

# BCCDC Certified Practice Decision Support Tool: Urethritis/Recurrent Urethritis

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This BCCDC decision support tool (DST) aims to provide more equitable, inclusive, and affirming care for all people, particularly for transgender, gender-diverse, sexually diverse, and Two-Spirit peoples. 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 Sexually Transmitted Infection (STI) assessment and management.<sup>1</sup>

## Scope

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

## Etiology<sup>2-10</sup>

The most common cause of infectious urethritis is STI related organisms such as:

- *Neisseria gonorrhoeae* (GC), *Chlamydia trachomatis* (CT), and *Mycoplasma genitalium*.

Other organisms may include:

- Herpes simplex virus (HSV), adenoviruses, *Trichomonas vaginalis* and *Ureaplasma urealyticum*.

Non-infectious/non-STI related causes may include:

- Catheterization or other instrumentation or trauma of the urethra
- Factors contributing to urinary tract infection such as prostatitis or cystitis
- Anatomical issues (e.g., urethral stricture, fistulae, post-operative complications)
- Irritants, including various soaps, body powders, douches, and spermicides.

## Epidemiology<sup>2-10</sup>

The exact prevalence of urethritis is difficult to determine as there is no standard reporting mechanism in addition to clinical presentations varying widely. Common causes of infectious urethritis are related to *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, and *Mycoplasma genitalium*.

## Risk Factors <sup>2-10</sup>

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

## Clinical Presentation <sup>2-9, 11-13</sup>

- Dysuria:
  - Usually localized to the meatus or distal penis, worst during the first-morning void
- Meatal erythema (redness around the urethra opening)
- Urethral discharge:
  - May range in quantity from scant to copious and in character from clear to purulent (clear, cloudy, green, white, yellow, brown, or blood-tinged)
- Urethral itching, burning, stinging or awareness
- Systemic symptoms such as chills, diaphoresis, fever, malaise, and nausea

## Physical Assessment

- Visual inspection of the skin and external genitalia to detect any potential lesions
- Examine pelvic area, including the urethra and external genitalia, to identify any signs of inflammation or discharge
- Assess urethral meatus for erythema and meatal inflammation
- Assess for urethral discharge
- Conduct a bilateral testicular examination to identify signs of inflammation or infection

## Diagnostic and Screening Tests <sup>2-4</sup>

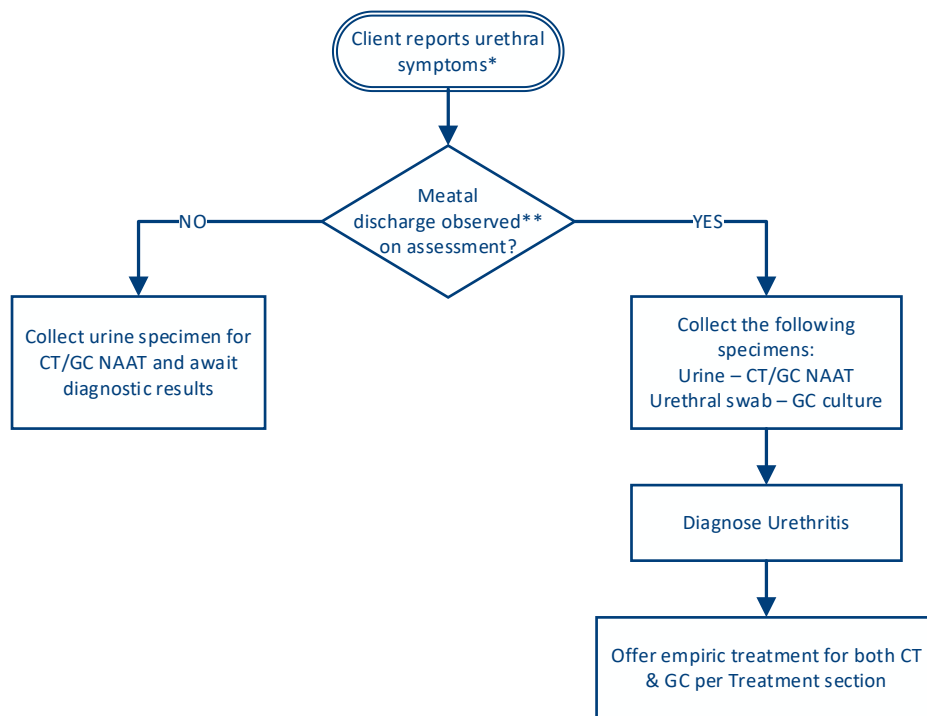
Full STI screening is recommended. See [BCCDC Certified Practice Decision Support Tool: Assessment and Diagnostic Guideline: STI.](#)

- **Urine specimen** - For all individuals collect urine for GC/CT NAAT
  - Ideally the individuals will not have voided in the previous 1-2 hours
  - Collect 10-20 ml of first void urine
  - If urethral swabs are indicated, collect the urethral swab **before** urine
  - May be collected as the only diagnostic test in agencies or circumstances where:
    - GC C&S is unavailable
    - Individual declines urethral swab
- **Urethral swab** - For individuals with urethral discharge

- Collect GC culture and sensitivity from visible discharge at the urethral opening, insertion into the urethra is not required:
  - The urethra can be milked from the base to the meatus by the individuals by placing the forefinger along the ventral surface of the base of the penis and a thumb on the dorsum, applying gentle pressure, and moving the hand slowly toward the meatus to expel any discharge for specimen collection

## Management <sup>2-4,11-18</sup>

Due to trends with antimicrobial resistance, it is recommended to wait for test results before treating urethritis to ensure appropriate action. See algorithms below to guide decision making. By prioritizing appropriate testing and diagnosis we aim to improve treatment outcomes while reducing unnecessary antibiotic use. For individuals where returning to clinic for follow-up is of concern and an infectious cause is suspected, empiric treatment can be considered without presence of discharge.



*\* may include dysuria, urethral discharge, meatal irritation or erythema, urethral awareness/discomfort/itch*

*\*\* may range from scant to copious in quantity and from mucoid to purulent in character*

**Treatment** <sup>2-9, 15-25</sup>

Treatment Choice for Empiric Diagnosis of Urethritis (Etiology is Unknown)	
Treatment	Notes
<p><b>First Choice</b></p> <p>Ceftriaxone 500 mg IM and Doxycycline 100 mg orally twice daily for 7 days</p> <p><b>OR</b></p> <p>Ceftriaxone 500 mg IM and Azithromycin 1 g orally in a single dose</p> <p><b>Alternate</b></p> <p>Cefixime 800 mg orally in a single dose, and Azithromycin 1 gram orally in a single dose</p>	<p><b>General:</b></p> <ol style="list-style-type: none"> <li>1. Treatment covers both gonorrhea and chlamydia as etiology is unknown. Preference is to use doxycycline over azithromycin when the choice is available.</li> <li>2. Future GC Treatment regimens will continue to reflect national recommendations in association with local GC antimicrobial resistance trends (AMR) trends.</li> <li>3. Retreatment is indicated if the individual has missed two consecutive doses of doxycycline or has not completed a full 5 days of treatment</li> <li>4. Consult physician or NP if individual is unable to use cefixime, ceftriaxone, or azithromycin.</li> <li>5. See BCCDC <a href="#">STI Medication Handouts</a> for further medication reconciliation and individual information.</li> <li>6. See <i>Monitoring and Follow-up</i> section for test-of-cure (TOC) requirements.</li> </ol> <p><b>Allergy and Administration:</b></p> <ol style="list-style-type: none"> <li>7. DO NOT USE ceftriaxone or cefixime if history of allergy or anaphylaxis to cephalosporins.</li> <li>8. DO NOT USE azithromycin if history of allergy to macrolides.</li> <li>9. DO NOT USE doxycycline if pregnant and/or allergic to doxycycline or other tetracyclines.</li> <li>10. DO NOT USE lidocaine if history of allergy to lidocaine or other local anesthetics. Use cefixime PO as alternate treatment.</li> <li>11. If history of penicillin reaction, refer to <a href="#">Beta-Lactam Cross Reactivity Chart</a>, consult physician or NP if needed.</li> <li>12. For <a href="#">IM injections of ceftriaxone</a> the ventrogluteal site is preferred.</li> <li>13. Advise the individual to remain in the clinic for at least 15 minutes-post IM injection in case of anaphylactic reaction to treatment. Provide anaphylaxis treatment as required, using <a href="#">BCCDC CDC Manual- Chapter 2: Immunization – Part 3: Management of Anaphylaxis in a Non-Hospital Setting</a>, November 2016.</li> </ol>

**Treatment Choice for Empiric Diagnosis of Urethritis (Etiology is Unknown)**

14. If serious allergic reaction develops including difficulty breathing, severe itchiness, have the individual inform clinic staff immediately. If symptoms develop after leaving the clinic, advise the individual to seek immediate emergency care.
15. Advise individuals they may experience pain, redness and swelling at the injection site. If any of these effects persist or worsen, advise to contact health care provider.
16. 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.
17. 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:
18. Consult with or refer to an NP or physician if the individual:
  - a. Has a history of congenital or documented QT prolongation.
  - b. Has a history of electrolyte disturbance in particular hypokalemia, hypomagnesaemia.
  - c. Has clinically relevant bradycardia, cardiac arrhythmia or cardiac insufficiency.
  - d. Is on any of the following medications:
    - i. Antipsychotics: pimozide (Orap<sup>®</sup>), ziprasidone (Zeldox<sup>®</sup>)
    - ii. Cardiac: dronedarone (Multaq<sup>®</sup>)
    - iii. Migraine: dihydroergotamine (Migranal<sup>®</sup>), ergotamine (Cafergot<sup>®</sup>)

**Monitoring and Follow-up** <sup>2-9</sup>

- Follow-up is based on test results or recurrence of symptoms. If test results positive for STI, refer to appropriate STI DST for monitoring and follow-up. Advise to return to clinic in 2-4 weeks if symptoms persist.

**Partner Notification** <sup>2-9</sup>

- **Reportable:** No. If test results are positive, refer to corresponding DST for reporting and follow-up.

- **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:** Empiric treatment of contacts is not recommended if index case is awaiting test results to determine cause of urethritis. If CT/GC is the confirmed cause of urethritis, empirically test and treat all contacts identified sexual partners as noted above. If another etiology is confirmed (e.g. HSV) refer to appropriate DST as well as the [BCCDC Certified Practice Decision Support Tool: STI Contacts](#).

## Potential Complications<sup>2-9</sup>

- Persistent or recurrent urethritis (see below)
- Epididymitis
- Sexually-acquired reactive arthritis (acute or chronic)
- Stricture (rare)
- Prostatitis (rare)

## Symptomatic Recurrent/Persistent Urethritis<sup>2-9,12,18,22,24</sup>

If individual was not treated empirically at initial visit but symptoms persist, treat with Ceftriaxone 500 mg intramuscularly and Doxycycline 100 mg orally twice a day for 7 days. Advise individual to return to clinic if symptoms continue for assessment of recurrent/persistent urethritis.

### Recurrent/Persistent Urethritis is defined as:

- Persistent urethral symptoms **AND**
- Treatment with one of the recommended regimens (i.e. Doxycycline 100 mg orally, twice a day for 7 days or Azithromycin 1 g orally in a single dose) more than 2 weeks ago **AND**
- Negative NAAT of urine for GC/CT **AND**
- No re-exposure to an untreated or new sexual partner

If the individual meets the definition above, consult with MD/ NP.

For complex presentations where symptoms persist after initial consultation/referral, the BCCDC Provincial STI Clinic physician (604-707-5610) is available Monday to Friday 8:30-16:30 (excluding stat holidays).

## Additional Education

- Abstaining from sexual activity during the 7-day course of treatment or for 7 days post single-dose therapy for individuals and their contacts.

- The importance of revisiting the clinic if symptoms persist or recur 14 days or more after treatment has been initiated.
- Repeat testing is not necessary unless symptoms do not resolve 14 days or more after antibiotic treatment has been initiated.
- Organisms responsible for urethritis may reside in the throat, vagina, or rectum of sexual partners, and may not be detectable with testing. Recurrent urethritis can be difficult to address, and symptoms may resolve spontaneously.
- [Sexually Transmitted & Blood-Borne Infections: Standard Education](#)
- [Urethritis Treatment Client Resource](#)

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