).
8. Given an injured patient, detail how injury to one organ system affects the treatment of other injuries in that patient (e.g. the effect of traumatic brain injury on management of a splenic injury).
9. Explain the effect of prehospital management on trauma patient outcomes.
10. Detail the operative steps for common trauma operative interventions.
11. Describe the pathophysiology of burn and inhalation injury.
12. Explain management of commonly encountered postinjury complications.

#### Patient Care:

1. Oversee and direct the initial evaluation and management of the injured patient.
2. Identify immediate life-threatening problems during the primary survey and intervene appropriately.
3. Supervise junior residents on the service in daily patient care and performance of invasive procedures.
4. With indirect supervision, perform placement of central venous lines and tube thoracostomy.
5. With direct supervision and assistance as needed, perform operative management of both blunt and penetrating traumatic injuries.
6. Consult appropriate services to assist with management injuries as needed (e.g. orthopedics, neurosurgery, etc.).
7. During admission, appropriately manage patient injuries as well as underlying comorbidities and complications of injury.

#### Practice-Based Learning

1. Gain a more in depth understanding of the literature regarding indications for interventions in trauma patients including initial management and ongoing care.
2. Seek out peer-reviewed sources when confronted with treatment dilemmas.

#### Interpersonal and Communication Skills:

1. Become a team leader and direct the initial care of the injured patient by mobilizing available resources and delegating interventions as appropriate.
2. Accurately communicate patient care information to all members of the patient care team.
3. Work in conjunction with case management personnel to establish a safe discharge plan.
4. Perform focused patient presentations during multidisciplinary rounds.
5. Become an active participant in medical student education and involve them in patient care as appropriate.

#### Professionalism:

1. Demonstrate a commitment to being a part of the trauma team by attending all trauma codes and delivering excellent patient care.
2. Attend daily multidisciplinary trauma rounds as well as Acute Care Surgery conference.
3. Demonstrate leadership skills during trauma resuscitations, multidisciplinary rounds, and running the trauma service.

#### Systems-Based Practice:

1. Work as a team with multi-disciplinary trauma team to include (but not limited to) physicians, mid-level providers, students, nurses, respiratory therapists, pharmacists, physical, occupational, and speech therapists, case managers, and social workers to provide patient care and discuss treatment plans.

