

## Chlamydia (Chlamydia trachomatis) Infection



Public Health Branch

### Table of Contents

Abbreviations .....	iii
Summary of Updates.....	iv
1. Etiology and Background.....	1
2. Case Definitions .....	1
2.1 Laboratory Confirmed Case – Genital Infections .....	1
2.2 Laboratory Confirmed Case – Extra-genital Infections: .....	1
2.3 Laboratory Confirmed Case – Perinatally Acquired Infections.....	2
3. Reporting and Other Requirements.....	2
3.1 Laboratory .....	2
3.2 Health Care Providers .....	2
4. Epidemiology .....	3
4.1 Reservoir .....	3
4.2 Transmission .....	3
4.3 Epidemiological Information on Infection.....	4
4.4 Incubation.....	4
4.5 Host Susceptibility and Resistance: .....	4
4.6 Period of Communicability:.....	4
5. Clinical Presentation and Natural History.....	4
5.1 Infection in Children .....	5
5.2 Infection in Pregnancy and Neonates.....	5
5.3 Interrelationship between Chlamydia and HIV.....	5
6. Testing and Diagnosis .....	5
6.1 Adult Genital Infections.....	7
6.2 Adult Extra-genital Infections.....	7
6.3 Testing in Prepubertal Children .....	8

6.4	Testing in Newborns .....	8
7.	Control and Prevention.....	8
7.1	Preventive Measures .....	8
7.2	Doxycycline Post-Exposure Prophylaxis.....	8
7.3	Management of Cases .....	9
7.4	Management of Contacts.....	14
7.5	Cluster and Outbreak Management.....	15
8.	Key Investigation Components for Public Health Response .....	15
8.1	Public Health Case Follow-up .....	15
8.2	Public Health Contact Follow-up.....	17
9.	Documentation Guidelines and Resources.....	18
10.	Additional Resources .....	22
11.	References.....	24

## **Tables**

Table 1 – Recommended treatment for uncomplicated urethral, endocervical, rectal, pharyngeal and conjunctival chlamydia infection.....	12
Table 2 – Timelines for Documenting Chlamydia Cases in PHIMS.....	20
Table 3 –Timelines for Documenting Chlamydia Contacts in PHIMS .....	21

## Abbreviations

CPL	Cadham Provincial Laboratory
DoxyPEP	Doxycycline post-exposure prophylaxis
gbMSM	Gay, bisexual and other men who have sex with men
HIV	Human immunodeficiency virus
LGV	Lymphogranuloma venereum
MHSLTC	Manitoba Health, Seniors and Long-Term Care
MHSU	Manitoba Health Surveillance Unit
NAAT	Nucleic acid amplification test
PEP	Post exposure prophylaxis
PHAC	Public Health Agency of Canada
PHIMS	Public Health Information Management System
PHN	Public Health Nurse
PID	Pelvic inflammatory disease
PrEP	Pre exposure prophylaxis
STBBI	Sexually transmitted and bloodborne infections
STI	Sexually transmitted infections

## Summary of Updates

### November 2025

The 2025 update of the Chlamydia Infection Protocol resulted in significant changes from the previous version (2019). Amendments that may result in a change in practice:

- Section 3 – Reporting and Other Requirements: The Provider Report Form for STBBI and STI Treatment, located at [Case Form | Notification of Sexually-Transmitted Infections \(gov.mb.ca\)](#) is now used for reporting chlamydia cases, contacts, and treatment for suspect cases.
- Sections 6 –Updated recommendations for prenatal screening, including third trimester, for *Chlamydia trachomatis* and *Neisseria gonorrhoeae* in accordance with the Public Health Agency of Canada, National Advisory Committee recommendations.
- Section 7 – Information included on doxycycline post exposure prophylaxis (doxyPEP) and updated guidance on management of perinatally exposed neonates.
- Sections 8 and 9 provide guidance for the completion of case and contact investigations reported to regional public health teams.

## 1. Etiology and Background

*Chlamydia trachomatis* (*C. trachomatis*) is an obligate intracellular bacterial agent that infects mainly ocular and genitourinary epithelium. (1) There are at least 15 serologic variants (serovars), including the oculogenital serovars A – K and the lymphogranuloma venereum (LGV) serovars L1, L2, and L3. Genital and perinatal infections are generally caused by serovars B and D through K, and trachoma is usually caused by serovars A through C. (1)

Management of LGV serovars are excluded from this protocol but are covered in the Manitoba Health, Seniors and Long-Term Care (MHS LTC) LGV protocol (listed in the Communicable Disease Management Protocols webpage at <https://www.gov.mb.ca/health/publichealth/cdc/protocol/index.html>).

Trachoma (a type of chronic recurrent infection of the eye), although rare in North America is transmitted through ocular discharge and is generally confined to under-served populations in resource-limited nations in Africa, Asia, Latin America, the Middle East, and Pacific Islands. (1) Management of trachoma is excluded from this protocol.

## 2. Case Definitions

### 2.1 Laboratory Confirmed Case – Genital Infections

Laboratory evidence of infection in genitourinary specimens:

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

### 2.2 Laboratory Confirmed Case – Extra-genital Infections:

Laboratory evidence of infection in rectum, conjunctiva, pharynx, and other extra-genital sites:

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

## 2.3 Laboratory Confirmed Case – Perinatally Acquired Infections

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

or

- Detection and confirmation of *C. trachomatis* in conjunctival specimens from an infant who developed conjunctivitis in the first month of life:
  - detection of *C. trachomatis* nucleic acid
  - or
  - detection of *C. trachomatis* antigen
  - or
  - detection of *C. trachomatis* by culture (2)

NOTE: Culture of *C. trachomatis* is not performed for diagnostic purposes by Cadham Provincial Laboratory (CPL), nor is antigen detection.

## 3. Reporting and Other Requirements

### 3.1 Laboratory

All positive laboratory results for *C. trachomatis* are reportable to MHSU by secure fax to 204-948-3044 or established electronic interface.

### 3.2 Health Care Providers

Health care providers are required to complete the [Provider Report Form for Sexually Transmitted and Bloodborne Infections \(STBBI\) and STI Treatment \(MHSU-6781\)](#) (found on MHSU's [Surveillance Forms webpage](#)). Forms must be completed and returned to the MHSU by secure fax to 204-948-3044 within five business days of case interview. The form should be used:

- to report all laboratory confirmed chlamydia cases (as well as other reportable STBBI) and all identified contacts as elicited from the case,
- to report any STI medications administered, including those provided based on clinical indications prior to a diagnosis being confirmed (i.e. contacts of cases or individuals with clinical signs),
- to report any updates to STI treatment previously reported, and
- to provide updated case and contact information if laboratory confirmation occurs after treatment is reported.

Completion and submission of the form for administered STI treatments enables entry of STI treatment information in the Public Health Information System (PHIMS), which serves as the provincial repository for STI treatment information. STI treatment information flows from PHIMS into Manitoba eChart to ensure treatment records are accessible to all health care providers. For additional information on completing this form to report STI treatment, cases, or contacts, see the [Form Specific Guidance](#).

## 4. Epidemiology

### 4.1 Reservoir

Humans are the only reservoir for *C. trachomatis*. (1) A significant proportion of infected individuals are asymptomatic, providing an ongoing reservoir for transmission. (1)

### 4.2 Transmission

Transmission of *C. trachomatis* generally occurs through unprotected sexual contact with the penis, vagina, mouth, or anus of an infected person. (1)

#### 4.2.1 Perinatal Vertical Transmission (Mother/Birthing Parent to Child)

Oculogenital serovars of *C. trachomatis* can be perinatally transmitted from infected mothers/birthing parents to neonates during birth, with the nasopharynx the most common site of neonate infection. (1) Acquisition occurs in approximately 50% of infants born vaginally to infected birthing parents and in some infants born by caesarean delivery with membranes intact (1), resulting in 25-50% risk of conjunctivitis, and 5-30% risk of pneumonia. Asymptomatic infection of the newborn nasopharynx, conjunctivae, vagina, and rectum can be acquired at birth. (1)

## 4.3 Epidemiological Information on Infection

### 4.3.1 World

Current global *C. trachomatis* epidemiology is available at the [World Health Organization Global Health Observatory](#) Indicators for Sexually Transmitted Infections. (3)

### 4.3.2 Canada

*C. trachomatis* is the most common of the reportable sexually transmitted infections (STI) in Canada. (4) Current national *C. trachomatis* epidemiology is available from the Government of Canada's [Diseases and Conditions Publications](#) webpage. (4)

### 4.3.3 Manitoba

Current provincial epidemiology is available at the Government of Manitoba [Sexually Transmitted and Blood-Borne Infections \(STBBI\) Surveillance Report | Health | Province of Manitoba \(gov.mb.ca\)](#). Manitoba rates consistently exceed the Canadian average. (5)

## 4.4 Incubation

The incubation period (time from exposure to symptoms) is poorly defined and is believed to be usually less than one week but can be 14 days or longer. (1, 6) Note that a large proportion of infections are asymptomatic. Neonatal conjunctivitis develops a few days to several weeks after birth. Pneumonia in perinatally exposed young infants typically occurs at one to three months of age. (1)

## 4.5 Host Susceptibility and Resistance:

All people are considered susceptible to *C. trachomatis* infection if exposed. (1) Population prevalence patterns suggest that natural infection and spontaneous clearance of *C. trachomatis* appears to confer partial and time-limited protection against reinfection, although the mechanism is not well understood. (7)

## 4.6 Period of Communicability:

Infected individuals are presumed to be infectious, regardless of symptoms. Infectivity ceases rapidly after effective antibiotic treatment, typically within seven days. Without treatment, infectivity can persist for months to years. While many infections will self-resolve, some do not. (1)

## 5. Clinical Presentation and Natural History

*Chlamydia trachomatis* most commonly results in genitourinary infection but also causes rectal and oropharyngeal infections. (1) Asymptomatic infection is more common than symptomatic infection in

adults. (8) Symptoms of uncomplicated genitourinary chlamydial infection may include abnormal vaginal discharge, and post-coital and intermenstrual bleeding or penile discharge and dysuria, sometimes accompanied by testicular pain. (1,9) Rectal infection can occur in individuals who engage in receptive anal intercourse but may be acquired through other means (such as cross-over infection from another site). Rectal infection can manifest as proctocolitis, rectal discharge, rectal pain, or blood in the stool, but is asymptomatic in most cases. (1,9) Pharyngeal infection is usually asymptomatic, and conjunctivitis can occur in adults but is generally mild and is usually the result of autoinoculation from anogenital infection. (8,9) Complications include pelvic inflammatory disease, endometritis, cervicitis, salpingitis, tubal infertility, ectopic pregnancy, epididymo-orchitis and reactive arthritis. (1) The natural history is not well defined but many infections resolve without treatment, while others persist for months to years. Reinfection is common. (1)

## 5.1 Infection in Children

Prepubertal children may have conjunctival, vaginal, urethral or rectal infection. (1) Asymptomatic infection of the nasopharynx, conjunctivae, vagina and rectum can be acquired at birth and can persist for up to three years. (1)

## 5.2 Infection in Pregnancy and Neonates

Infection during pregnancy is associated with pre-term birth, low birth weight, and neonatal conjunctivitis, nasopharyngeal infection and pneumonia. (1)

Initial *C. trachomatis* neonatal infection involves the mucous membranes of the eye, oropharynx, urogenital tract, and rectum, although infection might be asymptomatic in these locations. (1) Neonatal conjunctivitis presents with ocular congestion, edema, and discharge and develops a few days to several weeks after infection acquired at birth. (1) *C. trachomatis* can also cause subacute, afebrile pneumonia, usually one to three months after birth. (1)

## 5.3 Interrelationship between Chlamydia and HIV

STI have been found to affect the sexual transmission of HIV. For people living with HIV, chlamydial infection may increase the amount of HIV in bodily fluids/genital secretions and may increase the chance of HIV transmission to sex partners. STI increase susceptibility to HIV by a factor of two to four and the infectiousness by two to three times. (10)

# 6. Testing and Diagnosis

## Testing and Early Detection

Manitoba has testing recommendations inclusive of all STBBI. Getting tested for STBBI is an important part of routine healthcare.

Generalized STBBI testing recommendations:

- All people who are sexually active should get tested for all STBBI as part of routine medical care.
- All people who have new, multiple or anonymous sexual partners (or whose sexual partner has new, multiple or anonymous sexual partners), should be tested every 3 to 6 months.
- All people who inject drugs or share drug use equipment (or whose sexual partner injects drugs/ shares drug use equipment), should be tested every 3 to 6 months.
- Pregnant people should be tested at least 3 times during pregnancy.
- Anyone who has symptoms of a STBBI or may have been exposed to someone who has a STBBI should be tested as soon as possible.

Refer to the Manitoba STBBI testing website (<https://www.gov.mb.ca/health/publichealth/cdc/sti/stbbi-testing.html>) for the most up-to-date information.

In addition to the generalized guidance above, the Public Health Agency of Canada (PHAC) recommends (9, 11) targeted screening for chlamydia in the following populations:

- *Sexually active adults and adolescents under the age of 30*
  - Screen annually
- *All sexually active individuals based on risk factors or repeat screening*
  - For example, history of or concurrent STBBI; new, multiple, or anonymous sex partners
  - Screen every 3- 6 months
- *High prevalence groups or communities*

Consider screening more frequently (i.e. every 3-6 months) amongst populations or communities experiencing high prevalence of chlamydia. This could include, for example, particular geographic areas, people who are or who have been incarcerated or people who use substances.
- *Pregnant people*
  - Screening during the first trimester or at the first prenatal visit.
  - Screening again during the third trimester.
  - Screening at the time of labour in any of the following situations:
    - No prenatal screening has occurred (no valid results available at the time of labour).
    - Third trimester screening has not occurred.
    - A positive test for gonorrhoea or chlamydia was obtained during pregnancy without appropriate follow up, including treatment and a test-of-cure.
- *Neonates*

Newborns born to birthing parents with untreated chlamydia infection at the time of delivery. However, other sources recommend monitoring the newborn and testing only if the newborn is symptomatic (1, 12). See [Section 7.4.2 Neonatal Contacts](#)

## Diagnosis

Diagnosis is based on a combination of history, physical examination and laboratory investigation. A diagnosis of chlamydia should be considered in anyone with signs or symptoms and exposure history compatible with chlamydia.

In Manitoba, Cadham Provincial Laboratory (CPL) performs Nucleic Acid Amplification Testing (NAAT) for both chlamydia and gonorrhoea on specimens from urine, genital (e.g., urethral and endocervical) swabs and extragenital (e.g., rectal, throat, eye) swabs. NAAT is the only method routinely available for detection of *C. trachomatis*. Consult the CPL Guide to Services for information on specimen collection, processing, and testing <https://healthproviders.sharedhealthmb.ca/files/guide-to-services.pdf>

CPL is currently the sole laboratory provider of NAAT diagnostic and screening services in Manitoba for chlamydia and gonorrhoea. NAAT results are acceptable for medico-legal purposes in Manitoba for diagnosis of chlamydia. Culture of *C. trachomatis* and antigen testing are not performed by CPL for diagnostic purposes. In rare circumstances, specimens may be sent to the National Microbiological Laboratory or another external reference laboratory for additional testing.

### 6.1 Adult Genital Infections

**Adult Urine:** First void urine is the preferred specimen for males/people with a penis and it is the only recommended specimen for females/people with a vagina, who do not have a cervix (e.g., due to hysterectomy or gender reassignment surgery) or when a complete genital examination is not possible or declined. Ideally, the person should not have voided for at least one hour prior to urine specimen collection. More recent voiding does not preclude testing. Refer to the manufacturer's instructions and the [CPL Guide to Services](#) for specimen collection and handling.

**Adult Urethral and Endocervical Swab Specimens:** Ideally, the person should not have voided for at least one hour prior to urethral swab specimen collection. More recent voiding does not preclude testing. Refer to the manufacturer's instructions and the [CPL Guide to Services](#) for specimen collection and handling.

### 6.2 Adult Extra-genital Infections

Extragenital testing may be appropriate for individuals who have engaged in oral sex, anal sex or have ophthalmalgia. Throat, rectal and eye samples for chlamydia testing should be collected as per the CPL Guide to Services. When submitting swabs, please indicate the specimen source in the "Specimen Source" box on the CPL General Requisition.

## 6.3 Testing in Prepubertal Children

For suspected genital infection in children, first void urine (not midstream) should be collected and tested by NAAT. Urethral or vaginal swabs are not recommended for testing in prepubertal children but will be processed at CPL if received. Urethral or vaginal swabs should be completed only after discussion with the Children’s Protection Centre. Indicate boldly on the requisition that the specimens are from young children (i.e., under 12 years of age).

NOTE: If a urine or discharge specimen tests positive for chlamydia, further testing is indicated. Refer to Section 8.1 under Children for management.

## 6.4 Testing in Newborns

Pulmonary, tracheal secretions and nasopharyngeal swabs or aspirates can be submitted. Swabs from the eye may also be appropriate if the infant has ophthalmalgia. If unsure of procedure, please phone the [CPL](#) for advice. Also see [Section 7.4.2 Neonatal Contacts](#)

## 7. Control and Prevention

### 7.1 Preventive Measures

Provide instruction and encouragement for the practice of safer sex, and direction to or provision of resources such as internal and external condoms.

#### 7.1.1 Screening and Early Detection

Offering routine STBBI screening is an important strategy for normalizing sexual health care, reducing stigma and creating opportunities to discuss risk reduction strategies. (11) See Section 6 for detailed guidance on when to offer screening.

Prenatal screening and treatment of pregnant women is the best method for preventing chlamydial infection among neonates. (11,12)

To prevent re-infection, cases and their contacts should refrain from sexual intercourse until one week after completion of the full treatment regimen (i.e. one week after completion of single dose treatment or one week after completion of a longer antimicrobial regimen). (9)

### 7.2 Doxycycline Post-Exposure Prophylaxis

Doxycycline post-exposure prophylaxis (doxyPEP) is an off-label use of doxycycline that may reduce the risk of bacterial STI acquisition among gbMSM and transgender women at increased risk for STI. The client is prescribed doxycycline and instructed to take 200 mg as soon as possible (up to 72 hours) after they have a condomless sexual encounter. (13)

DoxyPEP is most effective at preventing syphilis and chlamydia but may provide some protection against gonorrhoea depending on the local antibiotic susceptibility of gonorrhoea. Doxycycline does not help to prevent viral STI such as HIV, hepatitis B, herpes, or human papillomavirus (HPV). However, for people living with HIV who are at risk for STI, doxyPEP may prevent bacterial STI that can potentiate HIV transmission. (13)

There is no evidence supporting the use of doxyPEP by cisgender women. Further studies are required to determine the broad impact of doxyPEP on antimicrobial resistance. (13)

There are currently no national guidelines on the use of doxycycline as STI prophylaxis. DoxyPEP is not currently available through the Manitoba STI Medication Program/Order Form and would require a prescription from a health care provider.

If prescribed, doxyPEP should be implemented as part of comprehensive sexual health services, including regular (every 3 months) STI screening, and HIV pre-exposure prophylaxis (PrEP)/HIV treatment when relevant. For more information on doxyPEP see [Additional Resources](#).

### 7.3 Management of Cases

Priorities for case management include appropriate treatment, risk assessment, discussion about contacts, history of exposure and education on prevention (including safer sex practices).

Serologic testing for syphilis, HIV (10) and hepatitis B and C is recommended if status is unknown.

Lymphogranuloma venereum (LGV) testing should be considered for gbMSM who present with consistent signs/symptoms (e.g. proctitis and/or marked inguinal or femoral lymphadenopathy or buboes) and/or if their history suggests exposure. Refer to the MHS LTC LGV protocol (listed in the Communicable Disease Management Protocols [webpage](#)). Genotyping of positive specimens for *C. trachomatis* is necessary for a definitive diagnosis of LGV.

Offer vaccination for other STBBI according to eligibility. See Manitoba Eligibility Criteria for Publicly Funded Vaccines <https://www.gov.mb.ca/health/publichealth/cdc/vaccineeligibility.html>

- Hepatitis B immunization is recommended for individuals who are not already immune and who meet the eligibility criteria.
- Hepatitis A virus (HAV) immunization is recommended for gbMSM, people who use illicit drugs, people living with HIV, people with chronic HBV or HCV infection, and people with high-risk medical conditions (see eligibility).
- Human papillomavirus (HPV) vaccine should be recommended to eligible individuals.
- Mpox immunization should be recommended to eligible individuals. See <https://www.gov.mb.ca/health/publichealth/diseases/mpox>

Consider and discuss HIV PrEP for eligible clients. See Eligibility Criteria and Clinical Guidance for Manitoba HIV Pre Exposure Prophylaxis ([gov.mb.ca](http://gov.mb.ca))

[https://www.gov.mb.ca/health/publichealth/cdc/docs/prep\\_eligibility\\_criteria.pdf](https://www.gov.mb.ca/health/publichealth/cdc/docs/prep_eligibility_criteria.pdf)

Education to prevent re-infection should be provided including (11, 15):

- The risk of reinfection;
- The need for the index case and their sex partner(s) to abstain from unprotected sex until at least 7 days after completion of treatment and the case/contact(s) are asymptomatic (i.e., signs and symptoms have resolved);
- Barrier methods of contraception; and
- Risks associated with various sex activities and ways to reduce the risk of acquiring sexually transmitted infections (STIs).

Case interviews for contact identification should occur as soon as possible, preferably within 5 working days of receiving the confirmed lab report. Repeat testing in all individuals with *C. trachomatis* infection is recommended three months post-treatment, as reinfection risk is high. (9) Recurrent chlamydial infections after treatment with the recommended regimens may be due to reinfection and indicate a need for improved contact tracing and client education or adherence.

Routine test of cure is not recommended for genital or extragenital infections. Test of cure is indicated in the following situations (9):

- Signs and symptoms of infection are still present;
- Compliance to the treatment has been suboptimal;
- An alternative treatment regimen was used;
- Prepubertal children or pregnant persons

Test of cure using a NAAT, if needed, should be performed at 3-4 weeks after the completion of effective treatment to avoid false-positive results due to the presence of non-viable organisms. (9)

### **7.3.1 Treatment**

Treatment recommendations for chlamydia (refer to Table 1) are based on the Canadian Guidelines on Sexually Transmitted Infections (see [Additional Resources](#)). They do not provide a comprehensive list of all possible treatment regimens, but rather those regimens that meet general criteria of efficacy, safety, ease of administration, and cost. Where possible, single dose oral therapy is preferred. People living with HIV and have a chlamydia infection should receive the same chlamydia treatment regimen as people who do not have HIV infection. (9)

MHSLTC provides the drugs listed in Table 1 for treatment of bacterial STIs to practitioners in the provincial jurisdiction at no charge to the client. To order the publicly-funded STI drugs, refer to the Manitoba Health STI Medication Order Form:

<http://www.gov.mb.ca/health/publichealth/cdc/protocol/form11.pdf>.

Treatment provided for confirmed or suspect cases must be reported to MHSU using the [MHSU 6781 - PROVIDER REPORT FORM FOR SEXUALLY TRANSMITTED AND BLOOD-BORNE INFECTIONS \(STBBI\) AND STI TREATMENT](#). Reporting of treatment enables entry into PHIMS and flow of this information into eChart Manitoba. See section 3.2 Reporting for Health Professionals.

Refer to the [Public Health Agency of Canada, STI-Associated Syndromes Guides](#), for the management of acute pelvic inflammatory disease (PID), epididymitis, or other STI-associated syndromes. (14)

Individuals with compatible syndromes (e.g. pelvic inflammatory disease, cervicitis, urethritis, conjunctivitis) and contacts to laboratory confirmed cases should be empirically treated for BOTH chlamydia and gonorrhoea infection, without waiting for results of laboratory testing for either. Refer to Table 1 for chlamydia treatment and the MHSLTC Gonorrhoea protocol (listed in the Communicable Disease Management Protocols webpage at:

<https://www.gov.mb.ca/health/publichealth/cdc/protocol/index.html> .

Asymptomatic persons with laboratory confirmed chlamydial infection and negative laboratory testing for gonorrhoea need not be treated for gonorrhoea.

Cases should be instructed to abstain from unprotected intercourse until:

- Seven days after initiation of single-dose therapy or seven days after completion of a longer antimicrobial regimen;
- All sex partners have also completed treatment. (11)

Failure to abstain for one week following treatment is not an indication for re-treatment in most situations. Rescreening in three weeks or more is recommended if re-exposure is suspected.

The treatment options in Table 1 below are recommended in the absence of contraindication. Product monographs with a complete list of contraindications, cautions, and side effects are available at the Government of Canada's Drug and Health Product Portal <https://dhpp.hpfb-dgpsa.ca/dhpp/search> Search by the Drug Identification Number (DIN) on the product package.

Table 1 – Recommended treatment available at no charge in Manitoba for uncomplicated urethral, endocervical, rectal, pharyngeal and conjunctival chlamydia infection<sup>a</sup>

Indication	Preferred Treatment	Alternate Treatment
Non-pregnant, non-lactating individuals $\geq 8$ years of age	Azithromycin* 1g orally in a single dose OR Doxycycline <sup>b</sup> 100 mg orally BID for 7 days	Erythromycin <sup>c</sup> base 500 mg QID orally for 7 days OR Amoxicillin <sup>d</sup> 500 mg orally TID for 7 days
Pregnant and lactating people	Azithromycin* 1 g orally in a single dose OR Amoxicillin <sup>d</sup> 500 mg orally TID for 7 days OR Erythromycin <sup>&amp;</sup> 2 g/day orally in divided doses for 7 days OR Erythromycin <sup>&amp;</sup> 1 g/day orally in divided doses for 14 days	
Children 1 month to 9 years of age	Azithromycin 12-15 mg/kg (maximum 1g) orally in a single dose	Consult with a pediatric specialist or an experienced colleague and relevant clinical guidelines
Infants 1 week to 1 month	Erythromycin <sup>e</sup> 40 mg/kg/day orally in 4 divided doses for 14 days	
First week of life (infants > 2000 g)	Erythromycin <sup>e</sup> 30 mg/kg/day orally in divided doses for 14 days	
First week of life (infants $\leq 2000$ g)	Erythromycin <sup>e</sup> 20 mg/kg/day orally in divided doses for at least 14 days	

a Recommended options reflect only those covered by the Manitoba Health STI medication program. For a full list of acceptable, alternative treatments, see the Canadian Guidelines on Sexually Transmitted Infections. In some instances, clinicians may provide treatment recommended by other organizations (i.e., CDC, Canadian Pediatric Society) that may differ for those indicated in this protocol. It is reasonable for public health practitioners to consider these treatments as adequate, even if not explicitly mentioned in this protocol.

\* Data are limited regarding the use of azithromycin in pregnancy, however many experts believe it has an acceptable risk-benefit profile.

b Doxycycline and quinolones are contraindicated in pregnant and lactating women. (6).

c The estolate formulation is contraindicated in pregnancy. Testing after completion of therapy is recommended.

d Limited data exist concerning the efficacy of this treatment, thus a test of cure is recommended. Consultation with an infectious disease specialist may be indicated.

& Erythromycin dosage refers to the use of erythromycin base. Equivalent dosages of other formulations may be substituted. The estolate formulation is contraindicated in pregnancy

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e As the use of erythromycin in children under 6 weeks of age has been associated with infantile hypertrophic pyloric stenosis (IHPS), it is important to monitor for signs and symptoms of IHPS. (6) Testing after completion of therapy is recommended.

### **7.3.2 Management of Chlamydial Infections in Pregnancy, at Delivery and in the Postnatal Period**

Refer to Table 1 for treatment regimens recommended for chlamydial infection during pregnancy or at delivery.

Birthing parents who are identified to have chlamydial infection in the postnatal period should be tested for other STI, including gonorrhoea, HIV, syphilis, and hepatitis B. For management of a neonate exposed perinatally to chlamydia, see [Section 7.4.2](#).

### **7.3.3 Neonatal Infection**

Refer to Table 1 for initial treatment recommendations. All cases of conjunctivitis in the newborn should be tested for both *N. gonorrhoeae* and *C. trachomatis* because of the possibility of mixed infection. For neonatal *C. trachomatis* conjunctivitis, there is no evidence that additional topical therapy provides further benefit. (1, 12) Consult a pediatrician for infants under one week of age. For more information on management of an exposed neonate, see [Section 7.4.2](#).

### **7.3.4 Children**

Sexual abuse must be considered when genital, rectal or pharyngeal chlamydia is diagnosed in any prepubertal child beyond infancy. However, perinatally acquired and untreated (including asymptomatic) *C. trachomatis* infection of the nasopharynx, conjunctivae, vagina, and rectum can persist in an infant for up to 3 years of age. (1) Regional public health teams communicate and work with child protection agents when investigating a child STI case. Refer to Table 1 above for treatment recommendations.

If sexual abuse is suspected in a child or minor with chlamydia, refer to reporting requirements in the [Child and Family Services Act](#). In addition, ALL children under 12 years of age or any child with concern of abuse should be referred to the Child Protection Centre at the Children's Hospital, Winnipeg, Manitoba (204 787-2811) PRIOR to initiating treatment and further testing. Staff at the centre will coordinate the forensic and medical investigation, including further testing, and treatment. Siblings and other children possibly at risk should also be evaluated.

### **7.3.5 Infection Prevention and Control**

Hospitalized cases should be managed with Routine Practices in health care as per Manitoba Health, Seniors and Long-Term Care Routine Practices and Additional Precautions: Preventing the

Transmission of Infection in Health Care available at:

<http://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/rpap.pdf>.

## 7.4 Management of Contacts

Individuals who have had sexual contact with the index case from the time of 60 days prior to symptom onset (or date of diagnosis where asymptomatic), until the date of treatment, are considered contacts and should be tested and treated empirically. (9) If there is no sexual partner during this period, then the most recent sexual contact should be tested and treated. (9)

Contacts to cases are reported using the [Provider Report Form for STBBI and STI Treatment](#). See section 3.2 for health professional reporting requirements.

All cases, regardless of the site of chlamydia infection, should be interviewed for sexual contacts. It is not necessary to confirm that sexual contact occurred specifically with the site of chlamydia infection as it is common for chlamydia to be present at other anatomical sites that may not have been tested, often due to autoinoculation or disseminated infection. (10)

Parents of infected neonates (i.e., mother/birthing parent and their sex partner[s]) and persons implicated in sexual abuse cases should be located, clinically evaluated and treated.

### 7.4.1 Contact Notification

Public Health, health professional, or case-initiated contact notification (or a combination) is recommended. All cases should be encouraged to notify their own contacts, unless a risk of harm (e.g. intimate partner violence) to the case is known. The health care provider reporting contacts on Page 3 of the [Provider Report Form for STBBI and STI Treatment](#) must indicate the method of contact notification for each contact (index case, public health, or health care provider). If not indicated, public health notification will be assumed.

Public health will generally follow up high-priority contacts (under the age of 16, pregnant, co-infected or exposed to another STBBI) for notification regardless of the method of contact notification indicated. If the contact tested negative for chlamydia after the last exposure, no further follow-up is required. If the contact has not been tested, follow-up should occur with the contact. If the contact is known or believed to be pregnant, public health may connect with the pregnant person's health care provider.

#### Public Health-Initiated Contact Notification

- Regional public health teams will attempt to notify the contact(s) of their potential exposure to chlamydia within three business days of receipt of the referral. The identity of the index case client will not be disclosed to their contacts, nor specific details or dates of exposure that may reveal the source.

## Health Care Provider-Initiated Contact Notification

- The index case is interviewed for contacts by the health care provider, and the health care provider will pursue the contact(s) for notification. This is often applicable if there is an existing therapeutic relationship with the index case and/or contact, or if a sexual couple is interviewed or treated simultaneously.

## Case-Initiated Contact Notification

- The index case commits to notify their contacts regarding their possible exposure to chlamydia. If the index case or contact is considered high-priority (pregnant, under 16 years of age), public health may negotiate with the index case to confirm contacts are notified, or pursue the contact for notification directly.

### 7.4.2 Neonatal Contacts

Neonates born to women/birthing parents with untreated chlamydial infection are at high risk of pneumonia and conjunctivitis. Neonates should be closely monitored for ophthalmia neonatorum and pneumonia. If the infant is symptomatic, testing of the appropriate site(s) should be performed (see [CPL Guide to Services](#)). Infants testing positive should be treated with the regimens described for neonatal infection under [Section 7.3.1 Treatment](#). (9) Empiric treatment of an exposed asymptomatic neonate is not indicated. (1, 12)

## 7.5 Cluster and Outbreak Management

A cluster or outbreak may be declared if there is an increase in observed chlamydia transmission amongst a defined group of people or population. If an outbreak or cluster is identified, public health will initiate an outbreak investigation and form an outbreak response team.

## 8. Key Investigation Components for Public Health Response

Regional public health teams manage all cases and reported contacts of chlamydia infection and align resources with priority, complexity, and equity. If a Provider Report Form is not received within two to three weeks of the investigation report date, a faxed request to the provider is sent.

Additional guidance for Communicable Disease Technicians can be found at [Provincial Guidance Documents for Population and Public Health Staff | Health | Province of Manitoba \(gov.mb.ca\)](#)

### 8.1 Public Health Case Follow-up

Objectives of the case investigation are:

- To foster a positive, affirming, non-judgmental, and safe encounter that the client benefits from, and that contributes to trust building.

- To ensure the client (or legal decision maker) is aware of the positive test result, and recommended steps to receive treatment or care if required.
- To create a space for clients to ask any unanswered questions about the infection they experienced and provide standard recommendations for STBBI prevention and early detection.
- To review the client's recent history of STBBI testing and treatment, relevant immunization (HBV, HPV, HAV, and/or mpox), assess for pregnancy, and provide recommended follow up specific to client history.
- To support the client to connect with appropriate sexual health services for STBBI prevention and early detection (e.g. condoms, regular/ongoing testing options, harm reduction supplies or services, immunization, HIV PrEP and PEP).
- To offer public health partner notification services, and/or supports for the client to notify their own sexual contacts.

## Key Components of the Case Investigation

- Determine reason for testing, and presence or absence of symptoms
- Assess risk factors
  - Sexual contact with a case
  - New or multiple sexual partners
  - Previous STI
  - Population at risk (e.g. substance use, incarceration, street involved youth)
- Confirm pregnancy status for childbearing people and sexual partners
- Ensure treatment is completed
- Counsel on abstaining from unprotected intercourse until seven days after completion of treatment by case and partner.
- Recommend follow-up testing (e.g. test of cure if indicated; repeat testing in 3 months for reinfection), as well as testing for co-infections, including other STBBI.
- Immunization for hepatitis A/hepatitis B/human papilloma virus/Mpox, if indicated
- Identify contacts and method of partner notification
- Education on preventive measures. Includes harm reduction education/supplies as indicated, eligibility for HIV PrEP.
- Completion of case report form/entry into PHIMS.

**High-priority cases** are managed by public health nurses (PHN), and include lab-confirmed cases who meet *any* of the following criteria: under the age of 16 years<sup>1</sup>; pregnant individuals; cases co-infected with or exposed to HIV, syphilis, hepatitis B or hepatitis C, or other complex situations that would benefit from PHN management (e.g. sexual assault or intimate partner violence). PHNs additionally manage cases for whom they were the testing practitioner.

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<sup>1</sup> There may be slight regional differences in the age of cases considered high-priority. For example, high-priority may extend to all cases under age 18 years.

- All untreated high-priority cases are pursued with a minimum of three contact attempts, and all high-priority cases are pursued for a contact interview regardless of treatment status. Cases among people under 12 years of age are followed up as soon as possible/within one business day of the report received.

**Low complexity cases** include lab-confirmed cases who meet all the following criteria: 16 years of age or older; not pregnant; site/specimen source of infection is urine, genital, anal/rectal, or throat/pharyngeal; and person is not co-infected with or exposed to HIV, syphilis, hepatitis B or hepatitis C.

- Communicable Disease Technicians follow up with the testing practitioner if a case report is not received and will follow up directly with all low-complexity cases for whom adequate treatment (preferred or alternate treatment per Table 1) has not been documented or reported by the testing practitioner. All untreated low-complexity cases are pursued with a minimum of two contact attempts. Only untreated low-complexity cases are routinely pursued for a contact interview by public health, unless the testing practitioner has requested public health support for partner notification.

Additional efforts may be made to support any cases with structural or individual barriers to care (e.g. unstable housing, incarceration, mental health or substance use issues).

## 8.2 Public Health Contact Follow-up

Objectives of the contact investigation are:

- To foster a positive, affirming, non-judgmental, and safe encounter that the client benefits from, and that contributes to trust building.
- To notify the client (or legal decision maker) of the suspected exposure to chlamydia, assess for pregnancy, discuss recommendations and options for testing and empiric treatment.
- To create a space for clients to ask any unanswered questions and provide standard recommendations for STBBI prevention and early detection.
- To support the client to connect with appropriate sexual health services for STBBI prevention and early detection (e.g. condoms, regular/ongoing testing options, harm reduction, immunization, HIV PrEP and PEP).
- To counsel on STBBI and preventative measures including: safer sex practices and resources, harm reduction, routine and follow up STBBI testing, relevant immunizations, and HIV PEP and PrEP.

### Key Components of the Contact Investigation

- Determine presence or absence of symptoms
- Assess risk factors

- New or multiple sexual partners
- Previous STI
- Population at risk (e.g. substance use, incarceration, street involved youth, etc.)
- Confirm pregnancy status
- Discuss treatment
- Counsel on abstaining from unprotected intercourse until seven days after completion of treatment by case and partner(s).
- Recommend testing for all STBBI
- Immunization for hepatitis A/hepatitis B/human papilloma virus/Mpox, if indicated
- Education on preventive measures. Includes harm reduction education/supplies as indicated, eligibility for HIV PrEP
- Completion of contact report form/entry into PHIMS.

**High priority contacts** to chlamydia are assigned to PHNs for follow up and include contacts with any of the following criteria: under the age of 16 years; infected with or exposed to HIV, syphilis, hepatitis B or C; pregnant at any age; individuals who have been identified as a contact two or more times in the last 12 months but have not been tested or treated for chlamydia; or other complex situations that would benefit from PHN management (e.g. sexual assault or intimate partner violence).

- A minimum of three contacts attempts are made to notify the individual of their potential exposure.

**Low complexity contacts** to chlamydia are assigned to Communicable Disease Technicians for follow up and include those who meet all the following criteria: aged 16 years and older, not pregnant; and do not otherwise meet criteria for high-priority

- A minimum of two contacts attempts are made to notify the individual of their potential exposure.
- If there is any indication of a child in need of protection, intimate partner violence, transactional sex, or other complex social or health situations, the investigation must be transferred to a PHN.

Additional efforts may be made to support any contacts with structural or individual barriers to care (e.g. unstable housing, incarceration, mental health or substance use issues).

## 9. Documentation Guidelines and Resources

Document cases and contact investigations in the Public Health Information Management System (PHIMS) and refer to the *STI Case Investigation Form For Chlamydia, Gonorrhea, Chancroid and LGV Infections – Case Form (MHSU 6784)* (found in MHSU’s [Surveillance Forms webpage](#)) for the required investigation data elements.

If treatment for chlamydia is reported by the testing practitioner on the [Case Form | Notification of Sexually-Transmitted Infections \(gov.mb.ca\)](#) and documented in PHIMS in a Provider Form

[Back to Top](#)

Investigation, it is not necessary to transcribe the treatment into the case or contact investigation. See [Provider Form QRC - Regions \(phimsmb.ca\)](#)

Table 2 – Timelines for Documenting Chlamydia Cases in PHIMS

Investigation Component	PHIMS Data Entry	Timeline from PH report date (business days)
Regions receive new investigation from MHSU or another source; Responsible Org and Workgroup assigned by MHSU	<p>Review to determine and assign Primary Investigator</p> <p>Chlamydia cases among people under the age of 12 years are not diarized. Follow up with the testing practitioner within one business day of receipt.</p> <p>Connect with MHSU if investigation referred from another source.</p>	One Day
Primary investigator reviews investigation and lab results	<p>Update Classification and classification date</p> <p>Update disposition from Pending (e.g., Follow up in progress)</p> <p>Document infection site (as indicated on lab report or “presentation” indicated on Provider Report Form). Inclusion of site is the method by which a case is determined to meet the case definition (i.e. genital vs extragenital).</p> <p>For perinatally acquired cases: document site, classify as “lab-confirmed”, add risk factor “born to infected mother/birthing parent”. Perinatal cases will be determined based on age of case at time of test.</p> <p>If other new STBBI investigations should be combined (e.g., if same contacts were exposed to more than one STBBI), see PHIMS process for Co Infections in User Guide of Completion of Surveillance Forms for Reportable Diseases and PHIMS QRCs. Add an additional disease to an Investigation.</p>	Three Days
<p>Contact Testing Practitioner</p> <p>Enter information on the Provider Report Form for STBBI and STI Treatment if received – Fax provider for request if not received.</p> <p>Treatment, Symptoms, Pregnancy (required risk factor), Interventions</p>	<p>Update PHIMS data with information available (client demographics, investigation information)</p> <p>Enter known and unknown contacts (identified either by testing practitioner or by contact with client).</p> <p>Chlamydia treatment does not need to be transcribed from a Provider Form Investigation. Upload relevant context documents as required (e.g., correspondence sent to PH from an outside HCP, personalized letters).</p> <p>Non-critical fields (symptoms and non-required risk factors) should be documented whenever possible. Update disposition on closure based on outcome of contact attempts</p> <p>Author Note for all contact attempts, direct client contact, transfer of care, and case closure note.</p>	One to four weeks
Attempt client contact	Attempt to contact case or legal decision maker for any incomplete investigation elements. Low-complexity cases only if untreated.	One to four weeks

Quality Assurance	Each region employs a Quality Assurance process (Classification, Site). Consider use of PHIMS Quality Assurance report	Quarterly
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Table 3 –Timelines for Documenting Chlamydia Contacts in PHIMS

Investigation Component	PHIMS Data Entry	Timeline from PH report date (business days)
Regions receive new investigation	Assign Primary Investigations, Responsible Organization, and Workgroup.	One day
Primary investigator attempts to locate and/or contact client for notification of exposure	Update Disposition: Follow up in Progress	Three days
Document	Update PHIMS Interventions. Update disposition, risk factors, demographics.  Author note for each contact attempt, direct contact, transfer of care, and investigation closure.	One to four weeks

If two unique client identifiers are not provided by case, the contact should be documented as an unknown contact. For further documentation guidance related to unknown contacts, refer to the Transmission Event Unknown Contacts - Points to Remember QRC accessible at <https://phimsmb.ca/files/te-unknown-contact.pdf>

## 10. Additional Resources

### Shared Health Diagnostic Services - Cadham Provincial Laboratory

#### *Requisition Form*

<https://healthproviders.sharedhealthmb.ca/files/general-requisition-form.pdf>

#### *Guide to Services 2020*

<https://healthproviders.sharedhealthmb.ca/files/guide-to-services.pdf>

#### *Contact information*

Phone: 204-945-6123

### Manitoba Health, Seniors and Long-Term Care

#### *Communicable Disease Management Protocols*

<https://www.gov.mb.ca/health/publichealth/cdc/protocol/index.html>

#### *Sexually Transmitted and Blood-Borne Infections webpage*

<https://www.gov.mb.ca/health/publichealth/cdc/sti/index.html>

#### *STBBI Testing webpage*

<https://www.gov.mb.ca/health/publichealth/cdc/sti/stbbi-testing.html>

#### *Manitoba Health Surveillance Unit*

Forms webpage: <https://www.gov.mb.ca/health/publichealth/surveillance/forms.html>

Secure fax: 204-948-3044

*STBBI Surveillance Report* <https://www.gov.mb.ca/health/publichealth/surveillance/stbbi/index.html>

### Public Health Agency of Canada

#### *Canadian Guidelines on Sexually Transmitted Infections*

<https://www.canada.ca/en/public-health/services/infectious-diseases/sexual-health-sexually-transmitted-infections/canadian-guidelines.html>

### Government of Canada, Drug and Health Product Portal

*Drug product monographs.* For STI medications provided through Manitoba Health, Seniors and Long-Term Care, search by the Drug Identification Number (DIN) on the product package

<https://dhpp.hpfb-dgpsa.ca/dhpp/search>

### Doxycycline Post-Exposure Prophylaxis Resources

British Columbia Centre for Disease Control (2023). Position Statement on Doxycycline as Prophylaxis for Sexually Transmitted Infections. Accessible at: [https://smartsexresource.com/wp-content/uploads/resources/BCCDC\\_Position\\_Doxycycline\\_Prophylaxis\\_FINAL\\_27Oct2023.pdf?x4234](https://smartsexresource.com/wp-content/uploads/resources/BCCDC_Position_Doxycycline_Prophylaxis_FINAL_27Oct2023.pdf?x4234)

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British Columbia Centre for Excellence (2023). Doxycycline for bacterial sexually transmitted infection (B-STI) prevention. Accessible at: <https://bccfe.ca/doxycycline-for-bacterial-sexually-transmitted-infection-b-sti-prevention/>

CATIE (2024). Doxycycline to help prevent bacterial STIs. Accessible at <https://www.catie.ca/doxycycline>

Bachmann LH, Barbee LA, Chan P, et al. CDC Clinical Guidelines on the Use of Doxycycline Postexposure Prophylaxis for Bacterial Sexually Transmitted Infection Prevention, United States, 2024. MMWR Recomm Rep 2024;73(No. RR-2):1–8. DOI: <http://dx.doi.org/10.15585/mmwr.rr7302a1>.

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