

Healthcare Providers' Role in Syphilis Control

Gail Bolan, M.D., Chief, STD Control Branch

California has recently seen a dramatic increase in infectious syphilis cases among gay, bisexual, and other men who have sex with men (MSM). Syphilis is a serious systemic infection and poses a significant threat to our HIV prevention efforts. Infection with syphilis may increase the risk of HIV transmission from two to five times, depending on a variety of factors, including the presence, number, and size of ulcers.

In addition to facilitating HIV transmission, syphilis in itself may cause serious complications in HIV-infected individuals, most commonly neurologic in nature, including vision and hearing loss and strokes. In HIV-infected individuals, syphilis may also increase HIV viral load and accelerate CD4 loss.

Syphilis in California*

The number of infectious syphilis cases reached an all-time low in California in 1999, with 569 cases reported, but has rapidly increased in the last several years. As of December 31, 2002, more than 1,500 cases of infectious syphilis have been reported, an increase of nearly twice as many as reported the previous year and three times as many as reported in 1999. More than 80 percent of these cases were among MSM. Two-thirds of the MSM diagnosed with syphilis in 2002 were also HIV-infected. Further, only 10 percent of the infectious syphilis cases were diagnosed in a sexually transmitted diseases (STD) clinic. Most of these cases were diagnosed in HIV care settings and in private practice.

Why Are Syphilis Cases Increasing?

Multiple reasons may account for the upsurge in syphilis cases, including increases in unprotected sex. Some have suggested that rates of unprotected sex are increasing because of HIV-positive individuals who are seeking other HIV-positive partners (or, conversely, HIV-negative men who are seeking other HIV-negative partners), and thus may not pose a significant challenge to HIV prevention efforts. However, data indicate that much of the increased risk is taking place among serodiscordant partners and men with large numbers of partners. One recent San Francisco study showed that 16 percent of MSM surveyed reported unprotected anal sex with two or more male partners of an unknown HIV status within the previous six months; this percentage is four times higher than the level found in 1998. Further, MSM diagnosed with primary or secondary syphilis in 2002 reported an average of 13 sexual partners during the three to six months prior to their syphilis diagnosis.

What Can Providers Do?

The California Department of Health Services' Office of AIDS and STD Control Branch, in collaboration with local health departments, are increasing outreach to MSM to educate them about the increased risk of HIV infection associated with syphilis. The fact that many of these men are HIV-infected and in medical care provides us with a unique opportunity for reaching them. We need medical providers' assistance in conducting risk assessments, counseling, screening, diagnosis, treatment, and partner management.

Risk Assessment

Clinicians should routinely inquire about the following behaviors to better assess their patient's risk:

- the gender and number of their patient's sexual partners,
- whether their patient is in a sexually monogamous relationship,
- whether their patient is having sex with a partner of unknown or different HIV status.

This can be done in a brief amount of time and yield information that may facilitate more effective testing and treatment decisions and guide client-centered, risk-reduction counseling or other behavioral interventions. Studies have shown that while patients are often reluctant to initiate discussion of sexual matters themselves, many feel greater confidence in providers who ask about sexual health issues.

A sample script for discussing risk behavior with patients is as follows:

"We have talked a lot about your physical health but it is equally important to talk about your sexual health. I'm going to ask you a series of questions about your sexual behavior. I ask these of all my patients to help me make the best decisions about any possible tests we may need to run, and how to take better care of you. Everything we discuss will remain strictly confidential."

Important questions to ask include:

Have you been sexually active since I last saw you?

Do you have sex with men, women, or both?

How many sexual partners have you had since our last visit?

(Continued on page 21)

Syphilis Control

(continued from page 20)

Do you know the HIV status of your partner(s)?

In the past year, have you had oral, vaginal or anal sex?

For each of these activities, did you use condoms (never, sometimes, most of the time, or always)?

In the past year, have you had any STDs?

In the past year, have you used any recreational drugs?

The key to asking these questions is to recognize that while you may have opinions about different risk behaviors, your primary goal is to elicit as much information as possible. Therefore, practice asking these questions in a neutral and non-judgmental tone, as if you were asking someone to describe the last book he or she had read.

Screening

Because the signs and symptoms of syphilis, especially painless chancres in the rectum or vagina, or nonspecific rashes, often go unrecognized by many patients, screening for syphilis is recommended using a non-treponemal test (Rapid Plasma Reagin [RPR] or Venereal Disease Research Laboratory [VDRL]).

The frequency of screening depends on risk. Sexually active MSM who are not in a monogamous relationship should be screened every six months. Further, because syphilis can be transmitted through oral sex, even men who practice oral sex exclusively should be screened.

Individuals who are at higher risk should be routinely tested every three months. These include:

- MSM who have sex in conjunction with methamphetamine use or use of other drugs;
- MSM with many partners, especially those who frequent commercial sex venues or the internet.

Diagnosis of Primary and Secondary Syphilis

The clinical appearance of a syphilis ulcer may be variable so the appearance of the lesion alone is not sufficient for diagnosis. Therefore, all patients who present with a new onset genital (or oral) lesion need to be evaluated for primary syphilis. In these individuals, an RPR or VDRL should be obtained, although these antibody tests may not yet be positive in about 25 percent of patients at the primary stage. In the RPR/VDRL-negative individual, the test should be repeated 2 to 4 weeks later.

If suspicion for syphilis is high (e.g. a lesion in a high-risk individual; or a classic syphilitic chancre-painless, clean-based, indurated ulcer), patients should be empirically treated at the time of the visit, before laboratory results are available.

All patients with any kind of new rash or wart-like lesion need to be evaluated for secondary syphilis by obtaining an RPR or VDRL. In California, a number of cases of secondary syphilis have been misdiagnosed as other dermatologic conditions, or attributed to reactions to anti-retroviral medications. At this stage of syphilis, the RPR and VDRL should be positive as long as the prozone phenomenon (a false-negative result that can occur with very high antibody titers) has been ruled out.

Treatment

Recommended treatment for primary, secondary, and early latent syphilis of less than one year's duration is Benzathine penicillin G 2.4 million units IM. Penicillin is the drug of choice; data to support alternatives to penicillin are limited, and, if used, close follow-up is critical. Alternative regimens listed in the 2002 Centers for Disease Control and Prevention STD Treatment Guidelines include doxycycline 100 mg po BID for 14 days; tetracycline 500 mg po QID for 14 days; ceftriaxone 1 gm IM qd for 8 to 10 days; and azithromycin 2 gm po once. It should be noted that the efficacy of ceftriaxone and azithromycin in treating syphilis in HIV-infected patients has not been well studied. Additionally, for HIV-infected patients identified with syphilis of unknown duration, in whom a lumbar puncture is recommended to guide appropriate management, treatment should not be delayed while attempting to schedule a lumbar puncture, especially if the patient is at high risk for recent acquisition or has an RPR or VDRL titer of greater than 1:8.

For all patients, close follow-up is essential to ensure adequate treatment (four-fold decrease in RPR or VDRL titer in comparison with the titer obtained on the day of treatment), to detect treatment failures, and to identify re-infection (four-fold increase in titer). Clinical evaluation to ensure rapid resolution of signs and symptoms should be done at 1 week and 2 to 4 weeks after treatment; and serologic follow-up at 3, 6, 9, 12, and 24 months to ensure adequate response to treatment.

Patients should be advised that resolution of signs or symptoms does not imply successful treatment and that serologic follow-up is always necessary. Also, if an alternative regimen is used, patients need to be aware that the risk of treatment failure may be higher and serologic

(Continued on page 22)

Syphilis Control

(continued from page 21)

follow-up is even more critical than if a penicillin G regimen were used. If a provider is unable to treat a suspected case of syphilis within 10 days, for whatever reason, the provider must, by California law, report the case as a “treatment lapse” to the local health department (California Code of Regulations, Title 17 §2636[j]).

Partner Management

Partner treatment is a critically important component of patient management and syphilis control efforts because it provides an opportunity to break the cycle of transmission by preventing re-infection of the patient, preventing further infection to other individuals, and reducing the overall burden of disease in the community. Moreover, it provides an opportunity to educate partners about STDs/HIV and how to prevent them.

The primary goal of partner management is to identify and treat as many partners as possible in a voluntary, confidential and non-judgmental manner. Most partners are unaware of their exposure to infectious syphilis and the need for treatment. By California law, providers must assist their patients in bringing partners in for treatment (California Code of Regulations, Title 17, §2636[h]).

Because partner management is an effective tool to control syphilis, health department disease intervention staff will attempt to contact and counsel all infectious syphilis cases reported in California. Providers should inform patients whom they treat for syphilis that the health department may contact them to ensure adequate follow-up and partner management. Remind them that this will be done with complete respect for their and their partners’ confidentiality.

If a patient reports that he/she was informed, either by a partner or the health department, that he/she has been exposed to syphilis, providers should examine the patient for signs or symptoms of infectious syphilis, obtain a serologic test for syphilis (RPR or VDRL) and treat for incubating syphilis using one of the recommended treatment regimens listed above for infectious syphilis.

All patients with an exposure within the past 3 months should be treated independent of the serologic result because the RPR/VDRL may be falsely negative at this stage of syphilis. The only situation in which treating a contact at the time of the visit is not indicated is when the patient is certain that his/her exposure was more than 3 months earlier, and is likely to return for the test result.

Client-Centered Risk Reduction Counseling

Given the difficulty of identifying all partners of patients diagnosed with syphilis, a concerted effort should be made to conduct client-centered risk reduction counseling with patients to reduce future risk of syphilis and other STDs. Client-centered risk reduction counseling is another effective tool to prevent transmission of HIV and other STDs and needs to be integrated into HIV care settings. HIV-infected individuals with other STDs, including syphilis, may be the patients in greatest need of behavioral interventions and HIV case management. For more information, please contact the California STD/HIV Prevention Training Center at www.stdhivtraining.org.

Reporting

Finally, all cases of suspected or confirmed syphilis should be reported within one working day by phone or fax to the local health jurisdiction where the patient resides (California Code of Regulations, Title 17, §2500[j]). In addition, patients should be informed at the time of syphilis testing that if their test result is positive, the provider must, by California law, confidentially report the patient to the local health department and that the health department may contact them to ensure adequate management.

Resources

Your local health department STD Controller and AIDS Director are available to assist you with syphilis case management and making referrals for additional HIV and STD prevention services, including partner treatment, counseling, and other services.

Additional case consultation, as well as information on trainings in STD clinical management and prevention, including risk assessment and client-centered risk reduction counseling, and STD diagnosis and treatment is available from the California STD/HIV Prevention Training Center, at (510) 883-6600, as well as at www.stdhivtraining.org.

Complete treatment guidelines for all STDs are available at www.cdc.gov/STD/treatment/.

For a two-page summary of the California 2002 Treatment Guideline (suitable for posting in clinic settings), see www.stdhivtraining.org/pdf/Txguidln2002.pdf.

*Up-to-date STD statistics for California may be found at www.dhs.ca.gov/ps/dcdc/STD/stdindex.htm.