Alberta Public Health Disease Management Guidelines

Chlamydia

Alberta

Ministry of Health, Government of Alberta

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Chlamydia Public Health Disease Management Guidelines

https://open.alberta.ca/publications/chlamydia

For further information on the use of this protocol contact:

Health.CD@gov.ab.ca

Health and Wellness Promotion Branch

Public Health and Compliance Branch

Alberta Health

Case Definition

Confirmed case[A]

Genital and Extra-genital Infections

Laboratory evidence of *C. trachomatis* infection in genitourinary specimens[B] (e.g., endocervical, urethral, penile, or vaginal swab; urine) and/or rectum, conjunctiva, pharynx, or other extra-genital sites from appropriate specimen:

- Molecular detection of *C. trachomatis* (e.g. Nucleic Acid Amplification Testing (NAAT)).

Perinatally Acquired Infections

Laboratory evidence of *C. trachomatis* infection in nasopharyngeal or other respiratory tract specimens (e.g., nasopharyngeal swab, auger suction, tracheal aspirates, throat swab) or in urine from an infant who developed pneumonia in the first six months of life:

- Molecular detection of *C. trachomatis* (e.g. NAAT).

OR

Laboratory evidence of *C. trachomatis* in conjunctival specimens from an infant who developed conjunctivitis in the first month of life:

- Molecular detection of *C. trachomatis* (e.g. NAAT).

[A] Each case classification is mutually exclusive. Individuals with more than one site of infection concurrently may fall under more than one case classification but will be counted as one case with multiple sites of infection identified to avoid duplicate counting of cases.
[B] Refer to the Public Health Laboratories Guide to Services for current specimen collection and submission information.

Reporting Requirements

1. Physicians, Health Practitioners and Others (including First Nations and Inuit Health)

Physicians, health practitioners and others shall notify the Sexually Transmitted Infection (STI) Medical Director[C] via Sexually Transmitted Infection Centralized Services (STICS), of all confirmed cases within 48 hours (two business days) by forwarding a completed *Notification of Sexually Transmitted Infection* form available at: www.alberta.ca/notifiable-disease-guidelines.aspx

2. Laboratories

All laboratories shall report all positive laboratory results by mail, fax or electronic transfer within 48 hours (two business days) to the:

- STI Medical Director via STICS, and
- Chief Medical Officer of Health (CMOH) (or designate)

3. Alberta Health Services (STICS)

Contact Information:
Phone: 780-735-1466
Toll free: 1-888-535-1466
Fax:780-735-1195

- The STI Medical Director / STICS are responsible for ensuring investigation and follow-up of all reported confirmed cases.
- The STI Medical Director / STICS shall forward the initial *Notification of Sexually Transmitted Infection* form of all confirmed cases to the CMOH (or designate) within two weeks of notification and the final Notification of STI form within four weeks.
- For out-of-province and out-of-country reports, the following information (when available) should be forwarded to the CMOH (or designate) by phone, fax or secure/encrypted electronic transfer as soon as possible:
  - name,
  - date of birth,
  - out-of-province health care number,
  - out-of-province address and phone number,
  - positive laboratory report, and
  - other relevant clinical / epidemiological information.
- For out-of-province and out-of-country contacts the following information (when available) should be forwarded to the CMOH (or designate) as soon as possible:
  - name,
  - date of birth,
  - date of exposure, and
  - out-of-province / country contact information.

[C] The STI Medical Director is the Provincial Medical Director of Alberta Health Services' Sexually Transmitted Infection Centralized Services (STICS) and is also a Medical Officer of Health.

4. Additional Reporting Requirements for Physicians, Health Practitioners and Others

In all cases, where a person under 18 is suspected or confirmed to have an STI, an assessment should be carried out by the clinician to determine if additional reporting is required.

To Alberta Child and Family Services

- The clinician should determine whether there are reasonable and probable grounds to believe that they are in contact with "a child in need of intervention" (as per Section 1 of the *Child, Youth and Family Enhancement Act [CYFEA])* and shall report to a director pursuant to Section 4 of the *CYFEA*.(1)
- Reporting is done by contacting the local Child and Family Services office or calling the **CHILD ABUSE HOTLINE: 1-800-387-5437 (KIDS)**. For local office contact information see www.humanservices.alberta.ca/services-near-you/15010.html.

To Law Enforcement Agency

- Consent is a key factor in determining whether any form of sexual activity is a criminal offence. Children under 12 do not have the legal capacity to consent to any form of sexual activity. The law recognizes that the age of consent for sexual activity is 16. However, the law identifies the exception for minors between 12 and 16 years as having the ability to consent with someone close in are or within their own peer group.
- Reporting is done by contacting your local City Police Detachment or RCMP Detachment at www.rcmp-grc.gc.ca/detach/en/find/AB.

For additional information:

- Alberta Child, Youth and Family Enhancement Act at open.alberta.ca/publications/c12
- Age of Consent to Sexual Activity www.justice.gc.ca/eng/rp-pr/other-autre/clp/faq.html(2)
- The Canadian Criminal Code at www.laws-lois.justice.gc.ca/eng/acts/C-46/(3)

Epidemiology

Etiology

Chlamydia trachomatis is a bacterial agent (obligate intracellular parasite). Genital, extra-genital, and perinatal infections are generally caused by serovars A through K.[4]

Clinical Presentation

Genital Infections

Symptomatic and asymptomatic genital chlamydial infections occur, but the majority of infections are asymptomatic. Males are more likely to have symptoms than females. When symptoms occur, the spectrum of clinical manifestations is varied.

Symptomatic genital infection in males is generally characterized by urethritis including urethral discharge, dysuria and frequency, and non-specific symptoms such as redness, itch and swelling of the urethra. These symptoms, if untreated, can lead to complications including epididymitis, Reiter's Syndrome (oligoarthritis) and occasionally infertility.

Symptomatic females will most often experience cervical or vaginal discharge, dysuria and frequency, painful intercourse, lower abdominal pain, abnormal bleeding between periods, and vaginal symptoms including redness, itch and swelling. If untreated, complications such as ectopic pregnancy, infertility, PID (oophoritis, endometritis, salpingitis), and rarely Reiter's syndrome may occur. Up to 2/3 of cases of tubal-factor infertility and 1/3 of cases of ectopic pregnancy may be attributed to *C. trachomatis* infection.[4–6]

Extra-Genital Infections

Pharyngeal and rectal infections are often asymptomatic. Rectal symptoms, when present, include rectal pain (proctitis or proctocolitis), mucoid discharge, blood in the stool and tenesmus.[4]

Conjunctivitis in adults manifests with preauricular lymphadenopathy, hyperemia, infiltration and mucopurulent discharge. There may also be a chronic phase with discharge and symptoms which may last for a year or longer if untreated.[6]

Perinatally Acquired Infections

Conjunctivitis symptoms usually appear between 7 and 21 days post-natally, often starting as a mucoid discharge and progressing to a more purulent discharge. The eyelids become edematous and the conjunctiva becomes erythematous and thick. Symptoms of infant pneumonia include staccato cough, dyspnea, and a low-grade fever. Infants usually become symptomatic between 10 days and 5 months of age.[7]

Reservoir

Humans are the only known reservoir.[5]

Transmission

Transmission of *C. trachomatis* is person-to-person via sexual contact (oral, vaginal, or anal sex), or through the birth process (vertical transmission). The transmission is more efficient male to female than female to male. The bacteria may also spread from the primary site of the case to other sites causing infection of the uterus, fallopian tubes, ovaries, abdominal cavity, glands of the vulva area in females and testes in males. The eyes of adults may become infected through the transmission of the infected genital secretions to the eye, typically by the fingers. Newborns become infected by direct contact with an infected birth canal.[5–7]

Incubation Period

The incubation period is variable depending upon the type/site of infection. It is commonly 7–14 days, but can be as long as six weeks.

Period of Communicability

Chlamydia trachomatis is communicable for as long as the person harbours the organism. This may be for many months in untreated individuals.[8]

Host Susceptibility

All persons are susceptible to this disease if exposed. No acquired immunity has been demonstrated and, in fact, it has been demonstrated that the recurrent infection rate among young sexually active individuals is quite high.

Incidence

Genital chlamydia became reportable in Alberta in 1989. It remains the most frequently reported STI in Alberta, diagnosed more often in females than males.

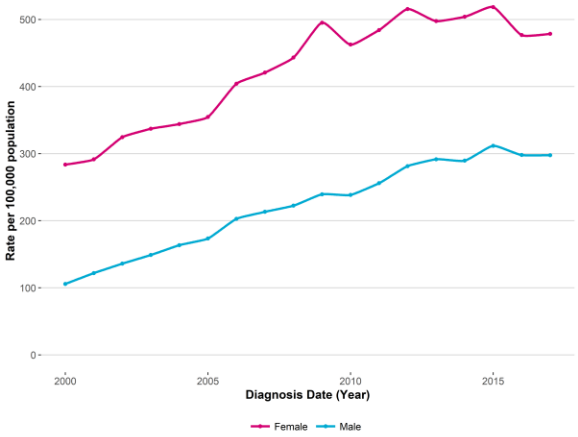

Figure 1 Annual Chlamydia rates in Alberta by sex

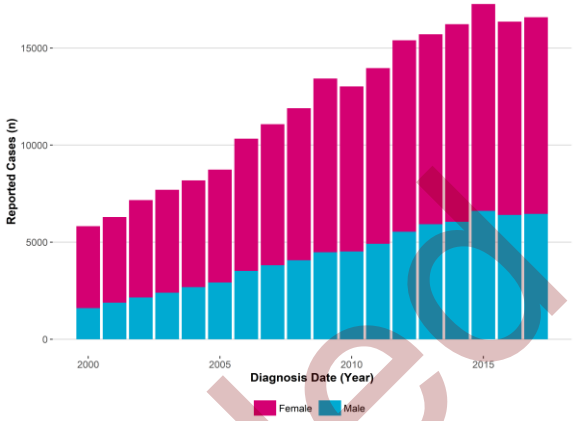

Figure 2 Annual Chlamydia case numbers in Alberta by sex

See the Interactive Health Data Application here for more information.

Public Health Management

Diagnosis

Diagnosis is made based on history, physical examination, and laboratory investigation. The diagnosis is confirmed by examination of genitourinary, rectal, pharyngeal, or conjunctival samples by molecular diagnostic tests.
In infants under six months of age, the specimen is generally taken from the nasopharynx or the respiratory tract. The organisms are less easily recovered from discharge.

Key Investigation

Single Case

The diagnosis and treatment is performed by community Health Care Providers.

- Determine the presence or absence of symptoms.
- Determine if behaviors that increase risk for chlamydia are present;
  - sexual contact with chlamydia infected person(s),
  - new sexual partner or more than two sexual partners in preceding year,
  - previous STI,
  - vulnerable populations (e.g., injection drug use, incarcerated individuals, people involved in exchanging goods for sex, street involved youth, etc.).
- Offer testing for HIV and other STI.
- Counsel and identify partners, including locating information.

Management of a Case

- Test of cure for *C. trachomatis* is not routinely recommended for genital infections when treatment according to guidelines is taken, signs and symptoms disappear, and there is no re-exposure to an untreated partner.
- Test of cure is recommended when:
  - compliance is sub-optimal,
  - an alternative treatment regimen has been used,
  - the patient is a child (<14 years of age),
  - the patient is a pregnant woman,
  - non-genital site involved (e.g., eye, rectum, pharynx),
  - cases involve complicated infection (PID or epididymitis).
- A NAAT is performed (3–4 weeks after completion of treatment).
- Empirical co-treatment for gonorrhea is recommended in areas of high gonococcal disease prevalence, prior to test results becoming available.
- Repeat testing for all individuals with chlamydia infections is recommended 6 months post-treatment.
- All cases should be instructed about infection transmission. Patients should be counseled about the importance of abstaining from unprotected intercourse until 7 days after completion of treatment by both case and partner(s).
- All cases should be provided with individualized STI prevention education, targeted at developing knowledge, skills, attitudes and behaviors to reduce the risk and prevent recurrences of STI.
- To obtain the phone number for your designated **Partner Notification Nurse,** or for advice on management of your case**,** call **STICS** at **780-735-1466 or toll free 1-888-535-1466.**
- Sexual assault in adults should be managed in conjunction with local Sexual Assault services and other appropriate community support services.
- Immunization against hepatitis A, B, and HPV may be recommended. Refer *to Alberta Immunization Policy* for immunization eligibility.
- All patients with a notifiable STI qualify for provincially funded medications.
  - STICS will send replacement medication upon receipt of a Notification of STI Form when the Health Care Provider mailing address is indicated on the form.
  - Healthcare Providers may order additional quantities of most medications by contacting STICS.
- Recalcitrant Patients
  - The *Public Health Act* (sections 39 through 52) authorizes detention of recalcitrant patients for medical examination, treatment and/or counselling.
  - The CMOH [or designate (section 13(3) of the *Public Health Act*)] or MOH may issue a certificate to detain an individual who is believed to be infected and refuses or neglects to comply with treatment.
  - There must be proof of infection, or contact with an infected person and documentation of failure to comply with prescribed treatment and medical examination, or non-compliance for testing and/or treatment.

Treatment of a Case

Indications for Treatment:

- positive diagnostic test result,
- diagnosis of a syndrome compatible with a chlamydial infection, without waiting for test result,
- partner with a positive chlamydia test result or diagnosis of a syndrome compatible with a chlamydial infection in a partner without waiting for test results

Refer to the current *Alberta treatment guidelines for sexually transmitted infections (STI) in adolescents and adults*

Considerations

- If vomiting occurs > 1 hour post administration of azithromycin, a repeat dose is not required.
- Doxycycline is contraindicated in pregnant women.

Pediatric Cases

- When a case is diagnosed in an infant, the mother and her sexual partner(s) should be examined and tested.
- It is recommended that all children < 14 years of age be referred to a pediatrician and, because of the high risk of sexual abuse (excepting those < 1 month of age with a conjunctivitis or < 6 months of age with pneumonia), be managed in consultation with a referral centre in either:

Edmonton:
Child and Adolescent Protection Centre,
Stollery Children's Hospital, 1C4.24
Walter Mackenzie Health Sciences Centre
8440-112 Street
Edmonton, AB T6G 2B7
Tel: 780-407-1240

OR

Calgary:
Child Abuse Service
Child Development Centre
Suite 200, 3820-24 Ave NW
Calgary, Alberta, T2N 1N4
Tel: 403-955-5959

Management of Contacts

Partner Notification

- Partner notification will identify those at risk, reduce disease transmission/re-infection and ultimately prevent disease sequelae.
- **It is mandated under the *Communicable Disease Regulation* that every attempt is made to identify, locate, examine and treat partners/contacts of all cases**.
- Healthcare Providers are required to provide partner names and locating information on the Notification of STI Form and forward to STICS.
- If testing and/or treatment of partner(s) are not confirmed on the Notification of STI Form, STICS will initiate follow up by a Partner Notification Nurse (PNN).
  - PNNs are specially trained to conduct notification of partners and contacts in a confidential manner that protects the identity of the index case.
  - **The phone number for your designated PNN is available by calling STICS at 780-735-1466 or toll free 1-888-535-1466.**
- All contacts should be:
  - screened for HIV and other STI.
  - instructed about infection transmission.
  - provided with individualized STI prevention education, targeted at developing knowledge, skills, attitudes and behaviors to reduce the risk and prevent recurrences of STI.
- STICS will follow-up on any incoming referrals of cases and partner(s) from all out of province/country referrals.

Preventive Measures

- Ensure appropriate treatment of *C. trachomatis* for cases.
- Interview case, identify and ensure appropriate treatment and follow-up of *C. trachomatis* for sexual partner(s).
- Include information about risk for STI during pre-travel health counseling.
- Ensure STI care is culturally appropriate, inclusive, readily accessible, and acceptable.
- Educate the case, sexual partners, and the public on methods of personal protective measures, in particular the correct and consistent use of condoms and discuss safer sex options including:
  - delaying onset of sexual activity,
  - developing mutually monogamous relationships,
  - reducing the numbers of sexual partners,
  - discouraging behaviors associated with the acquisition and transmission of STI.

Screening

- Individuals with risk factors for chlamydia infections: sexual contact with chlamydia infected person(s), new sexual partner or more than 2 sexual partners in preceding year, previous STI, vulnerable populations (e.g., IDU, incarcerated individuals, exchange of goods/money for sex, street involved youth, etc.).
- All sexually active persons under 25 years of age, at least annually.
- All pregnant women. See *Alberta Prenatal Screening Guidelines for Select Communicable Diseases*.
- Women prior to insertion of an IUD, a therapeutic abortion, or a dilation and curettage (D & C).
- Victims of sexual assault.

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Guideline Revision History

Revision Date	Document Section	Description of Revision
December 2019	Complete Document	• Updated references where available • adjusted wording for clarity and conciseness
	Case Definition	• Updated testing to reflect current lab practice
	Reporting Requirements	• Adjustment of reporting structure to reflect AHS STICS role
	Epidemiology	• Link to IHDA added
	Management of a Case	• Repeat testing clinical direction • Partner Notification Nurses contact information
	Treatment of a Case	• Removal of specific treatment recommendations • Link to Alberta STI Treatment Guidelines
	Preventive Measures	• Modernization of safer sex education
	Screening	• Link to Alberta Prenatal Screening Guidelines