Physicians may fail to recognize child abuse for a number of reasons, including a lack of training and experience. Many physicians received little training during medical school or residency; such training increases pediatric residents’ self-rating of competency in evaluating child maltreatment. Pediatricians and pediatric residents who received child abuse education expressed more confidence in their ability to identify and manage child maltreatment and were more likely to diagnose child maltreatment. Because the diagnosis of child maltreatment requires a thorough clinical and historical assessment, the diagnosis can be missed if the physician does not ask detailed questions about how an injury occurred, whether witnesses were present, and whether the child suffered previous injuries. A careful...
physical examination may reveal bruises, the most common injury caused by child abuse.\textsuperscript{9} Finally, appropriate laboratory and imaging studies may reveal old or occult fractures, intracranial bleeding, or the presence of other medical conditions, which explain the observed injuries.

**FAILURE TO DIAGNOSE CHILD ABUSE**

**Not Enough Data Gathered**

If child abuse is not considered a possibility or included in differential diagnoses, the diagnosis may be missed.\textsuperscript{10} Complete evaluations are often not accomplished; a small study of children younger than 2 years of age with subdural hematomas demonstrated that only 22 of 33 children had received all basic laboratory and imaging tests.\textsuperscript{11} When physicians do order appropriate imaging studies, the diagnosis of child abuse may be missed if imaging studies are of poor quality, incomplete, or incorrectly interpreted.\textsuperscript{12}

The physician must identify any child, family, and social factors that may place a child at risk of abuse, recognizing that the absence of obvious risk factors does not rule out child abuse. Children with physical, cognitive, or emotional disabilities are more vulnerable to abuse.\textsuperscript{13,14} Parental stress, poverty, unwanted pregnancies, maternal depression, substance abuse, and interpersonal violence are associated with child abuse.\textsuperscript{15,16} A caregiver’s poor understanding of appropriate child development and behavior also increases the risk of abuse.\textsuperscript{17}

**Physician Bias**

Physicians may fail to identify child maltreatment if they are not objective in their assessment. In other studies, race did not influence physician willingness to consider the possibility of child abuse, but socioeconomic status did.\textsuperscript{21,22} Biases can influence clinical reasoning and lead to misdiagnosis. The dual process model of reasoning divides decision making into two types of reasoning: intuitive reasoning and analytical reasoning.\textsuperscript{23} Biases particularly affect intuitive reasoning because physicians rely on their previous training and experience. Although intuitive reasoning is fast and reflexive, errors are common. Analytical reasoning is more deliberate and more rule-based. Physicians may follow guidelines or decision trees. This type of reasoning is slower, but much less prone to error. Generally, physicians use both systems and move back and forth between the two.

When a physician recognizes a certain pattern early, then the quicker intuitive thinking takes over. If a pattern is not recognized, the physician engages in more analytical thinking. When abuse is possible, the physician should take a more analytical approach and perform a more systematic evaluation to avoid errors in decision making.

**FAILURE TO REPORT SUSPECTED CHILD ABUSE**

**Physician Uncertainty**

Physicians have admitted that they do not report all cases of suspected maltreatment.\textsuperscript{24-26} When physician reporting behavior was examined prospectively, physicians failed to report 27% of children with injuries they suspected were likely or very likely caused by child abuse.\textsuperscript{27}

Physicians said the main reason they did not report suspected abuse was they were not certain that it was child abuse,\textsuperscript{24,25} although states mandate physicians to report if they have “reasonable cause” to suspect child abuse rather than “certainty” that a child was abused.

**Unfamiliarity with Child Protective Services**

Physicians also cited their previous experience with Child Protective Services (CPS) and factors related to CPS, including their own prior reporting experiences such as CPS failing to protect a child, as reasons for not reporting.\textsuperscript{25,26,28} The physicians also said they did not report because they were concerned that they would lose families from their practice and that they would have to appear in court.\textsuperscript{25,26}

As with the diagnosis of abuse, child and family features influence the likelihood that a physician will make a CPS report. In one study, physicians were
more likely to report suspected abuse when they were unfamiliar with the family, and when the child was black with private insurance.27,28 Among children without private insurance, reporting rates were the same for black and white patients. Black patients may not have been over-reported, but instead white patients may have been underreported.29

Other studies showed that physicians were more likely to report younger children and children from poor families.29 Physician biases appear to influence their reporting decisions just as biases may influence their diagnosis or recognition of child abuse.

MANDATE TO REPORT

Although all 50 states mandate that physicians report suspected child abuse to CPS, physicians appear confused about the meaning of these state laws.30 In the Child Abuse Reporting Experience Study, clinicians showed great variability in reporting injuries at various levels of suspicion. They reported 0.5% of the patients with injuries they judged “unlikely” to be caused by child abuse, 24% of the injuries they deemed “possible,” and 86% of those they judged “likely caused by abuse.” Only 64% of the injuries judged “very likely” caused by child abuse were reported, suggesting that additional factors influenced the physicians’ decisions to report.27

Reasonable Suspicion

Levi and Brown31 have conducted several studies examining how physicians interpret the concept of reasonable suspicion. He found great variability in how they interpreted “reasonable suspicion,” when he asked Pennsylvania pediatricians to designate how high child abuse would need to be on the differential diagnoses list to be considered reasonable suspicion of child abuse. While 12% of the pediatricians said it should be ranked first or second on the differential diagnosis, 41% said third or fourth, and 47% indicated it could rank anywhere from fifth to tenth on the list and be considered reasonable suspicion.

Levi and Brown also asked the pediatricians to estimate the probability that an injury was caused by abuse to be considered reasonable suspicion: their threshold for reporting ranged from 10% chance that it was abuse to more than 75% probability.31 When the two scales were paired, their responses were inconsistent. The pediatricians commonly indicated that reasonable suspicion required a 50% to 60% probability, but could be ranked as low as fourth or fifth on the differential diagnosis list.

Even child abuse experts show variability in how they assess the likelihood that an injury was caused by child abuse.32 When these experts were asked to rate the percentage likelihood of the injury being caused by abuse, the physicians rarely rated a case as “definite abuse” when the likelihood was estimated at less than or equal to 95%, and they were unlikely to report to CPS if the injury was rated as less than or equal to 15% likelihood of abuse. They are more likely to agree about cases that had the highest concern for abuse. They also showed some agreement about which cases needed to be reported.

Recommended Actions

Physicians who treat children are in a key position to identify child physical abuse and prevent further abuse. In order to do this effectively, the possibility of abuse should be considered when evaluating an injury.

Physicians must take a thorough history, determining who was present at the time of the injury event, when the injury occurred, and what exactly happened. They need to ask about previous injuries and screen for factors that may place a child at risk of maltreatment. Physicians also need to examine the child, including a complete skin exam for bruises. Appropriate laboratory tests and imaging studies (see Sidebar 1) are also needed. Objective assessment and clear analytical reasoning will reduce the likelihood of bias, conscious or unconscious, in their decision making.

Flow sheets, checklists, and operationalized criteria may help physicians recognize and report child maltreatment.33-35 Three questions appear to increase the identification of physical abuse: 1) Do findings from the examination conform with the history provided?; 2) Was there a delay in seeking care?; and 3) Is the history inconsistent with the injury?35,36 The use of screening guidelines has been shown to decrease the racial disparity between which infants were screened with skeletal surveys.37

Many of the decisions about whether a child has been maltreated are complex. Although all physicians should evaluate for maltreatment and report their suspicions of maltreatment to CPS, they should recognize their own limitations and advocate for a child to have a more definitive evaluation by a

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**Sidebar 1. When Suspicions Should Be Raised for Child Physical Abuse**

- No history to explain an injury in a nonverbal child.
- History of injury implausible or inconsistent with mechanism of injury.
- Conflicting histories or changing histories.
- Bruises or fractures in a nonambulatory child.
- Multiple injuries and/or injuries occurring at different times.
- Delay in seeking care for an injury.

Source: Flaherty and Fingarson
child abuse expert when the findings are not definitive. Also, when pediatricians are uncertain whether to suspect and report maltreatment, they can discuss their questions with a child abuse pediatrician or child abuse team. Most children’s hospitals and pediatric training hospitals have multidisciplinary child abuse teams and many are staffed by board-certified child abuse pediatricians. These physicians and teams are available for consultation.

IMPROVED TRAINING

All physicians need some education in child maltreatment, but particularly physicians who care for children in any capacity. They need to learn how to take a complete history, the importance of a thorough physical examination including a skin examination, and the appropriate imaging and laboratory studies that may facilitate diagnosis. Training should include education about counter transference reactions that may occur as result of reporting. Physicians who only occasionally encounter child maltreatment particularly need this training.

Physicians need a better understanding of the mandate to report if they have “reasonable suspicion” of child maltreatment. Physicians often cite systems issues as a barrier to evaluating and reporting suspected child maltreatment. For example, they mention the lack of follow-up by CPS and the perception that children who were reported to CPS did not benefit from the intervention. Their fear of causing harm to a family may supersede their belief that the child could suffer further harm without their intervention, despite the fact that CPS permanently removes very few children. Education about what happens after a report could help to allay these fears. This education could include information about the child protection investigation, law enforcement investigation, legal proceedings, as well as the outcome for children with or without intervention.41

Physicians should learn about the likelihood of continuing and escalating abuse in households without CPS intervention. Professionals often assume that caregivers will perceive CPS intervention as punitive, but, in fact, the majority of clients report satisfaction with the intervention provided.42,43

When physicians were asked what would help them evaluate children for maltreatment, they cited informative articles to read and regional trainings.40 In addition, physicians said they would find hands-on training with patients in the physician’s office and hands-on training in academic centers useful. Self-instructional programs also have been shown to increase physicians’ knowledge about child maltreatment.44

Some states require physicians and other professionals to receive training in child maltreatment as a prerequisite for licensure.45 Most of the professionals who participated in such a training in New York said that they learned something new in the course.46 The majority of the physicians said that the course should be repeated at some point.

CONCLUSION

Child maltreatment often goes unrecognized and unreported to CPS. Physicians must remain alert to the possibility of maltreatment, systematically evaluate any child who has findings or complaints that may have been caused by maltreatment, consult others when needed, and report any “reasonable suspicions” of maltreatment to CPS.

Physicians need a better understanding of the mandate to report if they have “reasonable suspicion” of child maltreatment.

REFERENCES