Complete Summary

GUIDELINE TITLE

Sexual assault and STDs. Sexually transmitted diseases treatment guidelines 2006.

BIBLIOGRAPHIC SOURCE(S)

Centers for Disease Control and Prevention, Workowski KA, Berman SM. Sexual assault and STDs. Sexually transmitted diseases treatment guidelines 2006. MMWR Morb Mortal Wkly Rep 2006 Aug 4;55(RR-11):80-6.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Centers for Disease Control and Prevention. Sexual assault and STDs. Sexually transmitted diseases treatment guidelines. MMWR Recomm Rep 2002 May 10;51(RR-6):69-74.

** REGULATORY ALERT **

FDA WARNING/REGULATORY ALERT

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory and/or warning information has been released.

- September 11, 2007, Rocephin (ceftriaxone sodium): Roche informed healthcare professionals about revisions made to the prescribing information for Rocephin to clarify the potential risk associated with concomitant use of Rocephin with calcium or calcium-containing solutions or products.

COMPLETE SUMMARY CONTENT

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SCOPE

DISEASE/CONDITION(S)

Sexually transmitted diseases (STDs) following sexual assault or sexual abuse

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Prevention
Risk Assessment
Treatment

CLINICAL SPECIALTY

Emergency Medicine
Family Practice
Infectious Diseases
Internal Medicine
Obstetrics and Gynecology
Pediatrics
Preventive Medicine
Urology

INTENDED USERS

Health Care Providers
Managed Care Organizations
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

- To update the Sexually Transmitted Diseases Treatment Guidelines 2002 (*MMWR 2002;51[No. RR-6]*)
- To assist physicians and other health-care providers in preventing and treating sexually transmitted diseases (STDs)

TARGET POPULATION

Adolescents, adults, and children who have been sexually assaulted or abused

INTERVENTIONS AND PRACTICES CONSIDERED

Management of Sexual Assault in Adults and Adolescents

1. Testing for *Neisseria gonorrhoeae* and *Chlamydia trachomatis* from specimens of sites of penetration or attempted penetration
2. Culture of Food and Drug Administration (FDA)-approved nucleic amplification tests
3. Wet mount and culture of a vaginal swab specimen for *Trichomonas vaginalis*
4. Collection of a serum sample for evaluation for HIV, hepatitis B, and syphilis
5. Follow-up examination with repetition of STD examination and testing (e.g., culture, wet mount, and other tests) within 1-2 weeks of assault
6. Repetition of serological tests for syphilis and HIV 6weeks, 3 months, and 6 months after the assault
7. Postexposure hepatitis B vaccination without hepatitis B immunoglobulin
8. Empiric antimicrobial regimens for chlamydia, gonorrhea, trichomonas, and bacterial vaginosis, including ceftriaxone, metronidazole, and azithromycin, or doxycycline
9. Patient counseling on the symptoms of STDs and the need for immediate examination if symptoms occur and abstention from sexual intercourse until any STD prophylaxis is completed
10. Post-exposure therapy and management for HIV with antiretroviral agents, such as zidovudine

Management of Sexual Assault or Abuse in Children

1. Initial and 2-week follow-up examinations to include the following:
    - Visual inspection of the genital, perianal, and oral areas
    - Specimen collection from all vesicular or ulcerative genital or perianal lesions
    - Specimen collection for culture for *Neisseria gonorrhoeae* and *Chlamydia trachomatis*
    - Use of standard culture systems for isolation of *C. trachomatis*, with isolation confirmed by microscopic identification of inclusions by staining with fluorescein-conjugated monoclonal antibody specific for *C. trachomatis*
    - Preservation of isolates for repeat testing
    - Nonculture tests for *C. trachomatis*, such as nucleic acid amplification
    - Culture and wet mount of a vaginal swab specimen for *Trichomonas vaginalis* infection and bacterial vaginosis
    - Collection of a serum sample and testing for *Treponema pallidum*, HIV, and hepatitis B
2. Postexposure assessment with 72 hours of sexual assault to include the following:
    - Assessing risk for HIV infection in the assailant
    - Evaluating circumstances in assault that may affect risk for HIV transmission
    - Consulting with specialists in treating HIV-infected children if postexposure prophylaxis is considered
    - Discussing HIV prophylaxis with caregiver(s)
    - Providing antiretroviral medication with reevaluation 3-7 days later
    - Performing HIV antibody testing at original assessment, 6 weeks, 3 months, and 6 months
3. Examination 6 weeks, 3 months, and 6 months after assault and testing for syphilis, HIV, and hepatitis B, if initial tests are negative
4. Presumptive treatment for STDs

5. Reporting of child abuse to state or local child-protection services

MAJOR OUTCOMES CONSIDERED

- Microbiologic cure
- Alleviation of signs and symptoms
- Prevention of sequelae
- Prevention of transmission
- Prevalence of and risk for sexually transmitted diseases (STDs) in assault and abuse cases
- Sensitivity and specificity of diagnostic tests

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Subjective Review

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Beginning in 2004, the Centers for Disease Control and Prevention (CDC) personnel and professionals knowledgeable in the field of sexually transmitted diseases (STDs) systematically reviewed evidence (including published abstracts and peer-reviewed journal articles) concerning each of the major STDs, focusing on information that had become available since publication of the *Sexually Transmitted Diseases Treatment Guidelines, 2002*. Background papers were written and tables of evidence constructed summarizing the type of study (e.g., randomized controlled trial or case series), study population and setting, treatments or other interventions, outcome measures assessed, reported findings,

and weaknesses and biases in study design and analysis. A draft document was developed on the basis of the reviews.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus (Consensus Development Conference)

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

In April 2005, the Centers for Disease Control and Prevention (CDC) staff members and invited consultants assembled in Atlanta, Georgia, for a 3-day meeting to present the key questions regarding sexually transmitted disease (STD) treatment that emerged from the evidence-based reviews and the information available to answer those questions. When relevant, the questions focused on four principal outcomes of STD therapy for each individual disease: 1) microbiologic cure, 2) alleviation of signs and symptoms, 3) prevention of sequelae, and 4) prevention of transmission. Cost-effectiveness and other advantages (e.g., single-dose formulations and directly observed therapy of specific regimens) also were discussed. The consultants then assessed whether the questions identified were relevant, ranked them in order of priority, and attempted to arrive at answers using the available evidence. In addition, the consultants evaluated the quality of evidence supporting the answers on the basis of the number, type, and quality of the studies.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note from the National Guideline Clearinghouse and the Centers for Disease Control and Prevention: When more than one therapeutic regimen is recommended, the sequence is alphabetized unless the choices for therapy are prioritized based on efficacy, convenience, or cost. For sexually transmitted

diseases (STDs) with more than one recommended regimen, almost all regimens have similar efficacy and similar rates of intolerance or toxicity unless otherwise specified.

Adults and Adolescents

The recommendations in this report are limited to the identification, prophylaxis, and treatment of sexually transmitted infections and conditions commonly identified in the management of such infections. The documentation of findings, collection of nonmicrobiologic specimens for forensic purposes, and the management of potential pregnancy or physical and psychological trauma are beyond the scope of this report. Examinations of survivors of sexual assault should be conducted by an experienced clinician in a way that minimizes further trauma to the survivor. The decision to obtain genital or other specimens for sexually transmitted diseases (STD) diagnosis should be made on an individual basis. Care systems for survivors should be designed to ensure continuity (including timely review of test results), support adherence, and monitor for adverse reactions to any therapeutic or prophylactic regimens prescribed at initial examination. Laws in all 50 states strictly limit the evidentiary use of a survivor's previous sexual history, including evidence of previously acquired STDs, as part of an effort to undermine the credibility of the survivor's testimony. Evidentiary privilege against revealing any aspect of the examination or treatment is enforced in the majority of states. In unanticipated, exceptional situations, STD diagnoses may later be accessed, and the survivor and clinician may opt to defer testing for this reason. However, collection of specimens at initial examination for laboratory STD diagnosis gives the survivor and clinician the option to defer empiric prophylactic antimicrobial treatment. Among sexually active adults, the identification of sexually transmitted infection after an assault might be more important for the psychological and medical management of the patient than for legal purposes because the infection could have been acquired before the assault.

Trichomoniasis, bacterial vaginosis (BV), gonorrhea, and chlamydial infection are the most frequently diagnosed infections among women who have been sexually assaulted. Because the prevalence of these infections is high among sexually active women, their presence after an assault does not necessarily signify acquisition during the assault. A post-assault examination is, however, an opportunity to identify or prevent sexually transmitted infections, regardless of whether they were acquired during an assault. Chlamydial and gonococcal infections in women are of particular concern because of the possibility of ascending infection. In addition, hepatitis B virus (HBV) infection might be prevented by postexposure administration of hepatitis B vaccine. Reproductive-aged female survivors should be evaluated for pregnancy, if appropriate.

Evaluation for Sexually Transmitted Infections

Initial Examination

An initial examination should include the following procedures:

- Testing for *Neisseria gonorrhoeae* and *Chlamydia trachomatis* from specimens collected from any sites of penetration or attempted penetration.

- Culture or Food and Drug Administration (FDA)-cleared nucleic acid amplification tests (NAAT) for either *N. gonorrhoeae* or *C. trachomatis*. NAAT offer the advantage of increased sensitivity in detection of *C. trachomatis*.
- Wet mount and culture of a vaginal swab specimen for *Trichomonas vaginalis* infection. If vaginal discharge, malodor, or itching is evident, the wet mount also should be examined for evidence of BV and candidiasis.
- Collection of a serum sample for immediate evaluation for human immunodeficiency virus (HIV), hepatitis B, and syphilis (see sections Prophylaxis, Risk for Acquiring HIV Infection, and Follow-Up Examination After Assault below).

Follow-Up Examinations

After the initial post-assault examination, follow-up examinations provide an opportunity to 1) detect new infections acquired during or after the assault; 2) complete hepatitis B immunization, if indicated; 3) complete counseling and treatment for other STDs; and 4) monitor side effects and adherence to postexposure prophylactic medication, if prescribed.

Examination for STDs should be repeated within 1-2 weeks of the assault. Because infectious agents acquired through assault might not have produced sufficient concentrations of organisms to result in positive test results at the initial examination, testing should be repeated during the follow-up visit, unless prophylactic treatment was provided. If treatment was provided, testing should be conducted only if the survivor reports having symptoms. If treatment was not provided, follow-up examination should be conducted within 1 week to ensure that results of positive tests can be discussed promptly with the survivor and that treatment is provided. Serologic tests 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 infection in the assailant could not be ruled out (see Sexual Assaults, Risk for Acquiring HIV Infection, below).

Prophylaxis

Many specialists recommend routine preventive therapy after a sexual assault because follow-up of survivors of sexual assault can be difficult. The following prophylactic regimen is suggested as preventive therapy:

- Postexposure hepatitis B vaccination, without hepatitis B immune globulin (HBIG), should adequately protect against HBV infection. Hepatitis B vaccination should be administered to sexual assault victims at the time of the initial examination if they have not been previously vaccinated. Follow-up doses of vaccine should be administered 1-2 and 4-6 months after the first dose.
- An empiric antimicrobial regimen for chlamydia, gonorrhea, trichomonas, and BV.
- Emergency contraception should be offered if the post-assault could result in pregnancy in the survivor.

Recommended Regimens

- **Ceftriaxone** 125 mg intramuscularly (IM) in a single dose

PLUS

- **Metronidazole** 2 g orally in a single dose

PLUS

- **Azithromycin** 1 g orally in a single dose

OR

- **Doxycycline** 100 mg orally twice a day for 7 days

For patients requiring alternative treatments, refer to the sections in this report relevant to the specific agent. The efficacy of these regimens in preventing infections after sexual assault has not been evaluated. Clinicians should counsel patients regarding the possible benefits and toxicities associated with these treatment regimens; gastrointestinal side effects can occur with this combination. Providers might also consider anti-emetic medications, particularly if emergency contraception also is provided.

Other Management Considerations

At the initial examination and, if indicated, at follow-up examinations, patients should be counseled regarding 1) symptoms of STDs and the need for immediate examination if symptoms occur and 2) abstinence from sexual intercourse until STD prophylactic treatment is completed.

Risk for Acquiring HIV Infection

HIV seroconversion has occurred in persons whose only known risk factor was sexual assault or sexual abuse, but the frequency of this occurrence is probably low. In consensual sex, the risk for HIV transmission from vaginal intercourse is 0.1%-0.2% and for receptive rectal intercourse, 0.5%-3%. The risk for HIV transmission from oral sex is substantially lower. Specific circumstances of an assault might increase risk for HIV transmission (e.g., trauma, including bleeding) with vaginal, anal, or oral penetration; site of exposure to ejaculate; viral load in ejaculate; and the presence of an STD or genital lesions in the assailant or survivor.

Children might be at higher risk for transmission because child sexual abuse is frequently associated with multiple episodes of assault and might result in mucosal trauma (see Sexual Assault or Abuse of Children below).

Postexposure therapy with zidovudine was associated with a reduced risk for acquiring HIV in a study of health-care workers who had percutaneous exposures to HIV-infected blood. On the basis of these results and the results of animal studies, postexposure prophylaxis (PEP) has been recommended for health-care workers who have occupational exposures to HIV. These findings have been extrapolated to other types of HIV exposure, including sexual assault. If HIV exposure has occurred, initiation of PEP as soon as possible after the exposure likely increases benefit. Although a definitive statement of benefit cannot be made

regarding PEP after sexual assault, the possibility of HIV exposure from the assault should be assessed at the time of the post-assault examination. The possible benefit of PEP in preventing HIV infection also should be discussed with the assault survivor if risk exists for HIV exposure from the assault.

The likelihood of the assailant having HIV, any exposure characteristics that might increase the risk for HIV transmission, the time elapsed after the event, as well as potential benefits and risks the PEP are all factors that will impact the medical recommendation for PEP and impact the assault survivor's acceptance of that recommendation. Determination of assailant's HIV status at the time of the assault examination will usually be impossible. Therefore, the health-care provider should assess any available information concerning HIV-risk behaviors of the assailant(s) (e.g., a man who has sex with other men and injecting-drug or crack cocaine use), local epidemiology of HIV/AIDS, and exposure characteristics of the assault. When an assailant's HIV status is unknown, factors that should be considered in determining whether an increased risk for HIV transmission exists include 1) whether vaginal or anal penetration occurred; 2) whether ejaculation occurred on mucous membranes; 3) whether multiple assailants were involved; 4) whether mucosal lesions are present in the assailant or survivor; and 5) other characteristics of the assault, survivor, or assailant that might increase risk for HIV transmission.

If PEP is offered, the following information should be discussed with the patient: 1) the unproven benefit and known toxicities of antiretrovirals; 2) the close follow-up that will be necessary; 3) the benefit of adherence to recommended dosing; and 4) the necessity of early initiation of PEP to optimize potential benefits (as soon as possible after and up to 72 hours after the assault). Providers should emphasize that PEP appears to be well-tolerated in both adults and children and that severe adverse effects are rare. Clinical management of the survivor should be implemented according to the following guidelines. Specialist consultation on PEP regimens is recommended if HIV exposure during the assault was possible and if PEP is being considered. The sooner PEP is initiated after the exposure, the higher the likelihood that it will prevent HIV transmission, if HIV exposure occurred; however, distress after an assault also might prevent the survivor from accurately weighing exposure risks and benefits of PEP and making an informed decision to start PEP. If use of PEP is judged to be warranted, the survivor should be offered a 3- to 5-day supply of PEP with a follow-up visit scheduled for additional counseling after several days.

Recommendations for Postexposure Assessment of Adolescent and Adult Survivors Within 72 hours of Sexual Assault*

- Assess risk for HIV infection in the assailant.
- Evaluate characteristics of the assault event that might increase risk for HIV transmission.
- Consult with a specialist in HIV treatment, if PEP is being considered.
- If the survivor appears to be at risk for HIV transmission from the assault, discuss antiretroviral prophylaxis, including toxicity and lack of proven benefit.
- If the survivor chooses to start antiretroviral PEP, provide enough medication to last until the next return visit; reevaluate the survivor 3-7 days after initial assessment and assess tolerance of medications.

- If PEP is started, perform a complete blood count and serum chemistry at baseline (initiation of PEP should not be delayed, pending results).
- Perform HIV antibody test at original assessment; repeat at 6 weeks, 3 months, and 6 months.

***Note**: Assistance with PEP decisions can be obtained by calling the National Clinician's Post-Exposure Prophylaxis Hotline (PEPLine), telephone: 888-448-4911.

Sexual Assault or Abuse of Children

Recommendations in this report are limited to the identification and treatment of STDs. Management of the psychosocial aspects of the sexual assault or abuse of children is beyond the scope of these recommendations.

The identification of sexually transmissible agents in children beyond the neonatal period suggests sexual abuse. The significance of the identification of a sexually transmitted agent in such children as evidence of possible child sexual abuse varies by pathogen. Postnatally acquired gonorrhea; syphilis; and nontransfusion, non-perinatally acquired HIV are usually diagnostic of sexual abuse. Sexual abuse should be suspected when genital herpes is diagnosed. The investigation of sexual abuse among children who possibly have an infection that might have been sexually transmitted should be conducted in compliance with recommendations by clinicians who have experience and training in all elements of the evaluation of child abuse, neglect, and assault. The social importance of infection that might have been acquired sexually and the recommended action regarding reporting of suspected child sexual abuse varies by the specific organism (see Table 6 of the original guideline document). In all cases in which a sexually transmitted infection has been diagnosed in a child, efforts should be made to detect evidence of sexual abuse, including conducting diagnostic testing for other commonly occurring sexually transmitted infections.

The general rule that sexually transmissible infections beyond the neonatal period are evidence of sexual abuse has exceptions. For example, rectal or genital infection with *C. trachomatis* among young children might be the result of perinatally acquired infection and has, in some cases, persisted for as long as 2-3 years. Genital warts have been diagnosed in children who have been sexually abused, but also in children who have no other evidence of sexual abuse. BV has been diagnosed in children who have been abused, but its presence alone does not prove sexual abuse. The majority of HBV infections in children result from household exposure to persons who have chronic HBV infection.

The possibility of sexual abuse should be strongly considered if no conclusive explanation for nonsexual transmission of a sexually transmitted infection can be identified. When the only evidence of sexual abuse is the isolation of an organism or the detection of antibodies to a sexually transmissible agent, findings should be confirmed and the implications considered carefully.

Evaluation for Sexually Transmitted Infections

Examinations of children for sexual assault or abuse should be conducted in a manner designed to minimize pain and trauma to the child. Collection of vaginal

specimens in prepubertal children can be very uncomfortable and should be performed by an experienced clinician to avoid psychological and physical trauma to the child. The decision to obtain genital or other specimens from a child to conduct an STD evaluation must be made on an individual basis. The following situations involve a high risk for STDs and constitute a strong indication for testing:

- The child has or has had symptoms or signs of an STD or of an infection that can be sexually transmitted, even in the absence of suspicion of sexual abuse. Among the signs that are associated with a confirmed STD diagnosis are vaginal discharge or pain, genital itching or odor, urinary symptoms, and genital ulcers or lesions.
- A suspected assailant is known to have an STD or to be at high risk for STDs (e.g., has multiple sex partners or a history of STDs).
- A sibling or another child or adult in the household or child's immediate environment has an STD.
- The patient or parent requests testing.
- Evidence of genital, oral, or anal penetration or ejaculation is present.

If a child has symptoms, signs, or evidence of an infection that might be sexually transmitted, the child should be tested for other common STDs before the initiation of any treatment that could interfere with the diagnosis of those other STDs. Because of the legal and psychosocial consequences of a false-positive diagnosis, only tests with high specificities should be used. The potential benefit to the child of a reliable diagnosis of an STD justifies deferring presumptive treatment until specimens for highly specific tests are obtained by providers with experience in the evaluation of sexually abused and assaulted children.

The scheduling of an examination should depend on the history of assault or abuse. If the initial exposure was recent, the infectious agents acquired through the exposure might not have produced sufficient concentrations of organisms to result in positive test results. A follow-up visit approximately 2 weeks after the most recent sexual exposure may include a repeat physical examination and collection of additional specimens. To allow sufficient time for antibodies to develop, another follow-up visit approximately 12 weeks after the most recent sexual exposure might be necessary to collect sera. A single examination might be sufficient if the child was abused for an extended period and if the last suspected episode of abuse occurred substantially before the child received medical evaluation.

The following recommendations for scheduling examinations serve as a general guide. The exact timing and nature of follow-up examinations should be determined on an individual basis and should be performed to minimize the possibility for psychological trauma and social stigma. Compliance with follow-up appointments might be improved when law enforcement personnel or child protective services are involved.

Initial and 2-Week Follow-Up Examinations

During the initial examination and 2-week follow-up examination (if indicated), the following should be performed:

- Visual inspection of the genital, perianal, and oral areas for genital discharge, odor, bleeding, irritation, warts, and ulcerative lesions. The clinical manifestations of some STDs are different in children than in adults. For example, typical vesicular lesions might not be present in the presence of herpes simplex virus (HSV) infection. Because this infection is suspicious for sexual abuse, specimens should be obtained from all vesicular or ulcerative genital or perianal lesions compatible with genital herpes and then sent for viral culture.
- Specimen collection for culture for *N. gonorrhoeae* from the pharynx and anus in both boys and girls, the vagina in girls, and the urethra in boys. Cervical specimens are not recommended for prepubertal girls. For boys with a urethral discharge, a meatal specimen discharge is an adequate substitute for an intraurethral swab specimen. Only standard culture systems for the isolation of *N. gonorrhoeae* should be used. All presumptive isolates of *N. gonorrhoeae* should be confirmed by at least two tests that involve different principles (i.e., biochemical, enzyme substrate, serologic, or nucleic acid hybridization test methods). Isolates and specimens should be retained or preserved in case additional or repeated testing is needed. Gram stains are inadequate to evaluate prepubertal children for gonorrhea and should not be used to diagnose or exclude gonorrhea.
- Cultures for *C. trachomatis* from specimens collected from the anus in both boys and girls and from the vagina in girls. Some data suggest that the likelihood of recovering *C. trachomatis* from the urethra of prepubertal boys is too low to justify the trauma involved in obtaining an intraurethral specimen. However, a meatal specimen should be obtained if urethral discharge is present. Pharyngeal specimens for *C. trachomatis* are not recommended for children of either sex because the yield is low, perinatally acquired infection might persist beyond infancy, and culture systems in some laboratories do not distinguish between *C. trachomatis* and *C. pneumoniae*. Only standard culture systems for the isolation of *C. trachomatis* should be used. The isolation of *C. trachomatis* should be confirmed by microscopic identification of inclusions by staining with fluorescein-conjugated monoclonal antibody specific for *C. trachomatis*; enzyme immunoassays (EIAs) are not acceptable confirmatory methods. Isolates should be preserved. Nonculture tests for chlamydia (e.g., nonamplified probes, EIAs, and direct fluorescent antibody [DFA]) are not sufficiently specific for use in circumstances involving possible child abuse or assault. Data are insufficient to adequately assess the utility of NAAT in the evaluation of children who might have been sexually abused, but these tests might be an alternative if confirmation is available and culture systems for *C. trachomatis* are unavailable. Confirmation tests should consist of a second FDA-cleared NAAT that targets a different sequence from the initial test.
- Culture and wet mount of a vaginal swab specimen for *T. vaginalis* infection and BV.
- Collection of serum samples to be evaluated immediately, preserved for subsequent analysis, and used as a baseline for comparison with follow-up serologic tests. Sera should be tested immediately for antibodies to sexually transmitted agents. Agents for which suitable tests are available include *T. pallidum*, HIV, and HBV. Decisions regarding which agents to use for serologic tests should be made on a case-by-case basis (see Follow-up Examination after Assault below).

HIV infection has been reported in children whose only known risk factor was sexual abuse. Serologic testing for HIV infection should be considered for abused children. The decision to test for HIV infection should be made on a case-by-case basis, depending on the likelihood of infection among assailant(s). Data are insufficient concerning the efficacy and safety of PEP among both children and adults. However, antiretroviral treatment is well-tolerated by infants and children with and without HIV infection. In addition, children who receive such treatment have a minimal risk for serious adverse reactions because of the short period recommended for prophylaxis. In considering whether to offer antiretroviral PEP, health-care providers should consider whether the child can be treated soon after the sexual exposure (i.e., within 72 hours), the likelihood that the assailant is at risk for HIV infection, and the likelihood of high compliance with the prophylactic regimen. The potential benefit of treating a sexually abused child should be weighed against the risk for adverse reactions. If antiretroviral PEP is being considered, a professional specializing in HIV-infected children should be consulted.

Recommendations for HIV-Related Postexposure Assessment of Children within 72 Hours of Sexual Assault

- Review HIV/AIDS local epidemiology and assess risk for HIV infection in the assailant.
- Evaluate circumstances of assault that might affect risk for HIV transmission.
- Consult with a specialist in treating HIV-infected children if PEP is considered.
- If the child appears to be at risk for HIV transmission from the assault, discuss PEP with the caregiver(s), including its toxicity and unknown efficacy.
- If caregivers choose for the child to receive antiretroviral PEP, provide enough medication to last until the return visit at 3-7 days after the initial assessment, at which time the child should be reevaluated and tolerance of medication should be assessed; dosages should not exceed those for adults.
- Perform HIV antibody test at original assessment, 6 weeks, 3 months, and 6 months.

Follow-Up Examination After Assault

In circumstances in which transmission of syphilis, HIV, or hepatitis B is a concern but baseline tests are negative, an examination approximately 6 weeks, 3 months, and 6 months after the last suspected sexual exposure is recommended to allow time for antibodies to infectious agents to develop. In addition, results of HBsAg testing must be interpreted carefully, because HBV can be transmitted nonsexually. Decisions regarding which tests should be performed must be made on an individual basis.

Presumptive Treatment

The risk of a child acquiring an STD as a result of sexual abuse or assault has not been well studied. Presumptive treatment for children who have been sexually assaulted or abused is not recommended because 1) the incidence of the majority of STDs in children is low after abuse/assault, 2) prepubertal girls appear to be at lower risk for ascending infection than adolescent or adult women, and 3) regular follow-up of children usually can be ensured. However, some children or their parent(s) or guardian(s) might be concerned about the possibility of infection with

an STD, even if the risk is perceived to be low by the health-care provider. Such concerns might be an appropriate indication for presumptive treatment in some settings and may be considered after all specimens for diagnostic tests relevant to the investigation have been collected.

Reporting

U.S. states and territories have laws that require the reporting of child abuse. Although the exact requirements differ by state, if a health-care provider has reasonable cause to suspect child abuse, a report must be made. Health-care providers should contact their state or local child-protection service agency regarding child-abuse reporting requirements in their states.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

Throughout the 2006 guideline document, the evidence used as the basis for specific recommendations is discussed briefly. More comprehensive, annotated discussions of such evidence will appear in background papers that will be published in a supplement issue of the journal *Clinical Infectious Diseases*.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Appropriate diagnosis, treatment, and management of sexually transmitted diseases in victims of sexual assault or abuse.
- Possibility of preventing sexually transmitted diseases, such as, hepatitis B, chlamydia, gonorrhea, trichomonas, bacterial vaginosis, and HIV with prophylaxis treatment in victims of sexual assault or abuse.

POTENTIAL HARMS

There are possible toxicities associated with the antimicrobial regimens prescribed for prophylaxis of chlamydia, gonorrhea, trichomonas, and bacterial vaginosis; gastrointestinal side effects can occur with the combination treatment.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- These recommendations were developed in consultation with public- and private-sector professionals knowledgeable in the treatment of patients with sexually transmitted diseases (STDs). The recommendations are applicable to various patient-care settings, including family planning clinics, private physicians' offices, managed care organizations, and other primary-care facilities.
- These recommendations are meant to serve as a source of clinical guidance: health-care providers should always consider the individual clinical circumstances of each person in the context of local disease prevalence. These guidelines focus on the treatment and counseling of individual patients and do not address other community services and interventions that are important in STD/human immunodeficiency virus (HIV) prevention.
- The recommendations in this report are limited to the identification, prophylaxis, and treatment of sexually transmitted infections and conditions commonly identified in the management of such infections. The documentation of findings, collection of non-microbiologic specimens for forensic purposes, and the management of potential pregnancy or physical and psychological trauma are beyond the scope of this report.
- Management of the psychosocial aspects of the sexual assault or abuse of children is beyond the scope of these recommendations.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Personal Digital Assistant (PDA) Downloads

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Centers for Disease Control and Prevention, Workowski KA, Berman SM. Sexual assault and STDs. Sexually transmitted diseases treatment guidelines 2006. MMWR Morb Mortal Wkly Rep 2006 Aug 4;55(RR-11):80-6.

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1993 (revised 2006 Aug 4)

GUIDELINE DEVELOPER(S)

Centers for Disease Control and Prevention - Federal Government Agency [U.S.]

GUIDELINE DEVELOPER COMMENT

These guidelines for the treatment of persons who have sexually transmitted diseases (STDs) were developed by CDC after consultation with a group of professionals knowledgeable in the field of STDs who met in Atlanta, Georgia, during April 19–21, 2005.

SOURCE(S) OF FUNDING

United States Government

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Centers for Disease Control and Prevention. Sexual assault and STDs. Sexually transmitted diseases treatment guidelines. MMWR Recomm Rep 2002 May 10;51(RR-6):69-74.

GUIDELINE AVAILABILITY

Electronic copies: Available from the Centers for Disease Control and Prevention (CDC) Web site:

- HTML Format
- Portable Document Format (PDF)

Print copies: Available from the Centers for Disease Control and Prevention, MMWR, Atlanta, GA 30333. Additional copies can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325; (202) 783-3238.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Workowski KA, Levine WC, Wasserheit JN. U.S. Centers for Disease Control and Prevention guidelines for the treatment of sexually transmitted diseases: an opportunity to unify clinical and public health practice. Ann Intern Med. 2002 Aug 20;137(4):255-62. Electronic copies: Available through Annals of Internal Medicine Online.
- A pocket guide to adult HIV/AIDS treatment: companion to *A guide to primary care of people with HIV/AIDS*. August 2004 Edition. Fairfax (VA): Health Resources and Services Administration. 2004 Aug. 48 p. Available from the AIDS Education and Training Centers National Resource Center Web site. See the related QualityTool summary on the Health Care Innovations Exchange Web site.
- The CDC Sexually Transmitted Diseases Treatment Guidelines 2004 for PDA or Palm OS. Available from the CDC National Prevention Information Network (NPIN) Web site.

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on September 5, 2002. This summary was updated by ECRI on October 19, 2006. This summary was updated by ECRI Institute on October 3, 2007 following the U.S. Food and Drug Administration (FDA) advisory on Rocephin (ceftriaxone sodium).

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