

Title: NON-ACCIDENTAL TRAUMA SCREENING AND MANAGEMENT GUIDELINE

Scope/Patient Population:

Pediatric patients evaluated in MHS Emergency Departments, Pediatric Intensive Care or Inpatient Services with actual or suspected abuse or neglect.

Please see the following sections for reporting suspected child abuse and neglect:

- II.B.3.b. (Key Steps, Evaluation of Suspected Abuse, Consults).
- II.B.4.b. (Key Steps, Evaluation of Suspected Abuse, Disposition).
- II.B.5. (Key Steps, Evaluation of Suspected Abuse, Notification of Family).

Policy Statement/Background:

The goal/purpose of this guideline is to provide appropriate identification, evaluation, and intervention during the care of a neonate, infant, or child with actual or suspected abuse or neglect, by routine screening, evaluation and management for Non-Accidental Trauma (shall be referred to as NAT in this document).

An interdisciplinary team from MBCH Trauma Services, Emergency Department, Inpatient Services, Palliative Care and CAID facilitated this change as a result of current evidence and best practice.

Special Instructions:

1. Inclusion Criteria: Children < 2 years of age
2. Exclusion Criteria: Children > 2 years of age

Procedure:

I. Outline Specific Steps in the Procedure:

- A. If patient presents to any MHS Emergency Department other than MBCH, please call the MB ED at 253-403-1418 to arrange transfer for a complete NAT workup.
- B. Upon admission to MHS Emergency Department, or direct admit to MBCH PICU or Medical/Surgery, the **RN** will:
 1. Ensure complete vital signs are obtained and documented including
 - a. Weight
 - b. Length
 - c. Head circumference (OFC) in the Emergency Department under the direction of Emergency Department Physician or at the time of hospital admission.
 - d. Large heads in infants (consider measuring OFC in children < 18 month)

2. Assess and document
 - a. Bruise(s) in any non-ambulating child
 - b. Bruise(s), marks or scars in patterns that suggest hitting with an object
3. Report all findings to Physician
- c. Upon admission to MHS Emergency Department, or direct admit to MBCH, Pediatric Intensive-Care Unit (PICU) or Medical/Surgery and Pediatric Trauma Service, the **Physician** will:
 1. Systematically review and document in H/P any "Red Flag" findings (see II. Below for detail).
 - a. "Red Flag" History of Present Injury
 - b. "Red Flag" Physical Exam Findings
 - c. "Red Flag" Radiographic Findings
 2. Systematically evaluate and document cases of suspected physical abuse by following standards key steps outlined in Section II in this Guideline.
 3. Care team huddles to ensure patient safety prior to discharge from both the ED and inpatient units (further explained in section II).

II. Key Steps Should Be Outlined Clearly (see Appendix A for algorithm):

- A. Screen neonate, infant or child
 1. "Red Flag" History of Present Injury
 - No history or inconsistent history
 - Changing history
 - Unwitnessed injury
 - Delay in seeking care
 - Prior ED visit
 - Domestic Violence in home
 - Premature infant (< 37 weeks)
 - Low birth weight/IUGR
 - Chronic medical conditions
 2. "Red Flag" Physical Exam Findings Infant
 - Torn frenulum
 - FTT (weight, length, head circumference)
 - Large heads in infants (consider measuring of OFC in children < 1 yr)
 - Any bruise in any non-ambulating child- "if you don't cruise you don't bruise"
 - Any bruise in a non-exploratory location {especially the TEN region - **T**orso (area covered by a standard girl's bathing suit), **E**ars and **N**eck} < 4yrs old (TEN-4)
 - Bruises, marks, or scars in patterns that suggest hitting with an object
 3. "Red Flag" Radiographic Findings
 - Metaphyseal fractures (corner)
 - Rib fractures (especially posterior) in infants

- Any fracture in a non-ambulating infant
 - An undiagnosed healing fracture
 - SDH and/or SAH on neuro-imaging in young children, particularly in the absence of skull fracture < 1 year
- B. If a patient presents at any MHS Hospital other than Mary Bridge Children’s Hospital, with “Red Flag” findings, please call MBCH Emergency Department at 253.403.1418 to arrange transfer for complete NAT work-up. Evaluate cases of suspected physical abuse
1. Laboratory
 - a. General for most patients:
 - i. CBC & platelets; PT/PTT/INR (if concern of low/falling hemoglobin, repeat in am with retic)
 - ii. CMP
 - iii. Lipase
 - iv. Urinalysis – Dip, send for microscopic
 - v. Comprehensive urine toxicology screen for < 2 with altered level of consciousness
 - b. If fractures are present:
 - i. Phosphate
 - ii. PTH
 - iii. Vitamin D 25-OH
 2. Radiology
 - a. Skeletal survey < 2 years old (with 2 week follow up)
 - i. In ED if needed for disposition; or
 - ii. Within 24 hours of admission
 - b. Head CT (non-contrast with 3D reconstruction) if
 - i. < 6 months of age and other findings of abuse
 - ii. Bruising to face or head injuries AND <12 months of age
 - iii. Neurologic symptoms < 12 months of age (including soft symptoms such as vomiting, fussiness)
 - c. Abdominal CT if
 - i. Signs/symptoms of abdominal trauma
 - ii. ALT or AST if twice normal
 - iii. Bruising to abdomen or torso
 3. Consults
 - a. Crisis Intervention Social Work
 - b. Call CAID if diagnosis of abuse or likely abuse at:
 - i. 403-1478, Monday–Friday 8 am to 5 pm; if after hours, leave a message and call will be returned when they return
 - ii. 403-1418, MB ED, after hours and weekends (they can reach the CAID Medical Director if necessary)

If needed, after hours consultation for suspected child abuse or neglect is available through Seattle Children’s Hospital (1-866-987-2000). Request the Child Abuse Physician on call. This service is provided through the Child Abuse

Consultation Network for Washington State. **All patient care providers are required by law to report suspected child abuse and neglect or cause a report to be made and are considered to be "mandated reporters". Patient care staff have a duty to make reports but may participate collaboratively to assure that reports are made. Collaborative referral does not negate the responsibility of the individual if the call is later not completed.**

- c. Pediatric General Surgery for trauma evaluation
- d. If Head CT is abnormal and abuse is being considered, call
 - i. Neurosurgery
 - ii. Ophthalmology for retinal exam*
 - iii. Neuropsychology
 - iv. Child Advocacy

**An Ophthalmology consult for a dilated eye exam is not necessary as part of the evaluation for NAT IF ALL OF THE FOLLOWING CRITERIA ARE MET:*

- 1. *NORMAL head CT or CT with only a single, simple non-occipital skull fracture*
- 2. *NORMAL mental status/neurologic exam*
- 3. *NO FACIAL BRUISING*

4. Disposition

- a. If any suspicion of NAT has been raised during the ED encounter, a face-to-face care team "huddle" must take place prior to ED discharge. All members involved in the patient's care should participate including (at a minimum) the ED physician, ED RN and Social Worker.
- b. If any suspicion of NAT has been raised during ED encounter, refer to the policy "Child Abuse Response and Reporting, Suspected" for detailed guidelines.
 - i. Ref. RCW 26.44 Abuse of Children Child Abuse: Response, Reporting, Suspected. Washington State Law, RCW 26.44.056, Washington State Law, RCW 71.05.050 a. RCW 26.44.056.
- c. For suspected abusive head trauma NAT cases that require admission for either:
 - i. Intracranial abnormality identified on head CT
 - ii. Suspected seizures from abusive head trauma
 - A. Admission, as clinically indicated, to:
 - I. Medical/Surgical trauma service admission with Q2 hour neuro checks for further child abuse work up
 - II. Consider PICU admission for:
 - a. Any child with intracranial injury/bleed or skull fracture(s) identified on head CT
 - b. Any child with normal head CT/no seizures

but GCS < 15

- d. For suspected NAT cases not involving head trauma, admission to Medical/Surgical or PICU after injuries are reviewed by ED MD and Pediatric General Surgeon as medically indicated.
- e. Prior to hospital discharge: care team "huddle" including all members involved in the patient's care. Phone communication between may be utilized as necessary.
- f. Outpatient CAID follow-up as needed.

5. Notification of Family:

1. Notification to family should be straight forward and non-punitive.

The communication should clarify that medical providers are not investigators and that will be the role of Child Protective Services and/ or Law Enforcement.

B. Exceptions to Notification: Informing the family of suspicions of maltreatment may not be advisable in the following situations:

- 1. In some cases of suspected abuse, discussion with the family may need to be postponed until the child is in a safe placement or has been formally assessed or interviewed. This may be necessary to avoid having the child threatened by the alleged offender or to keep the parent from leaving the hospital with the child untreated and potentially unsafe.
- 2. If discussion in the hospital could escalate the problem and interfere with protective interventions, it may be best to postpone informing the family until the child has been treated and a follow-up plan is in place.

III. Definitions:

- A. OFC – Occipital-frontal circumference
- B. TEN region – Torso, ear or neck
- C. Child Advocacy Center- Umbrella agency for all local community agencies that work with child abuse investigations

Related Policies: MBCH Head Injury Guideline; Traumatic Brain Injury Guideline; Trauma Team Activation Policy; Child Abuse Response and Reporting, Suspected; Infant/ Minor Child Hospital Hold and Protective Custody

Related Forms: NAT Order Set; Trauma H/P

References:

Martrille et al. A multicenter and prospective study of suspected cases of child physical abuse. Int J Leg Med (2006) 120: 73-78

Trocme et al. Nature and severity of physical harm caused by child abuse and

<p>neglect: Results from the Canadian Incidence Study. JAMC (2003) 169 (9)</p> <p>Hurme et al. Risk factors for physical child abuse in infants and toddlers. <i>Pediatr Surg</i> (2008) 18: 387-391</p> <p>Ward & Bennett, Studying child abuse and neglect in Canada: We are just at the beginning. <i>CMAJ</i> (2003) 169 (9).</p> <p>RCW 26.44 Abuse of Children. Child Abuse: Response, Reporting, Suspected Washington State Law, RCW 26.4.056, RCW 71.05.050, RCW 26.44.056</p>	
<p>Point of Contact: Pediatric Trauma Program Manager, 403.4417</p>	
<p>Approval By:</p> <p>MBCH Pediatric Trauma Multidisciplinary Committee</p> <p>MBCH Hospital Practice Committee</p> <p>GSH Emergency Services Committee</p> <p>MHS Emergency Committee</p> <p>Quality Steering Council</p>	<p>Date of Approval:</p> <p>3/13</p> <p>3/13</p> <p>4/13</p> <p>5/13</p> <p>6/13, 11/13</p>
<p>Original Date:</p> <p>Revision Dates:</p> <p>Reviewed with no Changes Dates:</p>	<p><i>2/13</i></p> <p><i>10/13</i></p>

Distribution: MHS Intranet

Appendix A

NON-ACCIDENTAL TRAUMA (NAT) SCREENING and MANAGEMENT GUIDELINE (INPT/OUTPT)

“Red Flag” History of Present Injury

- No history or inconsistent hx
- Changing history
- Unwitnessed injury
- Delay in seeking care
- Prior ED visit
- Domestic Violence in home
- Premature infant (< 37 weeks)
- Low birth weight/IUGR
- Chronic medical conditions

“Red Flag” Physical Exam Findings Infant

- Torn frenulum
- FTT (weight, length, head circumference)
- Large heads in infants (consider measuring of OFC in children < 1 yr)
- Any bruise in any non-ambulating child- “if you don’t cruise you don’t bruise”
- Any bruise in a non-exploratory location {especially the TEN region-Torso (area covered by a standard girl’s bathing suit), Ears and Neck} < 4yrs old (TEN-4)
- Bruises, marks, or scars in patterns that suggest hitting with an object

“Red Flag” Radiographic Findings

- Metaphyseal fractures (corner)
- Rib fractures (especially posterior) in infants
- Any fracture in a non-ambulating infant
- An undiagnosed healing fracture
- SDH and/or SAH on neuro-imaging in young children, particularly in the absence of skull fracture < 1 year



Recommended evaluation in cases of suspected physical abuse

Note: If patient presents at any MHS Hospital other than Mary Bridge Children’s Hospital, with “Red Flag” findings, please call the MBCH Emergency Department at 253-403-1418 to arrange transfer for complete NAT workup.

Laboratory

General for most patients:

- i. CBC & platelets; PT/PTT/INR (if concern of low/falling Hgb, repeat in am with retic)
- ii. CMP
- iii. Lipase
- iv. Urinalysis – Dip, send for microscopic
- v. Comprehensive urine toxicology screen for < 2 years old with altered level of consciousness

If fractures are present:

- i. Phos
- ii. PTH
- iii. Vit D 25-OH



Radiology

- a. Skeletal survey for < 2 years old (with 2 week follow up)
 - i. In ED if needed for disposition; or
 - ii. Within 24 hours of admission
- b. Head CT (non-contrast with 3D reconstruction) if
 - i. < 6 months of age and other findings of abuse
 - ii. Bruising to face or head injuries AND < 12 months of age
 - iii. Neurologic symptoms < 12 months of age (including soft symptoms such as vomiting, fussiness)
- c. Abdominal CT if
 - i. S/Sx of abdominal trauma
 - ii. ALT or AST if twice normal
 - iii. Bruising to abdomen or torso

Consults

- a. Crisis Intervention Social Work
- b. Call CAID if diagnosis of abuse or likely abuse at:
 - i. 403-1478, Monday–Friday 8 am to 5 pm; if after hours, leave a message and call will be returned when they return
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2. *NORMAL mental status/neurologic exam*
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Disposition

1. Disposition
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 - II. Consider PICU admission for:
 - a. Any child with intracranial injury/bleed or skull fracture(s) identified on head CT
 - b. Any child with normal head CT/no seizures but GCS < 15
 - i. For suspected NAT cases not involving head trauma, admission to IPS or PICU after injuries are reviewed by ED MD and Pediatric General Surgeon as medically indicated.
 - j. Prior to hospital discharge: care team “huddle” including all members involved in the patient’s care. Phone communication between may be utilized as necessary.
 - k. Outpatient CAID follow-up as needed.



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