

8. STI Evaluation and Care

Recommendations at a glance to facilitate evaluation and treatment of STIs:

- Offer patients information in a language they understand.
- Consider the need for STI testing on an individual basis.
- Encourage patients to accept prophylaxis against STIs if indicated.
- Encourage follow-up STI exams, testing, immunizations, counseling, and treatment as directed.
- Address concerns about HIV infection.

Contracting a sexually transmitted infection (STI), also commonly known as a sexually transmitted disease or STD, from assailants is typically a significant concern of sexual assault patients. Because of this concern, it should be addressed as part of the medical forensic exam. Mechanisms should be in place in any setting where these patients are examined for STIs to ensure continuity of care (including timely review of test results) and monitor compliance with and adverse reactions to any therapeutic or prophylactic regimens.²⁶³

Offer patients information in a language they understand. Include information about the risks of STIs, symptoms and the need for immediate examination if symptoms occur, testing and treatment options (and the need for abstinence from sexual intercourse until treatment is completed), follow-up care, and referrals as needed.²⁶⁴ Referrals should include free and low-cost testing, counseling, and treatment offered in various sections of the community. Patients should be aware of the scope of confidentiality related to information in their medical records related to STIs.²⁶⁵ The level of detail needed when providing this information verbally varies (e.g., some patients may be aware of risks and want treatment, while others may not be as knowledgeable of risks or their options).

Consider the need for STI testing on an individual basis. Testing at the time of the initial exam does not typically have forensic value if patients are sexually active and an STI could have been acquired prior to the assault. Also, despite rape shield laws, there may be a concern that positive test results could be used against patients (e.g., to suggest sexual promiscuity). There may, however, be situations in which testing has legal purposes, as in cases where the threat of transmission or actual transmission of an STI was an element of the crime. Or, for nonsexually active patients, a baseline negative test followed by an STI could be used as evidence, if the suspect also had an STI.

Trichomoniasis, bacterial vaginosis (BV), gonorrhea, and chlamydial infection are the most frequently diagnosed infections among sexually assaulted women.²⁶⁶ Their presence does not necessarily indicate acquisition during the assault, since these infections exist among some sexually active women.²⁶⁷ The medical forensic exam presents an opportunity to identify preexisting STIs, regardless of when they were acquired, and for examiners to make recommendations for specific treatment. Testing for STIs at the time of the exam also gives examiners and patients the option of deferring treatment until it is needed.

Seek the informed consent of patients for testing, if indicated, following CDC guidelines. (For more information on this topic, see A.3. *Informed Consent*.)

²⁶³ Sexually Transmitted Diseases Treatment Guidelines, *Morbidity and Mortality Weekly Report*, Centers for Disease Control and Prevention, December 17, 2010, 9(RR-12), p. 91. Available at <http://www.cdc.gov/STD/treatment/> (CDC general phone: 800-311-3435). Much of the information in this chapter was drawn from these guidelines. Note that the guidelines are updated periodically. In addition to the guidelines, the CDC Web site at <http://www.cdc.gov> offers information on related research, news, and Internet links.

²⁶⁴ Drawn partially from Sexually Transmitted Diseases Treatment Guidelines, 2010, p. 92.

²⁶⁵ Laws in all states limit the evidentiary use of a patient's prior sexual history, including evidence of previously acquired STIs, as part of an effort to undermine the credibility of a patient's testimony. Evidentiary privilege against revealing any aspect of the exam or treatment is enforced in most states. In unanticipated, exceptional situations, however, STI diagnoses may later be accessed. (Sexually Transmitted Diseases Treatment Guidelines, 2010, p. 90.)

²⁶⁶ Chlamydial and gonococcal infections in women are of particular concern due to the possibility of ascending infection. In addition, post-assault testing can detect hepatitis B virus (HBV) and human immunodeficiency virus (HIV) infection (Sexually Transmitted Diseases Treatment Guidelines, 2010, p. 91).

²⁶⁷ The prevalence and incidence of STIs vary across societies and subpopulations defined by age, gender, race and ethnicity, and socioeconomic status (Fenton, Johnson, and Nicoll 1997)

Encourage patients to accept prophylaxis against STIs if indicated. If prophylaxis is accepted at the time of the exam, testing is usually not indicated medically. Routine preventive therapy after a sexual assault is often recommended because follow-up with these patients can be difficult.²⁶⁸ It also may reduce the need for more expensive/extensive treatment if an STI is discovered at a later time. Meet or exceed current CDC guidelines for STI preventive therapy for your geographic area.²⁶⁹ (The CDC suggests a regimen to protect against chlamydia, gonorrhea, trichomonas, and BV, as well as the hepatitis B virus.) If prophylaxis is declined at the time of the initial exam, it is medically prudent to obtain cultures and arrange for a follow-up examination and testing (it is recommended that all patients are reexamined—see the section on follow-up activities). Document patients' decisions and rationales for declining prophylaxis in their medical records.²⁷⁰

If patients' clinical presentation suggests a preexisting ascending STI, such as fever, abdominal or pelvic pain, and/or vaginal discharge, they should be evaluated and treated for the ascending infection. This treatment should be based on specific treatment options for sexually transmitted infections in the local community.

Hepatitis B virus (HBV) and postexposure prophylaxis (PEP). See CDC recommendations related to HBV diagnosis, treatment, prevention, postexposure immunizations, prevaccination antibody screening, postexposure prophylaxis, and special considerations.²⁷¹ Patients who have completed a full hepatitis B vaccination regimen prior to the assault are protected from HBV infection and do not need further doses. (See the CDC recommended regimen for adolescents and adults.) For those who were not fully vaccinated prior to the assault, the vaccine should be completed as scheduled. Patients unvaccinated prior to the assault or unsure of whether they have been vaccinated should receive active postexposure prophylaxis (e.g., hepatitis B vaccine alone) upon the initial clinical evaluation. Follow-up doses should be given 1 to 2 and 4 to 6 months after the first dose. Unless suspects are known to have acute hepatitis B, HBIG (hepatitis B immune globulin) is not required. (When HBIG is needed, use CDC recommended doses.)

Examiners must stress to patients receiving the HBV vaccine the importance of following up for administration of doses as scheduled for full protection. Advocates should also be educated about the possibility of patients receiving prophylaxis against HBV and encourage those who start the vaccine regimen to follow up for required additional doses.

Obtain informed consent from patients for treatment. (For information on this topic, see A.3. *Informed Consent*.) Patients should be aware of the benefits and toxicity associated with recommended regimens.

Encourage follow-up STI exams, testing, immunizations, counseling, and treatment as directed.²⁷²

Although patients may be reluctant to go for follow-up exams for STIs, such exams are essential because they provide an opportunity to detect new infections acquired during or after the assault, complete hepatitis B immunization, if indicated, and complete counseling and treatment for other STIs. Examinations for STIs for all patients should be repeated according to exam facility policy—the CDC recommends a follow-up appointment within 1 to 2 weeks of the assault. If patients tested negative at the time of the medical forensic exam and chose not to receive prophylaxis, follow-up testing should be conducted.²⁷³ The CDC recommends that in this case the follow-up exam be done within a week to ensure that positive test results are discussed promptly with patients and treatment is offered. The CDC recommends follow-up testing for patients who received treatment only if they report having symptoms consistent with an STI. (However, patients who were treated should be informed of the option of follow-up testing to confirm the presence or lack of infection.) The CDC recommends that testing for syphilis and HIV infection should be repeated 6 weeks, 3 months, and 6 months after the assault if initial test results were negative and if these infections are likely to be present in assailants (see the upcoming section on evaluating risk for exposure to HIV).

²⁶⁸ Sexually Transmitted Diseases Treatment Guidelines, 2010, p. 91.

²⁶⁹ Antibiotic prophylaxes are updated periodically and are usually tailored to specific regions (because, for example, one part of the country may be resistant to a certain antibiotic).

²⁷⁰ Nonphysician examiners providing STI prophylaxis typically must operate within the boundaries of a protocol and have access to medical supervision, consultation, and review.

²⁷¹ Sexually Transmitted Diseases Treatment Guidelines, 2010, p. 91. This section was drawn from this document.

²⁷² This paragraph is drawn from Sexually Transmitted Diseases Treatment Guidelines, 2010, p. 91.

²⁷³ Infectious agents acquired through the assault may not have produced sufficient concentrations of organisms to result in positive test results at the medical forensic exam. (Sexually Transmitted Diseases Treatment Guidelines, 2010, p. 91.)

It is important that follow-up communication with patients (particularly by examiners and advocates) include a reminder to go to follow-up exams and receive STI-related testing, immunizations, and treatment as directed. Advocates and health care personnel may be able to assist patients in making follow-up appointments, obtaining transportation to and from appointments, and determining how to pay for expenses involved with follow-up testing and care. Some jurisdictions may cover follow-up treatment as part of initial care through funds such as crime victims' compensation. In such instances, patients may be more apt to seek follow-up treatment. Advocates may also be able to accompany patients to these follow-up appointments.

Address concerns about HIV infection. Although the risk of human immunodeficiency virus (HIV) infection²⁷⁴ from a sexual assault appears to be low,²⁷⁵ it is typically of grave concern for sexual assault patients.

Provide information and referrals.²⁷⁶ Examiners should talk with patients about their concerns regarding the possibility of contracting HIV.²⁷⁷ Although a definitive statement of benefit cannot be made regarding Post Exposure Prophylaxis (PEP) after sexual assault, the possibility of HIV exposure from the assault should be assessed at the time of the examination. The possible benefit of PEP in preventing HIV infection should also be discussed with the patient if the details of the assault pose an elevated risk for HIV exposure. These particular factors may include: the likelihood that the assailant has HIV, the time elapsed since the event, the exposure characteristics, and local epidemiology of HIV/AIDS. A specialist consultation on PEP regimens is recommended if HIV exposure during the assault was possible and PEP is being considered. The sooner PEP is initiated after exposure, the higher the likelihood it will prevent HIV transmission if exposure occurred. The CDC recommends offering the patient a 3-5 day supply of PEP if the medication is judged to be necessary and the patient decides to utilize the treatment.²⁷⁸

As with other STIs, offer patients information about HIV risks, symptoms and the need for immediate examination if symptoms occur, testing and treatment options, and the need for abstinence or barrier use (condoms) during sexual intercourse until any treatment received is completed. Include local referrals for testing/counseling and comprehensive HIV services in the community and region. This information can help patients make decisions about testing and treatment based on facts rather than fear.²⁷⁹

Discuss testing options. Baseline HIV testing is not typically an exam component. However, if the assault is considered a high risk for HIV exposure, patients should establish their baseline HIV status within 72 hours after the assault and then be tested periodically as directed by health care personnel. However, even if the assault is not considered a high risk for HIV exposure, some patients may still wish to be tested.

HIV testing should be done in settings where counseling can be offered to explain results and implications. When providing testing referrals, let patients know whether testing services are free, anonymous, and/or confidential.²⁸⁰ Confidential and anonymous testing is recommended.

Assess the need to offer HIV postexposure prophylaxis.²⁸¹ In certain circumstances, the likelihood of HIV transmission may be reduced by postexposure therapy for HIV with antiretroviral agents. Postexposure

²⁷⁴ HIV refers to any of a group of retroviruses that infect and destroy helper T-cells of the immune system. AIDS (acquired immunodeficiency syndrome) can be triggered by infection with HIV. (Drawn from Arkansas' *Sexual Assault: A Hospital/Community Protocol for Forensic and Medical Examination*, 2001, p. B2.)

²⁷⁵ Although HIV-antibody seroconversion has been reported among individuals whose only known risk factor was sexual assault or sexual abuse, the risk for acquiring HIV infection through a single episode of sexual assault is likely low. The overall probability of HIV transmission during a single act of intercourse from a suspect known to be HIV-infected depends on many factors. In specific circumstances, the probability of transmission could be high. These factors may include the type of sexual intercourse (oral, vaginal, or anal), presence of oral, vaginal, or anal trauma (including bleeding), site of exposure to ejaculate, viral load in ejaculate, and presence of a STI or genital lesions in assailants or patients. (Sexually Transmitted Diseases Treatment Guidelines, 2010, p. 92.)

²⁷⁶ A useful referral is the CDC's National HIV/AIDS Information Hotline at 800-342-AIDS. For Spanish speakers, call 800-344-SIDA. For Deaf and hearing-impaired persons, call the TTY/TDD Hotline at 800-AIDS-TTY. Also see the Revised Guidelines for HIV Counseling, Testing, and Referral, *Morbidity and Mortality Weekly Report*, CDC, September 22, 2006, 55(RR-14). This document is available through aidsinfo.nih.gov/guidelines/ or by calling the CDC's HIV/AIDS Information Hotline (see below footnote).

²⁷⁷ Some states statutes provide for mandatory HIV testing of suspected sex offenders upon arrest and/or conviction. Patients should be advised of the availability of such testing.

²⁷⁸ This paragraph is drawn from Sexually Transmitted Diseases Treatment Guidelines, 2010, p. 92.

²⁷⁹ L. Ledray, *SANE Development and Operations Guide*, 2000, p. 74.

²⁸⁰ Drawn from the American College of Emergency Physicians' *Evaluation and Management of the Sexually Assaulted or Abused Patient*, 1999, p. 126.

therapy with zidovudine has been associated with a reduced risk for HIV infection and has become the standard of care for health workers who have percutaneous (e.g., needle stick) exposure to HIV, but whether these findings can be extrapolated to other exposure situations, including sexual assault, is unknown.

The use of antiretroviral agents after possible exposure through sexual assault must balance potential benefits of treatment with its possible adverse side effects.²⁸² Health care personnel must evaluate patients' risk of exposure to HIV and consider whether to offer treatment based on their perceived risk. Examiners unfamiliar with known risks associated with exposure or side effects of postexposure therapeutic agents should consult with a specialist in HIV treatment. Numerous factors may influence the decision to offer treatment, such as the time since the exposure occurred; the probability that the assailant is infected with HIV; the likelihood that transmission could occur from the assault; and the prevalence of HIV in the geographic area or institutional setting (e.g., a prison) where the assault occurred.²⁸³

Offer postexposure prophylaxis for HIV to patients at high risk for exposure, particularly when it is known that suspects have HIV/AIDS. If offered, the following information should be discussed with patients:²⁸⁴

- The unknown efficacy of postexposure prophylaxis for HIV in cases of sexual assault.
- The known side effects and toxicity of antiretroviral medications.
- The need for frequent dosing of medication and the follow-up care necessary.
- The importance of compliance with the recommended therapy.
- The necessity for immediate initiation of treatment for maximum effectiveness.
- The estimated costs of the medication and monitoring.²⁸⁵

When given following a sexual assault, postexposure prophylaxis is the same as for occupational exposure to HIV. Refer to CDC recommendations for postexposure antiretroviral therapy²⁸⁶ and consult with an HIV specialist where possible. Careful monitoring and follow-up by a health care provider or agency experienced in HIV issues is required. Patients should be alerted to symptoms of primary HIV infection (e.g., fever, fatigue, sore throat, lymphadenopathy, and rash) and seek care if these symptoms arise.

Seek informed consent of patients to administer treatment. The decision to begin or withhold treatment should be made by patients and health care personnel after patients have been adequately informed of the risks and benefits of treatment options. (For information on this topic, see A.3. *Informed Consent.*)

²⁸¹ The following two paragraphs were drawn from Sexually Transmitted Diseases Treatment Guidelines, p. 70, L. Ledray, *SANE Development and Operations Guide*, 2000, p. 74, and the *California Medical Protocol for Examination of Sexual Assault and Child Sexual Abuse Victims*, 2001, pp. 93-4. See also Antiretroviral Postexposure Prophylaxis After Sexual, Injection Drug Use, or Other Non Occupational Exposure to HIV in the United States, *Morbidity and Mortality Weekly Report* 2005, 54 (RR-2).

²⁸² A table listing primary side effects associated with specific antiretroviral agents is provided in the CDC's Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis, *Morbidity and Mortality Weekly Report* 2001, 50 (RR-11), p. 13. Some examples of known shorter term adverse symptoms of antiretroviral medications include nausea, vomiting, diarrhea, and other gastrointestinal effects. Protease inhibitors may cause lipid abnormalities, diabetes mellitus, and hyperglycemia and lead to diabetic ketoacidosis in previously diagnosed diabetics. Combination therapy has led to some serious side effects, including hepatitis, nephrolithiasis, and pancytopenia. (The American College of Emergency Physicians' *Evaluation and Management of the Sexually Assaulted or Sexually Abused Patient*, 1999, p. 125.)

²⁸³ Paragraph drawn from the American College of Emergency Physicians' *Evaluation and Management of the Sexually Assaulted or Abused Patient*, 1999, p. 125.

²⁸⁴ Bullets drawn from the *California Medical Protocol for Examination of Sexual Assault and Child Sexual Abuse Victims*, 2001, p. 93.

²⁸⁵ Patients may be able to obtain reimbursement for some or all related costs through state crime victims' compensation programs. (L. Ledray, *SANE Development and Operation Guide*, 2000, p. 74.)

²⁸⁶ See aidsinfo.nih.gov/guidelines/ for the CDC's Guidelines for the following documents: *Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents* (July 14, 2003); the Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis, *Morbidity and Mortality Weekly Report* 2001, 50(RR-11), and Management of Possible Sexual, Injecting-Drug-Use, or Other Nonoccupational Exposure to HIV, Including Considerations Related to Antiretroviral Therapy, Public Health Statement, *Morbidity and Mortality Weekly Report* 1998; 47(RR-17).