

09-ID-08

Committee: Infectious

Title: Public Health Reporting and National Notification for Infection Caused by *Chlamydia trachomatis*

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.

In addition, the case definition needs to be revised, as the title is inconsistent with the case definition itself, which does not specify the anatomical site of infection.

II. Background and Justification

*Background*¹

Chlamydia is a common sexually transmitted disease caused by the bacterium, *Chlamydia trachomatis*, which can be transmitted during vaginal, anal, or oral sex. About three quarters of infected women and about half of infected men have no symptoms. If symptoms occur, they usually appear within 1 to 3 weeks after exposure. In women, symptoms may include abnormal vaginal discharge, urethritis, lower abdominal pain, low back pain, nausea, pain during intercourse, and bleeding between menstrual periods. In men, symptoms include penile discharge and urethritis. In up to 40 percent of untreated women with infection, infection can spread into the uterus or fallopian tubes and cause pelvic inflammatory disease. Infected women are also up to five times more likely to become infected with HIV, if exposed. Complications among men are rare. Infection sometimes spreads to the epididymis, causing pain, fever, and, rarely, sterility.

To help prevent the serious consequences of chlamydia in women, screening at least annually for chlamydia is recommended for all sexually active women age 25 years and younger. An annual screening test is also recommended for older women with risk factors for chlamydia. Screening for chlamydia is recommended for all pregnant women, as they can pass the infection to their infants during delivery, potentially resulting in neonatal ophthalmia and pneumonia.

In 1990, the first standardized case definition for *Chlamydia trachomatis* entitled: “*Chlamydia trachomatis* Infection” was published (though not designated as a nationally notifiable condition). Later, in 1994, CSTE Position Statement 1994-4 was adopted, which called for the

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

inclusion of *C. trachomatis* as a nationally notifiable condition and added detection of nucleic acids to the list of acceptable testing methodology. Most importantly, this position statement changed the title of the case definition to “*Chlamydia trachomatis*, Genital Infections.” This title is inconsistent with the case definition itself, which does not specify the anatomic site of infection; therefore, the title of the case definition needs to be changed.

Justification

Infection caused by *Chlamydia trachomatis* 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 *Chlamydia trachomatis* to public health authorities
- CDC requests **standard** notification of *Chlamydia trachomatis* to federal authorities.
- CDC has condition-specific policies and practices concerning the agency’s response to, and use of, notifications.

A change in the title of the case definition to “*Chlamydia trachomatis* Infection” is necessary to ensure consideration of non-genital sites of infection and to address the inconsistency between the title of the case definition and the case definition itself, which does not specify the anatomic site of infection.

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

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

Additionally, CSTE requests a change of the case definition to “*Chlamydia trachomatis* Infection.” No other changes to the case definition are being requested.

IV. Goals of Surveillance

To provide information on the temporal, geographic, and demographic occurrence of infections caused by *Chlamydia trachomatis* to facilitate its prevention and control.

V. Methods for Surveillance

Surveillance for infections caused by *Chlamydia trachomatis* should use the sources of data and the extent of coverage listed in Table V below.

Table V. Recommended sources of data and extent of coverage for ascertaining cases of infections caused by *Chlamydia trachomatis*.

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)	X
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. The purpose of this section is to provide those criteria that should be used by humans and machines to determine whether a specific illness should be reported.²

A. Narrative description of criteria to be used by humans 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:

1. A person with one or more of the laboratory findings.
2. A person whose healthcare record contains a diagnosis of an infection caused by *Chlamydia trachomatis*.

Other recommended reporting procedures

- All cases of infection caused by *Chlamydia trachomatis* should be reported.
- Reporting should be on-going and routine.
- Frequency of reporting should follow the state health department's routine schedule.

² "Human-based" criteria (described below under "A. Narrative") can be applied by medical care providers and laboratory staff based on clinical judgment and clinical diagnosis. Machine-based criteria (described below under "B. Table") can be applied using computerized algorithms that operate in electronic health record systems, including computerized records of laboratory test orders and laboratory test results.

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

Table VI-B. Proposed Table of criteria to determine whether a case should be reported to public health authorities. Note: The following criteria are proposed for evaluation before general implementation. For purposes of currently implementing reporting the narrative description in VI-A, should be used.

Criterion	Reporting
<i>Clinical Presentation</i>	
urethral discharge	C
Dysuria	C
epididymal tenderness	C
purulent cervical discharge	C
lower abdominal pain	C
low back pain	C
urinary frequency	C
pelvic inflammatory disease	C
vaginal discharge	C
rectal pain	C
rectal discharge	C
rectal bleeding	C
Pharyngitis	C
Pneumonia	C
Conjunctivitis	C
healthcare record contains a diagnosis of infection caused by <i>Chlamydia trachomatis</i>	S
<i>Laboratory findings</i>	
isolation of <i>C. trachomatis</i> by culture of a clinical specimen	S
detection of <i>C. trachomatis</i> antigen by direct fluorescent antibody staining in a clinical specimen	S
detection of <i>C. trachomatis</i> antigen by enzyme-linked immunosorbent assay in a clinical specimen	S
detection of <i>C. trachomatis</i> nucleic acid by hybridization with a nucleic acid probe in a clinical specimen	S
detection of <i>C. trachomatis</i> by nucleic acid amplification (e.g., PCR) in a clinical specimen	S
<i>Epidemiological risk factors</i>	
sexual contact with a partner infected with <i>C. trachomatis</i>	C

Criterion	Reporting
new or multiple sexual partners	C

Notes:

S = This criterion alone is sufficient to report a case

C = This finding corroborates (i.e., supports) the diagnosis of—or is associated with—*Chlamydia trachomatis*, but is not included in the case definition and is not required for reporting.

C. Disease Specific Data Elements:

CSTE will collaborate with CDC to develop a list of disease-specific data elements.

VII. Case Definition for Case Classification**A. Narrative description of criteria to determine whether a case should be classified as confirmed.***Clinical description*

Infection with *Chlamydia trachomatis* may result in urethritis, epididymitis, cervicitis, acute salpingitis, or other syndromes when sexually transmitted; however, the infection is often asymptomatic in women. Perinatal infections may result in inclusion conjunctivitis and pneumonia in newborns. Other syndromes caused by *C. trachomatis* include lymphogranuloma venereum (see Lymphogranuloma Venereum) and trachoma.

Laboratory Criteria for Diagnosis

- Isolation of *C. trachomatis* by culture, or
- Demonstration of *C. trachomatis* in a clinical specimen by detection of antigen or nucleic acid

Case Classification

Confirmed: a 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.

Table VII-B. Proposed table of criteria to determine whether a case is classified. Note: The following criteria are proposed for evaluation before general implementation. For purposes of current notification, the narrative description in VII-A, should be used.

Criterion	Case Definition
	Confirmed
<i>Clinical Presentation</i>	
healthcare record contains a diagnosis of infection caused by <i>Chlamydia trachomatis</i>	O
<i>Laboratory findings</i>	
isolation of <i>C. trachomatis</i> by culture of a clinical specimen	O
detection of <i>C. trachomatis</i> antigen by direct fluorescent antibody staining in a clinical specimen	O
detection of <i>C. trachomatis</i> antigen by enzyme-linked immunosorbent assay in a clinical specimen	O
detection of <i>C. trachomatis</i> nucleic acid by hybridization with a nucleic acid probe in a clinical specimen	O
detection of <i>C. trachomatis</i> by nucleic acid amplification (e.g., PCR) in a clinical specimen (specimens from appropriate patient sites only)	O

Notes:

O = At least one of these “O” criteria in each category in the same column is required to classify a case.

VIII. Period of Surveillance

Surveillance should be on-going.

IX. Data sharing/release and print criteria

- Notification to CDC of confirmed of Chlamydia 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

1. 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/>
2. Centers for Disease Control and Prevention [Internet]. Chlamydia. Atlanta: CDC. Available from: <http://www.cdc.gov/std/chlamydia/> Last updated: 2008 Apr 29. Accessed: 2008 Aug 11.
3. 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:
4. 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>.
5. Council of State and Territorial Epidemiologists (CSTE). National Surveillance for genital Chlamydia trachomatis infections. CSTE position statement 1994. Available at: <http://www.cste.org>
6. 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>.
7. Council of State and Territorial Epidemiologists, Centers for Disease Control and Prevention. CDC-CSTE Intergovernmental Data Release Guidelines Working Group (DRGWG) Report: CDC-ATSDR Data Release Guidelines and Procedures for Re-release of State-Provided Data. Atlanta: CSTE; 2005. Available from: <http://www.cste.org/pdffiles/2005/drgwgreport.pdf> or <http://www.cdc.gov/od/foia/policies/drgwg.pdf>.
8. Heymann DL, editor. Control of communicable diseases manual. 18th edition. Washington: American Public Health Association; 2004.
9. Stamm WE, Jones RB, Batteiger BE. Chapter 177 – *Chlamydia trachomatis* (Trachoma, Perinatal Infections, Lymphogranuloma Venereum, and Other Genital Infections). In: Mandell GL, Bennett JE, Dolin R, editors. Principles and Practice of Infectious Diseases, 6th edition. Philadelphia: Churchill Livingstone; 2005.

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