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## Case Definition

### Confirmed case-genital infections

Laboratory confirmation of infection in genitourinary specimens:

detection of *Neisseria gonorrhoeae* by culture

or

detection of *N. gonorrhoeae* nucleic acid

### Confirmed case-extra-genital infections

Laboratory confirmation of infection from pharynx, rectum, joint, conjunctiva, blood and other extra-genital sites:

detection of *N. gonorrhoeae* by culture

or

detection of *N. gonorrhoeae* nucleic acid

### Confirmed case-perinatally acquired infections

Laboratory confirmation of infection from a neonate in the first four weeks of life leading to the diagnosis of gonococcal conjunctivitis, scalp abscess, vaginitis, bacteremia, arthritis, meningitis or endocarditis:

detection of *N. gonorrhoeae* by culture

or

detection of *N. gonorrhoeae* nucleic acid

Laboratory comments

Further strain characterization is indicated for epidemiologic, public health and control purposes.

A positive test for Gram-negative intracellular diplococci in symptomatic males with urethral discharge provides a presumptive diagnosis for gonorrhea in men.

## Reporting Requirements

### Physicians, Health Practitioners and others

Physicians, Nurse Practitioners and others as listed in the *Public Health Act*, shall notify the Chief Public Health Officer (CPHO) (or designate) of all lab confirmed cases by phone within 48 hours (two days) of diagnosis.

The information required will include:

- case name and MRN
- laboratory/clinical findings
- treatment details
- phone number for case

Although the lab sends positive results to the Chief Public Health Office (CPHO) (see [Laboratories](#)) this does not negate the responsibility of the ordering health care provider to report the case with the above information to the CPHO. Failure to notify CPHO will delay the follow up of the client by Public Health Nursing for contact tracing, education and immunization assessment.

## Laboratories

The Provincial Laboratory shall in accordance with the Prince Edward Island *Public Health Act* (2), report all positive laboratory results to the Chief Public Health Officer (CPHO) (or designate) by phone and mail, fax or electronic transfer as soon as the result is known.

## Etiology

*Neisseria gonorrhoeae* is a Gram-negative diplococcus. This highly infectious bacterium colonizes and infects genital mucosa and it may also infect extragenital sites, including the oropharyngeal, conjunctival and anorectal mucosae.

*N. gonorrhoeae* can develop antimicrobial resistance (AMR) rapidly and has developed resistance to every class of antimicrobial used to treat it; some of these antibiotics (sulphonamides, penicillins, tetracyclines) are ineffective and are no longer used.

Travel-related ceftriaxone-resistant gonorrhea isolates were reported in Canada in 2017 and 2018 and isolates with decreased susceptibility to cephalosporins (cefixime and ceftriaxone) continue to emerge. Resistance to azithromycin is increasing and treatment failures have been reported in Canada and around the world. Depending on the local antimicrobial resistance patterns, there may be variability in regionalized treatment recommendations.

## Clinical Presentation

### Genital Infections

In men, urethral infection commonly causes urethral discharge (81%) and /or dysuria (53%). The discharge is often mucopurulent or purulent. Rarely, epididymal tenderness/swelling or balanitis may be present.

Women are often asymptomatic (up to 40%). It is common for examination findings to be normal, however if symptoms are present, they may include mucopurulent endocervical discharge and cervical friability.

### Extra-Genital Infections

Infections can be found in the pharynx, rectum, joints, conjunctiva, blood, and other sites. In females and men who have sex with men (MSM), pharyngeal and anorectal infections are common and are most often asymptomatic. Anorectal infections may cause pruritus, tenesmus, and discharge. Conjunctivitis may occur in adults; however, this infection is more prevalent in newborns and may cause blindness if not treated adequately. Bacteremia is rare, occurring in only 0.5 – 1% of gonorrheal infections. Meningitis, arthritis, skin lesions, and endocarditis also occur infrequently. Death is uncommon.

### Perinatally Acquired Infections

Infections occur in newborns as a result of passage through an infected cervix and /or birth canal. The most common presentation of infection is ophthalmia neonatorum. Other presentations such as vaginitis, rhinitis,

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anorectal infection, funisitis, urethritis, scalp abscesses or other disseminated diseases (bacteremia, arthritis, meningitis or endocarditis) may also occur.

### Diagnosis/Testing

The diagnosis is established by the identification of *N. gonorrhoeae* at an infected site. Clinical presentation and sexual history determine which specimens should be collected and the type of test to use. Laboratory tests for the diagnosis of gonorrhea include culture and NAAT. NAAT is the test used for routine screening on PEI.

**NOTE:** It is important for clinicians to assess for and test all sites of potential infection e.g. rectal and pharyngeal as well as urethral/vaginal/cervical.

Some NAAT may generate false positive results due to possible cross-reaction with other *Neisseria* species. If a false positive result is suspected, consult with the provincial laboratory for further guidance.

### Specimens

Acceptable specimens for genitourinary infections include:

- For male genitalia – first stream urine. Urethral swab testing is not available in PEI
- For female genitalia—clinician collected endocervical or vaginal swab, or self-collected vaginal swab. Urine can be used if absolutely necessary but the testing on female urine will miss 1 in 10 cases compared to vaginal testing.
- Oropharyngeal or anorectal samples are taken with the same type of swab used for vaginal samples.
- Health PEI laboratory detailed instruction for testing can be found in [Appendix A](#) *Collection and Order for Chlamydia Trachomatis, Neisseria Gonorrhea & Trichomonas Vaginalis*.

Culture for *N. gonorrhoeae* can be used if there is suspicion of treatment failure. If treatment failure is suspected contact the Provincial Microbiology laboratory and/or Infectious Disease physician to discuss.

For any specimen potentially associated with sexual assault, there is a chain of custody process that must be maintained in consultation with the microbiology lab.

**Note:** PEI participates in the Enhanced Surveillance of Antimicrobial-resistant Gonorrhea system (ESAG). This program can use non-pharyngeal NAAT specimens for AMR-GC prediction using SNP assays. All gonococcal (GC) non-pharyngeal specimens are sent for analysis.

### Epidemiology

#### Reservoir

The only known reservoir is humans.

## Transmission

Gonorrhea is transmitted by direct inoculation of infected secretions from one mucous membrane to another, usually through sexual contact (oral, anal, vaginal) or through the birth process (vertical transmission).

## Incubation Period

The incubation period is typically two to seven days, with a range of 1 – 14 days.

## Period of Communicability

*N. gonorrhoea* is communicable for as long as the person harbours the organism. This may be months in untreated individuals. Effective therapy typically ends communicability in hours, however clients are instructed to abstain from sexual activity for 7 days post treatment to ensure treatment has time to be effective. Due to potential resistance to various treatments regimens a test of cure (TOC) is recommended 3-4 weeks post end of treatment.

## Host susceptibility

Susceptibility is universal and re-infection is common. Co-infection with *Chlamydia trachomatis* is common. Epidemiologic studies provide strong evidence that gonorrheal infections facilitate HIV transmission.

## Occurrence

### General

In 2020, WHO estimated 82.4 million new infections with *N. gonorrhoeae* among adults aged 15 to 49 years. Prevalence of gonorrhoea is highest among priority populations such as men who have sex with men, sex workers, transgender women and adolescents and young people in high burden countries.

### Canada

*N. gonorrhoeae* became reportable in Canada in 1924.

Gonorrhea is the second most commonly reported sexually transmitted infection (STI) in Canada, with a gradual and steady increase in reported cases of gonorrhea since 2012. In 2021, cases of gonorrhea were reported in Canada at the rate of 84.2 cases per 100,000 people. The reported rate of gonorrhea doubled between 2012 and 2021, with rates higher among males than females. In 2021, gonorrhea rates were highest among females aged 15 to 29 years old and males aged 20 to 39 years old.

It is important to note that as asymptomatic gonorrhea infections may be undiagnosed and underreported, reported case counts and rates of gonorrhea may underestimate the true prevalence of gonorrhea in Canada.

For the most up to date information about current rates of infection in Canada visit:

<https://www.canada.ca/en/public-health/services/infectious-diseases/sexual-health-sexually-transmitted-infections/canadian-guidelines/gonorrhea/etiology-epidemiology.html>

## Prince Edward Island

PEI rates continue to be among the lowest in the country. In 2019 the rate was 10.4 per 100,000 population, however the rates have continued to increase and in 2023 a gonorrhea outbreak was declared in PEI. In 2024, the rate of gonorrhea infection was 13.9 cases per 100,000 population and this was more than double the rate reported in 2013 (5.8 cases per 100,000 population).

## Control

The effort to control gonorrhea involves follow up of cases and their partners as well as education of those at risk and the general public. It is mandated under the [Public Health Act](#) that every attempt is made to identify, locate, examine and treat sexual partners of all cases. It is hoped that along with contacting the case, partner notification will identify those at risk, reduce disease transmission/re-infection and ultimately prevent disease sequelae.

## Management of a case

### Ordering Health Care Provider should:

- Notify the client of their diagnosis as soon as possible to prevent further transmission and to arrange treatment. For treatment direction please see **Treatment** section.
- Write “STI program” on the prescription if cost is a barrier for treatment and the client will be enrolled in the program at the pharmacy. The medication will be provided **at no cost to the client**.
- Test clients for HIV and other STBBI e.g., syphilis, HIV if not done recently.
- Instruct the client about infection transmission. Clients should be counselled about the **importance of abstaining from unprotected intercourse until 7 days after completion of treatment of both the case and partner(s)**.
- Arrange test for cure for 3-4 weeks post treatment completion.
- Make client aware that Public Health Nursing (PHN) will be calling to provide further education, offer immunizations and to collect information for confidential partner follow up.
- Once the client is notified of diagnosis and treated, contact the Chief Public Health Office using the Communicable Disease (CD) confidential voice mail at 902 620 3886 to provide information regarding the *medication prescribed* and the *phone number of the client*.
- **PHN follow-up will be delayed if ordering provider does not notify CPHO regarding the case.**

### Chief Public Health Office will:

- Send the client information to the appropriate PHN clinic lead or designate for follow up once the ordering physician has notified the CD co-ordinator of the treatment provided and a working phone number for the client.
- The CPHO initiates follow-up on all out of province/country referrals of cases and partner(s).

Public Health Nursing will:

- Provide clients/partners with individualized STI prevention education, targeted at developing knowledge, skills, attitudes and behaviors to reduce the risk and prevent recurrences of STI. See [Management of Contacts](#) section.
- Assess the immunization status and requirements for clients as per the [PEI Detailed Adult Immunization Schedule](#).
- Ask clients to provide contact information for sexual partners (all forms of sexual contacts, e.g. oral, anal or vaginal, sex toys etc.) in the past 60 days.
  - If there were no partners in the past 60 days then it is important to contact the last sexual partner.
  - If all partners traced test negative, notify the partner prior to the traceback period.
- Complete case/partner report forms and return to CPHO
- Provide information/linkages for other services as necessary e.g. sexual health clinic, mental health service, addictions services.
- Make every effort to contact clients and their partners. A minimum of 3 contact attempts on different days at different times should be made. These can be made by phone, text, email or letter.
- Consult with the CD coordinator at the CPHO for further options.
- Send the case/partner form back to CPHO if unable to make contact.

## Treatment

The following information on the preferred treatment for uncomplicated gonorrhea in adults and adolescents consist of an interim guidance from the National Advisory Committee on Sexually Transmitted and Blood-Borne Infections (NAC-STBBI). Alternative treatment options are also currently under review by the NAC-STBBI. Final recommendations will be available after the completion of the review currently underway, and this guideline will be updated as required.

Indications for Treatment:

- positive diagnostic test results
- diagnosis of a syndrome compatible with gonorrheal infection, without waiting for test results

### **Recommended treatment for *uncomplicated* anogenital and pharyngeal infection**

Updated *interim* recommendation on the preferred treatment of uncomplicated gonorrhea in adults and adolescents 10 years of age and older.

NAC-STBBI recommends **Ceftriaxone 500 mg IM** as a single dose (monotherapy) for preferred treatment of all uncomplicated infections (urethral, endocervical, vaginal, rectal and pharyngeal).

- If *C. trachomatis* infection has *not* been excluded by a negative test, concurrent treatment for chlamydia is recommended; refer to the treatment recommendations in the [PHAC Chlamydia and LGV Guide: Treatment and follow-up](#)).



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**Alternative treatment** options for uncomplicated infections, which are required if access to IM injection is not available, if the individual refuses the injection, or if the individual is severely allergic to cephalosporins, are currently under review by the NAC-STBBI. Refer to the following four alternative treatment regimens in the PHAC Gonorrhea Guide pending further review.

- Cefixime 800 mg PO in a single dose plus doxycycline\* 100 mg PO BID x 7 days
- Cefixime 800 mg PO in a single dose plus azithromycin 1g PO in a single dose
- Azithromycin 2 g in a single oral dose PLUS gentamicin 240 mg IM in a single dose
- Gentamicin 240 mg IM a single dose PLUS doxycycline\* 100 mg orally twice daily for 7 days

\*Doxycycline is contraindicated in pregnant and lactating individuals. Combination therapies containing gentamicin are not recommended in pregnancy.

If cost is a barrier for treatment the ordering provider can write “STI program” on the prescription and the client will be enrolled in the program at the pharmacy. The medication will be provided at no cost to the client.

**Note: Test of cure (TOC) is recommended for all positive NG sites in all cases at 3-4 weeks post treatment.** This is particularly important when regimens other than ceftriaxone 500 mg IM are used.

For further information, please refer to [PHAC Gonorrhea Guide: Treatment and follow-up](#).

### Considerations in children

Consult with a pediatric specialist or an experienced colleague and relevant clinical guidelines when a gonococcal infection is diagnosed in a child.

**Note:** Suspected sexual abuse of children must be reported to the local child protection agency.

### Pregnancy or lactating people

At present the only recommended treatment for pregnant people is ceftriaxone 500mg IM. **Alternative NG treatment regimens are not recommended in pregnancy.** In cases of cephalosporin allergy or other contraindications, consult with the infectious disease physician.

### HIV coinfection

People with HIV infection should receive the same treatment as those without HIV infection.

### Treatment for complicated NG infections

Complicated NG infections can be local (those that extend locally beyond the primary site of infection, such as epididymitis and pelvic inflammatory disease) or disseminated (systemic complications which may include arthritis-dermatitis syndrome and rarely endocarditis or meningitis). Treatment for complicated NG infections can be found in [Gonorrhea guide: Treatment and follow-up - Canada.ca](#) and may require consultation with an infectious diseases specialist.

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### Persistent and recurrent infection

Possible causes of persistent signs and symptoms after treatment:

- Failure to take the medication correctly (including vomiting within one hour of taking medication) or to finish the course of therapy
- Re-exposure
- Infection with other pathogen(s)
- Non-infective etiology
- Treatment failure or drug resistance

Treatment failure is defined as absence of reported sexual contact during the post-treatment period AND one of the following:

- Positive *N. gonorrhoeae* NAAT taken at least 3-4 weeks post treatment
- Positive *N. gonorrhoeae* on culture taken at least 72 hours after completion of treatment

If a treatment failure is suspected :

- Notify the CPHO of treatment failures.
- Consult the infectious disease physician to determine next steps.
- Contact the provincial microbiology laboratory if culture is required.

### Management of contacts

Partner notification will identify those at risk, reduce disease transmission/re-infection and ultimately prevent disease sequelae.

Health Care Providers will:

- Test and treat (as appropriate) contacts of a case of gonorrhea

Public Health Nursing will:

- Initiate partner/contact follow up
- Instruct contacts about infection transmission.
- Provide contacts with individualized STI prevention education, targeted at developing knowledge, skills, attitudes and behaviors to reduce the risk and prevent recurrences of STI.

CPHO will:

- CPHO will refer all out-of-province/country cases and partner(s) to the appropriate jurisdiction.

### Preventative measures

Preventative measures for gonorrhea can be done by the primary health care provider, public health nurse, and anyone else involved with the case and/or contacts.

- Ensure appropriate treatment for *N. gonorrhoeae* cases.
- Interview case and identify and ensure appropriate treatment and follow-up of *N. gonorrhoeae* for sexual partner(s).
- Include information about risk for STI during pre-travel health counselling.

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- Make STI services culturally appropriate, and readily accessible and acceptable, regardless of economic status.
- Encourage clients to talk openly about STIs and safe sex with every partner. It is important in protecting both partners.
- Educate the case, sexual partner(s), and the public about symptoms, transmission and prevention of infection including tips on safer sex:
  - Carry condoms and dental dams, check the expiry date regularly
  - Be up to date on your vaccines against Hepatitis and HPV
  - Get tested for STIs routinely
  - Post exposure prophylaxis using doxycycline is available for bacterial STIs such as chlamydia, syphilis, and to a lesser degree gonorrhea. “Given rates of tetracycline resistance in gonorrhea in Canada, Doxy-PEP is not expected to prevent NG infections in the Canadian context “ in 2021 the rate of resistance was between 58 and 65%. Information on Doxy PEP is available in the [PEI chlamydia guideline](#).

## Screening

- For persons with multiple sexual partners or a new partner since last tested, offer screening every three to six months.
- All sexually active persons under 30 years of age, at least annually.
- All pregnant people:
  - at first prenatal visit
  - in third trimester
- Screen pregnant people at the time of labour in any of the following situations:
  - No prenatal screening has occurred (no valid results are available at the time of labour)
  - Third trimester screening has not occurred.
  - A positive test result was obtained for *N. gonorrhoeae* or *C. trachomatis* during pregnancy without appropriate follow-up, including treatment and a test-of-cure
- Testing for gonococcal infection should occur prior to insertion of an IUD, a therapeutic abortion, or a dilation and curettage (D & C).
- Person who experienced sexual assault.

## Re-Screening

- Re-screening of all individuals diagnosed with gonorrhea is recommended 6 months post-treatment. This is in addition to testing for cure post treatment completion.

## References

CATIE (2023). Gonorrhea Fact Sheet Found at: [Gonorrhea | CATIE - Canada's source for HIV and hepatitis C information](#)

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World Health Organization (2025) Gonorrhea. Found at: [Gonorrhoea \(Neisseria gonorrhoeae infection\)](#)

The Society of Obstetricians and Gynaecologists of Canada (2025) Gonorrhea. Found at: [Gonorrhea – Sex & U](#)

## **Appendix A- Collection and Order for Chlamydia Trachomatis, Neisseria Gonorrhea & Trichomonas Vaginalis**









## **Appendix B – Gonorrhea Fact Sheet**