

Chancroid

Disease plan

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[CDC STI treatment guidelines](#)

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Questions about this disease plan?

Contact the Utah Department of Health and Human Services, Office of Communicable Diseases: 801-538-6191.

Chancroid critical clinician information

Clinical evidence
Signs/symptoms <ul style="list-style-type: none">• Single or multiple painful, necrotizing ulcers at the site of the infection. The ulcers are frequently accompanied by painful swelling and suppuration of regional lymph nodes.
Period of communicability <ul style="list-style-type: none">• Individuals remain infectious until the original lesion or discharging regional lymph node heals.
Incubation period <ul style="list-style-type: none">• The incubation period is typically from 4–7 days.
Mode of transmission <ul style="list-style-type: none">• Transmission occurs during sexual intercourse through small skin abrasions.
Laboratory testing
Type of lab test/timing of specimen collection <ul style="list-style-type: none">• Culture
Type of specimens <ul style="list-style-type: none">• Genital or bubo material
Treatment recommendations
Type of treatment <ul style="list-style-type: none">• Azithromycin 1 g orally in a single dose OR;• Ceftriaxone 250 mg intramuscularly (IM) in a single dose OR;• Ciprofloxacin 500 mg orally twice a day for 3 days OR;• Erythromycin base 500 mg orally 3 times a day for 7 days
Time period to treat <ul style="list-style-type: none">• Azithromycin or ceftriaxone: single dose• Ciprofloxacin: 3 days• Erythromycin: 7 days
Prophylaxis <ul style="list-style-type: none">• All contacts of cases of chancroid exposed within 10 days of symptom onset should receive treatment.
Vaccines <ul style="list-style-type: none">• No vaccine exists.
Contact management
Isolation of case <ul style="list-style-type: none">• Avoid sexual contact until all lesions are healed.
Quarantine of contacts <ul style="list-style-type: none">• Not applicable.
Infection control procedures <ul style="list-style-type: none">• Standard body substance precautions.

Why is chancroid important to public health?

Chancroid is a sexually transmitted infection that can manifest as painful genital ulcers, inguinal lymphadenopathy, or an inflamed lymph node in the armpit or groin. The global epidemiology of chancroid is not well documented; however, a global decrease in chancroid incidence is evident.¹ Likewise, the number of reported cases in the United States has steadily declined since 1987.² Genital ulcers caused by chancroid increase the risk for HIV transmission and acquisition.³

Disease and epidemiology

Clinical description

An acute bacterial infection localized in the genital area and characterized by single or multiple painful, necrotizing ulcers at the site of the infection. The ulcers are frequently accompanied by painful swelling and suppuration of regional lymph nodes.

Causative agent

Chancroid is caused by *Haemophilus ducreyi*, which is a gram-negative coccobacillus.

Differential diagnosis

The differential diagnosis for chancroid includes syphilis, herpes simplex, lymphogranuloma venereum, trauma, and drug eruptions.

Laboratory identification

Chancroid is definitively diagnosed through identification of *H. ducreyi* on special culture media that is not widely available.³ Currently, there are no FDA-approved NAATs available in the U.S.; however some commercial laboratories may have developed their own tests and have conducted CLIA verification studies.³

Treatment

Empiric therapy for chancroid is reasonable if clinical and epidemiologic evidence are suggestive of the diagnosis, since laboratory diagnosis can be a challenge. Successful treatment for chancroid cures the infection, resolves the clinical symptoms, and prevents transmission to others. Single-dose directly observed therapy is preferred among the regimens listed below.³

Recommended regimens³:

Azithromycin 1 g orally in a single dose

OR

Ceftriaxone 250 mg intramuscularly (IM) in a single dose

OR

Ciprofloxacin 500 mg orally twice a day for 3 days

OR

Erythromycin base 500 mg orally 3 times a day for 7 days

Case fatality

Chancroid is not fatal.

Reservoir

Humans are the source of infection.

Transmission

Chancroid is transmitted during sexual intercourse through small skin abrasions. Auto-inoculation to non-genital sites may occur in people who are infected.⁴ Beyond the neonatal period, sexual abuse must be considered when chancroid is found in children. However, many parts of the world have endemic infections caused by *H. ducreyi* that result in ulcers on parts of the body other than the genitals that are not sexually transmitted. Chancroid ulcers on the extremities of children who have traveled to a region where *H. ducreyi* is endemic should not be considered evidence of sexual abuse.³

Susceptibility

Susceptibility is general: uncircumcised men are at higher risk than those who are circumcised. There is no evidence of natural resistance.

Incubation period

The incubation period is typically from 4–7 days.⁴

Period of communicability

The period of communicability lasts until lesions and any discharging regional lymph nodes are healed—up to several weeks without antibiotic therapy. Antibiotic therapy cures *H. ducreyi* infection and decreases the time till lesions heal to 1–2 weeks.

Epidemiology

In the 1990s, the global prevalence of chancroid was estimated to be 7 million.¹ More recent global estimates are not available; however, a global decrease in chancroid incidence is evident.¹ Reported cases of chancroid in the U.S. have steadily declined from 4,986 cases in 1987 to 3 cases in 2021.² While chancroid is not widespread, and since it is difficult to culture, it is believed to be substantially under-diagnosed and under-reported.

Public health control measures

Public health responsibility

- Investigate all suspect cases of disease and fill out and submit appropriate disease investigation forms.
- Provide education to the general public, clinicians, and first responders regarding disease transmission and prevention.
- Identify clusters or outbreaks of this disease.
- Identify sources of exposure and stop further transmission.

Prevention

- Emphasis should be placed on early detection and effective treatment of patients and their contacts.
- Educate the community in general health promotion measures:
 - Provide sexual health education that teaches the importance of risk reduction measures including abstinence, reducing the number of sex partners, mutual monogamy, and condom use.
 - Protect the community and control STIs in sex workers and their clients.
 - Teach methods of prevention, especially the correct and consistent use of condoms.
- Provide healthcare facilities with education about early diagnosis and treatment:
 - Encourage providers to educate patients about symptoms of sexually-transmitted infections, modes of spread, reinfection, and the importance of notifying sexual partners.

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- o Make services culturally appropriate and readily accessible and acceptable, regardless of economic status.
- o Screen those who are diagnosed with chancroid for other STIs including HIV and syphilis.
- o Offer pre-exposure prophylaxis (PrEP) to HIV negative persons who are at increased risk for HIV infection.

Chemoprophylaxis

Contacts of patients who have chancroid are those who had sexual contact with the infected patient 10 days prior to the patient's onset of symptoms until the date of diagnosis.³ All contacts should be examined and treated, regardless of whether symptoms of the disease are present. See treatment for more information.

Vaccine

No vaccine exists.

Isolation and quarantine requirements

Isolation: Avoid sexual contact until all lesions are healed.

Hospital: Body substance precautions.

Quarantine: Not applicable.

Case investigation

Reporting

Chancroid is a reportable disease. Below is a table that should be used to determine whether a case should be reported to public health authorities⁵:

Criterion	Reporting			
<i>Clinical evidence</i>				
Painful, genital ulcer	N	N	N	
Genital ulcer(s) is not typical of disease caused by herpes simplex virus		N		
Healthcare record contains a diagnosis of chancroid				S
<i>Laboratory findings</i>				
Isolation of <i>H. ducreyi</i> from a clinical specimen (genital ulcer or inguinal lymph node)	N			
No evidence of <i>Treponema pallidum</i> infection by darkfield microscopic examination of ulcer exudate		O	O	
No evidence of <i>Treponema pallidum</i> infection by serologic test for syphilis performed greater than or equal to 7 days after onset of ulcers: <ul style="list-style-type: none"> • Current serologic test for syphilis is nonreactive* or • Current serologic test for syphilis is reactive with a titer ≤ titer (within one dilution) of prior reactive serologic test for syphilis 		O	O	
Negative culture for herpes simplex virus from a clinical specimen			N	

Notes:

S = This criterion alone is sufficient to report a case.

N = All “N” criteria in the same column—in conjunction with at least 1 of any “O” criteria in each category (e.g., clinical presentation and laboratory findings) in the same column—are required to report a case.

O = At least 1 of any “O” criteria in each category (e.g., clinical presentation and laboratory findings) in the same column—in conjunction with all other “N” criteria in the same column—is required to report a case.

*A current reactive treponemal serologic test for syphilis and a current nonreactive nontreponemal serologic test for syphilis are indicative of past—but not current—syphilis infection. A current reactive nontreponemal serologic test for syphilis and a current nonreactive treponemal serologic test for syphilis are indicative of a false positive test.

Case definition (CSTE)

Epidemiologists classify chancroid infections according to the following⁵:

Criterion	Case Definition		
	Confirmed	Probable	
<i>Clinical Evidence</i>			
Painful, genital ulcer	N	N	N
Inguinal lymphadenopathy	N	N	N
Genital ulcer(s) is not typical of disease caused by herpes simplex virus			N
Healthcare record contains a diagnosis of chancroid			
<i>Laboratory Findings</i>			
Isolation of <i>H. ducreyi</i> from a clinical specimen (genital ulcer or inguinal lymph node)	N		
No evidence of <i>Treponema pallidum</i> infection by darkfield microscopic examination of ulcer exudate		O	O
No evidence of <i>Treponema pallidum</i> infection by serologic test for syphilis performed greater than or equal to 7 days after onset of ulcers: <ul style="list-style-type: none"> • Current serologic test for syphilis is nonreactive* or • Current serologic test for syphilis is reactive with a titer ≤ titer (within one dilution) of prior reactive serologic test for syphilis 		O	O
Negative culture for herpes simplex virus from a clinical specimen		N	

Notes:

S = This criterion alone is sufficient to report a case.

N = All “N” criteria in the same column—in conjunction with at least 1 of any “O” criteria in each category (e.g., clinical presentation and laboratory findings) in the same column—are required to report a case.

O = At least 1 of any “O” criteria in each category (e.g., clinical presentation and laboratory findings) in the same column—in conjunction with all other “N” criteria in the same column—is required to report a case.

*A current reactive treponemal serologic test for syphilis and a current nonreactive nontreponemal serologic test for syphilis are indicative of past—but not current—syphilis infection. A current reactive nontreponemal serologic test for syphilis and a current nonreactive treponemal serologic test for syphilis are indicative of a false positive test.

Clinical description

A sexually transmitted disease characterized by painful genital ulceration and inflammatory inguinal lymphadenopathy. The disease is caused by infection with *Haemophilus ducreyi*.⁶

Laboratory criteria

Isolation of *H. ducreyi* from a clinical specimen.⁶

Case classification

Probable: a clinically compatible case with both a) no evidence of *Treponema pallidum* infection by darkfield microscopic examination of ulcer exudate or by a serologic test for syphilis performed greater than or equal to 7 days after onset of ulcers and b) either a clinical presentation of the ulcer(s) not typical of disease caused by herpes simplex virus (HSV) or a culture negative for HSV.⁶

Confirmed: a clinically compatible case that is laboratory confirmed.⁶

Case investigation process

Investigators should:

- Fill out the Utah public health confidential morbidity report form in UT-NEDSS/EpiTrax.
- Conduct a client interview (STD case interview).
- Fill out a client interview record on the original patient and field records for identified contacts.
- Conduct contact investigations.
- Provide treatment and follow-up for contacts.
- Fill out an interview record.

Outbreaks

An outbreak is defined as 1 case being reported.

Identifying case contacts

The contact investigation is an integral part of finding contacts and the source of infection. All sexual contacts who were exposed within the 10 days before the onset of symptoms should receive an examination and treatment regardless of whether symptoms of the disease are present.³

Case contact management

A fundamental feature of programs for chancroid control is patient interviews to identify sexual contacts from whom infection was acquired in addition to those infected by the patient. All identified sexual contacts of confirmed cases of chancroid should be examined and treated, regardless of symptoms, if they had sexual contact with the patient during the 10 days before the patient's symptoms started or after symptoms were present.

References

1. González-Beiras, C., Marks, M., Chen, C. Y., Roberts, S., & Mitjà, O. (2016). Epidemiology of *Haemophilus ducreyi* Infections. *Emerging Infectious Diseases*, 22(1), 1-8.
<https://doi.org/10.3201/eid2201.150425>
2. Centers for Disease Control and Prevention. (2022) *Table 1. Sexually transmitted diseases — reported cases and rates of reported cases*, United States, 1941–2021*
<https://www.cdc.gov/std/statistics/2021/tables/1.htm>
3. Centers for Disease Control and Prevention. (2021). Sexually transmitted infections treatment guidelines, 2021. *MMWR Recommendations and Reports*, 70(4).
<https://www.cdc.gov/std/treatment-guidelines/default.htm>
4. Lewis, D. A. (2003). Chancroid: Clinical manifestations, diagnosis, and management. *Sexually Transmitted Infection*, 79(1), 68–71. <http://dx.doi.org/10.1136/sti.79.1.68>
5. Council of State and Territorial Epidemiologists (CSTE). (2009). *Public health reporting and national notification for chancroid* [Position statement 09-ID-31].
<https://cdn.ymaws.com/www.cste.org/resource/resmgr/PS/09-ID-31.pdf>
6. Centers for Disease Control and Prevention. (2021, April 16). *Chancroid (Haemophilus ducreyi) 1996 case definition*.
<https://ndc.services.cdc.gov/case-definitions/chancroid-1996/>

Version control

V.05.16: Updated epidemiological information, added minimum data set (MDS) information, and added table of contents.

V.08.23: Updated epidemiological information and probable case definition, added information about chancroid in children, and critical clinician information table. Updated formatting to meet DHHS guidelines. Added in-text citations.

UT-NEDSS/EpiTrax minimum/required fields by tab

Demographic

- Date first reported to public health
- Last name
- First name
- Street
- Unit number
- City
- State
- County
- ZIP code
- Date of birth
- Area code
- Phone number
- Birth sex
- Ethnicity
- Race
- Disposition (if promoted contact)
- Disposition date (if promoted contact)
- Contact type (if promoted contact)

Clinical

- Disease
- Date diagnosed

- Pregnant (if female)
- Expected delivery date (if female)
- Treatment given
- Treatment
- Date of treatment
- Clinician last name
- Clinician area code
- Clinician phone
- Diagnostic facility
- Type of facility
- Method of case detection

Laboratory

- Lab
- Test type
- Organism
- Test result
- Specimen source
- Collection date

Administrative

- State case status (completed by DHHS)
- Outbreak association