

CHANCROID

I. INTRODUCTION

RECOMMENDATION:

In New York State, clinicians must report suspected or confirmed chancroid diagnoses to their local health department.

Chancroid is a sexually transmitted infection (STI) characterized by painful genital ulcers and tender suppurative inguinal lymphadenopathy. The etiologic agent is *Haemophilus ducreyi*.

In the United States and industrialized nations, chancroid often occurs in discrete outbreaks in highly sexually active populations. Chancroid, as with other genital ulcer diseases, has been associated as a co-factor for HIV transmission in numerous studies.¹ Approximately 10% of patients with chancroid in the United States are co-infected with *T. pallidum* or herpes simplex virus.²

II. PRESENTATION

The chancroid lesion begins as a tender papule 4 to 7 days after exposure. It progresses to a shaggy, painful, non-indurated ulcer with undermined edges. The ulcers tend to bleed easily and are most commonly located near the penile prepuce (either the frenulum or coronal sulcus) or the vaginal fourchette. Lesions within the vaginal vault and rectum are typically less painful, which may complicate diagnosis. Several ulcers may merge to form giant ulcers. Painful inguinal lymphadenopathy is characteristic of chancroid regardless of the site of the lesion; however, such a presentation occurs in only 40% of cases. The lymphadenopathy is generally unilateral and may become suppurative and drain spontaneously if untreated. Untreated lesions resolve slowly and, unlike syphilitic chancres, cause considerable local tissue destruction and scarring. Lesions can occur at non-genital sites through autoinoculation but are uncommon.

Limited data are available in patients co-infected with HIV and chancroid. HIV-infected patients with chancroid may experience inguinal lymphadenopathy, multiple ulcers, and delayed healing more often than patients not infected with HIV. Chronic genital ulceration has also been reported in the setting of HIV.³

III. DIAGNOSIS

RECOMMENDATIONS:

Clinicians managing HIV-infected patients who present with suspected genital ulcer disease or inguinal lymphadenopathy should:

- **Test for syphilis, HSV, LGV, and granuloma inguinale (AI)**
- **Consider chancroid in the differential diagnosis, especially when cases have been reported locally (AI)**

A definitive diagnosis of chancroid should be made by organism culture on the appropriate medium supplied by a commercial laboratory or local department of health. (AII)

There are no specific differences in the diagnosis of chancroid in HIV-infected and non-infected patients. *H. ducreyi* is highly fastidious, and definitive diagnosis requires isolation on a special medium, which is usually a chocolate agar supplemented with growth inhibitors of other organisms. The sensitivity of culture is <80%. Some clinical laboratories have developed their own nucleic acid amplification tests for chancroid, although none is approved by the Food and Drug Administration.

In the absence of laboratory diagnosis, clinical diagnosis of chancroid can be made for patients with genital ulcers based on the presence of all of the following criteria:

- Painful genital ulcers, or “soft chancres” (versus the painless indurated chancres that are typical of syphilis)
- No evidence of syphilis (i.e., negative darkfield microscopy or negative syphilis serology at least 7 days after onset of ulcer)
- Negative herpes simplex virus test on ulcer exudate

IV. TREATMENT AND FOLLOW-UP

RECOMMENDATIONS:

HIV-infected patients with chancroid who are not pregnant should be treated with erythromycin, azithromycin, ceftriaxone, or ciprofloxacin. Specific dosing recommendations and caveats are listed in Table 1. HIV-infected patients may require longer courses of therapy. (AI)

Clinicians should not use ciprofloxacin to treat chancroid in HIV-infected pregnant women; instead, erythromycin, azithromycin, or ceftriaxone should be used (see Table 1). (AI)

Clinicians should:

- **Provide close post-treatment follow-up in 3 to 7 days for HIV-infected patients with chancroid to confirm that treatment was successful and to test for the presence of other genital ulcer disease pathogens (AI)**

- **Retest for syphilis 3 months after the diagnosis of chancroid in HIV-infected patients if initial test results were negative (AI)**

All of the recommended agents have the potential for antimicrobial resistance or suboptimal efficacy in HIV-infected patients. Limited data from studies performed in Africa indicate possible persistence of organisms in chancroid ulcers of HIV-infected patients after single-dose therapy with ceftriaxone, ciprofloxacin, and azithromycin.⁴⁻⁶ Some experts prefer the 7-day course of erythromycin; however, others would use single-dose azithromycin and then prescribe additional treatment and follow-up if the expected improvement is not seen after 7 days. The Centers for Disease Control and Prevention (CDC) recommend the use of single-dose therapy only if patient follow-up can be ensured.²

TABLE 1 RECOMMENDED REGIMENS FOR TREATMENT OF CHANCROID	
Regimen	Notes
Erythromycin base 500 mg PO tid for 7 days <i>or</i>	Preferred by some experts for HIV-infected patients
Azithromycin 1 g PO in a single dose* <i>or</i>	Preferred by some experts for HIV-infected patients if follow-up can be ensured
Ceftriaxone 250 mg IM in a single dose <i>or</i>	May have diminished activity in HIV-infected patients
Ciprofloxacin 500 mg PO bid for 3 days	Contraindicated in pregnant and lactating women

* Preferably, this regimen should be observed in the clinic/office setting.

Close follow-up to document healing of the ulcer is important. Successful treatment results in symptom improvement within 3 days and objective improvement with decreased size of the ulcer within 7 days. Larger ulcers may require >2 weeks for complete healing. Lymph node fluctuance generally takes longer to resolve than the ulcers themselves and may require needle aspiration or surgical drainage. Scarring can occur despite successful treatment.

When improvement does not occur in 3 to 7 days, consideration should be given to the following:

- Possibility of another pathogen, especially HSV or syphilis [see [Genital Herpes Simplex Virus \(HSV\)](#) and [Syphilis](#)]
- Antimicrobial resistance and the need to initiate a different one of the recommended agents
- Non-adherence

Retesting for syphilis after 3 months should be performed for all patients with chancroid who initially test negative for syphilis because of the high incidence of co-infection.

V. MANAGEMENT OF PARTNERS

RECOMMENDATION:

Clinicians should consider both the HIV exposure and the STI exposure to partners when HIV-infected patients present with a new STI. Clinicians should also assess for the presence of other STIs.

A. Management of HIV Exposure in Partners

RECOMMENDATIONS:

When HIV-infected patients present with a new STI, clinicians should encourage their partner(s) to undergo HIV testing at baseline, 1, 3, and 6 months. (AIII) In New York State, HIV diagnoses must be confirmed by a Western blot assay.

Clinicians should educate patients to be vigilant for any post-exposure acute HIV symptoms in their partners, such as febrile illness accompanied by rash, lymphadenopathy, myalgias, and/or sore throat. (AIII) If the partner presents with signs or symptoms of acute HIV seroconversion, a quantitative RNA PCR should be obtained, and consultation with an experienced HIV provider should be sought. (AII) Positive RNA tests should be confirmed with HIV antibody testing performed within 6 weeks of the RNA test (see [Antiretroviral Therapy: Acute HIV Infection](#), for more information about diagnosis and management of acute infection).

Clinicians should offer assistance with partner notification if needed, or refer patient to other sources for partner notification assistance (CNAP, PNAP). (AIII)

Presentation of a new STI in HIV-infected patients suggests exposure of HIV to their partners. In this case, offering HIV nPEP to partners is usually not an option because the period prior to STI symptom onset is usually longer than the 36-hour window for initiating HIV nPEP. Therefore, sequential HIV testing of partners for early identification of potential HIV acquisition should be performed. However, if a patient with an HIV exposure does present within 36 hours, evaluation for nPEP should occur (see [HIV Prophylaxis Following Non-Occupational Exposure Including Sexual Assault](#)).

B. Management of *H. ducreyi* Exposure in Sex Partners

RECOMMENDATION:

Sex partners of HIV-infected patients with chancroid infections should be treated or referred for treatment if the partner was exposed within 10 days prior to symptom onset in the index patient, even in the absence of clinical symptoms. (AI)

To prevent serial reinfection and curtail further transmission, sex partners of patients with a diagnosis of chancroid should be treated or referred for treatment if exposure was within 10 days prior to symptom onset in the index patient, even if clinical symptoms are not present in the contact. If a suspicious lesion is identified in a contact, clinicians should test for other genital ulcer disease co-pathogens, especially HSV and syphilis, as described above in Section III. *Diagnosis.*

REFERENCES

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4. Tyndall M, Malisa M, Plummer FA, et al. Ceftriaxone no longer predictably cures chancroid in Kenya. *J Infect Dis* 1993;167:469-471. [[PubMed Abstract](#)]
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