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GONORRHEA (REPORTABLE)

DEFINITION

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

CAUSES

Neisseria gonorrhoeae

PREDISPOSING RISK FACTORS

Sexual contact where there is exchange of body fluid with an individual who is infected with *Neisseria gonorrhoeae*.

TYPICAL FINDINGS

Sexual Health History

- sexual contact with one or more partners
- contact to someone with confirmed laboratory test for *Neisseria gonorrhoeae*
- short window period (e.g., urethritis and discharge may develop within one week of sexual contact)

CRNBC monitors and revises the CRNBC certified practice decision support tools (DSTs) every two years and as necessary based on best practices. The information provided in the DSTs is considered current as of the date of publication. CRNBC-certified nurses (RN(C)s) are responsible for ensuring they refer to the most current DSTs.

The DSTs are not intended to replace the RN(C)'s professional responsibility to exercise independent clinical judgment and use evidence to support competent, ethical care. The RN(C) must consult with or refer to a physician or nurse practitioner as appropriate, or whenever a course of action deviates from the DST.

Physical Assessment

GC infection can be asymptomatic in both men and women; however, urethral GC infection in men is often symptomatic while pharyngeal and rectal infection is often asymptomatic for both men and women.

Males

- urethral discharge (usually purulent, may be copious)
- urethritis
- dysuria
- urethral irritation
- testicular pain or swelling (symptoms of epididymitis)
- rectal pain, and discharge (symptoms of proctitis)
- pharyngeal discomfort (throat infection most often asymptomatic)

Females

- abnormal change in vaginal discharge
- dysuria
- abnormal vaginal bleeding
- lower abdominal pain (symptom of pelvic inflammatory disease)
- dyspareunia
- rectal pain and discharge (symptoms of proctitis)
- pharyngeal discomfort (throat infection is most often asymptomatic)
- women are often asymptomatic

Note: If performing an assessment or undertaking treatment for a woman who has a confirmed positive cervical or vaginal laboratory test for *Neisseria gonorrhoeae*, assess for signs of pelvic inflammatory disease (PID)

Diagnostic Tests

Males

- urethral swab preferred for symptomatic clients or male contacts to GC. If urethral discharge is present, may collect swab from discharge and insertion into the urethra is not required.
 - GC culture and sensitivity (C&S) and
 - smear for typical intracellular diplococci (TID) and polymorphonuclear leukocytes (PMNs) (if available)
- urine specimen for Nucleic Acid Amplification Test (NAAT) (GC)
 - ideally the client should not have voided in previous 1-2 hours /collect first 10-20 mls.
 - collect after urethral swab
 - if urine testing is not available urethral swab for NAAT (GC) can be collected
 - may be collected as the only diagnostic test in agencies or circumstances where:
 - GC C&S is unavailable
 - client is asymptomatic
 - client is unable to tolerate a swab
- throat swab for GC culture if indicated in sexual health history
- throat swab for NAAT (GC) if indicated in sexual health history. *See STI Assessment DST* re: indications for screening with GC NAAT throat specimens
- rectal swab for GC culture if indicated in sexual health history
- rectal swab for NAAT (GC) if indicated in sexual health. *See STI Assessment DST* re: screening indications for NAAT (GC) rectal specimens

Females

- in women with no physical assessment findings, but sexual history indicates need for diagnostics (e.g., identified risk), collect the following:
 - swab from vagina or cervix for NAAT (GC). For vaginal collection swab the posterior fornix of the vaginal wall.)
- if women are presenting with symptoms and/or are identified as a sexual contact to a person diagnosed with GC, collect the following:
 - cervical swab for C&S (GC), **and**

- swab from vagina or cervix for NAAT (GC).
- if the client declines a physical assessment or physical assessment is not appropriate, self collected vaginal swab for NAAT (GC) may be offered and is preferred over a urine specimen
- alternatively, if self collected vaginal swab is declined then first void urine for NAAT (GC) can be collected. Ideally, the client should not have voided in previous 1-2 hours/collect first 10-20 mls
- if the client has undergone a hysterectomy including removal of the cervix; collect first void urine for NAAT (GC) (preferred) or vaginal swab
- throat swab for GC culture if indicated in sexual health history
- throat swab for GC NAAT if indicated in sexual health history. See *STI Assessment DST* re: screening indications for GC NAAT throat specimens
- rectal swab for GC culture if indicated in sexual health history
- rectal swab for GC NAAT if indicated in sexual health *history*. See *STI Assessment DST* re: screening indications for GC NAAT rectal specimens

Notes:

1. Recent data show that vaginal swabs for NAATs for *C. trachomatis*, and *N. gonorrhoeae* may identify as many or more infections in women over cervical or urethral swabs or urine specimens. Check with your local laboratory to see if submission for vaginal NAAT (GC/CT) is an option.
2. There are promising data evolving which supports the use of NAAT for rectal and oral swabs for *C. trachomatis* and *N. gonorrhoeae*. See the *STI Assessment DST: Vaginal, oral, rectal specimen collections for indications re: when to use NAAT (GC/CT)*. Check with your local laboratory provider to see if submission of oral/rectal NAAT (GC/CT) is an option.

CLINICAL EVALUATION/CLINICAL JUDGMENT

Treat all clients with confirmed gonorrhea by positive laboratory result:

- urethral (urine or urethral swab)
- cervical (swab from cervix or vagina)
- pharyngeal
- rectal

Treat all persons identified as contacts to confirmed gonorrhoea (e.g., sexual contact with a confirmed case in the past 60 days. If no sexual partner in the previous 60 days then follow up should occur for the last sexual contact)

MANAGEMENT AND INTERVENTIONS

Goals of Treatment

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

TREATMENT OF CHOICE

Treatment	Notes
<p>First Choice</p> <p>*See Notes Section: 17, 18 & 19</p>	<p>1. Treatment covers both gonorrhoea and Chlamydia.</p> <p>2. DO NOT USE ceftriaxone or cefixime if history of allergy to cephalosporins or a history of anaphylaxis or immediate reaction to penicillins.</p>
<p>cefixime 800 mg PO in a single dose and azithromycin 1 gm PO in a single dose</p> <p>OR</p> <p>ceftriaxone 250 mg IM in a single dose and azithromycin 1 gm PO in a single dose</p>	<p>3. The preferred diluent for ceftriaxone IM is 0.9 mls lidocaine 1% (without epinephrine) to minimize discomfort.</p> <p>4. DO NOT USE lidocaine if history of allergy to lidocaine or other local anaesthetics. Use cefixime PO as alternate treatment.</p> <p>5. DO NOT USE azithromycin if history of allergy to macrolides.</p> <p>6. If an azithromycin or doxycycline allergy or contraindication exists see alternate treatment.</p> <p>7. DO NOT USE doxycycline if pregnant and/or allergic to tetracycline.</p>
<p>Second Choice</p>	<p>8. If the client has missed 2 consecutive doses of</p>

<p>cefixime 800 mg PO in a single dose and doxycycline 100mg BID for 7 days</p> <p>OR</p> <p>ceftriaxone 250 mg IM in a single dose and doxycycline 100mg BID for 7 days</p>	<p>doxycycline within the first 5 days of treatment, or has not completed a full five days of treatment then retreatment is indicated</p> <p>9. Consult physician or NP if client is unable to use cefixime, ceftriaxone, or azithromycin.</p> <p>10. Advise 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 Immunization Manual- Section V- Management of Anaphylaxis in a Non-Hospital Setting BCCDC, Feb 2009, available at www.bccdc.ca/NR/rdonlyres/52EA275F-0791-4164-ABA9-07F0183FF103/0/SectionV_Anaphylaxis_Jan05.pdf</p>
<p>Third Choice</p>	<p>11. 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.</p>
<p>azithromycin 2 gm PO in a single dose</p>	<p>12. Advise client they may experience pain redness and swelling at the injection site or diarrhea. If any of these effects persist or worsen advise to contact health care provider.</p>
<p>Fourth Choice</p>	<p>13. Azithromycin is associated with a significant incidence of gastrointestinal adverse effects. Taking medication with food or administering prophylactic anti-emetics may minimize adverse effects.</p>
<p>spectinomycin 2 g IM in a single dose and azithromycin 1 gm PO in a single dose</p>	<p>14. See BCCDC Client and Medication Information Sheets for further medication reconciliation and client information. Available at www.stiresource.com/brochures/indexbrochures.php</p>
<p>Alternate Treatment: If Doxycycline & Azithromycin are contraindicated</p>	<p>15. For IM injections of ceftriaxone and spectinomycin, the ventrogluteal site is preferred. (See http://www.bccdc.ca/imm-vac/ForHealthProfessionals/ImmsCompetency.htm)</p>
<p>First Choice</p>	<p>16. See monitoring and follow-up for test of cure requirements.</p>
<p>cefixime 800mg po in a single dose and amoxicillin 500mg po TID for 7 days</p> <p>OR</p> <p>ceftriaxone 250mg IM in a single dose and amoxicillin 500mg po TID for 7 days</p>	<p>17. In client populations who are MSM, the preferred co-treatment for Chlamydia coverage is azithromycin as it further potentiates treatment for gonorrhoea.</p> <p>18. Canadian STI Treatment Guidelines (December, 2011) recommend ceftriaxone for the treatment of gonococcal infection in MSM and for all pharyngeal infection as a first choice, however local BC data currently indicate first choice treatment options outlined in this DST are equivalent.</p>
<p>Second Choice</p>	<p>19. Future GC Treatment regimens will continue to reflect national recommendations in association with local GC antimicrobial resistance trends (AMR) trends in BC. For more information on GC AMR trends in BC refer to the</p>

<p>cefixime 800mg po in a single dose</p> <p>and</p> <p>erythromycin 500mg po QID for 7 days</p> <p>Note: If this dose of erythromycin is not tolerated then use:</p> <p>erythromycin 250mg po QID for 14 days</p>	<p>BC Public Health Microbiology & Reference Laboratory: 2013 Laboratory Trends at: http://www.bccdc.ca/NR/rdonlyres/E45304B4-38BC-4813-820A-E25C9FE087B2/0/Web_20112012AnnualReport_FINAL.pdf</p>
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PREGNANT OR BREASTFEEDING WOMEN

If client is pregnant or breastfeeding and requires treatment, consult or refer to a physician or nurse practitioner.

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.

MONITORING AND FOLLOW UP

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

Test of cure for GC C&S (recommended) minimum 3-7 days post treatment completion or with NAAT (GC) (if culture is not available) 3-4 weeks post treatment completion in the following situations:

- if symptoms persist
- for all pregnant and/or breastfeeding women
- 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

POTENTIAL COMPLICATIONS

Males

- epididymitis
- infertility
- sexually acquired reactive arthritis
- disseminated gonococcal infection

Females

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

CLIENT EDUCATION

Counsel client:

- to abstain from sexual activity during the 7 day course of treatment or for 7 days post single dose therapy for clients and their contacts
- to inform any sexual contacts within the last 60 days that they require testing and treatment. If no sexual contact in the previous 60 days then follow up should occur for the last sexual contact.
- regarding methods of partner notification
- regarding appropriate use of medications (dosage, side effects, and need for re-treatment if medication is taken incorrectly)
- regarding harm reduction (condom use significantly reduces the risk of transmission)
- regarding the benefits of routine STI and HIV screening
- of complications from untreated gonorrhea
- regarding co infection risk for HIV when another STI is present
- regarding the asymptomatic nature of STI and HIV
- regarding importance of revisiting health care provider if symptoms persist
- about recommendation to return in 6 months for repeat STI screening for gonorrhea

CONSULTATION AND/OR REFERRAL

If client is pregnant or breastfeeding and requires treatment consult or refer to physician or nurse practitioner.

DOCUMENTATION

- complete H208 form as per reporting procedures
- as per agency policy

REFERENCES

For help obtaining any of the items on this list, please contact CRNBC Helen Randal Library at circdesk@crnbc.ca

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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