Eastern Association for the Surgery of Trauma

27th Annual Scientific Assembly

Sunrise Session 13
Screening, Recognition, and Reporting of Child Abuse and Neglect

January 17, 2014
Waldorf Astoria Naples
Naples, Florida

Wipe Away the Tears: Caring for the Abused Child

John K. Petty, MD
Director of Pediatric Trauma
Associate Professor of Surgery and Pediatrics

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No Disclosures

www.preventchildabusenc.org

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Overview

- "Oh no…"
- Rated PG
- The problem
- Rules of engagement
- In your own backyard

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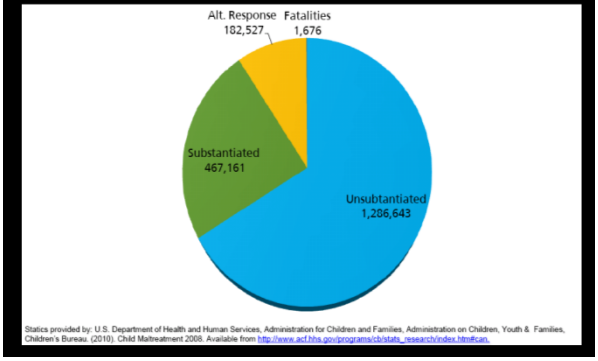
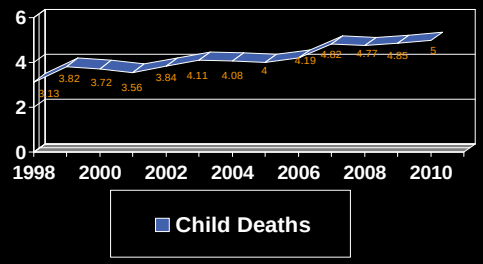
National Incidence



Statics provided by: U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth & Families, Children's Bureau. (2010). Child Maltreatment 2008. Available from http://www.acf.hhs.gov/programs/cb/stats_research/index.htm#can.

Every Day…



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US Dept HHS, Children's Bureau, on http://www.childhelp.org/pages/statistics

In the Eyes of the Law

- Abused juveniles. – An
- a. Inflicts or allows to b
- b. Creates or allo
- c. Uses or allows to modify behavi
- d. Commits, permits, o rape, as provided in G.S. provided in G.S. 14-27 offender, as provided in provided in G.S. 14-27 provided in G.S. 14-17 juvenile, as provided in provided in G.S. 14-19 displaying or disseminat degree sexual exploitat juvenile as provided in
- e. Creates or allows to juvenile's severe anxie
- f. Encourages, directs,

Child Maltreatment

- Physical abuse
- Emotional abuse
- Sexual abuse
- Endangerment
- Delinquency
- Neglect
- Dependency

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Duty to Report

- **7B-301. Duty to report abuse, neglect, dependency, or death due to maltreatment.**
- Any person or institution who has cause to suspect that any juvenile is abused, neglected, or dependent, as defined by G.S. 7B-101, or has died as the result of maltreatment, shall report the case of that juvenile to the director of the department of social services in the county where the juvenile resides or is found. The report may be made orally, by telephone, or in writing. The report shall include information as is known to the person making it including the name and address of the juvenile; the name and address of the parent, caretaker, or guardian; the names and ages of other juveniles in the home; the home address; [illegible] be helpful in establishing the need for protective services or court action. Reports may be made orally or by telephone, the person making the report shall give the person's name, address, and telephone number. Refusal of the person making the report to give a name shall not preclude the department's assessment of the alleged abuse, neglect, dependency, or death as a result of maltreatment.

EVERYONE

- Upon receipt of any report of sexual abuse of the juvenile in a child care facility, the director shall notify the State Bureau of Investigation within 24 hours or on the next workday. If sexual abuse in a child care facility is not alleged in the initial report, but during the course of the assessment there is reason to suspect that sexual abuse has occurred, the director shall immediately notify the State Bureau of Investigation. Upon notification that sexual abuse may have occurred in a child care facility, the State Bureau of Investigation may form a task force to investigate the report. (1979, c. 815, s. 1; 1991 (Reg. Sess., 1992), c. 923, s. 2; 1993, c. 516, s. 4; 1997-506, s. 32; 1998-202, s. 6; 1999-456, s. 60; 2005-55, s. 3.)

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Duty to Report

- We are <u>all</u> responsible to report suspected child abuse or neglect
- A report made in good faith is protected from criminal or civil liability
- Individual vs. institutional response

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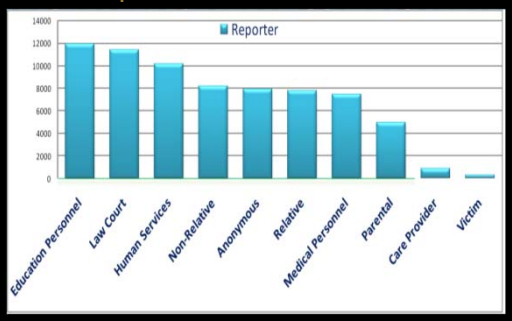
Who Reports?



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Warning Signs

- Surveillance tape + Confession = ?
- Intake nurse vs. jury
- Multiple clues
- Plan ahead

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Back Story

- Home situation
- History of abuse
- Age
- Prematurity
- Developmental delay
- Behavior problems
- Foster care

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History

- Consider the source
- Child disclosure
  - Indirectness
  - Disclosure with strings attached
- Separate interviews
- Careful with child interviews

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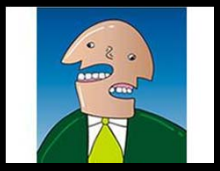
History



- Vague
- Changing story
- Different stories
- Delays in care
- Indifferent to child's discomfort
- Blames patient or another child
- "Doesn't add up"

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Curr Probl Pediatr Adolesc Health Care 2009, 39: e1-31; J Pediatr Health Care 2005, 19: 4-11

How Safe is Your Haven?

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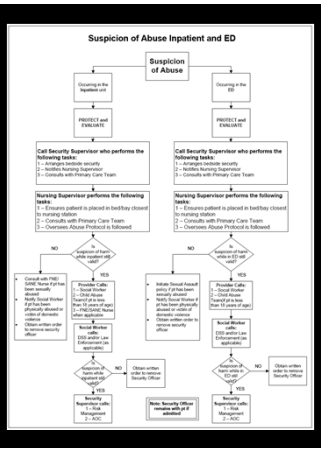

Value of Protocol

- Optimize safety of child
- Empowers all providers
- Early notification
- Diminishes variability
- “We do this for every child at risk…”

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Perspective

- Focus on the child
- Documentation
- Willing to be disliked
- Professionalism
- Team sport
- Apology

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Non-Accidental Head Trauma

A Trauma Surgeon's Perspective

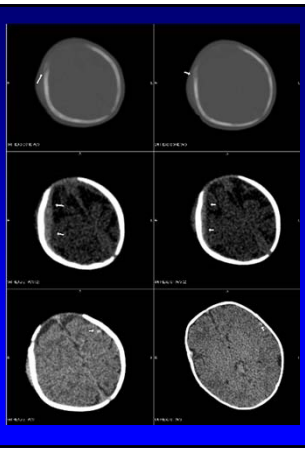
Steve Kaminski, MD FACS
Medical Director, Adult and Pediatric Trauma Services
Santa Barbara Cottage Hospital

Objectives

- Epidemiology of Non-Accidental or Abusive Head Trauma
- Evaluation
  - Patient characteristics
  - Skeletal Survey
  - Retinal Exam

Case 1

- 5 week old
- Mother fell asleep while breastfeeding
- Child fell 2-3 feet onto tile floor striking head
- Noted to cry and brought by mother to the ED

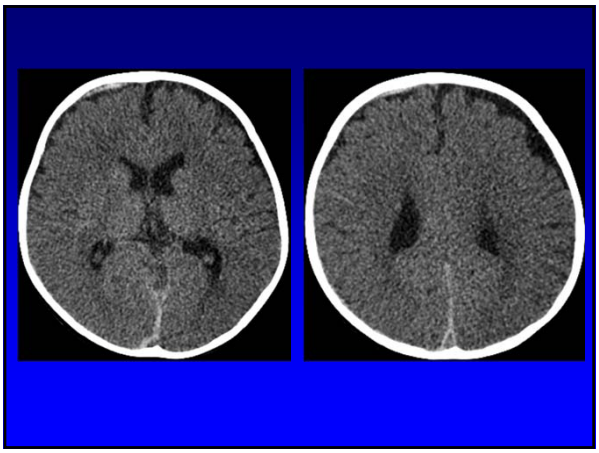


Issues

- He looks fine, looks like a nice family, can I send him home?
- What other questions should I ask?
- What other evaluations are there to consider?

Case 2

- 15 month old, rough housing with 4 year old brother on bed
- 19 year old babysitter left them in room
- Returned to find 4 year old jumping on the younger brother



Case 2

- Noted to have Cardiac Contusion
- Multiple areas of bruising on extremities
- Multiple Retinal Hemorrhages on optho exam
- 2 separate areas of rib fractures, healing, non-acute of different ages, seen on skeletal survey

Introduction

- >40% Of Death in children <12mos
- **Approx 80% of pediatric trauma related deaths are felt to be attributable to child maltreatment**
- #1 cause of death is head injury
- 30% of head injury may be misdiagnosed

Epidemiology

- Most often < 1 yr of age
- Battering is the most common mechanism of injury in children 3-5 mos
- 4 of 5 deaths caused by head injury could be prevented if early diagnosis during prior medical evaluation

Epidemiology

- 60% of cases with previous history or clinical evidence of maltreatment
- 22% with involvement of child welfare agencies
- 32% with misdiagnosis
  - Viral gastroenteritis or influenza
  - "R/O sepsis"
  - Accidental head injury

Epidemiology

- Perpetrators
  - 50% fathers
  - 20% step-fathers or male partners
  - 12% mothers
  - 17% female baby sitters

Epidemiology

- Risk factors
  - Young/single parents (risk increases more with presence of step-father or maternal boyfriend)
  - Lower education
  - Unstable family situation
  - Stress to family- financial, food & housing, domestic violence, alcohol drug abuse, parental depression
  - Other: peri-natal illness, family disruption & separation, colicky babies

Missed Opportunities for Identification

- Jenny C, Hymel KP, Ritzel A, et al. Analysis of missed cases of abusive head trauma. *JAMA*. 1998;281(7):621–626
  - 1/3 of children with abusive head trauma missed by health care professionals
    - Young infants, mild signs and symptoms
    - Misread radiographs
    - Caucasian, 2-parent households
- Lane WG, Ruben DM, Monteith R, et al. Racial differences in the evaluation of pediatric fractures for physical abuse. *JAMA*. 2002;288(13):1603–1609
  - Racial differences in obtaining skeletal surveys and reports to Child Protective Services

Evaluation

- Team approach helpful - pediatrician, medical social worker, subspecialties, law enforcement, government child protection agencies
- But…the trauma surgeon may be the initial responder and alone in recognition and documentation!

Evaluation

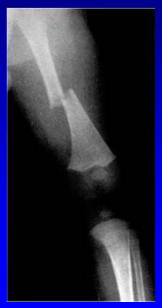
- History
  - Personal History
  - Family/Social Situation
- Physical
  - Other injuries

Physical Examination

- Careful search for signs of acute or chronic trauma
- Skin - bruises, abrasions, burns
- Head - examine for skull trauma, palpate fontanelles if open, consider funduscopic exam for retinal hemorrhage
- Trunk - palpate rib cage, abdomen
- Extremities - careful palpation
- Genitalia – consider exam for sexual abuse

Myth

- Easy to recognize child with NAT



Evaluation

- Age of Patient
- History
- Social Situation
- Other injuries (current and past)
- Specific injuries/ fractures

History

- Has there been a delay in seeking medical treatment?
- Is the parent reluctant to give an explanation?
- Is the injury consistent with the explanation given?
- Does the story change between caregivers?
- Between child and caregiver?

History

- The abused child may be overly compliant and passive or extremely aggressive
- Is the affect inappropriate between the child and the parents? (lack of concern, overly concerned)

Other Injuries

- Soft tissue injuries - bruising, burns
- Intraabdominal injuries
- Intracranial injuries
- Multiple fractures in different stages of healing

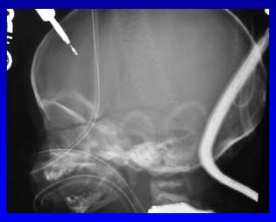
Non-Accidental Head Trauma Evaluation – One Approach

- Required when:
  - Patient aged 0-2
  - Injury witnessed only by immediate family
- Included elements:
  - History and physical
  - Head CT
  - Skeletal survey
  - Retinal exam (highest yield age <1)
  - Social Work/Social Services consultation

Radiographic Work-Up

Skeletal Survey

- AP/LAT skull
- AP/LAT axial skeleton and trunk
- AP bilateral arms, forearms, hands, thighs, legs, feet
- Repeat skeletal survey at 1-2 weeks can be helpful

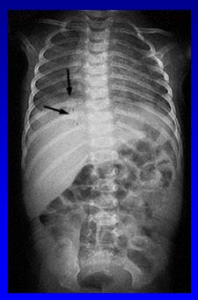


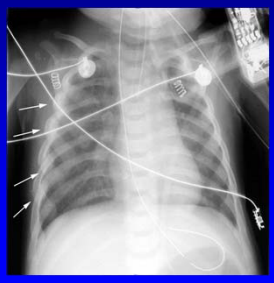
Skeletal Survey

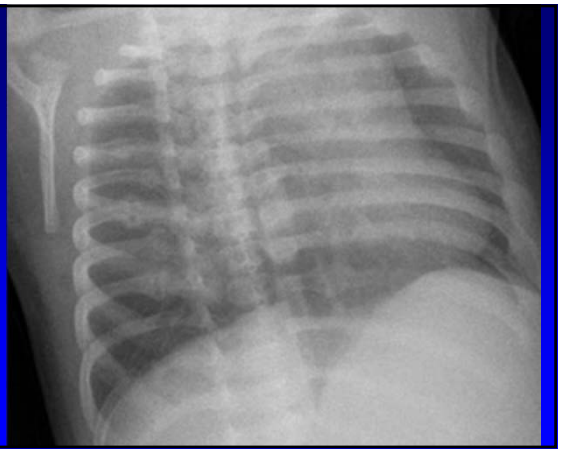
"The skeletal survey is mandated in all cases of suspected physical abuse in children under 2 years old. Its utility diminishes thereafter"

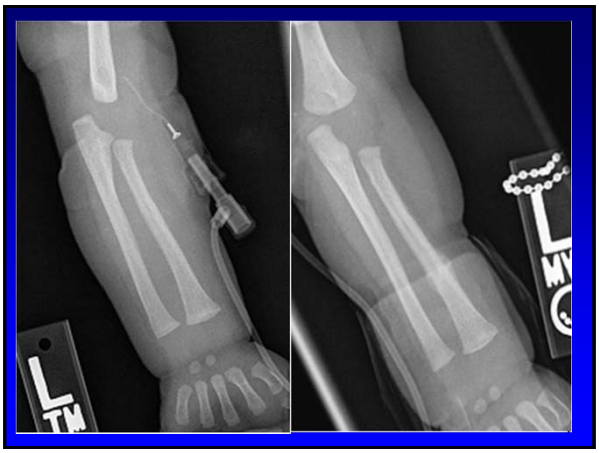
AAP Section on Radiology, 2009

Rib Fractures









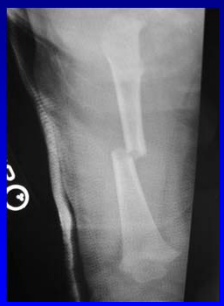
Weighted Proportions of Fractures Attributable to Abuse, According to Age and Bone, in the 2003 KID

	0–11 mo		0–36 mo	
	# Fractures	% from Abuse	# Fractures	% from Abuse
Ribs	809	69.4	1001	61.4
Radius/ulna	261	62.1	657	29.8
Tibia/fibula	493	58.0	1069	31.1
Humerus	518	43.1	3172	9.3
Femur	1257	30.5	4026	11.7
Clavicle	227	28.1	388	20.7
Skull	3363	17.1	5886	12.1

Leventhal JM, Martin KD, Asnes AG. Incidence of fractures attributable to abuse in young hospitalized children: results from analysis of a United States database. *Pediatrics*. 2008;122(3):599–604

Orthopaedic Features

- Long bone fractures in pre-ambulatory infants in absence of metabolic bone disease are more often NAT than accidental



Yield of Skeletal Surveys 1

- Retrospective study of 703 consecutive skeletal surveys
- 10.8% with positive results
  - Infants younger than 6 months (16% with positive skeletal survey)
  - Infants with apparent life-threatening event (ALTE) (12/66: 18%)
  - Infants with seizures (6/18: 33%)
  - Children with suspected abusive head trauma (AHT) (20/88: 23%)
- With positive skeletal survey, 79% with ≥1 healing fracture
- In 50% of cases, skeletal survey influenced ultimate diagnosis

Duffy SO, Squires J, Fromkin JB, et al. Use of skeletal surveys to evaluate for physical abuse: analysis of 703 consecutive skeletal surveys. *Pediatrics*. 2011;127(1):e47–e52

Yield of Skeletal Surveys 2

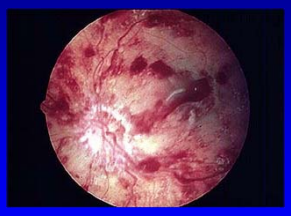
- 215 patients < 1 year
- Isolated skull fractures
- 12 fractures seen out of 201 skeletal surveys or
  - **5.6% (< 10%) of patients with isolated skull fractures had additional fractures seen on skeletal survey**

J Trauma Acute Care Surg. 2013 Jun;74(6):1553-8. Occult abusive injuries in infants with apparently isolated skull fractures.
Deye KP, Berger RP, Lindberg DM; ExSTRA Investigators.

Retinal hemorrhages:

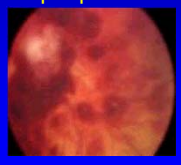
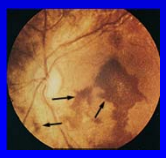
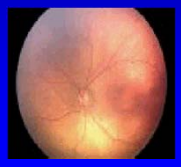
Evidence of abuse or abuse of evidence?

- Extraordinary force
- Unilateral or bilateral hemorrhages are present in 75-95% of abusive head trauma
- Common with birth trauma but resolve within 4 weeks



Associated Injury – Retinal hemorrhage

- Numerous
- Multi-layered
- Extend beyond the posterior pole to the peripheral retina

Retinal Hemorrhages

- Consecutive ICU admits
- AHT patients excluded
- Patients aged > 6 weeks to < 16
- RH graded as mild, moderate or severe
- Overall prevalence 15% with only 6 of 24 seen graded severe as those seen in AHT/NAT
- Severe RH can be seen but is rare and associated with sepsis, coagulopathy or known severe accidental trauma

Pediatrics. 2012 Jun;129(6):e1388-96.
Prevalence of retinal hemorrhages in critically ill children.
Agrawal S, Peters MJ, Adams GG, Pierce CM.

Summary

- Its ok to be paranoid and suspicious
- Peak incidence of NAT is in the 0-2 group
- When seeing Skull Fracture or ICH patients consider
  - Admitting for Social Evaluation
  - Retinal Exam
  - Skeletal Survey

PROMPTS

Child Abuse Recognition Made Easy

Pina Violano, MSPH, RN-BC, CCRN, CPS-T, PhD (c)
Injury Prevention Coordinator
Adult and Pediatric Trauma Programs
Yale-New Haven Hospital
Program Director & PI, Injury Free Coalition for Kids of New Haven
Yale-New Haven Children's Hospital

27th EAST Annual Scientific Assembly- Sunrise Session
January 17, 2014

YALE-NEW HAVEN HOSPITAL Trauma Center

Injury Free coalition for kids®

Goals

- To raise awareness among the emergency department clinical staff about the problem of child physical abuse.
- To improve the recognition of physical abuse, particularly in children who present with subtle and superficial signs of abuse.
- To increase rates of reporting of suspected abuse by specifically addressing barriers to reporting and by empowering all members of the multidisciplinary treatment team to report suspected abuse.

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PROMPTS Child Abuse Recognition Tool

Prior History of DCF/ ED visits

Always check medical records for:

- Previous involvement of Department of Children and Families or Hospital specific child abuse program
- History and explanation of prior ED visits

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PROMPTS Child Abuse Recognition Tool

Reasonable doubt in history

Reasonable doubt can arise when:

- There are inconsistencies as to how the injury occurred
- The story told is not consistent with the injury

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PROMPTS Child Abuse Recognition Tool

Outside the realm of development capacity

Be aware if:

- A child is not "cruising" and there is bruising (esp. in children <6 months of age)
- A child presents with injuries that are not consistent with their physical capability

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PROMPTS Child Abuse Recognition Tool

Mark(s) on the skin (bruise, burns, bites)

Always look for:

- Unexplained burns, bites, bruises, broken bones, or black eyes
- Bruises, bites, and/or burns on ears, neck, torso, soles of feet, buttocks, and genitals

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PROMPTS Child Abuse Recognition Tool

Personality/behavioral changes in the child

Be aware if:

- The child has recently become more introverted and isolated
- The child has begun to act out or is easily agitated

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PROMPTS Child Abuse Recognition Tool

Time delay in seeking medical care

Be aware if:

- The caregivers delays or avoids having the child medically evaluated (esp. for injuries)

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PROMPTS Child Abuse Recognition Tool

Social red flags and potential barriers/pitfalls to reporting suspected abuse

Avoid stereotyping:

- may occur in ANY socioeconomic group
- Be objective- an intact family should not STOP the provider from considering abuse

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PROMPTS Child Abuse Recognition Tool

As healthcare providers- If you *suspect* abuse, you are REQUIRED by Law to take action!

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Key Element to decreasing Child Abuse & Maltreatment –Public Service Announcements & Advocacy

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TAKE 5

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Questions???

Pina Violano, MSPH, RN-BC, CCRN, CPS-T, PhD (c)
Injury Prevention Coordinator
Adult and Pediatric Trauma Programs
Yale-New Haven Hospital
Program Director & PI, Injury Free Coalition for Kids of New Haven
Yale-New Haven Children's Hospital

203-688-3260
pina.violano@ynhh.org

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