DST-1008 Gonorrhea (Reportable)

DEFINITION

Bacterial infection caused by the transmission of *Neisseria gonorrhoeae* (*N. gonorrhoeae* or GC) during sexual contact in which body fluids are exchanged.

CAUSE

Bacterial: Neisseria gonorrhoeae

PREDISPOSING RISK FACTORS

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

TYPICAL FINDINGS

Sexual Health History

- sexual contact with at least one partner
- may be asymptomatic
- sexual contact with someone with confirmed positive laboratory test for STI
- short incubation period (e.g., urethritis and discharge may develop within one week of sexual contact)

Physical Assessment

GC infection can be asymptomatic in all sites; however, urethral GC infections are often symptomatic, while pharyngeal, vaginal and rectal infections are often asymptomatic.

- inflammation of the tissues around the eye including: acute redness, purulent discharge and crusting (symptoms of conjunctivitis); can be caused from gonococcal infection in the eye; consult with or refer to physician or nurse practitioner (NP) for symptoms of conjunctivitis
- sore throat (throat infection is most often asymptomatic)
- urethral symptoms such as, discharge (usually purulent, may be copious), itch or awareness
- painful (dysuria) or difficult urination
- testicular pain and/or swelling (symptoms of epididymitis)
- abnormal change in vaginal discharge
- abnormal vaginal bleeding:
    - vagina with or without cervix: after intercourse or between menstrual period
    - vagina after vaginoplasty: abnormal vaginal bleeding is not always STI-related as longer post-operative symptoms of bleeding could be indicative of hypergranulation; refer to the *STI Assessment DST* for more information, and especially for clients experiencing pain, discharge, or bleeding in the first 3 to 4 month post-operative period
- lower abdominal pain (symptom of pelvic inflammatory disease)
- dyspareunia
- inflammation of the rectum, rectal pain and anal discharge (symptoms of proctitis)

DIAGNOSTIC TESTS

Full STI screening is recommended. See the *STI Assessment DST*.

GC C&S is indicated for all clients who are symptomatic and/or are a contact to gonorrhea.

- **Throat:**
    - for clients who are symptomatic and/or are a contact to GC, collect:

        - GC culture & sensitivity (C&S) swab
        - GC NAAT swab
    - for asymptomatic clients who require screening only, collect:
        - GC NAAT swab, if indicated in sexual health history

- **Penile urethra (with or without phalloplasty or metoidioplasty with urethral lengthening):**
    - for clients who are symptomatic with urethral discharge and/or are a contact to GC, collect specimen from visible discharge at the meatus - insertion into the urethra is not required:
        - GC C&S swab
        - smear for typical intracellular diploccoci (TID) and polymorphonuclear leukocytes (PMNs) (collect only if immediate microscopy is available)
        - GC NAAT urine. Ideally the client should not have voided in the previous 1-2 hours; collect first void 10-20 ml

- **Vagina:**
    - **With cervix:**
        - asymptomatic – GC NAAT vaginal (preferred) or cervical swab
        - symptomatic or contact to GC – a full pelvic examination is recommended to collect GC C&S cervical (preferred) or vaginal swab (when unable to perform pelvic exam) **and** GC NAAT vaginal (preferred) or cervical swab
    - **After total hysterectomy (no cervix):**
        - asymptomatic – GC NAAT urine (preferred) or vaginal swab
        - symptomatic or contact to GC – GC C&S vaginal swab **and** GC NAAT urine specimen (preferred) or vaginal swab
    - **After vaginoplasty:** GC NAAT urine. Ideally the client should not have voided in the previous 1-2 hours; collect first void 10-20 ml
        - asymptomatic/symptomatic**-**GC NAAT urine

- **Rectum:**
    - for clients who are symptomatic and/or are a contact to GC, collect:
        - GC C&S swab
        - GC NAAT swab
    - for asymptomatic clients who require screening only, collect:
        - GC NAAT swab, if indicated in sexual health history

Notes:

1. If urethral swabs are indicated (e.g., for symptomatic clients), the urine specimen is collected after the urethral swab.
2. GC NAAT urine specimens may be collected as the only diagnostic test in agencies or circumstances where:
    - GC C&S is unavailable, and the client is symptomatic
    - client is asymptomatic
    - if client declines recommended testing of cervical or vaginal sites
3. 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 by the client.
4. Recent data show that NAAT vaginal swabs for *C. trachomatis* and *N. gonorrhoeae* identify as many or more infections over cervical, urethral, or urine specimens.

CLINICAL EVALUATION/CLINICAL JUDGMENT

Treat all clients with confirmed gonorrhea by positive laboratory result.

If providing treatment for a client with confirmed positive cervical, vaginal or urine laboratory test for *Neisseria gonorrhoeae*; assess for signs of pelvic inflammatory disease (PID) through symptoms inquiry and/or physical assessment (bimanual exam), if indicated.

Treat all persons identified as a sexual contact within the past 60 days to a confirmed gonorrhea or case. If there are no sexual contacts in the previous 60 days, then follow-up should occur for the last sexual contact.

MANAGEMENT AND INTERVENTIONS

Goals of Treatment

- treat infection
- prevent complications
- prevent the spread of infection

TREATMENT OF CHOICE

Treatment	Notes
First Choice cefixime 800 mg PO in a single dose **and** azithromycin 1 gm PO in a single dose **OR** ceftriaxone 250 mg IM in a single dose **and** azithromycin 1 gm PO in a single dose **Second Choice** cefixime 800 mg PO in a single dose **and** doxycycline 100 mg PO BID for 7 days **OR** ceftriaxone 250 mg IM in a single dose **and** doxycycline 100 mg PO BID for 7 days **Third Choice** azithromycin 2 gm PO in a single dose	**General:** 1. Treatment covers both gonorrhea and chlamydia. 1. *Canadian Guidelines for 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. 2. Future GC Treatment regimens will continue to reflect national recommendations in association with local GC antimicrobial resistance trends (AMR) trends. 3. Retreatment is indicated if the client has missed 2 consecutive doses of doxycycline or has not completed a full 5 days of treatment. 4. Consult a physician or NP if client is unable to use cefixime, ceftriaxone, or azithromycin. 5. See BCCDC *STI Medication Handouts* for further medication reconciliation and client information. 6. See *Monitoring and Follow-up* section for test-of-cure (TOC) requirements. **Allergy and Administration:** 7. DO NOT USE ceftriaxone or cefixime if history of allergy or anaphylaxis to cephalosporins. Consult with or refer to a physician or NP if history of anaphylaxis or immediate reaction to penicillins. 8. DO NOT USE azithromycin if history of allergy to macrolides. 9. DO NOT USE doxycycline if pregnant and/or allergic to doxycycline or other tetracyclines. 10. If an azithromycin or doxycycline allergy or contraindication exists, consult with or refer to a physician or NP for alternate treatment. 11. Azithromycin and doxycycline are sometimes associated with gastrointestinal adverse effects. Taking medication with food and plenty of water may minimize adverse effects. 12. The preferred diluent for ceftriaxone IM is 0.9 mls lidocaine 1% 13. DO NOT USE lidocaine if history of allergy to lidocaine or other local anesthetics. Use cefixime PO as alternate treatment.

Treatment	Notes
	14. For IM injections of ceftriaxone the ventrogluteal site is preferred. 15. 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. 16. If serious allergic reaction develops including difficulty breathing and/or severe itchiness, have the client inform clinic staff immediately. If symptoms develop after leaving the clinic, advise the client to seek immediate emergency care. 17. 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. 18. 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®)

PREGNANT OR BREAST-/CHEST-FEEDING CLIENTS

For all pregnant or breast-/chest-feeding clients, consult with or refer to a physician or NP. Test-of-cure (TOC) is recommended for pregnant and/or breast-/chest-feeding clients and should be performed at 3-4 weeks after completion of treatment.

PARTNER COUNSELLING AND REFERRAL

People who have confirmed laboratory tests positive for *Neisseria gonorrhoeae* are offered partner counselling and referral to identify all the people who may have been exposed through sexual contact in the previous 60 days. If no sexual partner in the previous 60 days then follow up should occur for the last sexual contact (see *Treatment of STI Contacts DST*).

MONITORING AND FOLLOW-UP

Repeat testing at 6 months is recommended due to potential high risk of re-infection.

Perform TOC in the following situations:

- if symptoms persist
- for all pregnant and/or breast-/chest-feeding clients
- for all pharyngeal infections
- if treatment was other than the recommended first choice
- for clients who received antibiotics linked to a case who had treatment failure or demonstrated resistance to the same antibiotic

TOC using GC culture (C&S) should be performed a minimum 3-7 days post-treatment completion. TOC using GC NAAT (if culture is not available), should be performed 3-4 weeks post-treatment completion.

POTENTIAL COMPLICATIONS

- epididymitis
- infertility
- sexually-acquired reactive arthritis
- disseminated gonococcal infection (DGI)
- pelvic inflammatory disease (PID)
- ectopic pregnancy
- chronic pelvic pain

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 (condom use significantly reduces the risk of transmission).
- cleaning sex toys between use and using condoms if sharing sex toys
- the benefits of routine STI screening.
- the potential complications from untreated gonorrhea.
- co-infection risk for HIV when another STI is present.

- the asymptomatic nature of STI.
- repeating STI screening which includes testing for *Neisseria gonorrhoeae* in 6 months' time as re-infection rate is high.
- the importance of revisiting a health care provider if symptoms persist.

CONSULTATION AND/OR REFERRAL

Consult with or refer to a physician or NP for all clients who are pregnant or breast-/chest-feeding. Consult with or refer to physician or NP for allergy/contraindications to treatment outlined in this DST.

DOCUMENTATION

- Neisseria gonorrhoeae is reportable
- complete H208 form as per reporting procedures
- as per agency policy

REFERENCES

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

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