Certified Practice

DST 902 Care and Treatment Plan:
Urethritis

Definitions

Term	Definition
Urethritis **Presumptive gonococcal urethritis (e.g., Neisseria gonorrhoea)**	Inflammation of the urethra caused by any etiology that manifests as urethral discharge, dysuria, urethral itching or meatal erythema.
	Urethritis with microscopy confirmed typical intracellular diploccoci (TID).
Non-gonococcal urethritis (NGU) **Urethritis not yet diagosed (NYD)**	Urethritis with increased polymorphonuclear leukocytes (PMNs) and the absence of a positive laboratory test for Neisseria gonorrhea or TID.
	Urethritis without immediate microscopy diagnosis.
Recurrent urethritis*	Persistence of urethral symptoms when the onset of treatment was at least two weeks prior, treatment was taken as directed, and there has been no re-exposure or new exposure (e.g., new or untreated partner)

*For clients with recurrent urethritis refer to *DST 903: Care and Treatment Plan – Recurrent Urethritis*

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

Potential Causes

Bacterial:

- Neisseria gonorrhoeae (GC)
- Chlamydia trachomatis (GT)
- Mycoplasma genitalium
- Ureaplasma urealyticum

Viral

- Adenovirus
- Herpes simplex virus (HSV)

Protozoan:

- Trichomonas vaginalis (TV)

Non-STI

- Secondary to catheterization or other instrumentation or trauma of the urethra
- In association with other factors that contribute to urinary tract infection (e.g., prostate or cystitis unrelated to STI)
- Underlying anatomical issue (e.g., urethral stricture, fistulae, post-operative complications)

Predisposing Risk Factors

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

Typical Findings

Sexual History

- Sexual contact with at least one partner
- May report sexual contact with a partner infected with HSV
- Sexual contact with someone with confirmed positive laboratory test for STI

Physical Assessment

- Urethral discharge
- Painful urination (dysuria)
- Urethral itch, irritation, or awareness
- Meatal erythema

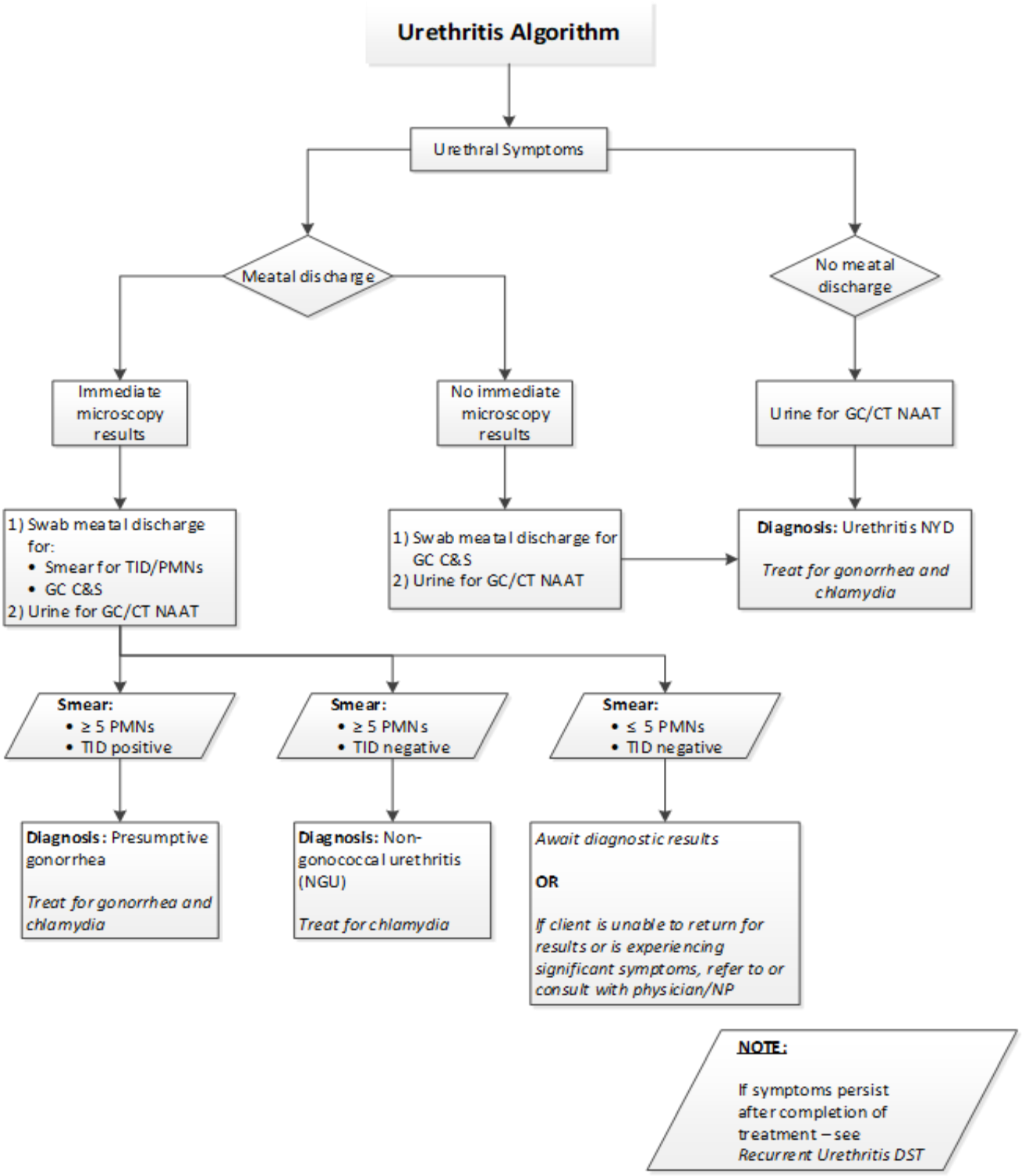
Diagnostic Tests

Full STI screening is recommended.

- **Urethral swab. For symptomatic clients.** Collect the following specimens from visible discharge at the urethral opening, insertion into the urethra is not required:
    - Smear for TID and PMNs (collect *only* if immediate microscopy is available) and

    - GC culture and sensitivity (C&S)
- **Urine specimen. For all clients.** Collect urine for GC/CT NAAT. Ideally the client should not have voided in the previous 1-2 hours, collect the first voided 10-20 ml. Note the following:
    - If urethral swabs are indicated, the urine specimen is collected after the urethral swab
    - May be collected as the only diagnostic test in agencies or circumstances where:
        - GC C&S is unavailable
        - Client declines urethral swab

Clinical Evaluation/Clinical Judgement



Treatment Choices

<table>
<tr><th colspan="2">Treatment Choice for Urethritis (NYD)</th></tr>
<tr><th>Treatment</th><th>Notes</th></tr>
<tr><td>First Choice
Cefixime 800mg PO in a single dose, and
Azithromycin 1gm PO in a single dose
OR
Ceftriaxone 250mg IM in a single dose, and
Azithromycin 1gm PO in a single dose</td><td rowspan="3">General:
1. Treatment covers both gonorrhea and chlamydia.
2. Canadian Guidelines on STI (CGSTI, PHAC, 2013) recommend ceftriaxone IM and azithromycin PO for the treatment of uncomplicated anogenital and pharyngeal infection; however, BC surveillance patterns of GC resistance suggest that both cefixime and ceftriaxone are appropriate choices for the treatment of GC.
3. Future GC Treatment regimens will continue to reflect national recommendations in association with local GC antimicrobial resistance trends (AMR) trends.
4. Retreatment is indicated if the client has missed two consecutive doses of doxycycline or has not completed a full 5 days of treatment
5. Consult physician or NP if client is unable to use cefixime, ceftriaxone, or azithromycin.
6. See BCCDC STI Medication Handouts for further medication reconciliation and client information.
7. See Monitoring and Follow-up section for test-of-cure (TOC) requirements.
Allergy and Administration:
1. DO NOT USE ceftriaxone or cefixime if history of allergy or anaphylaxis to cephalosporins. Consult/refer if history of anaphylaxis or immediate reaction to penicillin.
2. DO NOT USE azithromycin if history of allergy to macrolides.
3. DO NOT USE doxycycline if pregnant and/or allergic to doxycycline or other tetracyclines.
4. DO NOT USE lidocaine if history of allergy to lidocaine or other local anesthetics. Use cefixime PO as alternate treatment.
5. For IM injections of ceftriaxone the ventrogluteal site is preferred.
6. Advise the client 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 BCCDC CDC Manual- Chapter 2: Immunization – Part 3: Management of Anaphylaxis in a Non-Hospital Setting, November 2016.
7. If serious allergic reaction develops including difficulty breathing, severe itchiness, have the client inform clinic staff immediately. If symptoms develop after leaving the clinic, advise the client to seek immediate emergency care.</td></tr>
<tr><td>Second Choice
Cefixime 800mg PO in a single dose, and
Doxycycline 100mg PO BID for 7 days
OR
Ceftriaxone 250mg IM in a single dose, and
Doxycycline 100mg PO BID for 7 days</td></tr>
<tr><td>Third Choice
Azithromycin 2gm PO in a single dose</td></tr>
</table>

Treatment Choice for Urethritis (NYD)	
	8. Advise client 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. 9. 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. 10. 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®)

Treatment Choice for Urethritis – Non-gonococcal (NGU)		
Diagnosis – Type	**Treatment**	**Notes**
Non-gonococcal Urethritis (NGU) – when immediate microscopy is available and results include: • Urethral swab for smear is negative for TID • Urethral swab for smear ≥5 PMNs	**First Choice** Doxycycline 100mg PO BID for 7 days **OR** Azithromycin 1gm PO in a single dose	See notes on previous two pages.

Partner Counselling and Referral

Counsel clients to notify people who may have been exposed through sexual contact within the previous 60 days that they require testing and treatment to cover chlamydia and gonorrhea. If no sexual contact in the past 60 days then the client may notify their last sexual contact regarding testing and treatment (see *DST 901: Care and Treatment Plan – Treatment of STI Contacts*)

Monitoring and Follow-up

- 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.

Potential Complications

- Persistent or recurrent urethritis (see *DST 903: Care and Treatment Plan - Recurrent Urethritis*)
- Epididymitis
- Sexually-acquired reactive arthritis
- Stricture (rare)
- Prostatitis (rare)

Client Education

Counsel client regarding:

- Abstaining from sexual activity during the 7-day course of treatment or for 7 days post single-dose therapy for clients and their contacts.
- Informing last sexual contact AND any sexual contacts within the last 60 days that they require testing and treatment.
- Methods of partner notification.
- The appropriate use of medications (dosage, side effects, and need for re-treatment if dosage not completed, or symptoms do not resolve).
- Harm reduction (e.g., condom use significantly reduces the risk of transmission).
- The benefits of routine STI screening.
- The potential complications from untreated urethritis.
- Co-infection risk for HIV when another STI is present.
- The asymptomatic nature of STI.

- 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.
- Urethritis can be transmitted through oral, vaginal, and anal sexual contact. Organisms responsible for the infection may reside in the throat, vagina, or rectum of sexual partners, and may not be detectable with testing.

Consultation and/or Referral

Consult or refer to physician or NP, if the client is experiencing complications associated with urethritis (e.g., epididymitis: see BCCDC's non-certified practice *Epididymitis DST*).

Documentation

- Urethritis is not reportable
- As per agency policy

References

More recent editions of any of the items in the reference list may have been published since the DST was published. If you have a newer version, please use it.

Australasian Sexual Health Alliance (ASHA). (2016). Urethritis – male. In *Australian STI Management Guidelines for use in Primary Care*.

Barbee, L.A., Kerani, R.P., Dombrowski, J.C., Soge, O. & Golden, M.R. (2013). A retrospective comparative study of 2-drug oral and intramuscular cephalosporin treatment regimens for pharyngeal gonorrhea. *Clinical Infectious Diseases*, 56(11), pp.1539-1545.

British Columbia Centre for Disease Control (BCCDC). (2014). *British Columbia treatment guidelines: Sexually transmitted infections in adolescent and adults*. STI/HIV Prevention and Control Division, BCCDC.

BCCDC. (2013). BCCDC's videos on injection landmarking and technique. BCCDC.

BCCDC Public Health Laboratory (BCCDC PHL). (2016). *PHSA Laboratories Guide to Programs and Services*. Vancouver, BC.

Centers for Disease Control and Prevention (CDC). (2015). Urethritis. *2015 Sexually Transmitted Diseases Treatment Guidelines*. Atlanta, GA.

Holmes, K., Sparling, P., Stamm, W., Piot, P., Wasserheit, J., Corey, L., Cohen, M. & Watts, H. (2008). *Sexually transmitted disease* (4th ed). Toronto, ON: McGraw Hill Medical.

Horner, P.J., Blee, K., O'Mahony, C., Muir, P., Evans, C. & Radcliffe, K. (2015). UK national guideline on the management of non-gonococcal urethritis. *Int J STD AIDS*, pp.1-12.

Hottes, T.S., Lester, R.T., Hoang, L., McKay, R., Gilbert, M., Patrick, D.M., Wong, T., Martin, R. & Ogilvie, G. (2013). Cephalosporin and azithromycin susceptibility in *Neissieria gonorrheoeae* isolates by site of infection, British Columbia, 2006 to 2011. *Sexually Transmitted Diseases*, 40(1), pp.46-51.

Lunny, C., Taylor, D., Hoang, L., Wong, T., Gilbert, M., Lester, R. & Greub, G. (2014). Self-collected versus clinician-collected sampling for chlamydia and gonorrhoea screening: A systemic review and meta-analysis. *PLoS ONE*, 10(7), pp.1-23.

Manhart, L.E., Gillespie, C.W., Lowens, M.S., Khosropour, C.M., Colombrara, D.V., Golden, M.R., Hakhu, N.R., Thomas, K.K. Hughes, J.P., Jensen, N.L. & Totten, P.A. (2013). Standard treatment regimens for nongonoccoccal urethritis have similar but declining cure rates: A randomized controlled trial. *Clinical Infectious Diseases*, 56(7), pp.934-942.

Papp, J. et al. (2014). Recommendations for the laboratory-based detection of *Chlamydia trachomatis* and *Neisseria gonorrhoeae*. *Morbidity and Mortality Weekly Report*, 63(1).

Pattman, R., Snow, M., Handy, P., Sankar, K.N. & Elawad, B. (2005). *Oxford Handbook of Genitourinary Medicine, HIV, and AIDS*, 1st Edition, Copyright (c) 2005 Oxford University Press.

Public Health Agency of Canada (PHAC). (2013). Urethritis. In: *Canadian guidelines on sexually transmitted infections*.

PHAC. (2014). Supplementary statement for recommendations related to the diagnosis, management, and follow-up of urethritis. In: *Canadian guidelines on sexually transmitted infections*.

PHAC. (2017). 2016 Updates Summary. In*: Canadian guidelines on sexually transmitted infections*.

University of California San Francisco (UCSF) & Center of Excellence for Transgender Health. (2016). *Guidelines for the primary and gender-affirming care of transgender and gender non-binary people*.