



Care of the Adolescent After an Acute Sexual Assault

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Sexual violence is a broad term that encompasses a wide range of sexual victimizations. Since the American Academy of Pediatrics published its last policy statement on sexual assault in 2008, additional information and data have emerged about sexual violence affecting adolescents and the treatment and management of the adolescent who has been a victim of sexual assault. This report provides new information to update physicians and focuses on the acute assessment and care of adolescent victims who have experienced a recent sexual assault. Follow-up of the acute assault, as well as prevention of sexual assault, are also discussed.

BACKGROUND

For the purposes of this clinical report, “sexual assault” is a comprehensive term that describes any nonconsensual sexual act. Sexual assault includes any situation in which there is nonvoluntary sexual contact, with or without penetration and/or touching of the anogenital area or breasts, that occurs because of physical force, psychological coercion, or incapacitation or impairment (eg, secondary to alcohol or drug use). Sexual assault also occurs when victims cannot consent or understand the consequences of their choice because of their age or because of developmental challenges.¹

This report only addresses acute sexual assault in the adolescent age group (including follow-up care and prevention) and not sexual abuse of young children or abuse that might be disclosed long after it occurred. Most jurisdictions define “acute” to reflect an event that occurred in the past 72 hours. Some jurisdictions include events as far out as 7 to 10 days in the “acute” category. For more information about sexual abuse of children and adolescents, please refer to the American Academy of Pediatrics (AAP) clinical report, “The Evaluation of Children in the Primary Care Setting When Sexual Abuse Is Suspected.”² Available resources and services for adolescents who have been sexually assaulted will vary from community to community. Pediatricians should become familiar with the resources available in their community.

abstract

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EPIDEMIOLOGY

National data show that teenagers and young adults ages 12 to 34 years have the highest rates of being sexually assaulted of any age group.³ Annual rates of sexual assault were reported in 2012 (for 2011) by the US Department of Justice to be 0.9 per 1000 persons 12 years and older (male and female). From 2002 to 2011, there has been an overall decrease of 37% in rape/sexual assaults, including a 10% decrease in 2010 to 2011.^{3,4} A survey of 1200 middle- and high-school students identified that 18% of girls and 12% of boys had an unwanted sexual experience during adolescence.⁵ In 2014, the White House published a report of a task force appointed to protect college students from sexual assault.⁶ Sexual assaults occur frequently on college campuses; a 2009 study showed that 20% of women report being sexually assaulted while in college, typically in their first 2 years.⁷ In almost 80% of the cases, the perpetrator is someone the woman knows, rather than a stranger. More recently, the Association of American Universities released a study surveying 27 institutions of higher education, reporting that almost 12% of female and male college students say they experienced nonconsensual sexual contact by threat of physical force, by actual physical force, or while incapacitated.⁸ The percentage of female respondents reporting sexual assault or misconduct was 23%. Perpetrators have been classmates, friends, ex-partners, and acquaintances.⁹ Statistics on sexual assault may reflect substantial underreporting. In addition, because many victims do not immediately disclose an assault, “past-year surveys” may not reliably capture the actual number of victims and incidents.

Studies have demonstrated that two-thirds to three-quarters of all adolescent sexual assaults are

perpetrated by an acquaintance or relative of the adolescent.^{10,11} Older adolescents are most commonly victims during social encounters with assailants, for example, on a date. In younger adolescent victims, the assailant is more likely to be a member of the adolescent’s extended family.¹² In a national study of women and men who experienced sexual assault, approximately 45% of women and 29% of men reported that the assault was from an intimate partner; women, however, were more likely than men to be assaulted by an acquaintance.^{12,13}

The majority of perpetrators of reported sexual assaults are male, regardless of the sex of the victim.¹² Studies of sexual assault of males have demonstrated that up to 90% of the perpetrators of rape are male.¹² Sexual assault of males by females is more commonly reported by older adolescents or young adults, as compared with sexual assault of children or young adolescents.^{14–16}

The circumstances surrounding sexual assaults and subsequent reporting patterns differ when the victim is an adolescent versus an adult. Adolescent rape victims presenting to emergency departments are more likely than adult victims to have used alcohol or drugs and are less likely to incur nonanogenital injury during a rape.^{3,11,12,17} Adolescent female victims are also more likely to delay seeking medical care after a sexual assault and are less likely than are adult women to press charges when given a choice.^{11,17}

Although sexual assault is a common occurrence among college and high-school students, only approximately half of high school victims ever tell someone about an incident.¹⁸ As few as 10% of sexual assaults may be reported to authorities, depending on the age and sex of the victim and the circumstances surrounding the assault. When the victim knows the perpetrator, reports to the police

are less frequent.¹⁹ In addition, male victims are less likely to report a sexual assault than are female victims.^{14–16}

SUBSTANCE USE AND SEXUAL ASSAULT

Adults significantly underreport voluntary drug use associated with sexual assault, but adolescents have demonstrated increased disclosure.²⁰ Alcohol or drug use immediately preceding sexual assault has been reported among more than 40% of adolescent victims and adolescent perpetrators¹⁵ and in approximately 30% of sexual assaults reported by undergraduate females.²¹ Cannabis, which may be identified in urine samples days or weeks after its use, has been found in 17% to 35% of systematically collected urine samples of alleged victims of sexual assault.^{22,23} Recreational drug use is common in adolescents and young adults^{24–26}; perpetrators of sexual assault may take advantage of the impaired state of a nonconsensual person who has voluntarily used alcohol or drugs. Substances can also be used inadvertently or coercively for sedation, to decrease inhibition, or to increase libido. Individual state laws generally define the crime as sexual activity with an individual who has been coerced or who has limited decision-making capacity because of intoxication or cognitive limitations and is unable to consent.²⁷

Collection of Toxicology Samples

The revised National Protocol for Sexual Assault Medical Forensic Examinations and other published reviews have underscored the widespread use of alcohol and other substances that facilitate sexual assault and the importance of timely collection of toxicology samples to document such use. Collection of toxicology samples usually occurs separately from collection of physical forensic evidence. Toxicology sample collection is recommended when

the victim presents with symptoms and signs of substance use (eg, fluctuating level of consciousness, physiologic instability, severe intoxication, amnesia of the event) or when concerns of possible drug involvement are raised by the patient or the accompanying persons or witnesses. It is important to obtain informed consent before toxicology sample collection, if possible.²⁸

Informed consent can address issues related to confidentiality and discoverability of forensic and medical toxicology results, the value of results for immediate medical care, the influence of timing of specimen collection in the results reported, the limitations of toxicology to identify some drugs, and the responsibility for payment. When patients have ingested a psychoactive substance, confirmation of the details of the alleged crime committed may need to be reviewed at a later time with patients because of their temporarily compromised cognition or memory. An altered state of consciousness can complicate the emotional and physical trauma and make an evaluation even more challenging.

Both forensic and toxicology sample collection should occur in a timely manner and in parallel. In some instances, previously collected samples may be allowed to be discarded at a later time or date. Poison Control Centers, vendor laboratories, and other toxicology resources can be consulted to ensure that specimens are collected and transported correctly. If drug-facilitated sexual assault (DFSA) is suspected, even if the suspected drug may be alcohol, it is ideal to collect the first urine produced after the assault, if possible. It is encouraged that the collection and transport of specimens be coordinated by sexual assault response teams, health care providers, and law enforcement personnel. Documentation of the chain of custody of any specimens is necessary if the sample is to

be used in a legal proceeding. To best preserve and minimize the disturbance of forensic evidence from the genitalia and surrounding areas of the body, it is suggested that urination be delayed until other specimens are collected. However, this approach may not be possible and could delay the collection of toxicologic evidence.

Use of Substances

Voluntary use of alcohol or other drugs proximate to a sexual assault is common and should not influence the perceived legal status of the event or result in reductions in standards of care for presenting victims. Documentation of substance use history may be used by opposing attorneys to undermine the credibility of a victim in court, but may also be used to support the victim's vulnerability and inability to provide legal consent. The examining physician should attempt to accurately document substance use history relevant to the event. Victims may also "self-medicate" after an assault as a coping mechanism, especially if they have previously experienced a sexual assault. Impairment may influence a victim's ability to make decisions about interacting with law enforcement professionals and consenting to the collection of forensic evidence. Examiners should consider developing policies regarding handling patients with an altered mental status. At a minimum, if serious medical problems are ruled out, the patient will need to be observed until consent and cooperation can be obtained, which will delay the start of the examination.²⁸ Use of substances is one of the factors that may interfere with the reporting and prosecution of cases of sexual assault.

Although alcohol is the most common substance involved in sexual assault, DFSA has been a subject of attention since the 1990s, when increasing

rates of adolescent acquaintance rape were allegedly associated with the availability of illegal so-called "date rape drugs."²⁹⁻³² The most well-known of these drugs is the benzodiazepine sedative/hypnotic flunitrazepam (Rohypnol, Roche Pharmaceuticals, Inc, manufactured outside of the United States). Ketamine and γ -hydroxybutyrate (GHB) are also used as date rape drugs.³³ GHB is more commonly used than flunitrazepam in DFSA because it is less expensive and more easily obtained. Use of any benzodiazepines with alcohol is known to amplify the actions and adverse effects of each individual substance. Studies of specimens collected when DFSA has been suspected have confirmed the presence of substances in 61% of urine samples tested after an alleged sexual assault. Testing from 3303 samples found occasional confirmation of flunitrazepam (0.33%) and GHB (3.0%) use and higher levels of other benzodiazepines (9.5%). Cocaine (18.6%), amphetamines (6.7%), and cannabis (18.6%) were also found with high frequency, and alcohol was detected in the urine of 41.1% of all samples.³⁴ Most of these data were from studies in adults, but a few included older adolescents. In a Canadian study by Du Mont et al of 184 individuals 16 years and older who met the criteria for DFSA, 86% had consumed alcohol before the assault, and one-quarter of the sample had used over-the-counter prescription or street drugs in the 72 hours before the test collection.^{35,36} Unexpected (ie, no known history of drug exposure to the specific drug) positive toxicology results were found in 49% of the suspected DFSA cases; results showed cannabinoids (40%) and cocaine (32%) most frequently. Similar individual studies and systematic reviews³⁷ from the United States, Canada, United Kingdom, Australia, and other countries have reported that less than 2% of cases of DFSA

are associated with common date rape drugs.^{34–36,38–43} There may be a greater index of suspicion for such use in geographic areas where flunitrazepam and similar drugs are legal or more accessible (eg, Mexico and near border areas).

Testing for Date Rape Drugs

Date rape drugs and many other drugs of abuse are not included in standard drug-screening panels; flunitrazepam is not identified in routine tests for benzodiazepines. Health care providers are advised to inquire how to detect the presence of suspected drugs and collect the proper specimens from the victim at the time of evaluation. Commonly prescribed benzodiazepines and over-the-counter antihistamines are also being used to facilitate sexual assault, so testing can also be considered for these medications when their use is suspected.⁴⁴

All of these drugs are detectable for only a short time. If there is suspicion that one of them has been used, toxicology screening should be performed as soon as possible, perhaps even before finishing the history and physical examination. The reference concentrations of these drugs are not universally available, and consultation with a sexual assault center, toxicologist, or state forensic laboratory may be required for interpretation of drug testing results. Toxicology screens for drugs of abuse generally are inadmissible in legal settings because false-positive and false-negative results may occur. If a general toxicology screen performed to assess for the possibility of an exposure has a positive result, the same sample should also be sent for confirmatory testing by using gas chromatography or mass spectroscopy.

Substances Increase Vulnerability

Alcohol still is by far the most common date rape drug, and it is advisable to warn adolescents and

college students of their increased vulnerability to assault when drinking.^{21,31,45–48} Sexual assault in which substance use is involved is likely to be more severe and is associated with assaults by strangers, greater physical injury, greater victimization, and greater likelihood of completed rape.⁴⁵ If potential victims' friends are also drinking, they may not notice that an assault is taking place or be able to respond in a way that maximizes safety and minimizes physical and psychological consequences. After a sexual assault, it is important to address how decreasing or avoiding future alcohol and substance use may decrease vulnerability to subsequent incidents. Such counseling may need to be deferred to a later time, depending on the condition and receptivity of the victim.^{47–49}

SEXUAL ASSAULT OF YOUTH WITH DISABILITIES

Adolescents with developmental disabilities are at an increased risk of sexual assault and acquaintance rape.^{50,51} Between 2009 and 2011, compared with adolescents without disabilities, adolescents with disabilities ages 12 to 15 years had rates of violent victimization that were 2.5 times greater, and those with disabilities ages 16 to 19 years had rates that were more than 3 times greater.⁵² Lifetime sexual violence victimization was 3 times higher in males with disabilities compared with males without disabilities (13.9% vs 3.7%, respectively).⁵³ It is estimated that 68% to 83% of women with developmental disabilities will be sexually assaulted in their lifetime.⁵⁴ Those who have milder cognitive disabilities are at the highest risk.^{55,56} In a national sample of adult women, little difference in the risk of sexual assault was seen between women with moderate disabilities and those reporting no disability; women with severe disabilities were 4 times more

likely to be sexually assaulted than women with no disabilities.⁵⁷

People with disabilities are likely more vulnerable to sexual assault because of a variety of factors, including a decreased ability to flee or fight off an attacker, an expectation of increased compliance, an increased tolerance of physical intrusion, dependence on others for personal care, deficits in communication skills, and an inability to implement effective safeguards.^{55,58,59} As is the case for people without disabilities, victims with disabilities often know their perpetrators. Assailants were family members or acquaintances in 32% of cases involving victims with intellectual disabilities. An additional 44% of assailants had a care-providing relationship with the victim (eg, personal care attendants, transportation providers, or residential care staff).⁶⁰

Only approximately 3% of sexual assault cases involving people with developmental disabilities typically have been reported to law enforcement.⁶¹ As many as 25% of girls and women with intellectual disabilities who were referred for contraception had a history of sexual violence, suggesting that screening for sexual assault could increase reporting in this population.⁶² Factors that influence whether people with disabilities report a sexual assault include the understanding and significance the victim attaches to the incident, the ability to communicate about what happened, whether the victim perceives there to be a trustworthy and capable person to whom the information may be disclosed, and the level of trust or expectation of being believed and feeling safe.^{56,63,64} Some of these factors uniquely affect individuals with disabilities, but others are shared by individuals without disabilities as well.

It is strongly encouraged that pediatricians be familiar with child abuse resources and programs that

are appropriate for teenagers who are cognitively impaired. Service agencies can provide appropriate genital and pelvic examinations for victims with physical disabilities requiring mobility aids. Finally, it is helpful if pediatricians are aware of sexual violence prevention programs designed for participants with intellectual disabilities.^{64,65}

ASKING ABOUT SEXUAL ASSAULT

It is important that pediatricians have an increased awareness that sexual assault is a prevalent issue that can affect any of their patients, regardless of sex. During the high school and college years, a H.E.A.D.S.S. assessment can guide questions about the domains of Home, Education/Employment, Activities, Drugs, Sexuality, and Suicide/Depression. Asking adolescents about exposure to sexual assault (and other types of victimization) is advised during routine health supervision visits in which psychological problems, sexuality issues, contraception, or substance use are discussed. Adolescents can be asked direct questions about their sexual experiences without their parents or partners present. These questions may include the age of their first sexual experience, use of the Internet and other social media to find romantic or sexual partners, and a history of unwanted or forced sexual acts. When exploring alcohol or substance use, it is important to discuss the link between impairment and vulnerability to sexual assault. It is advised that adolescents who disclose a previous assault be asked about the dynamics of their relationships (eg, exploitative, controlling, nonconsensual).⁶⁶

Exploring the perceptions and attitudes of adolescents regarding nonconsensual sexual encounters is important. Because there may have been voluntary participation before an assault occurred, adolescents

might think that “consent” cannot be withdrawn. They may worry that their perceptions of assault will not be validated or believed. Teenagers may be reluctant to report an incident for several reasons: feelings of responsibility or guilt for the event, the need to protect, worry about the response of their parents or other authorities, fear of negative consequences, or poor recollection of the assault because of the use of alcohol or other substances. Self-blame, humiliation, and lack of information, understanding, or knowledge about sexual violence may prevent an adolescent from seeking medical care.

SEXUAL ASSAULT REPORTING

Specific reporting requirements for parents, child protective services, or law enforcement vary by state or even local jurisdictions. Some states have laws mandating that sexual intercourse or other sexual contact between minors must be reported if certain age differences exist between a minor (usually defined as younger than 18 years) and his or her sex partner (whether minor or adult), even if the sexual act was voluntary and consensual. The age of consent for sex varies from state to state. Depending on the patient’s current age, age at time of the event, the identity and relationship to the alleged perpetrator (such as an acquaintance, a relative, teacher/coach, or health care provider), it may be mandatory to report the event to law enforcement or child protective services even if the teenager does not want it to be reported.⁶⁷ Some adolescents may refuse to seek care or disclose personal information because reporting of sexual partners or incidents of sexual violence may be required.^{68–71} Pediatricians need to know about the specific reporting laws in the states in which they practice. This information is available

online through the Child Welfare Information Gateway.⁷²

SEXUAL ASSAULT EVALUATION

When an adolescent discloses that an acute sexual assault has occurred, it is incumbent on the health care provider to provide a nonjudgmental response. A supportive environment may encourage the adolescent to provide a clear history of what happened, agree to a timely medical and/or forensic evaluation, and engage in counseling and education to address the sequelae of the event and to help prevent future sexual violence.

It is important to obtain the history of what happened from the adolescent, when possible. As in any other medical encounters, the physician should learn about relevant past medical and social history. Physicians should consider the possibility that the adolescent could be a victim of human trafficking and commercial sexual exploitation and ask appropriate questions, such as “Has anyone ever asked you to have sex in exchange for something you wanted?”⁶⁶ In addition, the physician should address the physical, psychological, and safety needs of the adolescent victim of sexual violence and be aware that responses to sexual assault can vary. It is advised that adolescents be asked directly whether they have safety concerns related to the perpetrator, the perpetrators’ friends, or others. Victims should be asked whether they have been threatened, whether they are afraid of anyone, and whether the perpetrator or the perpetrator’s friends have a history of violence and access to weapons.

Most adolescents who disclose an acute sexual assault will consent to a physical evaluation that has a forensic component. The forensic elements of an evaluation are those that pertain to the criminal investigation that occurs after

an assault is disclosed to law enforcement officers (eg, DNA collection). The adolescent should have a medical examination that assesses and cares for any injury, infections, and pregnancy in addition to addressing mental health and safety issues. It is of paramount importance that patients know they can and will still get the medical care they need related to the assault even if they choose not to have a forensic evaluation. In cases in which reporting is not mandatory, patients can be advised that a forensic evaluation does not require the victim to agree to report or press charges against the perpetrator. Many law enforcement agencies will hold forensic results for 2 or more years, allowing victims to reconsider legal action after the acute period has passed.

A referral for forensic examination and treatment can be made to an emergency department or sexual assault treatment center that has professional staff experienced in treating adolescent assault victims. It is important to note that the young person may have nongenital injuries, the treatment of which may be a priority, depending on their severity. The health care provider should address the adolescent's immediate health concerns, including any acute injuries, the likelihood of exposure to sexually transmitted infection (STIs), the possibility of pregnancy, and other physical or mental health concerns. Before any forensic examination, victims of acute sexual assault should be asked to not change their clothes, bathe/shower, eat/drink, urinate/defecate, or douche until they have been examined; however, even if they have done so, they are still encouraged to seek care. The federal Violence Against Women Act (Pub L No. 103-322 [1994]) requires that adolescents be given the option of having a sexual forensic medical examination even if they are uncertain about cooperating with

law enforcement at the time of the examination.

A forensic examination is ideally performed by the most qualified health care provider available, such as a pediatric emergency medicine physician, a physician who specializes in child abuse, or a nurse practitioner with sexual assault care training who is working with an experienced physician. A properly maintained chain of evidence and accurate documentation of findings are critical.^{28,73-77} Details of the required examination and documentation are presented in a handbook published by the American College of Emergency Physicians, *Evaluation and Management of the Sexually Assaulted or Sexually Abused Patient*.^{28,77} Physicians who treat sexually abused or assaulted patients need to be aware of the legal requirements of their state or locality, including the completion of appropriate forms, maintaining the legal chain of evidence, and reporting to the appropriate local authorities. In many communities, a specific medical facility is designated as the location in which forensic examinations are performed, with specific policies and protocols in place to address the needs of these patients. Physicians should familiarize themselves with the resources and the protocols of the communities in which they practice so that they can refer their patients to the appropriate site.

A forensic medical examination includes a medical history, documentation of physical findings, use of an imaging system (still or video) to record findings and allow for future image review, collection of potential forensic evidence from the patient, and consideration of medications to address issues of possible STI transmission or pregnancy risk.²⁸ With DNA-amplification techniques, a forensic examination may identify foreign DNA for at least 72 hours after an

assault^{28,78,79} and possibly longer.^{28,75} If the adolescent presents more than 3 days after the reported assault, health care providers should refer to their local protocols regarding evidence collection. After 1 week, examination, counseling, and treatment can take place without the need for forensic collection.

Forensic medical sexual assault examinations can be performed only with the consent of the adolescent. Law enforcement or parents cannot "mandate" that an adolescent have a forensic sexual assault examination. Adolescents must never be forced or coerced to have a forensic sexual assault evaluation. The age at which a patient has the ability to consent legally to a forensic medical sexual assault examination varies from state to state; a list that outlines sexual assault care by state is available from the Center for Adolescent Health and the Law.⁸⁰ Pediatricians are advised to become familiar with their state's laws.

The sexual assault history should be documented and should include verbatim statements whenever possible, important past medical and mental health history, and other areas of risk. The physical examination should include a written description of the findings and detailed drawings as well as photographic or video images whenever feasible. Descriptions of findings should be as clear and precise as possible. Examiners should avoid terms, such as "hymen intact" or "hymen not intact," but instead use language that objectively describes the appearance of the anatomy. Colposcopy or another appropriate imaging system may assist examiners in detecting and documenting anogenital trauma.⁸¹⁻⁸³ Adolescents have appreciated that video colposcopy allowed them to watch their own examination on an adjacent screen.⁸⁴ Images from forensic medical sexual assault examinations should be reviewed by the most experienced health

care provider who can interpret the findings. The majority of adolescents who have been sexually assaulted will have an unremarkable anogenital examination when they are examined acutely. After the acute period, it is even less common to find any clear evidence of previous genital trauma.^{85–88}

Examiners are often asked to assess whether the findings identified are “consistent with” or “inconsistent with” the history of assault as provided by the adolescent. Physical injury to anogenital structures can be caused by both consensual and nonconsensual sexual activity. Alternatively, consensual as well as nonconsensual sexual activity may result in no physical injury to anogenital structures. An examiner may be able to offer an assessment that the physical findings are consistent with “penetrating sexual activity,” but may not be able to determine independently whether the physical findings observed were caused by consensual or nonconsensual sexual activity. Taking a history of whether recent sexual contact occurred in addition to the reported assault is helpful so that the physical findings identified during the evaluation can be interpreted in the correct context. If more than 1 individual reportedly engaged in penetrating sexual acts with the adolescent, it is generally not possible for the examiner to determine who caused a specific injury. Clinical records generated in the context of care provided to adolescents who present after disclosure of an acute sexual assault are routinely subpoenaed and reviewed by investigators as well as attorneys involved in a possible criminal prosecution.

MENTAL HEALTH CONSEQUENCES OF SEXUAL ASSAULT

Reactions that adolescents display after sexual assault can include

feeling that their trust has been violated, increased self-blame, negative self-concept, and anxiety. Adolescent victims may feel that their actions contributed to the act of rape and can be confused as to whether the incident was forced or consensual.^{89–91} Studies of adolescent girls have found that rape during childhood is associated with a variety of risky behaviors, such as a younger age for the first voluntary intercourse; poor use of contraception; a greater number of pregnancies and abortions; higher rates of STIs; and increased risks of victimization by older partners. Increases are also noted in mental health problems, including higher rates of depression, suicidal ideation and suicide attempts, and other self-harm behaviors, such as self-mutilation and eating disorders, among sexual assault victims.^{73,92–102} A history of sexual assault or abuse may also be associated with psychiatric or behavioral problems that are more common in the opposite sex, such as eating disorders in boys and fighting in girls.⁹⁶

All adolescent victims of sexual abuse should be asked about symptoms that would warrant a formal psychiatric assessment, such as suicidal or homicidal ideation or other self-harm behavior. If, for some reason, the pediatrician is not comfortable performing such an inquiry, he or she should refer the patient to a health care provider who is comfortable with such assessments and who can evaluate the patient immediately. Evidence of suicidal or homicidal ideation should be attended to immediately in conjunction with an experienced mental health professional.

The adolescent may be encouraged to share information with a supportive caregiver, counselor, or other qualified and trusted adult. Although adolescents may desire (and be legally entitled to) confidentiality, support from a qualified and capable

adult can be valuable, especially when teenagers are being treated in unfamiliar emergency department environments. Involving a support professional also may improve adolescents’ compliance with follow-up recommendations. The support professional also can serve to address concerns or issues expressed or presented by family members. A supportive parent/caregiver may also be enlisted and educated to monitor for and recognize symptoms or problems that develop after the acute care is provided. Parents can be counseled and encouraged to facilitate access to resources that can support their and their teenagers’ mental and physical health needs and not blame themselves or their teenager for the unfortunate event.

Because the risk of suicide may be high after assault,¹⁰³ counseling parents to reduce potential access to lethal means of suicide, such as available medications or weapons, is advised. Research evidence has demonstrated that limiting access to firearms reduces the risk of death by suicide, so parents need to be counseled clearly to remove all firearms from the home, and, if that is not possible, to advise that weapons are stored, locked, unloaded, and inaccessible to the adolescent.¹⁰⁴

MANAGEMENT OF PREGNANCY AND STI RISK AFTER SEXUAL ASSAULT

Treatment guidelines for STIs from the Centers for Disease Control and Prevention (CDC)⁷⁹ include recommendations for comprehensive clinical treatment of victims of sexual assault, including emergency contraception and HIV prophylaxis. Sexual assault is associated with a risk of pregnancy; 1 study reported a national pregnancy rate of 5% per rape among females 12 to 45 years of age.^{105–109} Pregnancy prevention and emergency contraception should be addressed with every adolescent female, including rape and sexual

assault victims. The discussion can include the risks of failure of the preventive measures and options for pregnancy management. It is advised that a baseline urine pregnancy test be performed. Emergency contraception should be offered to females who have been (or may have been) vaginally penetrated or who think that ejaculate has come into contact with their genitalia.^{28,73,75–77,79} Emergency contraception should be offered within 120 hours of the sexual assault. The AAP outlines the recommended medication doses and guidelines in its policy statement, “Emergency Contraception.”¹¹⁰

The most common STIs reported in sexual assault victims are those that are common in the population and include *Chlamydia*, gonorrhea, and trichomoniasis.^{79,111} The best approach to collecting specimens for STIs immediately after a sexual assault is debated. A speculum examination may be traumatic, especially for a teenager who has not had one before and may lead to avoidance of reproductive health care in the future. Therefore, nucleic acid–amplification tests (NAATs) that use urine or vaginal specimens for gonorrhea and *Chlamydia* are preferred to cervical specimens for STI testing in females.^{79,112} For trichomoniasis, a NAAT vaginal specimen is recommended. Urine NAAT testing is also recommended for males, but additional testing at penetration sites, such as the anus, may be indicated.

Specimen collection for STIs should be discussed with the adolescent, and testing should be performed with the adolescent’s consent. Positive results may indicate an existing infection and may be a result of previous consensual sexual contact. NAATs (or cultures) also may be positive as a result of an assault, even when collected within 72 hours of the event.^{113–115} All 50 states have laws strictly limiting the use of a victim’s previous sexual or infection history

to undermine the credibility of the adolescent’s history of assault.⁷⁹

If specimens are to be collected, the decision about which specific test is preferred may vary by state. Both NAATs as well as culture typically are accepted by courts. The use of NAATs is preferable to cultures to detect *Chlamydia* and gonorrhea because the high sensitivity makes it more likely to detect DNA before the end of the incubation period.¹¹⁶ The CDC guidelines also recommend NAATs from vaginal specimens for trichomoniasis. Consequently, NAATs are preferred for diagnostic evaluation of sexual assault victims, even if the site of penetration or attempted penetration is not vaginal.⁷⁹ Vaginal secretions may be microscopically examined by wet mount for evidence of bacterial vaginosis and candidiasis if vaginal discharge, itching, or odor exists.⁷⁹

CDC recommendations for sexual assault prophylaxis can be found at www.cdc.gov/std/tg2015/sexual-assault.htm.⁷⁹ Empirical treatment of *Chlamydia*, gonorrhea, and trichomoniasis is recommended. If there is a history of alcohol ingestion or if emergency contraception is to be given, metronidazole or tinidazole for trichomoniasis can be provided to be taken later at home to minimize drug interactions and potential gastrointestinal adverse effects.

Repeat STI testing after prophylaxis can be offered as indicated. Sexually active adolescents should be counseled to abstain from sexual intercourse until STI prophylactic treatment is completed. If there is no prophylaxis prescribed, then adolescents may be counseled on the symptoms of STIs, and testing is recommended 1 to 2 weeks after the assault. Unfortunately, compliance with follow-up typically is poor.¹¹⁶ Many adolescents will not recall everything said during a sexual assault evaluation, so it is suggested that instructions be provided in writing for later reference.

Serum samples should be obtained for baseline testing for hepatitis B, hepatitis C, syphilis, and HIV.^{28,74,75,77,79} Teenagers who have not initiated or completed immunization against hepatitis B virus can be offered the hepatitis B vaccine. Although there are currently no CDC recommendations regarding immunization against human papillomavirus (HPV) infections in the context of an acute sexual assault, the AAP recommends initiating the HPV series at 9 years of age and older or continuing/completing the series if all 3 doses have not been received.^{79,117} Completion of the series can be coordinated with the primary care provider, if possible.

Although HIV transmission has occurred from a single episode of sexual assault, the frequency of transmission is low, given that the risk of HIV transmission in consensual sex is 0.1% to 0.2% for vaginal and 0.5% to 3% for receptive anal intercourse.^{79,118,119} HIV prophylaxis should be considered and recommended as per the HIV postexposure prophylaxis (PEP) guidelines from the CDC when there is genital or anal penetration with known ejaculation, especially if trauma occurred or if the patient has a known genital infection. The risks and benefits of HIV PEP should be considered. If HIV PEP is started, it is recommended that it begin as quickly as possible. Factors that may indicate a higher risk of HIV infection include chronic sexual abuse, multiple perpetrators, HIV-positive perpetrator(s), a high prevalence of HIV in the geographic area in which the sexual assault occurred, and a perpetrator with a genital lesion.^{74,75,77,79,120,121} The CDC recommends the following assessment for PEP within 72 hours of sexual assault⁷⁹:

- Assess the risk of HIV infection in the alleged assailant.
- Evaluate the characteristics of the assault that might increase the risk of transmission.

- Consult with a specialist in HIV treatment.
- Discuss antiretroviral prophylaxis, including the risks of toxicity and the lack of proven benefit.
- Perform baseline complete blood cell count, serum chemistry, and HIV testing.
- Provide enough medication to last 3 to 7 days until the patient returns for assessment of tolerance.

FOLLOW-UP CARE

Because patients treated in emergency departments often do not return for follow-up care,¹²² the emergency treatment team may refer an adolescent victim to his or her medical home as well as a specialty treatment center, if available in the community. The provision of information related to the evaluation to the primary health care provider or medical home can potentially improve follow-up. Although such communication generally is permitted under federal regulations (Health Insurance Portability and Accountability Act [Pub L No. 104–191 (1996)]), ethical and privacy considerations as well as some states' confidentiality laws indicate that the treating physician should secure the consent of the adolescent before communicating with the primary care provider or specialty center.^{123,124}

Follow-up usually includes a visit within 1 to 2 weeks of the initial presentation to assess injuries and adherence to medications, determine the victim's mental health functioning and need for any additional psychological counseling, and arrange for appropriate referrals, if needed.¹²⁵ Reassessment for STIs may be needed depending on which medications were given at the time of the initial evaluation and/or whether the adolescent has had consensual sexual activity since the assault.¹¹⁴

At 2 weeks, pregnancy testing can be performed.

The CDC recommends that syphilis and fourth-generation HIV testing be repeated at 4 to 6 weeks and at 3 months, and only HIV testing at 6 months after the assault if initial test results were negative and infection in the assailant could not be excluded.^{79,126–130} Health care providers should be prepared to complete the hepatitis B virus and HPV immunization series.

At follow-up, victims of sexual assault should be assessed for mental health sequelae, as they are at high risk of posttraumatic stress disorder and other posttrauma disorders.¹³¹ A 4-item posttraumatic stress disorder screening tool assessing symptoms of startle, physiologic arousal, anger, and emotional numbness has been used with some success by gynecologists in adults ages 22 to 46 years.¹³² Counseling resources can address this problem as well as additional psychological trauma that may develop after date or acquaintance rape. Psychotropic medications may be required in some instances. It is helpful if the health care provider is knowledgeable about services available in the community that can address these problems and provide initial psychological support. RAINN (Rape, Abuse & Incest National Network, <http://centers.rainn.org>) is an excellent resource for victims and health care providers.

Studies have shown that trauma-focused cognitive behavioral therapy is useful to aid adolescents who have been sexually assaulted.¹³³ A call or referral to a sexual assault care center may provide the names of mental health professionals experienced in this arena who can provide these services. Under some circumstances, funding may be available to pay for necessary tests and treatments through the Victims of Crime Act (Pub L No. 98–473 [1984]).

SEXUAL ASSAULT PREVENTION

Research data demonstrate that sexual assault of adolescents often occurs in places in which adolescents commonly spend their time and is perpetrated by people with whom the teenager is familiar and may consider “safe.” Perpetrators and victims of sexual assault may be of any sex; therefore, prevention messages for adolescents need to be designed for both males and females.^{134–136} Adolescents also need to be able to identify and avoid high-risk situations, including attending parties or social activities with unknown people, meeting strangers with whom they have had contact on the Internet, walking alone at night, allowing themselves to be photographed nude or in sexually explicit poses or situations, or sexting. Teenagers should be advised that if they ever are assaulted, they should seek medical care immediately. Factors that may increase the likelihood of assaults (eg, use of drugs or alcohol) and strategies to prevent sexual assaults (eg, “buddying up,” not drinking from a vessel that has been left unattended, abstaining from or moderating alcohol intake, and not accepting drinks from strangers) can be discussed, and associated educational materials can be made available and distributed by pediatricians, particularly during the adolescent years and at the precollege visit.^{134–136} College health professionals, including physicians, nurses, and health educators, along with specialists in student services/student affairs, can also work with at-risk communities in university settings (eg, athletics, housing, freshmen organizations, Greek life) to provide education and resources to reduce the risks of sexual violence on and beyond campus.

Unfortunately, few effective strategies for the prevention of perpetration of sexual violence have been identified through rigorous

research. Current approaches include aggressive education about sexual violence that seeks to change attitudes, knowledge, and culture, but evidence to identify best practices that reduce sexual violence perpetration is minimal.^{137,138} A recent Cochrane review examined 38 studies of educational or skills-based interventions for preventing relationship and dating violence in adolescents and young adults. The results showed no evidence that the programs enhanced skills to prevent relationship violence or decreased relationship violence. Some of the programs did demonstrate improved understanding and knowledge about relationships after the intervention.¹³⁹ Two educational interventions, the Safe Dates program¹⁴⁰ and the building-level intervention of Shifting Boundaries,¹⁴¹ are universal, school-based dating violence prevention programs that have shown some evidence of effectiveness in preventing relationship violence. Safe Dates includes a 10-session curriculum addressing attitudes, social norms, and healthy relationship skills; a 45-minute student play about dating violence; and a poster contest.¹⁴⁰ Although its effects were modest, students in the intervention group were significantly less likely to be victims or perpetrators of sexual violence involving a dating partner 4 years after participating in the Safe Dates program.^{142,143} The building-level intervention of Shifting Boundaries involves temporary school-based restraining orders, higher levels of adult presence in school areas identified as unsafe, and the use of posters to increase awareness and reporting of sexual violence to school personnel. Shifting Boundaries was effective in reducing the perpetration of sexual harassment and peer sexual violence as well as sexual violence victimization (but not perpetration) by a dating partner.¹⁴¹

Recently, there has been increased interest in developing bystander interventions to reduce sexual violence, particularly in university settings.¹⁴⁴ A recent meta-analysis suggested that bystander approaches show promise in changing bystander attitudes and intervention behaviors, if not actual sexual violence perpetration.¹⁴⁵ Two recent studies on college campuses have reported decreased rates of sexual violence perpetration after implementation of bystander interventions,^{146,147} suggesting that these approaches warrant additional attention and evaluation.

CLINICAL GUIDANCE FOR PEDIATRICIANS

1. Pediatricians are encouraged to routinely ask adolescents, including those with disabilities, about a history of sexual violence, dating violence, and sexual assaults. All adolescents who disclose a sexual assault should be asked about commercial sexual exploitation. Identification of sexual assaults may help reduce the risk of such future events, reduce the stigma, and provide victims with appropriate medical, psychological, and supportive care.
2. Pediatricians should be aware of the current reporting requirements related to sexual assault and state laws ensuring the rights of adolescents to obtain medical care at sexual assault or rape crisis centers in their states.
3. Pediatricians should be knowledgeable about the specific resources available to respond to sexual assault and rape in their communities and when and where to refer adolescents for forensic medical examinations and sexual assault care as well as resources for teenagers with disabilities.
4. Pediatricians should be familiar with the CDC guidelines for care of survivors of sexual assault. If the pediatrician does not feel qualified to care for a patient in an acute situation, provisions should be made for the patient to be evaluated immediately by an appropriate experienced provider.
5. Appropriate STI screening, PEP, treatment, and follow-up should be provided per CDC guidelines, including referrals for acute and follow-up testing and care.
6. Emergency contraception should be offered to adolescent girl patients who disclose sexual assault if reported within 120 hours of the assault. Emergency contraception's safety record allows it to be offered even if the adolescent is not sure whether penetration occurred. Documentation of pregnancy status should occur at the time of the evaluation and at follow-up.
7. Health care providers are advised to consider the possibility that "date rape" drugs may have been used in the context of an assault.
8. Pediatricians should be prepared to offer emotional support, determine the need for counseling and/or urgent mental health interventions, and refer patients and their families for additional evaluation or mental health care. Pediatricians should be aware of services in the community that provide evaluation, management, and counseling for the adolescent patient who has been sexually assaulted.
9. Pediatricians should support evidence-based sexual violence prevention activities in local high schools, colleges, and communities. Pediatricians can work with educators and law enforcement professionals to enhance and expand programs to reduce sexual violence.

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ABBREVIATIONS

AAP: American Academy of Pediatrics
CDC: Centers for Disease Control and Prevention
DFSA: drug-facilitated sexual assault
GHB: γ -hydroxybutyrate
HPV: human papillomavirus
NAAT: nucleic acid–amplification test
PEP: postexposure prophylaxis
STI: sexually transmitted infection

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