Child Abuse: Approach and Management

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Child abuse is a common diagnosis in the United States and should be considered any time neglect or emotional, physical, or sexual abuse is a possibility. Although home visitation programs have been effective in preventing child maltreatment, much of the approach to and management of child abuse is directed by expert opinion or legal mandate. Any suspicion of abuse must be reported to Child Protective Services. A multidisciplinary approach is recommended to adequately evaluate and treat child abuse victims; however, the responsibility often lies with the family physician to recognize and treat these cases at first presentation to prevent significant morbidity and mortality. (Am Fam Physician 2007;75:221-8. Copyright © 2007 American Academy of Family Physicians.)

In 1996, 4.3 percent of children younger than 18 years in the United States were reported to be victims of maltreatment.[1] More than 3 million cases of child abuse are reported each year, with 1 million cases later being substantiated.[2] More than 1,400 children die from inflicted injuries annually,[3] 45 percent of whom are younger than 12 months.[4] Child abuse is one of the leading causes of injury-related mortality in infants and children. An abused child has approximately a 50 percent chance of being abused again, and has an increased risk of dying if the abuse is not caught and stopped after the first presentation.[5,6] The responsibility, therefore, lies with physicians to recognize and treat these cases at first presentation to prevent significant morbidity and mortality.

TABLE 1
Risk Factors for Child Maltreatment

Caregiver factors	Criminal history, inappropriate expectations of the child, mental health history, misconceptions about child care, misperceptions about child development, substance abuse
Child factors	Behavior problems, medical fragility, nonbiologic relationship to the caretaker, prematurity, special needs
Family and environmental factors	High local unemployment rates, intimate partner violence in the home, poverty, social isolation or lack of social support

Information from references 6 through 14.

Definition

The Child Abuse Prevention and Treatment Act (CAPTA) defines abuse as a recent act or failure to act that results in death, serious physical or emotional harm, sexual abuse or exploitation, or imminent risk of serious harm; involves a child; and is carried out by a parent or caregiver who is responsible for the child's welfare.[2] CAPTA also includes neglect within the definition; however, each state is responsible for defining child abuse and maltreatment within its own civil and criminal codes.

Risk factors for abuse can be categorized as caregiver, child, and family or environmental factors *(Table 1[6-14])*. Notably, intimate partner violence in the home is associated with child maltreatment (odds ratio: 3.0).[13]

There are four main types of child abuse: neglect and emotional, physical, and sexual abuse. Medically, each is approached differently, but all require that the physician report suspicions to appropriate authorities and involve other members of the health care community.

Neglect

Neglect is the most common (60 percent of cases) form of reported abuse[4,7,15-17] and is the most common cause of death in abused

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SORT: KEY RECOMMENDATIONS FOR PRACTICE

Clinical recommendation	*Evidence rating*	*References*	*Comments*
Early childhood home visitation programs are recommended to reduce child maltreatment among high-risk families.	A	1	A systematic review showed a 40 percent reduction in maltreatment episodes.
All suspected cases of child abuse should be reported to Child Protective Services.	C	17, 21, 22, 35, 42, 44	Legal mandate
Primary care physicians should incorporate preventive education into their practice and include abuse as part of their differential diagnosis.	C	5-7, 26	Detection at first presentation reduces morbidity and mortality.
A multidisciplinary approach to evaluating, diagnosing, and treating child abuse is recommended.	C	7, 31, 35	Expert opinion
A skeletal survey should be done in all children younger than three years with suspicious trauma.	C	27, 36	Based on the American Academy of Pediatrics and the American College of Radiology guidelines.
Evaluation of a sexually abused child requires specialized training and experience.	C	34, 41, 43	Expert opinion
There is insufficient evidence to recommend for or against routine screening of parents or guardians for abuse of children.	C	25	U.S. Preventive Services Task Force 2004 guideline

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, see page 149 or http://www.aafp.org/afpsort.xml.

children.[18,19] It is defined by the Office on Child Abuse and Neglect as failure to provide for a child's basic physical, emotional, educational/cognitive, or medical needs.[7] The four subtypes of neglect are physical, emotional, educational, and medical.

Physical neglect involves the failure to provide adequate food, clothing, shelter, hygiene, protection, or supervision. Emotional neglect is the failure to provide love, security, affection, emotional support, or psychological care when needed. Exposure to intimate partner violence also may be considered a type of neglect. Educational or cognitive neglect involves the lack of proper enrollment in school, lack of supervision of school attendance, or failure to meet essential educational needs. Medical neglect is the delay in or refusal to seek medical care, resulting in damage to the child's well-being.

Although there is insufficient evidence to recommend a parent education and support program to prevent child maltreatment, home visitation programs have been shown to be effective in reducing abuse in high-risk families.[1,20] Physicians can provide anticipatory guidance and education for parents and care providers. Well-child visits should include information about nutrition, safety, injury prevention, developmental staging, dental and eye care, and educational needs. Resources for physicians and parents are summarized in *Table 2*.

If neglect is suspected, the physician should obtain a full medical history (e.g., prenatal and postnatal care, diet, immunizations, major illnesses, growth curve, developmental milestones, hospitalizations, previous physician visits); psychosocial history (e.g., family composition, intimate partner violence, job status, use of drugs and alcohol in the home, past involvement with Child Protective Services); and a complete physical examination. If a diagnosis of neglect is unclear, proper management includes arranging a home visit by a physician, social worker, or home nurse; scheduling frequent medical follow-up; and obtaining a social work consultation. If the caregiver refuses to cooperate with these interventions, or if the child fails to improve

TABLE 2
Helpful Resources on Child Abuse

Recognition and management	Reece RM, Ludwig S. Child Abuse: Medical Diagnosis and Management. 2nd ed. Philadelphia, Pa.: Lippincott Williams & Wilkins, 2001.
	Visual Diagnosis of Child Abuse [book on CD-ROM]. 2nd ed. American Academy of Pediatrics. Available through http://www.aap.org.
	Giardino AP, Giardino ER. Recognition of Child Abuse for the Mandated Reporter. 3rd ed. St. Louis, Mo.: G.W. Medical Publishers, 2002.
	Tennyson Center for Children (http://www.childabuse.org)
	Child Abuse Evaluation & Treatment for Medical Providers (http://www.ChildAbuseMD.com)
	MedlinePlus: Child Sexual Abuse (http://www.nlm.nih.gov/medlineplus/childsexualabuse.html)
	Child Welfare Information Gateway (http://www.childwelfare.gov)
Crisis counseling	Childhelp USA (http://childhelpusa.org). Telephone: 1-800-4-A-Child (1-800-422-4453)
State statutes	Child Welfare Information Gateway (http://www.childwelfare.gov/systemwide/laws_policies/search/index.cfm)
Protocols and forms	California Governor's Office of Emergency Services, OES 900 Forms (http://www.oes.ca.gov/Operational/OESHome.nsf/CJPD_Documents?OpenForm)

OES = Office of Emergency Services

appropriately with intervention, then Child Protective Services should be contacted.[17]

Emotional Abuse

Emotional abuse may be the most difficult form of abuse to recognize in clinical practice.[14,21,22] It develops as a result of repeated damaging interactions. The Office on Child Abuse and Neglect defines emotional abuse as abuse that results in demonstrable harm (e.g., impaired psychological growth and development) of a child.[14] There are several subtypes of emotional abuse including rejection, isolation, terrorism, ignorance, psychological unavailability, corruption, and inappropriate expectations of or demands on the child.[14,22,23]

Patterns of behavior that should raise concern about the possibility of emotional abuse include social withdrawal, excessive anger or aggression, eating disorders, failure to thrive, developmental delay, and emotional disturbances (e.g., depression, anxiety, fearfulness, history of running away from home). Physicians should express their concerns to the child and family and try to determine the severity of the problem.

Mental health consultation should be considered for families of children who have been emotionally abused. Although there is insufficient evidence to suggest that parent education and psychotherapy prevent child maltreatment, these interventions may be recommended for other reasons.[1] If the episode of suspected emotional abuse is isolated, and there is no immediate danger to the child, physicians should recommend family therapy, parental training, and other supportive therapy for the child and family. If emotional abuse is recurrent or there is a possibility of imminent harm, Child Protective Services should be contacted and removal of the child from the home considered.[21]

In some areas, exposure to intimate partner violence in the home is considered by statute to be a source of emotional harm. Physicians should seek advice of local experts to determine if children who witness intimate partner violence should be referred to Child Protective Services.[24] Screening for intimate partner violence, however, has not been shown to decrease disability or risk of premature death.[25]

Physical Abuse

CLINICAL EVALUATION

Physical abuse should be part of the differential diagnosis for all injuries in children.[26] The physician must determine if the lesions present could be inflicted or noninflicted. Clues to assist in this determination involve a series of questions about each injury *(Table 3*[26-28]*)*.

Certain elements of the history or presentation should alert the physician to the possibility of abuse: for example, if the history provided by the caregiver does not explain the child's injuries, the history changes over time, the history of self-inflicted trauma does not correlate with development, or if there is an inappropriate delay in seeking care.

The diagnosis of abuse should be pursued if there are injuries to multiple areas, injuries in various stages of healing, or suspicious injury patterns. Bruises, bites, burns, fractures, abdominal trauma, and head trauma are the most common physical findings. Injuries considered suspicious for inflicted injury include posterior rib fractures; retinal hemorrhages; metaphyseal or complex skull fractures in infants; long bone fractures in children younger than two years; scapular, spinous process, and sternal fractures; and cigarette burns.[28] Subdural hemorrhages in infants are highly suggestive of inflicted trauma.[29] The American Academy of Orthopaedic Surgeons states that there is no pathognomonic fracture pattern in abuse.[28] Transverse fractures are the most common type of fracture, regardless of etiology, and femoral spiral fractures are no more common in inflicted injuries than in noninflicted ones.[30]

Evaluation of physical abuse in children can be time consuming but is vitally important. Histories from caregivers should be obtained separately and as soon as possible; careful documentation is essential. Prepared examination packets that include adequate space for historical data and a physical examination section with drawings to facilitate proper documentation of all injuries are helpful. The state of California has sample forms (Office of Emergency Services [OES] 900 forms) available at http://www.oes.ca.gov/Operational/OESHome.nsf/CJPD_Documents?OpenForm.[31]

Photographs of injuries should be taken. There are guidelines available to help family physicians better document injuries *(Table 4)*.[32,33] When possible, a medical photographer or child abuse investigative authority should retake the photographs.

TABLE 3

Clues in the Evaluation of Inflicted vs. Noninflicted Trauma in Children

Suspect inflicted trauma if the answer is yes to any of the following questions:

- Is there an unusual distribution or location of lesions?
- Is there a pattern of bruises or marks?
- Can a bleeding disorder or collagen disease be ruled out as a cause of lesions?
- If there is a bite or handprint bruise, is it adult size?
- If there is a burn, are the margins clearly demarcated with uniform depth of burn?
- If there is a burn, is there a stocking and glove distribution?
- Are there lesions of various healing stages or ages?
- Is the reported mechanism of injury inconsistent with the extent of trauma?

Information from references 26 through 28.

DIAGNOSTIC TESTING

Because organic and medical causes should be considered in the differential diagnosis of suspected physical abuse *(Table 5*[13,34]*)*, ancillary studies that assist in a full medical evaluation should be performed *(Table 6*[27,28,35]*)*. The American Academy of Pediatrics and the American College of Radiology consider a skeletal survey the method of choice for skeletal imaging in suspected child physical abuse cases; therefore a skeletal survey is mandatory for all children younger than three years with suspicious trauma.[27,36]

MANAGEMENT

Once physical abuse of a child is suspected, the physician is required by law to report it to authorities.[35] Medical management can range

from inpatient care to outpatient treatment with close follow-up by a physician, a social worker, and Child Protective Services. Inpatient care helps address medical needs; facilitates studies, observation, and evaluation; and protects the child from further harm. Criteria for considering admission includes medical indications (e.g., severe burns, head injury, requirement for serial examinations), unsafe home environment, delayed outpatient Child Protective Services evaluation, and inpatient observation of child-parent interactions.[37]

If the parent or guardian is suspected of being a perpetrator, then inpatient evaluation is appropriate. A multidisciplinary approach, or "child protection team," is strongly encouraged to ensure adequate evaluation, treatment, and follow-up of a potentially abused child.[7] Recommended members for a multidisciplinary team include the admitting or evaluating physician, a children's physician or children's forensic specialist, Child Protective Services, social work services, nursing staff, mental health professionals, and law enforcement.

Sexual Abuse

LEGAL DEFINITION

Child sexual abuse is defined clinically and legally. Legally, there are child protection and criminal statutes. Federal child protection statutes consider sexual abuse and exploitation as a subcategory of child abuse. CAPTA defines sexual abuse as:

> The employment, use, persuasion, inducement, enticement, or coercion of any child to engage in, or assist any other person to engage in, any sexually explicit conduct or simulation of such conduct for the purpose of producing a visual depiction of such conduct; or the rape, molestation, prostitution, or other form of sexual exploitation of children, or incest with children.[2]

The federal statute does not provide an age limit for definition purposes; it indicates that age limits in state law apply.[37] Specific state statutes can be located at http://www.childwelfare.gov/systemwide/laws_policies/search/index.cfm.

CLINICAL EVALUATION

Less than 10 percent of substantiated child sexual abuse cases have physical findings on examination[38-41]; therefore, the history is the most important part of the sexual abuse evaluation. Documentation should include the child's exact words. A suggested approach to obtaining a history from a potential victim is shown in *Table 7*.[42] Physicians who plan

TABLE 4

Medical Photography Guidelines for Documenting Physical Abuse

- Obtain informed consent if possible, although it is not required in child maltreatment cases.
- Use a color or digital camera with the highest resolution available.
- Photograph injuries before treatment.
- Photograph injuries from different angles; take at least two pictures of every injury.
- Use a ruler or coin to give perspective of the size of injury.
- Include the patient's face in at least one photo.
- Document the patient's name, location of injury, date, photographer, and names of those present on the back of the photo as soon as possible.
- Place photos in a sealed envelope, mark as confidential, and attach to the medical record. Maintain chain of possession.

Adapted with permission from the Institute of Medical Illustrators. IMI national guidelines: photography of non-accidental injuries. Accessed May 22, 2006, at: http://www.imi.org.uk/guidelines/IMINatGuidelinesNAIMarch2006.pdf, with additional information from reference 32.

TABLE 5

Differential Diagnosis of Physical Abuse

Injury	*Differential diagnosis*
Bruises	Accidental or nonaccidental bruise, cultural practices, dermatologic disorders, genetic disorders (e.g., Ehlers-Danlos syndrome), hematologic disorders, Henoch-Schönlein purpura, mongolian spots
Burns	Accidental burn, cultural practices, dermatitis, inflicted burn, skin infection, Stevens-Johnson syndrome
Fractures	Accidental or intentional fracture, birth trauma, congenital syphilis, leukemia, osteogenesis imperfecta, osteomyelitis, physiologic changes, rickets, scurvy
Head trauma	Accidental or inflicted trauma, birth trauma, hemorrhagic disease, infection, intracranial vascular anomalies, metabolic disease (e.g., glutaricaciduria, type I)

Information from references 13 and 34.

TABLE 6
Recommended and Optional Studies for Physical Abuse Evaluation

Study	*Indication*
Recommended for most patients	
Dilated, indirect ophthalmoscopy performed by an ophthalmologist	To detect retinal hemorrhages in children younger than two years
Head CT	To detect subarachnoid, subdural, or intraparenchymal injury
Laboratory evaluation: amylase, complete blood count, hepatic transaminases, lipase, partial thromboplastin time, prothrombin time, fecal occult blood test, urinalysis, and urine toxicology	To detect genitourinary or abdominal trauma and to ensure no underlying blood disorder
Skeletal survey radiography (e.g., of the spine, extremities, skull)	Suspected old or new fracture
Optional	
Abdominal CT	If history, examination, or laboratory results suggest abdominal trauma
Bone scan	To find occult fractures up to two weeks after injury
Dental consultation	If there is a bite present, dentists can determine the source
Magnetic resonance imaging of the head	If CT of the head is inconclusive

CT = computed tomography.

Adapted with permission from Lane WG. Diagnosis and management of physical abuse in children. Clin Fam Pract 2003;5:508, with additional information from references 27 and 28.

to interview or evaluate suspected victims should consider special training.

Timing of the physical examination depends on the last reported incident of sexual contact or if symptoms are currently present. An examination should be done promptly if a child with suspected maltreatment complains of dysuria, anal or vaginal bleeding, vaginal discharge, or pain with defecation. Also, a thorough physical examination should be performed at the time of initial interview if the reported incident occurred less than 72 hours before and the patient has a history highly suggestive of abuse. For these instances, sexual assault kits (i.e., rape kits) usually are available in emergency departments or child abuse centers. Examinations should be done by health care professionals familiar with forensic examinations (e.g., experienced primary care physicians, emergency department personnel, or sexual assault nurse examiners).[27]

Examination under anesthesia should be considered for acutely assaulted prepubertal girls with persistent vaginal or rectal bleeding or severe abdominal pain.[43,44] Examination supplies must include culture medium for gonorrhea and chlamydia rather than DNA probes or antibody staining because the standard of care for children is culture analysis. Colposcopy is now recommended for adequate sexual assault evaluation because it facilitates evaluation and documentation with digital imaging. A speculum is not used in a prepubescent child because the genitalia can be visualized adequately with proper technique and positioning.

If the last known incident of sexual contact occurred more than 72 hours before presentation, the child can be scheduled for an examination at a child advocacy center or other center specializing in sexual assault examinations. Child advocacy centers are members of the National Children's Alliance

TABLE 7
Child Sexual Abuse History Interview Recommendations

Explain to the child who you are and why you are there.
Ask if the child knows why he or she is there.
Use short simple sentences, simple tenses, and active verbs.
Use concrete terms and proper names.
Use direct questions.
Verify the child's statements.
Rephrase questions if needed.
Ask if the child understands the question.
Offer the option of writing answers down or drawing the event.
Interview the child out of the presence of the parent if possible.
Do not be biased, leading, suggestive, or presumptive.
Ask about medical history, medications, menstrual history, sexual history (this allows you to determine the language and development of the child).
Ask about symptoms (e.g., physical, emotional).
Ask for a description of the event.
Get clarification.
Ask about the child's concerns or fears.

Information from reference 42.

(http://www.nca-online.org). Membership requires a child-appropriate facility, multidisciplinary case review team, provisions for medical and mental health examinations and treatment, and a system for tracking cases.[34]

Much of the approach and management of child abuse is directed by expert opinion or legal mandate. Physicians must use every available piece of clinical evidence to effectively diagnose and manage child abuse. Physicians should seek preventive measures through support of home visitation but recognize that routine screening for abuse has not been shown to be beneficial.[1,25]

The opinions and assertions contained herein are the private views of the author and are not to be construed as official or as reflecting the views of the U.S. Department of Defense, the U.S. Army Medical Department, or the U.S. Army Service at large.

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Author disclosure: Nothing to disclose.

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