

Chlamydial Genital Infection

(*Chlamydia trachomatis*)

February 2003

1) THE DISEASE AND ITS EPIDEMIOLOGY

A. Etiologic Agent

Chlamydial genital infection (CGI) is caused by the obligate, intracellular bacterium *Chlamydia trachomatis* immunotypes D through K.

B. Clinical Description and Laboratory Diagnosis

A sexually transmitted genital infection that manifests in males primarily as urethritis and in females as mucopurulent cervicitis. Clinical manifestations are difficult to distinguish from gonorrhea. Males may present with a mucopurulent discharge of scanty to moderate quantity, urethral itching and dysuria. Asymptomatic infection may be found in 1%-25% of sexually active men. Possible complications include epididymitis, infertility and Reiter syndrome. Anorectal intercourse may result in chlamydial proctitis. Women frequently present with a mucopurulent endocervical discharge including edema, erythema and easily induced endocervical bleeding. However, most women with endocervical or urethral infections are asymptomatic. Possible complications include salpingitis with subsequent risk of infertility and ectopic pregnancy. Asymptomatic chronic infections of the endometrium and fallopian tubes may lead to the same outcomes. Less frequent manifestations include Bartholin's glanditis, urethral syndrome with dysuria and pyuria, perihepatitis (Fitz-Hugh-Curtis syndrome), and proctitis. Infection during pregnancy may result in premature rupture of membranes and preterm delivery and conjunctival and pneumonic infection of the newborn.

Laboratory diagnosis is based upon the identification of *Chlamydia* in intraurethral or endocervical smear by direct immunofluorescence test, enzyme immunoassay, DNA probe, and nucleic acid amplification test (NAAT) or cell culture. NAAT can be used with urine specimens.

C. Vectors and Reservoirs

Humans.

D. Modes of Transmission

By sexual contact and through perinatal exposure to the mother's infected cervix.

E. Incubation Period

The incubation period ranges from 1 to 5 weeks.

F. Period of Communicability or Infectious Period

Unknown.

G. Epidemiology

Chlamydial genital infection is distributed worldwide affecting both genders but especially affects sexually active adolescents and younger adults in the 15 to 24 year-old age group. In the United States the incidence is more frequent in African-Americans, Hispanics and Native Americans. In the year 2000, 10,814 cases of CGI were reported to the NJDHSS making it the most prevalent sexually transmitted disease in the state.

2) REPORTING CRITERIA AND LABORATORY TESTING SERVICES

A. NJDHSS Case Definition

CASE CLASSIFICATION

A. CONFIRMED

A case that is laboratory confirmed by:

- Isolation of *C. trachomatis* by culture, **OR**
- Demonstration of *C. trachomatis* (immunotype D through K) in a clinical specimen by detection of specific antigen or nucleic acid.

B. PROBABLE

Not used.

C. POSSIBLE

Not used.

B. Laboratory Testing Services Available

Laboratory testing for *C. trachomatis* is available on site at the Public Health and Environmental Laboratories (PHEL). For additional information on submitting samples, contact the PHEL at 609.292.7368.

3) DISEASE REPORTING AND CASE INVESTIGATION

A. Purpose of Surveillance and Reporting

- To identify the prevalence of CGI in New Jersey.
- To identify where CGI occurs in New Jersey.
- To recognize areas in New Jersey where CGI incidence has increased or decreased.
- To focus preventive education.

B. Laboratory and Healthcare Provider Reporting Requirements

The New Jersey Administrative Code (N.J.A.C. 8:57-1.8) stipulates that laboratories and health care providers report all cases of chlamydial genital infection **to the NJDHSS Sexually Transmitted Diseases Program** by telephone (609.588.7526), confidential fax (609.588.7462) or in writing using STD-11 form. The STD-11 form can be obtained from the Sexually Transmitted Diseases Program (at phone 609.588.7526).

C. Health Officer's Reporting and Follow-up Responsibilities

1. Reporting Requirements

Current requirements mandate that cases of chlamydial genital infection be reported to the NJDHSS Sexually Transmitted Diseases Program. The New Jersey Administrative Code (N.J.A.C. 8:57-1.4, 1.6) stipulates that positive tests for *Chlamydia* and/or cases of CGI as defined by the criteria in Section 2A, be reported directly to the NJDHSS Sexually Transmitted Diseases Program using the STD-11 form. Forms may be mailed or faxed 609.588.7462 to the STD Program. A local health officer who is notified of the existence of a case of CGI and/or a positive test for *C. trachomatis* shall forward a written report to the NJDHSS Sexually Transmitted Diseases Program.

The mailing address is:

NJDHSS
Division of Epidemiology, Environmental and Occupational Health

Sexually Transmitted Diseases Program
P.O.Box 369
Trenton, NJ 08625-0369

2. Case Investigation

Institution of disease control measures is an integral part of case investigation. It is the local health officer's responsibility to understand, and, if necessary, institute the control guidelines listed below in Section 4, "Controlling Further Spread."

4) CONTROLLING FURTHER SPREAD

A. Isolation and Quarantine Requirements

Minimum Period of Isolation of Patient

Patients should refrain from sexual intercourse until treatment is completed and refrain from sexual contact with recent sexual partners until they have been treated. If single dose therapy is administered, abstinence should be continued for an additional 7 days. Drainage/secretion precautions should be taken for hospitalized patients.

Minimum Period of Quarantine of Contacts

No restrictions.

B. Protection of Contacts of a Case

The following recommendations on exposure intervals are based on limited evaluation. Sex partners of patients who have *C. trachomatis* should be evaluated, tested and treated if they had sexual intercourse with the patient during the 60 days preceding onset of symptoms or diagnosis of infection in the patient. If a patient's last sexual intercourse was >60 days before onset of symptoms or diagnosis, the patient's most recent sex partner should be treated.

C. Managing Special Situations

None.

D. Preventive Measures

Personal Preventive Measures/Education

In general, the following preventive measures are applicable to all sexually transmitted diseases (STD):

- The patient should be strongly advised to avoid sexual contact while symptoms are present as they can be highly infectious.
- The patient should be strongly encouraged to ensure that their recent sexual partners (see Section B above) be tested and treated if necessary.
- The patient should be strongly advised to avoid high-risk sexual behaviors, wear condoms and avoid having multiple sexual partners.

ADDITIONAL INFORMATION

The CDC surveillance definition for chlamydial genital infection is the same as the criteria in Section 2 A of this chapter. CDC case definitions are used by state health departments and CDC to maintain uniform standards for national reporting. For reporting to the NJDHSS, always refer to the criteria in Section 2A.

REFERENCES

- CDC. Case Definitions for Infectious Conditions Under Public Health Surveillance. MMWR. 1997; 46:RR-10.
- CDC, Sexually Transmitted Diseases Treatment Guidelines 2002, MMWR 2002, 51:RR-6
- Chin, J., ed., Control of Communicable Diseases Manual, 17th Edition. Washington, DC, American Public Health Association, 2000.
- Grella, M, Chlamydia, eMedicine Journal January 2002; Volume 3, Number 1.
- Holmes, K., Sparling, P., et al, Sexually Transmitted Diseases, 3rd Edition, New York, NY, McGraw-Hill, 1999.
- Mandel, G., Bennett, J., Dolin, R., Principles and Practices of Infectious Diseases, Churchill Livingstone, 2000.