

**21-ID-06****Committee:** Infectious Disease**Title:** Public Health Reporting and National Notification for Infection Caused by *Chlamydia trachomatis*

☒ Check this box if this position statement is an update to an existing standardized surveillance case definition and include the most recent position statement number here: 09-ID-08.

**Synopsis:**

This position statement updates the case definition for *C. trachomatis* infection, or chlamydia, through the addition of new clinical and laboratory criteria to distinguish cases of lymphogranuloma venereum (LGV) from other infections due to chlamydia.

**I. Statement of the Problem**

LGV is a specific type of infection with the bacteria *C. trachomatis*, caused by serovars L<sub>1</sub>–L<sub>3</sub>. LGV was previously on the Nationally Notifiable Conditions list but was removed as a separate notifiable condition in 1995 when chlamydia was added. However, with chlamydia being nationally notifiable and LGV being a specific type of chlamydia, as the case definition is currently written, LGV is nationally notifiable as chlamydia; this does not allow for distinguishing cases of LGV from other cases of chlamydia. In addition, the laboratory criteria for diagnosis of LGV are outdated and contain test technologies that, despite still being in existence, are typically no longer generally used or available.

**II. Background and Justification**

Chlamydia is a common sexually transmitted infection caused by the bacterium, *C. 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 1–3 weeks after exposure. In women, symptoms may include abnormal vaginal discharge, urethritis, lower abdominal pain, pain during intercourse, and bleeding between menstrual periods. In men, symptoms include penile discharge and urethritis. In up to 40% of untreated women, 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.

LGV is a specific type of chlamydial infection caused by serovars L<sub>1</sub>–L<sub>3</sub>. LGV became nationally notifiable in 1941 but was removed from the Nationally Notifiable Conditions list as a separate notifiable condition in 1995 when chlamydia was added. However, with chlamydia being nationally notifiable and LGV being a specific type of chlamydia, as the case definition is currently written, LGV is nationally notifiable as chlamydia, but is not notifiable as a separate condition from chlamydia. Because of this, it is not possible to distinguish between LGV and non-LGV infections in current chlamydia case report data.

Despite LGV not being nationally notifiable separate from chlamydia, it does have a surveillance case definition to which state and local authorities can refer when a suspected case arises; this case definition has not been updated since 1997. The laboratory criteria for diagnosis and for the classification of a probable case in the current LGV case definition are outdated and contain test technologies that, despite still being in existence, are typically no longer generally used or available. In addition, the clinical description of LGV, while inclusive of the most common presenting symptoms, is not inclusive of all possible clinical presentations and does not leave the possibility for asymptomatic infections.

Based on these issues, there is a need to update the language of the *C. trachomatis* infection case definition to include more current diagnostic technologies and to be inclusive of all possible clinical outcomes for jurisdictions to use when classifying chlamydial infections caused by LGV serovars. Allowing for the distinction between LGV and non-LGV infections in *C. trachomatis* infection case report data will provide us with the ability to evaluate at least the minimum burden of LGV disease in the United States.

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

CSTE recommends the following actions:

1. Implement a standardized surveillance case definition for *C. trachomatis* infection, including lymphogranuloma venereum.
  - A. Utilize standard sources (e.g., reporting\*) for case ascertainment for *C. trachomatis* infection. Surveillance for *C. trachomatis* infection should use the recommended sources of data to the extent of coverage presented in Section V.
  - B. Utilize standardized criteria for case ascertainment for *C. trachomatis* infection presented in Section VI and Table VI in Technical Supplement.
  - C. Utilize standardized criteria for case classification for *C. trachomatis* infection presented in Section VII and Table VII in Technical Supplement.
2. Utilize standardized criteria for case ascertainment and classification (based on Sections VI and VII and Technical Supplement) for *Chlamydia trachomatis* infection and **update** *Chlamydia trachomatis* infection on the *Nationally Notifiable Condition List*
  - ☐ Immediately notifiable, extremely urgent (within 4 hours)
  - ☐ Immediately notifiable, urgent (within 24 hours)
  - ☒ Routinely notifiable
  - ☐ No longer notifiable
3. CSTE recommends that all States and Territories enact laws (statute or rule/regulation as appropriate) to make this disease or condition reportable in their jurisdiction. Jurisdictions (e.g. States and Territories) conducting surveillance (according to these methods) should submit case notifications\*\* to CDC.
4. Expectations for Message Mapping Guide (MMG) development for a newly notifiable condition: the National Notifiable Diseases Surveillance System (NNDSS) is transitioning to HL7-based messages for case notifications; the specifications for these messages are presented in MMGs. When CSTE recommends a new condition be made nationally notifiable, CDC must obtain Office of Management and Budget Paperwork Reduction Act (OMB PRA) approval prior to accepting case notifications for the new condition. Under anticipated timelines, notification using the Generic V2 MMG would support transmission of the basic demographic and epidemiologic information common to all cases and could begin with the new *MMWR* year following the CSTE annual conference. Input from CDC programs and CSTE would prioritize development of a disease-specific MMG for the new condition among other conditions waiting for MMGs.
5. CDC should publish data on chlamydia as appropriate (see Section IX).  
CSTE recommends the following case statuses be included in the CDC Print Criteria:
  - ☒ Confirmed
  - ☐ Probable
  - ☐ Suspect
  - ☐ Unknown
6. CSTE recommends that all jurisdictions (e.g. States, Localities, or Territories) with legal authority to conduct public health surveillance follow the recommended methods outlined in this recommendation and in the accompanying standardized surveillance position statement.

\*Reporting: process of a healthcare provider or other entity submitting a report (case information) of a condition under public health surveillance TO local, state, or territorial public health.

\*\* Notification: process of a local or state public health authority submitting a report (case information) of a condition on the *Nationally Notifiable Conditions List* to CDC.

#### **IV. Goals of Surveillance**

To provide information on the temporal, geographic, and demographic occurrence of infections caused by chlamydia to facilitate its prevention and control and to be able to distinguish between LGV and non-LGV infections of chlamydia.

#### **V. Methods for Surveillance: Surveillance for *C. trachomatis* infection should use the recommended sources of data and the extent of coverage listed in Table V.**

Surveillance for *C. trachomatis* infection cases 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 ascertainment of cases of *C. trachomatis* infection.**

Source of data for case ascertainment	Coverage	
	Population-wide	Sentinel sites
Clinician reporting	X	
Laboratory reporting	X	
Reporting by other entities, specify: hospitals and pharmacies	X	
Death certificates		
Hospital discharge or outpatient records	X	
Data from electronic medical records	X	
Telephone survey		
School-based survey		
Other, specify: N/A		

#### **VI. Criteria for case ascertainment**

##### **A. Narrative: A description of suggested criteria for case ascertainment of a specific condition.**

Report any illness to public health authorities that meets one or more of the laboratory findings.

*Other recommended reporting procedures:*

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

##### **A1. Clinical Criteria for Reporting**

N/A

##### **A2. Laboratory Criteria for Reporting**

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

##### **A3. Epidemiologic Linkage Criteria for Reporting**

N/A

##### **A4. Other Criteria for Reporting**

N/A

##### **B. Disease-specific data elements to be included in the initial report**

**Required:** age, sex, county, diagnosing facility type, anatomic site of infection, specimen collection date

**Preferred:** race/ethnicity, sex of sex partners, pregnancy status, HIV status, LGV (Y/N)

## **VII. Case Definition for Case Classification**

### **A. Narrative: Description of criteria to determine how a case should be classified.**

Chlamydia is a sexually transmitted infection that has a variable clinical course based on the serotype causing infection. Serovars D-K of *C. trachomatis* are the typical cause of chlamydial infections in the United States, and infection with *C. trachomatis* can result in urethritis, epididymitis, cervicitis, acute salpingitis, or other syndromes when sexually transmitted; however, the infection is often asymptomatic. Perinatal infections may result in inclusion conjunctivitis and pneumonia in newborns. Other syndromes caused by *C. trachomatis* include lymphogranuloma venereum (LGV) and trachoma.

LGV is a specific type of chlamydial infection, caused by the serovars L<sub>1</sub>, L<sub>2</sub>, and L<sub>3</sub> of *C. trachomatis*. Symptomatic LGV can be divided into three stages. The primary stage can include a small ulcer or lesion at the site of inoculation (genital, rectal, or oral/oropharyngeal sites). The secondary stage can include a syndrome featuring cervical, inguinal, and/or femoral lymphadenopathy that may rupture or an anorectal syndrome featuring proctocolitis (including mucoid or hemorrhagic rectal discharge, anal pain, constipation, fever, and/or tenesmus). Late stage LGV typically involves sequelae, such as genital elephantiasis, lymph node scarring, chronic colorectal fistulas and strictures, perirectal abscesses, and/or anal fissures. LGV may also be asymptomatic.

#### **A1. Clinical Criteria**

N/A

#### **A2. Laboratory Criteria**

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

#### **A3. Epidemiologic Linkage**

N/A

#### **A4. Case Classifications**

**Confirmed *C. trachomatis* infection:** A case that meets laboratory evidence.

**Probable:** N/A

**Suspect:** N/A

The following provides guidance for health departments to use for the classification and notification of cases of *C. trachomatis* infection caused by serovars L<sub>1</sub>, L<sub>2</sub>, and L<sub>3</sub> (also known as lymphogranuloma venereum, or LGV). Cases should be reported to the CDC through voluntary notification as *C. trachomatis* infection and should be marked as LGV in the CDC case report data, as defined below.

*Classification of *C. trachomatis* infection cases to identify LGV.*

*Verified: a person with detection of LGV-specific antigen or nucleic acid in a clinical specimen. This includes asymptomatic cases.*

*Likely: a person with demonstration of *C. trachomatis* in a clinical specimen by detection of antigen or nucleic acid OR isolation of *C. trachomatis* by culture; AND who demonstrates clinical symptoms or signs consistent with LGV; AND has no negative test for LGV-specific antigen or nucleic acid in a clinical specimen.*

**B. Criteria to distinguish a new case of this disease or condition from reports or notifications which should not be enumerated as a new case for surveillance**

For surveillance purposes, a new case of *C. trachomatis* infection (caused by either non-LGV or LGV serotypes) meets the following criteria:

- There is no evidence of a prior *C. trachomatis* infection that has been reported as a case;

**OR**

- There is evidence of a prior *C. trachomatis* infection that has been reported as a case, but the prior infection's specimen collection date or treatment date was >30 days before the current infection's specimen collection date;

**OR**

- There is evidence of a prior *C. trachomatis* infection that has been reported as a case with a specimen collection date or treatment date ≤30 days from the current infection's specimen collection date, but there is evidence of re-infection.

**VIII. Period of Surveillance**

Surveillance should be ongoing.

**IX. Data sharing/release and print criteria**

CSTE recommends the following case statuses\* be included in the 'case' count released outside of the public health agency:

- ☒ Confirmed
- ☐ Probable
- ☐ Suspect
- ☐ Unknown

\* Which case statuses are included in the case counts constitute the "print criteria."

Jurisdictions (e.g., States and Territories) conducting surveillance under this case definition can voluntarily submit de-identified case information to CDC, if requested and in a mutually agreed upon format.

Production of national data summaries and national data re-release for non-NNCs:

- Prior to release of national data summaries CDC should follow the CDC/ATSDR Policy on Releasing & Sharing Data, issued on April 16, 2003 and referenced in 11-SI-01 and custodians of such data should consult the CDC-CSTE Intergovernmental Data Release Guidelines Working Group report ([www.cste2.org/webpdfs/drgwgreport.pdf](http://www.cste2.org/webpdfs/drgwgreport.pdf)) which contains data release guidelines and procedures for CDC programs re-releasing state, local, or territorial-provided data.
- CDC programs have a responsibility, in collaboration with states, localities, and territories, to ensure that CDC program-specific data re-release procedures meet the needs of those responsible for protecting data in the states and territories.
- Notification to CDC of confirmed 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. Revision History

Position Statement ID	Section of Document	Revision Description
09-ID-08	Synopsis	Added need to update clinical and laboratory criteria to distinguish cases of LGV from other infections due to <i>C. trachomatis</i> .
09-ID-08	Statement of the Problem	Added LGV as an option to be reported within the chlamydia case definition. Added need to update clinical and laboratory criteria for LGV.
09-ID-08	Background and Justification	Updated to include more LGV-specific information.
09-ID-08	Criteria for Case Ascertainment	Updated clinical and laboratory criteria for reporting, as well as disease-specific data elements.
09-ID-08	Case Definition for Case Classification	Updated case definition to include a narrative section, updated laboratory criteria, additional information to be collected on reported cases of <i>C. trachomatis</i> to identify LGV and added criteria to distinguish a new case.
09-ID-08	Table VII	Updated clinical and laboratory evidence and added in criteria to distinguish a new case.

## XI. References

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3. 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>.
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## Technical Supplement

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

Criterion	<i>C. trachomatis</i> Infection
<b>Clinical Criteria for Reporting</b>	
N/A	
<b>Laboratory Criteria for Reporting</b>	
Demonstration of <i>C. trachomatis</i> in a clinical specimen by detection of antigen or nucleic acid	S
Detection of LGV-specific antigen or nucleic acid in a clinical specimen	S
Isolation of <i>C. trachomatis</i> by culture	S
<b>Epidemiological Linkage Criteria for Reporting</b>	
N/A	

Notes:

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

**Table VII. Classification Table: Criteria for defining a case of *C. trachomatis* infection\*.**

Criterion	<i>C. trachomatis</i> Infection Confirmed
<b>Clinical Evidence</b>	
N/A	
<b>Laboratory Evidence</b>	
Demonstration of <i>C. trachomatis</i> in a clinical specimen by detection of antigen or nucleic acid	S
Detection of LGV-specific antigen or nucleic acid in a clinical specimen	S
Isolation of <i>C. trachomatis</i> by culture	S
<b>Epidemiologic Linkage Evidence</b>	
N/A	
<b>Criteria to distinguish a new case:</b>	
There is no evidence of a prior <i>C. trachomatis</i> infection that has been reported as a case	O
There is evidence of a prior <i>C. trachomatis</i> infection that has been reported as a case, but the prior infection's specimen collection date or treatment date was >30 days from the current infection's specimen collection date	O
There is evidence of a prior <i>C. trachomatis</i> infection that has been reported as a case with a specimen collection date or treatment date ≤30 days from the current infection's specimen collection date, <u>but</u> there is evidence of re-infection	O

Notes:

S = This criterion alone is SUFFICIENT to classify a case.

O = At least one of these "O" (ONE OR MORE) criteria in **each category** (categories=clinical evidence, laboratory evidence, and epidemiologic evidence) **in the same column**—in conjunction with all "N" criteria in the same column—is required to classify a case. A number following an "O" indicates that this criterion is only required for a specific disease/condition subtype.

\*The following provides guidance for health departments to use for the classification and notification of cases of *C. trachomatis* infection caused by serovars L1, L2, and L3 (also known as lymphogranuloma venereum, or LGV). Cases should be reported to the CDC through voluntary notification as *C. trachomatis* infection and should be marked as either *verified* or *likely* LGV in the CDC case report data, as defined below.

*Verified: a person with detection of LGV-specific antigen or nucleic acid in a clinical specimen. This includes asymptomatic cases where symptoms are not present.*

*Likely: a person with demonstration of *C. trachomatis* in a clinical specimen by detection of antigen or nucleic acid OR isolation of *C. trachomatis* by culture; AND who also demonstrates clinical symptoms or signs consistent with LGV\*\*; AND has no negative test for LGV-specific antigen or nucleic acid in a clinical specimen.*

\*\*Symptomatic LGV can be divided into three stages. The primary stage can include a small ulcer or lesion at the site of inoculation (genital, rectal, or oral/oropharyngeal sites). The secondary stage can include a syndrome featuring cervical, inguinal, and/or femoral lymphadenopathy that may rupture or an anorectal syndrome featuring proctocolitis (including mucoid or hemorrhagic rectal discharge, anal pain, constipation, fever, and/or tenesmus). Late stage LGV typically involves sequelae, such as genital elephantiasis, lymph node scarring, chronic colorectal fistulas and strictures, perirectal abscesses, and/or anal fissures.