BCCDC Certified Practice Decision Support Tool:
Chlamydia Trachomatis

The BCCDC decision support tools (DST) aim to provide more equitable, inclusive, and affirming care for all people, particularly for sexually diverse, transgender, Two-Spirit and non-binary people. While anatomy and site-specific testing language are used throughout this document, nurses should always strive to foster safer conversations and gender-affirming care by using an individual's chosen terminology when providing STI assessment and management.

Scope

Registered Nurses with **Reproductive Health – Sexually Transmitted Infection** Certified Practice designation [RN(C)] are authorized to manage, diagnose, and treat individuals with chlamydia trachomatis. [1]

Etiology [2]

Bacterial infection caused by the transmission of Chlamydia trachomatis (C. trachomatis or CT).

Note: Lymphogranuloma venereum (LGV) is a bacterial infection also caused by C. trachomatis serovars L1, L2 or L3. LGV serovars of C. trachomatis typically causes more severe and/or complicated infection and are tropic to the lymph tissue. STI RN(C) must refer to a physician or nurse practitioner (NP) for all who present with suspected LGV. For management of contacts to LGV, see *BCCDC Certified Practice Decision Support Tool: Treatment of STI Contacts*.

Epidemiology [2-4]

Chlamydia is the most common reportable STI in British Columbia and Canada. The incidence is highest among adolescent and young adults. Chlamydia may be under-detected as it is often asymptomatic in presentation. See STIBBI and Tuberculosis (TB) Surveillance Report and dashboard.

Transmission:

- Sexual contact where there is transmission through the exchange of body fluids.

Clinical Presentation [2-5]

Sexual History

- Sexual contact with at least one partner
- Often asymptomatic
- Sexual contact with a person with confirmed positive laboratory test for STI

Physical Assessment [2-6]

- Often asymptomatic
- Painful (dysuria) or difficult urination
- Inflammation of the rectum, rectal pain and anal discharge (symptoms of proctitis)
- Sore throat (throat infection is most often asymptomatic)
- Inflammation of the tissues around the eye including acute redness, purulent discharge and crusting (symptoms of conjunctivitis); can be caused from chlamydial infection in the eye; consult with or refer to physician or nurse practitioners (NP) for symptoms of conjunctivitis
- Change in normal vaginal discharge
- Unexplained change in vaginal bleeding:
    - Vagina with or without cervix: after intercourse or between menstrual periods
    - Vagina after vaginoplasty: vaginal bleeding is not always STI-related as longer post-operative symptoms of bleeding could be indicative of hypergranulation; refer to the STI history and physical exam information listed above (page 3-5) for more information, and especially for those experiencing pain, discharge, or bleeding in the first 3 to 4 months post-operative period
- Lower abdominal pain (symptom of pelvic inflammatory disease)
- Dyspareunia
- Urethral symptoms such as, discharge, itch or awareness
- Testicular pain and/or swelling (symptoms of epididymitis)

Diagnostic and Screening Tests [2, 4-8]

Full STI screening is recommended. See *BCCDC Certified Practice Decision Support Tool: Assessment and Diagnostic Guideline: Sexually Transmitted Infections (STI).*

Throat

- CT NAAT swab, if indicated in sexual health history

Penile urethra (with or without phalloplasty or metoidioplasty with urethral lengthening)

- CT NAAT urine: ideally the individual should not have voided in the previous 1-2 hours; collect first void 10-20ml

Vagina

- With cervix:
  - Vaginal CT NAAT swab (preferred). Vaginal specimens may be clinician or self-collected by swabbing the posterior fornix of the vaginal wall
  - If vaginal swab is declined, urine CT NAAT can be collected
  - Cervical CT NAAT swab can also be collected but is not the preferred mode of collection
- After total hysterectomy (no cervix):
  - CT NAAT urine (preferred) or vaginal CT NAAT swab

After vaginoplasty:

- CT NAAT urine: ideally the individual should not have voided in the previous 1-2 hours; collect first void 10-20ml

Rectum

- CT NAAT swab, if indicated in sexual health history

Notes

1) In general, self-collected vaginal swabs are indicated when a full or partial pelvic examination is not required or appropriate. Clinician-collected vaginal swabs are generally done when a partial or full pelvic examination is required or requested.
2) Recent data show that vaginal swabs for C. trachomatis and N. gonorrhoeae NAATs identify as many or more infections over cervical, urethral swabs or urine specimens.

Management [2, 4-8]

Diagnosis and Clinical Evaluation

Treat those with confirmed chlamydia by positive laboratory result.

When providing treatment for confirmed positive cervical, vaginal or urine laboratory test for Chlamydia trachomatis, assess for signs of pelvic inflammatory disease (PID) through symptoms inquiry and/or physical assessment (bimanual exam), if indicated.

Consultation and Referral

Consult with or refer to a physician or NP for all who:

- Are pregnant or breast/chest feeding
- Are experiencing symptoms of conjunctivitis
- Have an allergy or contraindications to treatment outlined in this DST

Treatment [2, 4-8]

Treatment	Notes
First Choice: Doxycycline 100 mg orally twice a day for 7 days **Alternate:** Azithromycin 1 g orally in a single dose	**General:** 1. Treatment covers general CT infection but does not cover LGV. Referral to a physician or NP is required for LGV diagnosis and treatment. 2. Doxycycline is the preferred treatment for rectal CT infection. 3. Retreatment is indicated if 2 consecutive doses of doxycycline have been missed or full 5 days of treatment are not completed. 4. See BCCDC *STI Medication Handouts* for further medication reconciliation and information. 5. See *Monitoring and Follow-up* section for test-of-cure (TOC) requirements. **Allergy and Administration:** 1. DO NOT USE azithromycin if history of allergy to macrolides. 2. DO NOT USE doxycycline if pregnant and/or allergic to doxycycline or other tetracyclines. 3. If an azithromycin or doxycycline allergy or contraindication exists, consult/refer to a physician or NP for alternate treatment.

Treatment	Notes
	4. Azithromycin and doxycycline are sometimes associated with gastrointestinal adverse effects. Taking medication with food and plenty of water may minimize adverse effects. 5. Recent data has emerged regarding azithromycin and QT prolongation. Although rare, it is more significant in older populations, those with pre-existing heart conditions, arrhythmias, or electrolyte disturbances. It is unclear how significant these findings are in young to mid-age healthy adults consuming a one-time dose of azithromycin; however, please use the following precautions: Consult with or refer to an NP or physician if the client: • Has a history of congenital or documented QT prolongation. • Has a history of electrolyte disturbance in particular hypokalemia, hypomagnesaemia. • Has clinically relevant bradycardia, cardiac arrhythmia, or cardiac insufficiency. • Is on any of the following medications: ○ Antipsychotics: pimozide (Orap®), ziprasidone (Zeldox®) ○ Cardiac: dronedarone (Multaq®) ○ Migraine: dihydroergotamine (Migranal®), ergotamine (Cafergot®)

Monitoring and Follow-up [2]

- **Repeat testing**: Repeat testing at 3 months due to potential high risk of re-infection.
- **Test-of-cure (TOC)**: TOC is only recommended 3-4 weeks post treatment completion for those who are pregnant and/or breast/chest feeding or if symptoms persist following treatment.
- **Management of Indeterminate results:**
  - Repeat NAAT testing is not recommended as results often remain indeterminate
  - Offer treatment as per the CT DST
  - Discuss and recommend partner notification be completed for partner(s) in previous 60 days by the individual
  - For those declining treatment, provide education and follow up recommendations

Partner Notification [2]

- **Reportable**: Yes
- **Trace-back period**: Previous 60 days. If no sexual partner in trace-back period, complete follow up for the last sexual contact.
- **Recommended partner follow-up**: identified sexual partners as noted above should be advised to be tested and treated for chlamydia trachomatis, in conjunction with a full STI screen. See *BCCDC Certified Practice Decision Support Tool: Treatment of STI Contacts.*

Potential Complications [2, 4-5]

- Epididymitis
- Sexually-acquired reactive arthritis
- Pelvic inflammatory disease (PID)
- Infertility
- Ectopic pregnancy
- Chronic pelvic pain

Additional Education

- Abstain from sexual activity during the 7-day course of treatment or for 7 days post-single-dose therapy for those who test positive and their contacts.
- Inform last sexual contact and any sexual contacts within the last 60 days that they require testing and treatment.
- Repeat STI screening, which includes testing for Chlamydia trachomatis, at 3 months as re-infection rate is high
- Sexually Transmitted & Blood-Borne Infections: Standard Education

References

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