Illinois EMSC
Pediatric Mild Traumatic Head Injury
Data Dictionary
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AIM Statement:

To provide safe and effective care for pediatric patients ($0 \leq 15$ years) presenting to the Emergency Department with any form of traumatic head injury (GCS $\geq$ 14) as evidenced by:
- Appropriate Assessment
- Appropriate Management
- Appropriate Disposition & Discharge Instructions

REVIEW THE PATIENT'S *ENTIRE* ED MEDICAL RECORD TO COLLECT THE NECESSARY DATA (i.e., BOTH MD AND RN NOTES)

Record Sampling:

Please follow these three steps when selecting patient records for review:

Step 1. Randomly select 30 patient records from all head injured pediatric patients treated in your Emergency Department during the 4th quarter of 2008 (October 1 through December 31). Each patient must meet the following inclusion criteria:

1. Age: 1 day through 15 years of age
2. Glasgow Coma Scale: 14 or 15 *(exclude cases with GCS 13 or less)* or Awake, Alert & Oriented x 3
3. Diagnosis of head injury (defined as either a or b):
   a. Within the following ICD9 Codes:
      - 800 - 801.9 -- types of skull fractures
      - 803 - 804.9 -- other types of skull fractures
      - 850 - 850.9 -- concussion
      - 851 - 854.1 -- brain injury
      - 959.01 -- other and unspecified injury to the head

   b. Discharge diagnosis of "concussion," "traumatic brain injury," "closed head injury/trauma," "CHI," "skull fracture," "hematoma/bleed," etc.

If your facility has less than 30 patient records (e.g., 25 records) for the quarter in total, then work with this smaller number of records (e.g., 25).

Step 2. From the patient records selected in Step 1, audit up to **10 records of patients who received a CT scan.** Enter data from these records in Section 1 (entitled "CT Scanned Patients") of the Web data entry system. If there are less then 10 such records (e.g., 7) available, then audit all of them. This concludes Step 2.

NOTE: If your facility *does not* perform CT imaging at all, then go to Step 3.

Step 3. From the remainder of the original patient records selected in Step 1, **audit 10 random patients who fit the inclusion criteria – with or without undergoing CT imaging**. Enter data from these patient records in Section 2 (entitled "All Head Injured Patients") of the Web data entry system.

At most you will enter 20 records for the 4th quarter.
This process will be repeated in the 3rd and 4th quarters of 2009 (July 1 – December 31).

Answer the questions using the following acronyms (unless otherwise directed):

Y = Yes/Present
N = No/Not Present
N/D = Not Documented/Unknown
N/A = Not Applicable

Assessment:

1. Age of patient (in months or years)

2. What was the mode of arrival?
   - Prehospital (P) = transported by EMS
   - Transfer (T) = transported from one acute care facility to another acute care facility
   - Walk in (W) = brought in by family/caregiver; as a referral from an urgent care center, doctor's office, etc.

3. Was the time of the injury within the last 24 hours? Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

4. What was the Mechanism of Injury (MOI)?
   - Motor Vehicle Crash (M) (patient in or struck by vehicle)
   - Bicycle (B)
   - Hit by object/person (H)
   - Sports related (S)
   - Fall (F)
   - Other (O)
   - N/D = Not Documented/Unknown

   4a. Was the MOI considered **severe** (based on one of the following conditions: Motor vehicle crash - ejection, rollover, death in same passenger compartment; Fall > 5 feet; Pedestrian or unhelmeted bicyclist struck by motorized vehicle; Struck by high impact object/projectile)?
   Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

   4b. Was appropriate safety equipment used (e.g, seatbelt/car seat, bike helmet, protective sports equipment, etc.)?
   Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable
      - *Not Applicable (N/A) is appropriate in cases where safety equipment would not be expected (e.g., Fall)*

5. Did the child suffer a recent recurrent traumatic head injury (e.g., within the last 12 weeks)?
   Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

6. Were vital signs documented (per hospital policy)? Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

7. Was the child screened for signs of child maltreatment/neglect (e.g., history is inconsistent with injuries, delay in seeking medical care, history isn't plausible for age and development of child, etc.)?
   Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

8. Was the pain level documented?
   Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

9. Did the child demonstrate any abnormal behavior per a reliable parent/caregiver (e.g., mood swings, excessive sleepiness, etc.)?
   Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

10. Did the child have any emesis within the last 24 hours?
    Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

11. Did the child have a positive Loss of Consciousness (LOC)?
    Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

12. Were any focal neurologic findings/deficits present (e.g., paralysis, weakness, sensory level deficit, cranial nerve deficit, etc)?
    Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

13. Was physical/palpable evidence of any kind of skull fracture present *prior to CT imaging* (e.g., Battle's sign, raccoon eyes, hemotympanum, CSF rhinorrhea, etc)?
    Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

14. Was physical/palpable evidence of scalp abnormality present *prior to CT imaging* (e.g., hematoma, laceration, etc.)?
    Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

15. Were other body systems involved (e.g., bruises, suspected fractures, suspected abdominal trauma, etc)?
    Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

Management:

16. Was head CT imaging performed?
    Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

    16a. If yes, were the initial CT findings/results in the ED positive (e.g., signs of fracture, bleed, etc.)? Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

    16b. If no, specify the reason:
    - CT was not available
    - CT was not ordered per physician decision
    - Other
    - N/D = Not Documented/Unknown

17. Was a neurosurgical consultation ordered?
    Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

    17a. If no, specify the reason:
    - Child's history/condition and diagnostic findings did not warrant a consultation (per physician decision)
    - No pediatric neurosurgical service was available in-house
    - Only phone consultation with adult neurosurgical service was available
    - Decision was made to transfer because of the need for neurosurgical consultation
    - Other
    - N/D = Not Documented/Unknown

Disposition/Discharge:

18. Was a neurologic reassessment documented before disposition (e.g., GCS, AVPU, LOC assessment, brief neuro exam, parent reports that child is at baseline, etc.)?
    Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable

19. What was the child's disposition from the ED?
    - Admitted (A) = admitted to a hospital unit (> 23 hours)
    - Transferred (T) = transferred to a higher level of care
    - Direct to the Operating Room (D) = transferred to the OR from the ED

- Observed (O) = admitted to an observation unit and/or observed in the ED ($\leq$ 23 hours)
- Home (H) = discharged home after a brief period of observation ($\leq$ 6 hours)
- Expired (E) = expired in the ED

19a. If transferred, specify the reason:
  - Higher level of care
  - Higher level of care – specifically for CT neuroimaging
  - Higher level of care – specifically for neurosurgical consultation
  - Lateral transfer for CT neuroimaging only (i.e., if in-house CT is down/busy)

20. Were pediatric head injury discharge instructions/patient education given to patient/family (including information such as: S/S postconcussive syndrome; when to return to ED; safety information; when to return to sports/gym; pain control issues; referral/emergency # to call, expected course of illness/recovery, potential for cognitive/behavioral changes, etc)?
    Y = Yes/Present; N = No/Not present; N/D = Not Documented/Unknown; N/A = Not Applicable