Trauma Surgery – ROTATION DESCRIPTION AND EXPECTATIONS (RDE)
Pediatric Emergency Medicine Subspecialty Residency - University of Calgary

ROTATION DESCRIPTION

Rotation structure

ATLS or equivalent is strongly suggested prior to your trauma rotation. Please connect with the PEM program administrator to coordinate this course prior to your trauma rotation. The call schedule is distributed by Monica Lee (wonjun.lee@ahs.ca). If you have not received it 4 weeks before the start of your block, please reach out to her.

If you have not heard from anyone about your first day, reach out to the General Surgery resident who distributes the call schedule go get connected on the usual first day procedures. Typically, on your first day, change into scrubs and go to FMC Unit 44 at 0700 and introduce yourself to the Unit Clerk, Charge RN, and ask for where the overnight team meets for handover. You will divide the patients with the other learners of the rotation and one of you will carry the trauma pager. Scheduling is coordinated by Dr. Ryan Rochon (ryan.rochon@ahs.ca).

Rotation length

Standard rotation length is 4 weeks with 1:4 in-house call. Vacation is allowed per the PEM Vacation and Education and Leave Policy (https://docs.google.com/document/d/1pQddx9VLT74sny263koOMLAg_MWns9Au/edit?usp=sharing&ouid=100114742872973660072&rtpof=true&sd=true).

Assessment

At the end of the rotation, the daily evals are compiled into an ITAR by Dr. Michael Dunham (michael.dunham@ahs.ca).

EPAs

The following EPAs have been mapped to this rotation and can be obtained:

**Refers to EPAs that must be prioritized on this rotation, very likely to occur*

FOD	**2**	Assessing and Providing Initial Management for Patients with a Suspected Multi-System Trauma
FOD	**5**	Working Effectively with Other Members of the Interprofessional Team
CORE	**2**	Managing Patients with an Acute Injury
CORE	**7**	Providing Sedation and Systemic Analgesia for Patients Undergoing Procedures in the ED
CORE	**8**	Performing the Procedures of Pediatric Emergency Medicine
CORE	**9**	Performing and Interpreting Point-Of-Care Ultrasound to Guide Patient Management
CORE	**11**	Managing Emotionally Charged Interactions with Patients, Families and/or Other Health Care Professionals
CORE	**12**	Coordinating Care with Other Services

The following procedural EPAs have been mapped to this rotation and can be obtained:
**Refers to EPAs that must be prioritized on this rotation, very likely to occur*

Chest Tube Placement - Percutaneous (1)*
Chest Tube Placement - Traditional (1)*
Intraosseous Insertion (1)*
Surgical Airway (1)*
Wound Repair - Simple (2)*
Wound Repair - Complex (2)*

ROTATION EXPECTATIONS (PEM Competencies 2023)

At the completion of training, the resident will have acquired the following competencies and will function effectively as:

Medical Expert:

1. Practice medicine within their defined scope of practice and expertise

1.1. Demonstrate a commitment to high-quality care of their patients

1.2. Integrate the CanMEDS Intrinsic Roles into their practice of Pediatric Emergency Medicine

1.3. Apply knowledge of the clinical and biomedical sciences relevant to Pediatric Emergency Medicine

- 1.3.4. Epidemiology of illness and injury
  - 1.3.4.2. Major causes of injury by age
  - 1.3.4.3. Major causes of death by age
- 1.3.9. Use of blood products, including indications, precautions, and dosing
  - 1.3.9.1. Massive blood transfusion protocol
- 1.3.11. Acute care, including emergencies and critical care
  - 1.3.11.3. Assessment and management of major trauma, including advanced trauma life support (ATLS) guidelines or equivalent
  - 1.3.11.4. Invasive and non-invasive mechanical ventilation
  - 1.3.11.8. Neurologic determination of death
  - 1.3.11.9. Principles of organ and tissue donation
- 1.3.12. Injury
  - 1.3.12.1. Injury prevention and analysis of injury events

1.3.12.2. Mechanisms of injury

1.3.12.3. Environmental exposures, including biological, chemical, hyperbaric, and radiation

1.3.12.5. Management of the injured patient

1.4. Perform appropriately timed clinical assessments with recommendations that are presented in an organized manner

1.5. Carry out professional duties in the face of multiple competing demands

1.5.1. Triage and prioritize when dealing with single or multiple critically ill patient(s)

1.5.2. Work efficiently in an environment with large patient volumes and rapidly changing priorities, including simultaneous performance of multiple tasks and appropriate change in focus

2. Perform a patient-centred clinical assessment and establish a management plan

2.1. Prioritize issues to be addressed in a patient encounter

2.1.1. Recognize and manage crisis situations and critical illness or injury

2.2. Elicit a history, perform a physical exam, select appropriate investigations, and interpret their results for the purpose of diagnosis and management, disease prevention, and health promotion

2.2.2. Elicit the history in a timely manner

2.2.3. Gather information about psychosocial and family considerations relevant to the presentation

2.2.4. Use collateral sources of information to complete or substantiate clinical information

2.2.6. Perform clinical assessments in a manner that recognizes and minimizes pain and distress

2.2.7. Perform timely and selective clinical reassessments to optimize and facilitate patient care

2.2.9. Select investigations with attention to diagnostic utility, safety, availability, and cost

2.2.10. Interpret the results of laboratory investigations

2.2.11. Interpret the following investigations

2.2.11.1. Electrocardiograms

2.2.11.2. Medical imaging, including

2.2.11.2.1. Radiographs

2.2.11.2.1.1. Abdominal

2.2.11.2.1.2. Chest

2.2.11.2.1.3. Skull

2.2.11.2.1.4. Spine and extremity

2.2.11.2.2. Critical findings of

2.2.11.2.2.1. Abdominal/pelvic computed tomography (CT) and ultrasound

2.2.11.2.2.2. Chest CT

2.2.11.2.2.3. Cranial CT

2.2.11.2.2.4. Imaging done as a part of a trauma protocol

2.2.11.2.3. POCUS examinations

2.2.12. Use sound clinical reasoning and judgment to guide diagnostic and management decisions, including in circumstances where complete clinical or diagnostic information is not immediately available

2.2.13. Recognize and mitigate the risk of over-investigation and over-diagnosis

2.4. Establish patient-centred management plans for:

2.4.1. Resuscitation of critically ill presentations

2.4.1.1. Airway emergencies

2.4.1.2. Cardiopulmonary arrest

2.4.1.3. Respiratory failure or arrest

2.4.1.5. Shock

2.4.1.7. Trauma

2.4.1.7.1. Blunt and penetrating injuries

2.4.1.7.2. Burns: chemical, electrical, and thermal

3. Plan and perform procedures and therapies for the purpose of assessment and/or management

3.1. Determine the most appropriate procedures or therapies

3.2. Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy

3.3. Prioritize procedures or therapies, taking into account clinical urgency and available resources

3.4. Perform procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances

3.4.2. Trauma life support

3.4.2.1. Cervical spine immobilization

3.4.2.2. Control of exsanguinating external hemorrhage

3.4.2.3. Needle decompression of chest

3.4.2.4. Pericardiocentesis

3.4.2.5. Thoracostomy: finger and tube

3.4.2.6. Application of pelvic binder

3.4.3. Vascular access

3.4.3.1. Peripheral

3.4.3.2. Central

3.4.3.3. Intraosseous

3.4.4. POCUS examinations

3.4.4.1. Identification of

3.4.4.1.1. Abdominal or pelvic free fluid

3.4.4.1.2. Cardiac standstill

3.4.4.1.3. Hemothorax or pleural effusion

3.4.4.1.4. Pericardial effusion

3.4.4.1.5. Pneumothorax

3.4.4.1.6. Soft tissue fluid collection or foreign body

3.4.4.2. Facilitation of

3.4.4.2.1. Fracture reduction

3.4.4.2.2. Nerve block

3.4.4.2.3. Vascular access

For Communicator, Collaborator, Leader, Health Advocate, Scholar, Professional competencies, please review the appropriate section of the Pediatric Emergency Medicine Competencies document at: https://www.royalcollege.ca/content/dam/documents/ibd/pediatric-emergency-medicine/pem-competencies-e.pdf