

LIVESAY EXPEDITIONS & ADVENTURES

Sexually Transmitted Diseases (STDs)

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Infectious Agent

Sexually transmitted diseases (STDs) are the infections and resulting clinical syndromes caused by more than 25 infectious organisms.

Mode of Transmission

Sexual activity is the predominant mode of transmission, through genital, anal, or oral mucosal contact.

Occurrence

- STDs are among the most common infections. Annually an estimated 340 million infections occur worldwide, and 18.9 million infections in the United States.
- Travelers who have sexual interactions with core groups of efficient transmitters (commercial sex workers) in endemic areas may have high rates of acquisition of some STDs, such as gonorrhea.
- Some STDs are more prevalent in developing countries (chancroid, lymphogranuloma venereum, granuloma inguinale) and may be more likely to be imported into developed countries by travelers returning from such locales.

Risk for Travelers

- International travelers are at risk of contracting STDs, including HIV, if they have sexual contact with partners in locales with high STD prevalence.
- Increased sexual promiscuity and casual sexual relationships tend to occur during travel abroad to foreign countries and are frequently detected in long-term overseas travelers.
- Commercial sexual service in various destinations (Southeast Asia) attracts many foreign travelers; knowledge of the clinical presentation, frequency of infection, and antimicrobial resistance patterns (quinolone-resistant *Neisseria gonorrhoeae*) is important in the management of STDs that occur in travelers to specific destinations.
- Assessment of sexual risk for men who have sex with men (MSM) is important because of the recent increased rates of infectious syphilis, quinolone-resistant gonorrhea, and lymphogranuloma venereum in various geographic locations.

Clinical Presentation

- As many infections may be asymptomatic (chlamydia, gonorrhea), screening for such infections at anatomic sites of contact and serologic testing for syphilis should be encouraged among travelers who have had sexual exposure.
- Any traveler who might have been exposed to an STD and who develops vaginal, urethral, or rectal discharge, an unexplained rash or genital lesion, or genital or pelvic pain should be

advised to cease sexual activity and promptly seek medical evaluation.

Diagnosis

- Genital ulcer evaluation should include a serologic test for syphilis, a culture or antigen test for genital herpes, and a culture for chancroid (if exposure occurred in areas where chancroid is prevalent, such as Africa, Asia, and Latin America). Lymphadenopathy can accompany genital ulceration with these infections, as well as with lymphogranuloma venereum (LGV) and donovanosis. LGV should be suspected in a traveler with tender unilateral inguinal or femoral lymphadenopathy or proctocolitis. Genital and lymph node specimens should be tested for *Chlamydia trachomatis* by culture, direct immunofluorescence, or nucleic acid testing. Donovanosis is endemic in some areas, including India, Papua New Guinea, central Australia, and southern Africa, and is diagnosed with a crush preparation from the lesion.
- Chlamydia and gonorrhea testing at the anatomic site of exposure with nucleic acid amplification testing or culture is available for the detection of *C. trachomatis* and *N. gonorrhoeae*. The use of culture and antibiotic susceptibility testing is especially important when gonorrhea is suspected, due to geographic differences in antimicrobial susceptibility.
- Various diagnostic methods are available to identify the etiology of an abnormal vaginal discharge, including microscopic evaluation and pH of vaginal secretions, DNA probe-based testing, and culture.
- All persons who seek evaluation and treatment for STDs should be screened for HIV infection.

Treatment

- Etiologic treatment directed toward the specific pathogen is the historical norm for most STDs in industrialized countries.
- Syndromic management, of interest in developing countries, requires broad clinical manifestations with risk assessment, followed by treatment of the main causes of the syndrome without identification of a specific pathogen.
- Evaluation and management of STDs should be based on standard guidelines (CDC, World Health Organization) with consideration of the high frequency of antimicrobial resistance in different geographic areas.
- Early detection and treatment are important. STDs can often result in serious and long-term complications, including pelvic inflammatory disease, infertility, stillbirths and neonatal infections, genital cancers, and an increased risk for HIV acquisition and transmission.

Preventive Measures for Travelers

- The prevention and control of STDs are based on education and counseling. Specific messages to avoid acquiring or transmitting STDs should be part of the health advice given to travelers.
- Abstinence or mutual monogamy is the most reliable way to avoid acquisition and transmission of STDs.
- For persons whose sexual behaviors place them at risk for other STDs, correct and consistent use of the male latex condom can reduce the risk of HIV infection and some STDs, including chlamydia, gonorrhea, and trichomoniasis, and might protect women from developing pelvic inflammatory disease. Condoms might afford protection against transmission of herpes simplex virus-2, although data are more limited.
- Only water-based lubricants (e.g., K-Y Jelly or glycerine) should be used with latex condoms,

because oil-based lubricants (e.g., petroleum jelly, shortening, mineral oil, or massage oils) can weaken latex condoms.

- Vaginal spermicides containing nonoxynol-9 are not recommended for STD/HIV prevention.
- Prompt evaluation of sexual partners is necessary to prevent reinfection and disrupt transmission of many STDs.
- Pre-exposure vaccination against hepatitis A and B is recommended, as these infections can be sexually transmissible. Hepatitis A vaccine is recommended for all unvaccinated sexually active MSM or those using injection drugs. Hepatitis B vaccine is recommended for all unvaccinated persons with a history of STD, multiple sexual partners, a sexual partner with injection drug use, or for MSM.
- A quadravalent vaccine against human papillomavirus (HPV) is available for females 9–26 years of age.

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