

Committee: Infectious

Title: Public Health Reporting and National Notification for Chancroid

I. Statement of the Problem

CSTE position statement 07-EC-02 recognized the need to develop an official list of nationally notifiable conditions and a standardized reporting definition for each condition on the official list. The position statement also specified that each definition had to comply with American Health Information Community recommended standards to support “automated case reporting from electronic health records or other clinical care information systems.” In July 2008, CSTE identified sixty-eight conditions warranting inclusion on the official list, each of which now requires a standardized reporting definition.

II. Background and Justification

Background¹

Chancroid is caused by a bacterial infection that produces genital ulcers and has the potential to cause large out-breaks. It is a frequent cause of genital ulcers in the developing world, but is uncommon and occurs only sporadically in developed countries (Murphy 2005). It may also contribute to increased HIV transmission in some communities.

Reported cases of chancroid declined from 4,986 cases in 1987 to 23 cases in 2007. Only eight states reported one or more cases of chancroid in 2007, with New York and Texas each reporting five. Although the overall decline in reported chancroid cases most likely reflects a decline in the incidence of this disease, *Haemophilus ducreyi*, the causative organism of chancroid, is difficult to culture and, as a result, chancroid may be substantially under-diagnosed and underreported. Most health care providers and laboratories do not have the capability to perform the specific laboratory test needed for its diagnosis.

Justification

Chancroid meets the following criteria for a nationally and **standard** notifiable condition, as specified in CSTE position statement 08-EC-02:

- A majority of state and territorial jurisdictions—or jurisdictions comprising a majority of the US population—have laws or regulations requiring **standard** reporting of chancroid to public health authorities
- CDC requests **standard** notification of chancroid to federal authorities.
- CDC has condition-specific policies and practices concerning the agency’s response to, and use of, notifications.

¹ Much of the material in the background is directly quoted from the CDC’s Sexually Transmitted Diseases Website. See the References for further information on this source.

III. Statement of the desired action(s) to be taken

CSTE requests that CDC adopt this standardized reporting definition for chancroid to facilitate more timely, complete, and standardized local and national reporting of this condition.

IV. Goals of Surveillance

To provide information on the temporal, geographic, and demographic occurrence of chancroid to facilitate its prevention and control.

V. Methods for Surveillance

Surveillance for chancroid should use the sources of data and the extent of coverage listed in table V.

Table V. Recommended sources of data and extent of coverage for ascertaining cases of chancroid.

Source of data for case ascertainment	Coverage	
	Population-wide	Sentinel sites
clinician reporting	x	
laboratory reporting	x	
reporting by other entities (e.g., hospitals, veterinarians, pharmacies)		
death certificates		
hospital discharge or outpatient records	x	
extracts from electronic medical records	x	
telephone survey		
school-based survey		
other _____		

VI. Criteria for Reporting

Reporting refers to the process of healthcare providers or institutions (e.g., clinicians, clinical laboratories, hospitals) submitting basic information to governmental public health agencies about cases of illness that meet certain reporting requirements or criteria. Cases of illness may also be ascertained by the secondary analysis of administrative health data or clinical data. The purpose of this section is to provide those criteria that should be used to determine whether a specific illness should be reported.

A. Narrative description of criteria to determine whether a case should be reported to public health authorities

Report any illness to public health authorities that meets any of the following criteria:

A person with a painful, genital ulcer *and* isolation of *H. ducreyi* from a clinical specimen

A person with a painful, genital ulcer

AND

no evidence of *Treponema pallidum* infection by either darkfield microscopic examination of ulcer exudate *or* a serologic test for syphilis performed greater than or equal to 7 days after onset of ulcer

AND

either genital ulcer(s) is not typical of disease caused by herpes simplex virus *or* culture for herpes simplex virus (HSV) from a clinical specimen is negative

A person whose healthcare record contains a diagnosis of chancroid.

Other recommended reporting procedures

- All cases of chancroid should be reported.
- Reporting should be on-going and routine.
- Frequency of reporting should follow the state health department's routine schedule.

B. Table of criteria to determine whether a case should be reported to public health authorities

Table VI-B. Table of criteria to determine whether a case should be reported to public health authorities. Requirements for reporting are established under State and Territorial laws and/or regulations and may differ from jurisdiction to jurisdiction. These criteria are suggested as a standard approach to identifying cases of this condition for purposes of reporting, but reporting should follow State and Territorial law/regulation if any conflicts occur between these criteria and those laws/regulations.

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: – Current serologic test for syphilis is nonreactive* <i>or</i> – Current serologic test for syphilis is reactive with a titer $\leq$ 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 one 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 one 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 non-treponemal serologic test for syphilis are indicative of past—but not current—syphilis infection. A current reactive non-treponemal serologic test for syphilis *and* a current nonreactive treponemal serologic test for syphilis are indicative of a false positive test.

C. Disease Specific Data Elements:

Disease-specific data elements to be included in the initial report are listed below.

VII. Case Definition for Case Classification

A. Narrative description of criteria to determine whether a case should be classified as confirmed or probable.

Clinical description

A sexually transmitted disease characterized by painful genital ulceration and inflammatory inguinal lymphadenopathy.

Laboratory criteria for diagnosis

Isolation of *H. ducreyi* from a clinical specimen

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.

Confirmed: a clinically compatible case that is laboratory confirmed

B. Classification Tables

Table VII-B lists the criteria that must be met for a case to be classified as confirmed or probable.

Table VII-B. Table of criteria to determine whether a case is classified.

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: – Current serologic test for syphilis is nonreactive* <i>or</i> – Current serologic test for syphilis is reactive with a titer $\leq$ 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:

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

O = At least one 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 confirm a case.

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

VIII. Period of Surveillance

Surveillance should be on-going.

IX. Data sharing/release and print criteria

Notification to CDC of confirmed and probable cases is recommended.

De-identified data are provided by jurisdictions to CDC. Jurisdiction-specific case counts are reported weekly in the MMWR. Data are also analyzed and published in the CDC's annual *Sexually Transmitted Disease Surveillance*, in STD surveillance updates within the MMWR, and in peer-reviewed publications. Reports and publications are provided to jurisdictions, to other interested parties, and made available on the internet.

X. References

Centers for Disease Control and Prevention (CDC). Case definitions for infectious conditions under public health surveillance. MMWR 1997;46(No. RR-10):1–57. Available from: <http://www.cdc.gov/mmwr/>

Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2006. Atlanta, GA: U.S. Department of Health and Human Services; November 2007.

Centers for Disease Control and Prevention [Internet]. Tracking the Hidden Epidemics 2000: trends in STDs in the United States. Atlanta: CDC. Available from: <http://www.cdc.gov/std/Trends2000/default.htm> Last updated: 2001 Apr 6. Accessed: 2008 Sep 27.

Centers for Disease Control and Prevention [Internet]. National notifiable diseases surveillance system: case definitions. Atlanta: CDC. Available from: <http://www.cdc.gov/ncphi/diss/nndss/casedef/index.htm> Last updated: 2008 Jan 9. Accessed: 2008 Sep 27.

Council of State and Territorial Epidemiologists (CSTE). Revised case definitions for public health surveillance: infectious disease. CSTE position statement 1996-18. Atlanta: CSTE; June 1996. Available from: <http://www.cste.org>.

Council of State and Territorial Epidemiologists (CSTE). CSTE official list of nationally notifiable conditions. CSTE position statement 07-EC-02. Atlanta: CSTE; June 2007. Available from: <http://www.cste.org>.

Council of State and Territorial Epidemiologists (CSTE). Criteria for inclusion of conditions on CSTE nationally notifiable condition list and for categorization as immediately or routinely notifiable. CSTE position statement 08-EC-02. Atlanta: CSTE; June 2008. Available from: <http://www.cste.org>.

Heymann DL, editor. Control of communicable diseases manual. 18th edition. Washington: American Public Health Association; 2004.

Murphy TF. Chapter 222 – Haemophilus Infections. In: Mandell GL, Bennett JE, Dolin R, editors. Principles and Practice of Infectious Diseases, 6th edition. Philadelphia: Churchill Livingstone; 2005.

XI. Coordination:

Agencies for Response:

- (1) Thomas R Frieden, MD, MPH
Director
Centers for Disease Control and Prevention
1600 Clifton Road, NE
Atlanta GA 30333
(404) 639-7000
txf2@cdc.gov

XII. Submitting Author:

- (1) Cort Lohff
Medical Director, Environmental Health
Chicago Department of Public Health
2133 West Lexington Street
Chicago, IL. 60612
(312) 746-6621
cjlohff@comcast.net

Co-Authors:

- (1) Associate Member
Harry F. Hull, Medical Epidemiologist
HF Hull & Associates, LLC
1140 St. Dennis Court
Saint Paul, MN 55116
(651) 695-8114
hullhf@msn.com
- (2) Associate Member
Cecil Lynch, Medical Informaticist
OntoReason
7292 Shady Woods Circle
Midvale, UT 84047
(916) 412.5504
clynch@ontoreason.com
- (3) Associate Member
R. Gibson Parrish, Medical Epidemiologist
P.O. Box 197
480 Bayley Hazen Road
Peacham, VT 05862
(802) 592-3357
gib.parrish@gmail.com