TRAUMA ICU EXPERIENCE: INTRODUCTION

The Trauma Critical Care rotation at Scripps Mercy Hospital is designed for residents and fellows. Because patients in our Intensive Care Unit can be extremely complicated, we expect that prior to your first day on the service, you will contact a member of the team (Chief Resident, an off-going resident, a Nurse Practitioner or a Trauma Attending) and have a transfer of information that includes a comprehensive clinical summary of all the ICU trauma patients. Your level of training and experience will determine the degree to which you will independently manage the patients. For the most part you should assume that the Trauma Attending will want to be kept abreast of major events and changes in management.

The following is intended to give you a brief introduction to the Trauma Service at Scripps Mercy Hospital. It is not intended to be comprehensive, but it will provide you with the essential information you need to get off to a good start on your rotation.

1. Check in at the Graduate Medical Office (GME, lower level; open 0800 to 1630).
   a. Bring to GME a copy of your TAD orders (in case a copy was not forwarded by your institution already), and
   b. Verify that GME received your completed "Resident Check-in Form, copy of your medical school diploma and medical license, and proof of TB test (within last 12 months).
   c. Obtain a Parking Permit and your computer system access codes for the Scripps network and Epic
   d. Obtain a "Request for Non-Employee ID Badge" form and take it to the Security Office (1st floor) for processing.
2. Check in at Trauma Administration (1st floor, 0730 to 1600) with Administrative Coordinator.
   a. Pick up your assigned pager, keys, and locker.
   b. Pick up current copy of the Trauma Surgeons on call schedule.
3. Obtain Scripps ID badge from Security office (1st floor).
4. **Epic:**
   a) **Must have modules completed prior to starting trauma and checking in with GME**.
   b) **Make sure log in works prior to first day on trauma rotation.** Obtain Trauma List access from team and obtain Trauma/ACS "dot phrases" and trauma order sets.

Duty Hours/Call

1. Call schedule is assigned according to the ACGME standards for resident duty hours.
2. Chief resident and ICU resident call rooms are located on the 9th floor.
3. PGY2+ may leave after staff turnover or after their ICU patients are presented on rounds. **This is vital to adequate transition of patient care.**

Code Trauma

1. "Code Trauma" will be heard over the hospital PA system and the trauma pagers.
2. Respond to the "Code Trauma" by going to the resuscitation bay, adjacent to the Emergency Room.
3. Dress in lead, yellow gown, gloves and protective eyewear.
4. Either the on-call PGY-1 or another team member (as indicated by either the Chief Resident or the Trauma Attending) leads the initial trauma work-up using the ATLS guidelines:

a. Take report from EMS as the patient is transferred to the gurney.
b. Perform primary survey and announce **loudly** the findings on the initial ABCD's
c. Take an A.M.P.L.E. history and then secondary survey.

5. Another house officer (resident, intern or PA student) or attending in some circumstances will act as "scribe" and record the history and physical exam on a pre-formatted part of the medical record.
6. The team will decide together about appropriate workup for the patient.

ICU RESIDENT/PA FELLOW/OMFS/PEDS FELLOW: RESPONSIBILITIES AND EXPECTATIONS

1. Arrive at 0600 each day to pre-round on the ICU patients so that you can attend the Chief Resident and NP rounds at 0730. Your 24-hour duty period begins when you receive the pager at morning chief rounds and ends the subsequent day at the same meeting when you formally hand off to the oncoming resident. The time before 0730 on your call day and after on your post-call day should not exceed 4 hours cumulatively. These 4 hours are considered "TRANSITIONS OF CARE" as defined and verified first-hand by Dr. Krzyzaniak with the ACGME. This is how you stay within the 24 + 4 rule. Next, attend the attending turn over rounds that commence at 0800. Shift change for the ICU bedside nurses is from 0630-0700 and from 1830-1900. As much as possible, please try to give the ICU nurses uninterrupted time at the bedside for their thorough turn over.
2. Round formally with the Trauma Attending and Nurse Practitioner once a day starting at completion of the attending turnover time. The attending on call will usually round at least once informally in the evening commencing, generally, at 2000 hours. If you are on call you are expected to participate in these "informal" evening rounds..
3. Write ICU admission orders for new patients arriving to the ICU directly from the trauma bay and OR as well as for those patients returning to the ICU after operations and procedures. Even though our consultants often write orders for us, it is our responsibility to review and approve orders written by consultants.
4. Maintain an active, up-to-date problem list in Epic for each patient.
5. Write transfer orders to the floor. Keep in mind that certain standard ICU orders are not appropriate for the floor (for example, insulin and morphine drips.) For each patient that is transferred, a verbal "check-out" to the on-call intern must be made prior to transfer.
6. Sign all verbal orders within 24 hours.
7. Document interim summaries for all patients who are in the ICU for greater than 7 days. Interim summaries may also be necessary for complicated patients with shorter stays or for patients still in the ICU at completion of your rotation.
8. Dictate discharge summaries for patients who are sent home directly from the ICU, transfer summaries for those sent to outside facilities and death summaries for patients who die in the ICU. All to be done in Epic.
9. Obtain consent from patients or their decision makers for all procedures that the trauma service performs (i.e., central line, arterial line, tracheostomy, etc.) Please review the risks and benefits of each procedure with either the Nurse Practitioner or Attending prior to obtaining consent. **We do not expect you to obtain consent for a procedure with which you are not familiar**. Consulting surgeons are responsible for their own procedure consents.

10. In addition to the daily progress note, please document significant events that occur during your shift. Significant events include procedures, family meetings, intubation, seizures, and a change in mental status.
11. When the chief surgical resident is gone for didactics or on leave, you may be asked to assume some of the chief level duties. This includes helping the interns and Nurse Practitioners with management of the patients on the floor because your prior experience is valuable and may be extremely helpful.
12. Attend daily floor rounds as the service allows. The ICU patients are your main responsibility but your participation is also expected for caring for the patients on the floor, especially when on call as you serve as the first backup for the PGY1. As long as the major issues are settled for the ICU, you are expected to participate in floor rounds also.
13. Maintain a thorough knowledge of each of the ICU patients' co-morbidities, injuries, hospital course and overall plan.
14. Work closely with the NPs to coordinate the ICU care and the transition of patients from the ICU to the floor.
15. The Trauma Chief Resident is ultimately responsible for the care of the patients in the ICU. S/he is responsible for making up the call schedule.
    a. General considerations for the call schedule:
        i. Friday or Saturday must be covered by chief surgery resident, unless on Leave.
        ii. The Navy Emergency Medicine residents should not take call on Wednesday because of their academic day on Thursday morning. You may be on call overnight after your academic morning ends.
        iii. The Kaiser Emergency Medicine residents should not take call on Wednesday because of their academic day on Thursday morning. You may be on call overnight after your academic morning ends.
        iv. The chief resident should avoid taking call on Thursday due to their academic on Friday morning.
16. Teach/supervise procedures (i.e. chest tubes, lines etc.).
17. Get operating room experience by scrubbing in to assist in general and vascular surgical operations with the trauma attendings. Simply because you are not a surgery resident does not mean that you cannot come to the Operating Room. Particularly for the Navy trainees, you may find yourself deployed and the only surgical assist option. Good to have some experience.

Knowledge of Disease

Each resident will have a unique experience regarding the types of injuries and diseases that will be encountered during your time on the Trauma Critical Care rotation. The following list includes many of the common problems seen on our service in the ICU. This list can be used as a guide for your independent reading.

Abdominal Compartment Syndrome
Acute Lung Injury and Acute Respiratory Distress Syndrome (ARDS)
Acute Renal Failure
Alcohol intoxication and withdrawal
Chest Injuries: flail chest, pulmonary contusion, hemothorax and pneumothorax

Coagulopathy of Trauma
"Damage Control" Resuscitation
Deep Vein Thrombosis
ICU Infections: bacteremia, line sepsis, urinary tract infections, ventilator associated pneumonia, wound infections
Multiple Organ Dysfunction Syndrome
Pulmonary Embolism
Rhabdomyolysis
Solid Organ Injury Management – operative and non-operative
Shock: cardiogenic, hemorrhagic/hypovolemic, neurogenic, septic
Spinal cord injury
Systemic Inflammatory Response Syndrome (SIRS) and Sepsis
Traumatic brain injury
Ventilator Associated Pneumonia
Delirium/Agitation/Psychosis in the ICU
Nutritional support
Medical management of patients with brain injuries

We also expect that you will be able to evaluate and manage certain common ICU occurrences such as:

Oliguria
Hypoxia
Hypotension
Mental status/neuro exam changes
New arrhythmias
Fever

Procedures

At completion of the Trauma ICU rotation, we expect that you will have an understanding of the indications for and the basic method of performing each of the following procedures. Most residents have the opportunity to perform many of these procedures.

Endotracheal intubation
NGT/OGT placement
Arterial blood gas draw
Placement of Arterial lines
Placement of Central lines
Placement of Chest tubes
Percutaneous tracheostomy

Skills

At completion of the Trauma ICU rotation, we expect you to have knowledge of the following general concepts and skills:

Hemodynaminc monitoring
Shock resuscitation
ACLS
ATLS
Basic ventilator management including modes of ventilatory support
Glycemic control in the ICU
Basic interpretation of radiographs: chest x-rays and trauma CTs
Nutritional assessment and management
Choosing empiric antibiotics
DVT prophylaxis
Peptic ulcer prophylaxis
Seizure prophylaxis in patients with traumatic head injuries