We Can Do Better: A Focused Approach to Child Physical Abuse

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Objectives

- Think of abuse as a diagnosis in babies and young toddlers—even when it’s not obvious
- Recognize early warning signs and symptoms
- Understand the components of a thorough medical evaluation for physical abuse
- Review guideline for talking with DCBS
Children are suffering from a hidden epidemic of child abuse and neglect

The United States has one of the worst records among industrialized nations – losing on average between four and seven children every day to child abuse and neglect
✧ A report of child abuse is made every ten seconds

✧ Approximately 70% of children that die from abuse are under the age of 4

✧ Child abuse occurs at every socioeconomic level, across ethnic and cultural lines, within all religions and at all levels of education

✧ The estimated annual cost of child abuse and neglect in the United States for 2008 is $124 billion

General Statistics
Is child abuse preventable?

Is child physical abuse curable?

Traumas are preventable
Diseases are curable

Child physical abuse is both the result of a traumatic event and a disease of social – psychological functioning

Therefore child physical abuse is preventable and curable
What if we could decrease physical child abuse by 50%?

That’s the percentage of children whose initial injuries are misidentified as accident or the risk is underestimated.

There’s hope...
Thorough documentation

Complete physical exam

Correctly interpreting risk of harm

Here’s the key...
Red Flags for History

- Delay in seeking medical care
- Implausible, changing, or no history
- Previous injuries
- History of abuse (sibling or domestic violence)
❖ Bruising is extremely rare in infants less than 6 months of age and uncommon in preambulatory infants.

   ❖ Only 2 of 366 children (0.6%) younger than 6 months had bruises at a well-child check.

❖ Bruising in infants is a significant indicator of abuse and must be medically evaluated.

❖ Bruising is the most overlooked sign of abuse

Red Flags for Bruising
Distinguished physical assault from accidental injury:

- 97% sensitive
- 84% specific

Bruising characteristics discriminate physical child abuse from accidental trauma in young children

Pierce MC, Kaczor K, Aldridge S, O’Flynn J*, Lorenz D
Pediatrics January 2010
NACHRI 2010 research award recipient

“TEN-4” BCDR
Bruising Clinical Decision Rule
Which children are at risk?

- Parent or caregiver factors:
  - Untreated/inadequately treated mental illness
  - History of maltreatment
  - Substance abuse
  - Attitudes and knowledge
Which Children Are at Risk?

- Family Factors:
  - Non-biological male living in the home*  
  - Marital conflict/Domestic Violence  
  - Lower economic status  
  - High stress level/lack of social support
Child Factors

- Age (3 and younger have the highest risk)
- Disability (Physical/Cognitive/Emotional)
- Prematurity
- Long-awaited child
Absence of risk factors is not the absence of risk!!!
Questions to ask…. 

✧ Who is/are the primary caregivers?

✧ When did the caregivers first notice symptoms/bruises?
  ✧ Does the history change with changing information given to the caregiver?
  ✧ Do different witnesses give different accounts?

✧ What did they do after they noticed these symptoms?

✧ When was the child last normal?
Work-up
<table>
<thead>
<tr>
<th>Age</th>
<th>Head CT or MRI</th>
<th>Skeletal Survey</th>
<th>Labs*</th>
<th>Abdominal CT</th>
<th>Ophthalm Consult</th>
<th>Social Work Consult</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 year</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>If bruising on abdomen or elevated transaminases</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>1-2 years</td>
<td>Consider**</td>
<td>Yes</td>
<td>Yes</td>
<td>If bruising on abdomen or elevated transaminases</td>
<td>If Neuroimaging +, skull fracture, head injury, decreased mental status</td>
<td>Yes</td>
</tr>
<tr>
<td>2-5 years</td>
<td>No</td>
<td>Only if extensive injury or developmental delay</td>
<td>Yes</td>
<td>Obtain if symptomatic or suggested by physical exam</td>
<td>Not typically recommended</td>
<td>Yes</td>
</tr>
<tr>
<td>Above 5 years</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Obtain if symptomatic or suggested by physical exam</td>
<td>Not typically recommended</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The Basics
Initial testing
- CBC
- CMP
- PT/PTT
- Amylase
- Lipase
- Bag UA

Consider in special cases
- PFA-100
- Ristocetin CoFactor
- vWF Activity Assay
- Urine toxicology screen
- CPK
- OI testing
- Vitamin D level
- PTH
- Serum/urine Calcium
- Ionized calcium
- 25 hydroxy vitamin D
Depends on age and presentation
Pediatric Trauma survey is always warranted on a child younger than 24 months
CT scan of head without contrast for those with neurologic findings
StrONGLy considered in “high risk” children
Bone scan may be useful if skeletal survey is negative and suspicion is high
CT scan of abdomen should always be performed with contrast (unless there is contraindication)
CT versus MRI

Follow-up Skeletal Surveys

This just in...

Imaging: The good, the bad, and the controversies
High-profile court cases, news media, perpetrators and professional defense witnesses have all alleged the following as potential explanations for the injuries found with abusive head trauma:

- Short falls*
- Bouncing a child on your knee
- Rough play
- Immunizations
- Vitamin C or D deficiency
- Birth trauma (special case)
- Toddlers, pets

What doesn’t cause AHT?

2 month old admitted for altered mental status

Subsequently found to have large bilateral subdurals, bilateral retinal hemorrhages, and multiple posterior rib fracture

Parents behavior is very suspicious during hospital stay

Babysitter confessed to shaking child

Clinical Scenario
Interacting with DCBS
 Pearls for Reporting

✧ If you suspect abuse or neglect, it is YOUR responsibility and LEGAL OBLIGATION to complete the referral YOURSELF!

✧ Write the name and contact number of intake worker with whom you spoke

✧ Have them repeat back to you what they wrote and their interpretation
  ✧ They may not understand medical jargon - be explicit

✧ Practitioners can call hotline back and ask about status of referral
Effective Advocating for Your Patient

- If your referral does not meet criteria
  - Talk with the supervisor of the intake office
  - Talk with the district office for that county
- **Keep concerns factual and non-judgmental**
- Explain that you are adhering to state law because of the injury or illness cannot be explained medically
- If possible, let them here your phone call with the state
  - If it is environmental neglect, you may not want to alert the family that you are making the referral as they might then have someone clean up prior to DCBS arrival
Communicating with DCBS

- DCBS often wants diagnosis of abuse, but your job is to diagnose the injury, compare reported mechanism, and note discrepancies.

- Use terms that are easy to understand and clear – avoid/explain medical jargon.

- Create a timeline.

- Documentation, documentation, documentation....
A description of the injury, neglect or threatened harm to the child

- The current location of the child: day care or school; home address
  - If possible, attempt to have home address regardless
- Any immediate risk to the child OR a worker going out to ensure the child's safety (i.e., guns)
- The reporter's name and identifying information IF the caller wishes to give that information (anonymous reports are accepted and investigated)
  - Keep in mind if there is need for clarification or if SW has questions, they will not be able to ask if you have given anonymous report
What Happens if a Referral Does Not Meet Criteria

- If a referral does not meet criteria for any of the four tracks, it is entered into a database
  - If another report is made involving either victim or perpetrator, then the reports become linked
  - Sometimes one referral may not meet, but in the future they may cause an investigation to move forward based on additive evidence.
If you could do one thing to save the life of a child, would you do it?
✧ That one thing could…

✧ Change the life of a child forever

✧ Reduce fatal and near-fatal physical abuse cases by 50%

✧ Stop the loss of life, loss of potential, and loss of hope

✧ It doesn’t require fancy tests, engineers, CSI agents, or state of the art equipment
Sources

Melissa Currie, MD
Mary Clyde Pierce, MD
Joel Griffith at PCAK

Special Thanks
Attempt to improve standardization of age appropriate work-up for child physical abuse

Commit to communicating with DCBS in a meaningful and explicit way

Practice Changes?
Thank you!

Any questions?

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