Indications to Consult Pediatric Critical Care

Purpose

The trauma service frequently encounters critically injured pediatric patients (aged 18 years or less) that require admission to the pediatric ICU for resuscitation and management of injuries. To optimize outcomes, assistance in resuscitation and care of these critically injured pediatric trauma patients is often enhanced by the involvement of pediatric critical care medicine (PCCM). As a result, collaboration between the trauma and pediatric critical care services is essential and the following guidelines are meant to outline when pediatric critical care should be consulted to assist in the management and care of injured children requiring admission to the pediatric ICU.

Indications to Consult Pediatric Critical Care Medicine (PCCM)

1. All injured children requiring ICU or progressive care level admission, age 12 years and younger.
2. Injured children with pre-existing or congenital conditions that would benefit from the expertise of a pediatric intensivist, age 18 and under.
3. At the admitting trauma attending's discretion.

Consulting Pediatric Critical Care Medicine (PCCM)

1. The trauma service will contact the PCCM provider listed "on call" on PerfectServe for consultation/handoff if the patient is being admitted/transferred to the PICU.
2. The trauma service will need to place an "Inpatient consult to pediatric critical care" consult order. Reason for consultation can be "medical co-management."
    - Use the **PEDATRIC TRAUMA ADMISSION – 12 years old and younger** order set. Select **"Inpatient consult to Pediatric Critical Care Medicine"** order under Physician Consults-Academic section followed by also selecting the associated order **"Notify physician/provider—Please contact Pediatric Critical Care Medicine regarding invasive/non-invasive respiratory support, sedation, CRRT settings, and adjustment of existing pressors. For ALL OTHER CONCERNS, contact the TRAUMA TEAM"** located in the Vital Signs/Notify Physician section.
3. Direct verbal communication should occur between the trauma and PCCM providers caring for the patient on admission/transfer to the pediatric ICU and with any change in patient

status/condition.

General Requirements

1. When consulted, PCCM will assist with management until the patient is transferred out “critical care” status. At which time, a pediatric co-management consult should be considered.
2. **The trauma service will serve as the patient’s PRIMARY team**. As a result, the trauma surgeon/team must be kept informed of and concur with all major therapeutic and management decisions when care is being provided by the PCCM team.
    - A minimum of daily communication between the trauma and PCCM teams should occur to discuss patient care plans.
    - The trauma and PCCM teams will round daily on patients and write daily progress notes.
    - If it is determined that the trauma team should no longer be the primary team on a patient (i.e. transferring to another pediatric service), the trauma service will be responsible for finding an accepting primary service, placing the necessary orders for transfer, communicating plans for transfer with PCCM team, and documentation of transfer to include patient’s current status/injury management/follow-up/transfer details/etc. (“sign off” note)
3. If PCCM is consulted, adult critical care surgery (CCS) services will **not** be involved in the care of the pediatric trauma patient unless specifically requested by the trauma service.

Responsibilities of Pediatric Critical Care Medicine (PCCM) Team

1. Management of vasopressors and other continuous infusions (i.e. sedation, analgesia, etc.).
2. Management of ventilator.
3. Placement and management of central venous catheters, PICC line, and arterial lines (in collaboration with trauma team).
4. Medication management, review, and reconciliation.
    - Including guidance for dosing by weight and age (in collaboration with pediatric pharmacy).
    - including electrolyte replacement, glucose management, seizure management, and antibiotics (in collaboration with the trauma team).
5. Ensuring adjunctive modalities are used for delirium prevention, pain control, and refusal of PO/medications by child or parent.
6. Discrepancies between orders (in collaboration with the trauma team).
7. Management of pre-existing/chronic medical conditions.
8. Responding to all acute decline and decompensation events.
    - In addition, will contact the trauma team to provide updates on significant events or status changes.

9. Screening and interventions for non-accidental trauma, as deemed necessary (in collaboration with the trauma team).
10. Counseling and guidance of injury prevention, including causative injury and other preventative measures, to patient and family.
11. Communication with primary pediatrician/PCP.
12. Facilitate pediatric specialist consults and follow-up (in collaboration with the trauma team).
13. Assist the trauma team with facilitating discharge to inpatient rehabilitation.

Responsibilities of the Trauma Service

1. Contacting all consult services based on patient injuries and clinical findings.
2. Coordinating and managing all procedural and operative interventions.
3. Admission and discharge orders and notes.
4. Diet/nutrition management and associated orders.
5. Activity orders.
6. Wound care management and associated orders.
7. Imaging and lab orders.
8. Determination of need, orders, and management of DVT prophylaxis (in collaboration with PCCM and pharmacy).
9. Blood product transfusions (in collaboration with PCCM).
10. Management of new medical issues (in collaboration with PCCM).
11. Chest tube placement and management (in collaboration with PCCM).

References

1. Rosen, N. G., Escobar Jr, M. A., Brown, C. V., Moore, E. E., Sava, J. A., Peck, K., ... & Martin, M. J. (2021). Child physical abuse trauma evaluation and management: a Western Trauma Association and Pediatric Trauma Society critical decisions algorithm. *Journal of Trauma and Acute Care Surgery*, *90*(4), 641-651.
2. American College of Surgeons Trauma Quality Improvement Program (2019). ACS Trauma Quality Program Best Practices Guidelines for Trauma Center Recognition of Child Abuse, Elder Abuse, and Intimate Parner Violence. Release November 2019. Available at https://www.facs.org/media/o0wdimys/abuse_guidelines.pdf. Accessed March 20, 2024.

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