Identifying Child Maltreatment: Reframing Our ‘EPIC BPA’

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I have no relevant financial disclosure(s)
Objectives today

1. Review some literature on child maltreatment screening and clinical decision alerts, tools and pathways
2. Understand unique challenges of universal objective child maltreatment case identification
3. Learn best practice tips to increase confidence in having difficult conversations about child abuse
4. Embrace curiosity and courage in future child abuse care scenarios
Some Alphabet Soup for Breakfast Today

- BPA: Best Practice Alert
- CAP: Child Abuse Pediatrics
- CDS: Clinical Decision Support
- CDST: Clinical Decision Support Tool
- CPG: Clinical Practice Guideline
- CPS: Child Protective Services
- DHS: Department of Human Services
- EHR: Electronic Health Record

*EPIC for today is not our beloved EHR… But our important, larger than life, and heroic question at hand.*
How do we protect children who are at risk or who have already been maltreated?
Current State of Clinical Practice

• Current state of medical care for young victims of maltreatment is still characterized by missed opportunities to diagnose abuse and protect children from further harm variation and disparities in which children are evaluated and reported for abuse to CPS despite:

  • Literature supporting high risk case identification and routine screening recommendations
  • National policy statements from both CAP and other experts
  • Increased awareness of unconscious biases in decision making
  • Attention to decreasing errors in diagnosis health care
Patient safety strategies targeted at diagnostic errors: a systematic review

Kathryn M McDonald, Brian Matesic, Despina G Contopoulos-Ioannidis, Julia Lonhart, Eric Schmidt, Noelle Pineda, John P A Ioannidis

**Key Summary Points**

Missed, delayed, or incorrect diagnosis can lead to inappropriate patient care, poor patient outcomes, and increased cost.

Patient safety strategies targeting diagnostic errors have only recently been studied.

Approaches to reduce errors may involve technical, cognitive, and systems-oriented strategies tailored to specific conditions or settings.

A framework that organizations might use to classify intervention strategies aimed at reducing diagnostic errors includes technique, personnel, education, structured process, technology-based systems, and review methods.

Limited evidence from randomized, controlled trials shows that some interventions, such as text messaging—a technology-based systems strategy—can reduce diagnostic errors in certain situations.

Very few studies of interventions to reduce diagnostic errors have examined clinical outcomes (for example, morbidity, mortality) or evaluated the utility of engaging patients and families in prevention of diagnostic errors.
Errors of Diagnosis in Pediatric Practice: A Multisite Survey

Pediatrics July 2010, 126 (1) 70-79; DOI: https://doi.org/10.1542/peds.2009-3218

• 54% admitted making a diagnostic error at least once per month, and 45% noted making diagnostic errors that harmed patients at least once per year (although…)

• Child abuse was not listed in the ranking of conditions respondents “Considered Most-Commonly Misdiagnosed in Pediatric Practice”

BIAS and the DIAGNOSTIC PROCESS

• Overall, the type of biases affecting medical decision-making with the highest average frequency ratings were being too focused on a diagnosis or treatment plan and being misled by a normal history, physical, laboratory, or imaging results.

• Among process breakdowns and specific contributing factors associated with diagnostic errors, failure to gather available medical information, inadequate care coordination, teamwork, and/or communication across clinical settings or providers

• Of all cognitive factors, inadequate data-gathering or work-up was ranked highest overall
National Risk Factors for Child Maltreatment after Trauma: Failure to Prevent

Joshua Parreco, Hallie J Quiroz, Brent A Willobee, Mathew Sussman, Jessica L Buicko, Rishi Rattan, Nicholas Namias, Chad M Thorson, Juan E Sola, Eduardo A Perez

PMID: 31405411

Practice Implications

Prior opportunities to identify abuse in children with abusive head trauma

Megan M. Letson (MD, MEd)\textsuperscript{a, b, *}, Jennifer N. Cooper (PhD)\textsuperscript{a}, Katherine J. Deans (MD)\textsuperscript{a, b}, Philip V. Scribano (DO, MSCE)\textsuperscript{c, d}, Kathi L. Makoroff (MD, MEd)\textsuperscript{e, f}, Kenneth W. Feldman (MD)\textsuperscript{g, h}, Rachel P. Berger (MD, MPH)\textsuperscript{i, j}

Analysis of Missed Cases of Abusive Head Trauma

Carole Jeeny, MD, MBA
Lt Col Kent P. Hemel, MD, USAF, MC
Alene Ritten, MD, JD
Steven E. Reinert, MS
Thomas C. Hay, DO

Abusive head trauma (AHT) is a dangerous form of child abuse that can be difficult to diagnose in young children.

Objectives To determine how frequently AHT was previously missed by physicians in a group of abused children with head injuries and to determine factors associated with the unrecognized diagnosis.

Design Retrospective chart review of cases of head trauma presenting between January 1, 1990, and December 31, 1995.

Setting Academic children's hospital.

Patients One hundred seventy-three children younger than 3 years with head injuries caused by abuse.

Fatal Abusive Head Trauma Cases

Consequence of Medical Staff Missing Milder Forms of Physical Abuse

Resmiye Oral, MD\textsuperscript{*, †}, Fatih Yagmur, MD\textsuperscript{‡}, Marcus Nashelsky, MD\textsuperscript{†}, Manever Turkmen, MD\textsuperscript{§} and Patricia Kirby, MD\textsuperscript{¶}

Child Abuse Fatalities

Are We Missing Opportunities for Intervention?

endalyn K. King, MD, MPH\textsuperscript{*, †}, Eric L. Kiesel, MD, PhD\textsuperscript{§}, and Harold K. Simon, MD, MBA\textsuperscript{*, †}

Adapted slide courtesy of R. Berger, D. Lindberg, N. Harper
Curiosity and critical thinking: Identifying child abuse before it is too late

• **Design:** 18 cases of delayed diagnosis of physical abuse reviewed for qualitative themes. Missed abuse was defined by prior medical encounters that revealed unrecognized findings concerning for abuse.

• **Results:** Clinical limitations contributing to a delay in diagnosis included
  - inattention to skin and subconjunctival findings
  - acceptance of *inadequate explanations* for injuries
  - no history obtained from verbal children
  - insufficient exploration of signs and symptoms
  - nonadherence to the maltreatment pathway
  - incorrect diagnoses from radiologic examinations
  - System-based limitations included limited medical record access or completeness

• **Conclusions:** Having a greater index of suspicion for abuse may mitigate missed opportunities.
How do we accomplish this in our complex medical systems?

**Identify** suspicion of risk for abuse

**Evaluate** the suspicion of abuse properly

**Mandatory Reporting to CPS** per system policy and state law

**Critical Decision Making** collides with **Difficult Conversations**

**Outcomes** of safety, protection, well being, and permanency

**Collaboration** between all health care providers to assist CPS in assessment
### Effective Screening Tests

- Herman C - “What makes a screening exam ‘good’” Virtual Mentor. 2006
- Maxim LD, et al - “Screening tests: a review with examples” - Inhalation Toxicology. 2014
- Gonzalez DO & Deans KJ - “Hospital-based screening tools in the identification of non-accidental trauma” - Seminars in Pediatric Surgery. 2017

<table>
<thead>
<tr>
<th>Multidimensional approach includes education and tested EMR tools</th>
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<tr>
<td>Seamless incorporation into work flows with low user burden</td>
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<tr>
<td>Minimal reporting bias</td>
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<tr>
<td>Multidisciplinary team of experts - design, content and implementation support</td>
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<td>High sensitivity</td>
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*Adapted slide courtesy of N. Harper, MD
Otto Bremer Trust Center for Safe & Healthy Children*
Child Abuse focused BPAs, CDSTs, CPGs can be effective.
Safety programs for child maltreatment have potential to optimize detection and minimize medical errors. Effective implementation relies on several factors, including clinician uptake, resources, strategic planning and design, and capacity for follow-up testing and assessment. Health care providers are challenged to examine ways to improve screening for maltreatment in their own practice, including simple measures such as documenting all bruises in pre-cruising infants or requesting additional information when a concern is not yet a suspicion. As the authors aptly stated, “we do not know what we are missing if we do not look.”
Effects of Systematic Screening and Detection of Child Abuse in Emergency Departments

Every child, every time: hospital-wide child abuse screening increases awareness and state reporting

Potential Impact of a Validated Screening Tool for Pediatric Abusive Head Trauma

Authors: 

Effects of Systematic Screening and Detection of Child Abuse in Emergency Departments

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Authors:
BPA and Screening: Risk | Benefit Balance

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<th>BENEFITS</th>
<th>RISKS</th>
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<tr>
<td>• Identifies children who are victims of maltreatment</td>
<td>• Incidence of abuse seen varies by site - community vs. pediatric ED</td>
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<td>• Systematic approach is objective and fair</td>
<td>• Systemic biases may not be completely possible?</td>
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<td>• Demonstrated ease of use and uptake across the timeline and course of care</td>
<td>• Alert fatigue, bypass alert or guidelines; routine dulls critical thinking</td>
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<td>• Routine screening makes child abuse a shared responsibility</td>
<td>• Does not eliminate the challenge of that difficult conversation</td>
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CAP Clinical Pathways

• **Increase** recognition of sentinel injuries in high risk young patients and thereby increase successful detection of abuse

• **Improve adherence** to evaluation guidelines for children with recognized concern for child physical and sexual abuse

• **Improve adherence** to treatment guidelines and increase medication compliance for victims of sexual abuse

• **Decrease disparities** in evaluation for physical abuse in infants with specific high risk injuries and in reporting to CPS
Improving HIV post-exposure prophylaxis rates after pediatric acute sexual assault

Samantha Schilling a,⁎, Stephanie A. Deutsch a,⁎, Rebecca Gieseker a,⁎, Jennifer Molnar b,⁎, Jane M. Lavelle a,⁎, d, Philip V. Scribano a,⁎, d


Hospital Pediatrics
AN OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Impact on Hospital Resources of Systematic Evaluation and Management of Suspected Nonaccidental Trauma in Patients Less Than 4 Years of Age

Bethann M. Pfluglaker, Mauricio A. Escobar, Dustin Haferbecker, Yolanda Durand and Elizabeth Polkson
Hospital Pediatrics April 2017, 11 (1) 219-229 DOI: https://doi.org/10.1016/j.hped.2016.01.017

Eliminating disparity in evaluation for abuse in infants with head injury: use of a screening guideline

Erika L. Rangel a,⁎, Becky S. Cook a,⁎, Berkeley L. Bennett c, Karen Shebesta a,⁎, Jun Ying a,⁎, Richard A. Falcone b,⁎

PEDIATRICS
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Standardizing the Evaluation of Nonaccidental Trauma in a Large Pediatric Emergency Department

Lauren C. Riney, Theresa M. Frey, Emily T. Fain, Elenor M. Duma, Berkeley L. Bennett and Eileen Murtagh Kurovski

Original Research-QI

Quality Improvement Initiative to Improve Abuse Screening Among Infants With Extremity Fractures

Stephanie Anne Deutsch, MD, MS,⁎ M. Katherine Heny, MD, MSCE, Winnie Lin, MD,⩭ Karen J. Valentine, MSStat, Christopher Valence, MD,† James M. Callahan, MD,‡ Janne Lavelle, MD,§ Philip V. Scribano, DO, MSCE,#$ and Joanne N. Wood, MD, MSHP,‡,**

Objectives: The aim of this study was to evaluate the effectiveness of clinical pathway implementation and quality improvement (QI) interven-

Adapted slide courtesy of R. Berger, D. Lindberg, N. Harper
Clinical Decision Support Tools

1) Development - define problem and search evidence-based literature

2) Evaluation - of the system for compliance and outcomes

3) Implementation - education for providers across system

4) Maintenance - monitor, revise, and update

Dissemination of child abuse clinical decision support: Moving beyond a single electronic health record

Thomas McGinn, David A. Feldstein, Isabel Barata, Emily Heineinan, Joshua Ross, Dana Kaplan, Saffiya Richardson, Barbara Knox, Amanda Palm, Francesca Bullares, Nicholas Ruehlen, Linda Park, Sundas Khan, Benjamin Ethun, Rachel P. Berger

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A R T I C L E   I N F O

Keywords:
Child abuse
Child maltreatment:
Electronic health record
Clinical decision support

A B S T R A C T

Background: Child maltreatment is a leading cause of pediatric morbidity and mortality. We previously reported on development and implementation of a child abuse-clinical decision support system (CA-CDS) in the Center for Electronic Health Record (EHR) at children’s hospital. Our objective was to develop a CA-CDS in two other EHRs.

Methods: Using the CA-CDS in Center as a template, CA-CDSs were developed for use in four hospitals in the Northwestern Health System who use Epic and two hospitals in the University of Wisconsin EHR system who use Epic. Each system had a combination of trigger, alerts, and child abuse-specific order sets. Usability evaluation was done prior to launch of the CA-CDSs.

Results: Over a 16-month period, a CA-CDS was embedded into Epic and Allscripts in two hospital systems. The CA-CDS was very significantly from each other in terms of the type of triggers which were able to be used, the type of alert, the ability of the alert to link directly to child abuse-specific order sets and the order sets themselves. Conclusions: Dissemination of CA-CDS from one EHR into the EHR to other health care systems is possible but time-consuming and needs to be adapted to the strengths and limitations of the specific EHR. The specific usability evaluation, key to making multiple stakeholders buy in and significant implementation support are needed. These barriers limit scalability and widespread dissemination of CA-CDS.

1. Background

Child maltreatment is a leading cause of morbidity and mortality in children [1,2]. Failure to recognize abuse in its milder forms may result in repeated abuse and increased morbidity and mortality [3-5]. Many children diagnosed with physical abuse had been previously evaluated by a physician who did not recognize the abuse [2,3].

We previously reported on the development and implementation of a child abuse clinical decision support system (CA-CDS) embedded in Epic at the University of Pittsburgh Medical Center (UPMC) children’s hospital system [6-9]. This CA-CDS has been part of clinical practice at our level 1 pediatric trauma center since late 2015 and at the UPMC general emergency departments (GEds) since early 2017. The publication cited above describes the feasibility of performing routine child abuse screening in a large health system, improvement in identification of potentially abusive injuries in young children, and increased compliance.
Successful Implementation of CDSTs Require

- Support for the program from all levels of the organization
- Key stakeholders involved in all aspects of design and implementation
- A clinical champion who leads the effort
- A multidisciplinary committee manages the entire process
- Goals should align with organizational strategic goals
- Ongoing monitoring and fair process communication with affected clinicians will increase the chances of successful implementation
Barriers to Success with CDSTs

Barriers and facilitators can exist at the personal or system levels

• Lack of knowledge / awareness of guidelines
• Gaps in or concerns about evidence base
• Inability to overcome inertia “old habits die hard”
• Expectation about success / changing practice with little benefit
• Clinical autonomy/self-efficacy -“cookbook medicine” concerns
• Limited resource or finances
• Fear of medico-legal liability
• Lack of incentives, motivation or feedback
• Structural considerations - workloads, other pathways in place, time
• Provider and patient knowledge, attitudes, beliefs
• Communication with patients / family on this issue
Some Ramifications Unique to Child Abuse

• Legal impact - failure to diagnose abuse or missed abuse
• Standardization / variability - institutional and / or national
• Courtroom ‘experts’ challenging the standard of care
• Adapting best science in this field to pathways
• Elimination of biases and disparities - possible vs. probable?
• Communication - screening questions and concerns about standard of care studies with parents can be difficult
Communication about Child Abuse is a Difficult Conversation.
Difficult conversations are anything that someone finds hard to or does not want to talk about.

Why is this Colorado person such an uber empath? Why is this important?
The Top 5 Factors Contributing to Adverse Events

1. Communication
2. Coordination of Care
3. Escalation of Care
4. Workload
5. Recognizing change in clinical status


Child Abuse: Challenging Scenarios

- Telling parents concerned about abuse and discuss calling CPS
- Denialism, angry parents
- Threatening behaviors
- Taking histories, doing exams
- Parents with high SES, medical knowledge, prior CPS cases
- De-escalating angry scenarios

- Parents who are cognitively or substance abuse impaired
- Abuse deaths, grieving parents
- Medical team conflicts
  - About diagnosis of abuse
  - Differing opinions
  - Disagreements on work up
- CPS and law enforcement – trust and/or misunderstanding
Crucial Conversations: Tools for Talking When the Stakes are High. Patterson, Grenny, McMillan, Switzer
Solution Focused Frameworks: Shared Meaning

Medical Community | Health Services
- Chief complaints, disease, condition presentation(s)
- History drives our medical decision making
- Diagnosis dictates a certain treatment plans
- Informed consent and shared decision with patient
- Reassess and adapt medical plan

Child Welfare Community | CPS
- Case reports for child maltreatment
- Family assessments drive agency decision making
- Type and scope of maltreatment concern dictates intervention(s)
- Shared decision making with family leading to voluntary engagement or court action
- Reassess and adapt treatment plan
“to listen is to perceive with all of the senses and to interpret, and to giving meaning to what is heard.

To do this, we need to understand not only the expressed words but also the contextual information.”

Rafael Echeverría

*Chilean sociologist and doctor of philosophy, known for developing the discourse of the Ontology of Language and promoter of the discipline of ontological coaching

Three techniques to help mitigate communication misunderstandings

Verify our listening

Explore underlying concerns

Inquire to refine, correct, and complete what we hear
Three techniques to help mitigate communication misunderstandings:

**Verify our listening - paraphrase** to make sure that our listening is aligned with what the client expressed.

**Explore underlying concerns** - Listen for what may be *underneath* what person is expressing. This could be from non-verbal's or what the person may not be expressing such as the emotional impact of a situation.

**Inquire to refine, correct, and complete what we hear** - Be *curious* in your listening and ask *clarifying* questions that allow you to have confidence and assurance that you truly understand what is being communicated.
Preparing, Practicing and Modeling for Others

- Know yourself and try to understand the other party – parent, colleague or an agency partner
- Listening more before speaking more but not just speaking less!
- Action frameworks from your ‘go to’ trusted communication trainings
- Coaching, practice, fear to fumble
- Think Mental Shift – why am I having this conversation today?
How do I begin? Develop your own scripting, return to it, adapt as needed.

Part of standard of care at triage / check in / admissions is to ask questions about safety for children and family. I have a few for you now.

I can see that you love your child...I know you’re concerned... and I want you hear my concern too.

We have an expert team of providers that we call to help us when a child has injuries. They will have some more questions.

I think we have different perspective on [these findings]. Let’s work on clarifying them together now.

I’d like to make sure you have a good understanding about what we are reporting [to you]. We really need the partnership with you here to keep this / your child safe.

There is difficult news I need to share with you. I am concerned that someone has hurt [you / your child]. What is your understanding of what’s happened?

Calling CPS is mandated by statute [law]. It is also a standard part of our care plan when we see a child with unexplained injuries.
Reframe, Rename and Commit to Your Personal ‘BPA’ for Child Maltreatment
This is never easy. Some blind spots are harder than others. We are all advocates at heart for our patients.

1. “Nice” families can be in crises and partners and children can get hurt.

2. Child abuse pediatricians don’t make disposition decisions for CPS.

3. Knowing our biases and attention to our communication styles are vital balance.

4. If we think about the ‘umbrella of safety’ we carry for all our patients...

5. We can feel more confident about ‘making that call’ when abuse is suspected.
Closing Thoughts

1) The alphabet soup of EHR alert tools are useful effect tools for screening, case identification, and standardization of care for child maltreatment.

2) Challenges in development and implementation can be mitigated.

3) Communication skills in these difficult scenarios are our strongest reliable tools.

4) Stay Brave.
   Go Practice.
   Be Amazing.
Thank you!

Questions?
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Communications Training Resources

The Institute for Healthcare Excellence | The Institute for Healthcare Excellence