

CHLAMYDIAL INFECTION (GENITAL)

Disease Overview

Chlamydia is a common sexually transmitted infection (STI) caused by the bacterium *Chlamydia trachomatis*, of which there are several serovars. Serovars D through K are responsible for sexually acquired genital infections and perinatally transmitted infections of the neonate and infant. Other serovars are responsible for trachoma and lymphogranuloma venereum.

Symptoms

Most infections are asymptomatic (up to 50% of infected men and 70% of infected women).

Symptoms in females: Cervicitis, vaginal discharge, dysuria, lower abdominal pain, abnormal vaginal bleeding, dyspareunia, conjunctivitis, proctitis (commonly asymptomatic).

Complications and sequelae in females: Pelvic inflammatory disease, ectopic pregnancy, infertility, chronic pelvic pain, reiter syndrome. Infections during pregnancy may result in premature delivery, neonatal conjunctivitis or pneumonia in young infants. Co-infections with Gonorrhea are common.

Symptoms in males: Urethral discharge, urethritis, urethral itch, dysuria, testicular pain, conjunctivitis, proctitis (commonly asymptomatic).

Complications and sequelae in males: Epididymo-orchitis, Reiter syndrome. Co-infections with Gonorrhea are common.

Mode of Transmission

Primary mode of transmission is vaginal, anal and oral sexual contact.

Chlamydia can be passed from mother to child during childbirth after exposure of baby to the mother's infected cervix.

Incubation Period

Probably 7-14 days or longer.

Period of Communicability

Poorly defined and may be months to years. Individuals remain infectious until treated.

Risk Factors

Increased risk of acquiring and/or severe illness:

- Sexually active youth and young adults.
- Sexual contact with a chlamydia-infected person.
- A new sexual partner or more than two sexual partners in the past year.
- Previous sexually transmitted infections (STIs).
- Vulnerable populations (e.g., injection drug users, incarcerated individuals, sex trade workers, street youth etc.)

Screening of at-risk groups (as per risk factors listed above):

- Sexually active females under 25 years of age.
- Infected men under the age of 25 are a hidden reservoir for infections and re-infections of their partners.
- Pregnant women. All pregnant women should be screened at the first prenatal visit. For those who are positive or who are at high risk for reinfection, rescreening at third trimester is indicated.

Surveillance Case Definition

Confirmed case genital infection is laboratory evidence of infection in genitourinary specimens:

- detection of *C. trachomatis* by culture
- OR
- detection of *C. trachomatis* nucleic acid
- OR
- detection of *C. trachomatis* antigen

Confirmed case extra-genital infection is laboratory evidence of infection in rectum, conjunctiva, pharynx and other extra-genital sites:

- detection of *C. trachomatis* by culture
- OR
- detection of *C. trachomatis* nucleic acid
- OR
- detection of *C. trachomatis* antigen

Confirmed case perinatally acquired infection is laboratory evidence of infection:

- Detection and confirmation of *C. trachomatis* in nasopharyngeal or other respiratory tract specimens from an infant in whom pneumonia developed in the first six months of life (isolation of *C. trachomatis* by culture OR demonstration of *C. trachomatis* nucleic acid OR demonstration of *C. trachomatis* antigen)
- OR
- Detection and confirmation of *C. trachomatis* in conjunctival specimens from an infant who developed conjunctivitis in the first month of life (isolation of *C. trachomatis* by culture OR demonstration of *C. trachomatis* nucleic acid OR demonstration of *C. trachomatis* antigen).

Diagnosis and Laboratory Guidelines

The diagnosis of Chlamydia infection in New Brunswick is confirmed by Nucleic Acid Amplification Tests (NAAT) that detects the genetic material of bacteria in a specimen. NAAT can be used either

on genital swabs or on urine samples. Two kinds of NAAT are used in New Brunswick laboratories: polymerase chain reaction (PCR) and strand displacement amplification (SDA).

All regional laboratories perform NAAT testing for Chlamydia on urine and genital swab samples. Frequency of testing may vary from laboratory to laboratory.

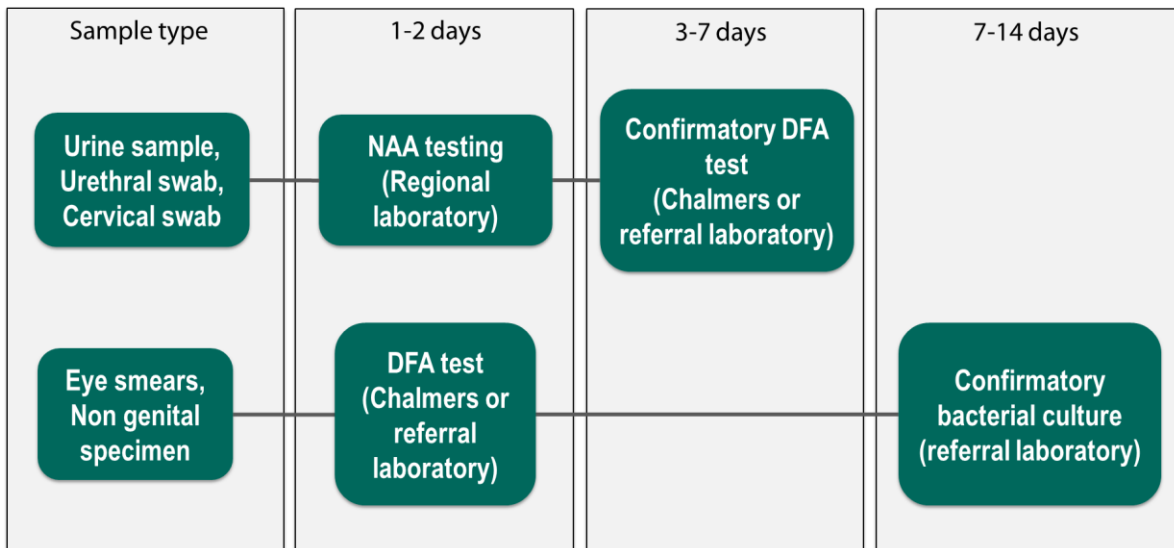
Confirmation is also by direct fluorescent antibody (DFA) tests that use an antibody specific against *C. trachomatis* coupled to a fluorescent molecule to detect the presence of the bacteria. This test is the standard test for all non-genital specimens, especially eye smears. The laboratory in Dr. Everett Chalmers hospital in Fredericton can perform DFA testing on eye smears.

Confirmation is also by a culture of the organism (usually throat specimens). Regional laboratories refer specimens to an external laboratory for culture.

Contact your laboratory for information on specimen collection and testing timelines.

Laboratory Testing

An overview of testing timelines for samples after the sample has been received by the laboratory. Turnaround times are averages and may change depending on the urgency of the situation.



Reporting

Per Policy 2.2 Disease and Event Notification to OCMOH and Disease and Event Reporting section.

- Routine Surveillance (RDSS) for all confirmed cases.

Case and Contact Management

Case and contact management, treatment and follow-up according to STBBI Introduction and recommended per the [Canadian Guidelines for Sexually Transmitted Infection](#).

Education

The case or relevant caregiver should be informed about:

- Nature of the infection, length of the communicable period, and mode of transmission

- Sexually Transmitted and Blood Borne Infections Precautions
- Safer Sex Practices
- Repeat screening of individuals with chlamydia infection after 6 months

Investigation

Complete the Chlamydia Enhanced Surveillance Form

Immunization

Consideration of immunization for other STI's such as HPV and Hepatitis B and Hepatitis A based on the New Brunswick Eligibility Criteria for Publicly Funded Vaccines/Biologics: [NBIPG-policy2-2-e.pdf \(gnb.ca\)](#)

Outbreak Management

Activate the local outbreak plan when an outbreak is declared.

Exclusion/ Social Distancing

Patients and contacts should abstain from unprotected intercourse until treatment of both partners is complete (i.e., after completion of a multiple-dose treatment or for 7 days after single-dose therapy). The length of abstinence from unprotected sexual intercourse should be discussed with the treating clinician.

Treatment

Treatment should be offered as per the [Canadian Guidelines for Sexually Transmitted Infection](#).