

Ontario Public Health Standards:
Requirements for Programs, Services and Accountability

Infectious Diseases Protocol

Appendix 1: Case Definitions and Disease- Specific Information

Disease: Gonorrhea

Effective: August 2025

Gonorrhea

☒ Communicable

☒ Virulent

[Health Protection and Promotion Act \(HPPA\)](#)¹

[Ontario Regulation \(O. Reg.\) 135/18 \(Designation of Diseases\)](#)²

Provincial Reporting Requirements

☒ Confirmed case

☒ Probable case

As per Requirement #3 of the “Reporting of Infectious Diseases” section of the [Infectious Diseases Protocol, 2023](#) (or as current), the minimum data elements to be reported for each case are specified in the following:³

- [O. Reg. 569](#) (Reports) under the HPPA;⁴
- The iPHIS User Guides published by Public Health Ontario (PHO); and
- Bulletins and directives issued by PHO.

Type of Surveillance

Case-by-case

Case Definition

Confirmed Case

Neisseria gonorrhoeae (*N. gonorrhoeae*) detected in an appropriate clinical specimen.

Probable Case

Clinically compatible signs and symptoms in a person with an epidemiologic link to a laboratory-confirmed case.

Outbreak Case Definition

The outbreak case definition varies with the outbreak under investigation. Please refer to the [Infectious Diseases Protocol, 2023](#) (or as current) for guidance in developing an outbreak case definition as needed.³

The outbreak case definitions are established to reflect the disease and circumstances of the outbreak under investigation. The outbreak case definitions should be developed for each individual outbreak based on its characteristics, reviewed during the course of the outbreak, and modified if necessary, to ensure that the majority of cases are captured by the definition. The case definitions should be created in consideration of the outbreak definitions.

Outbreak cases may be classified by levels of probability (i.e., confirmed and/or probable).

Clinical Information

Clinical Presentation

Urethral infections are often symptomatic, while cervical infections are often asymptomatic.⁵ If symptoms occur, they usually appear two to seven days after infection, but it may range from one to 14 days.⁶

Symptoms of gonorrhea correspond with the site of infection and can be mild or may go unnoticed by the individual.^{7,8} Symptoms associated with urogenital infections include:

- Purulent and painful urethral discharge
- Urethral redness, itching and/or swelling
- Dysuria and frequency
- Testicular pain and/or swelling
- Abnormal vaginal discharge
- Abnormal vaginal bleeding, including post-coital bleeding
- Cervicitis
- Bartholinitis
- Dyspareunia

Pharyngeal and rectal gonorrhea infections can occur among those engaging in receptive oral and anal sex respectively.⁷ Most rectal and pharyngeal gonorrhea infections are asymptomatic, however, if symptoms occur they can include rectal pain, rectal discharge, and proctitis.^{5,7,9}

Complications from a gonorrhea infection can arise when the infection is untreated or inadequately treated. In individuals with external gonads, gonorrhea complications include epididymo-orchitis and in individuals with internal reproductive organs,

complications include pelvic inflammatory disease and chronic pelvic pain. Other complications that can occur in anyone with a gonorrhea infection include reactive arthritis (oculo-urethro-synovial syndrome).

Disseminated gonococcal infections (DGI) is an uncommon but severe complication that can occur when *N. gonorrhoeae* enters the blood stream and spreads to distant sites. Manifestations of DGI include septic arthritis, polyarthralgia, tenosynovitis, skin lesions, bacteremia, or, in rare cases, endocarditis or meningitis. DGI can occur even if the original infection was asymptomatic (e.g., at the urogenital or rectal site).¹⁰

Neonates born to individuals with a genital tract gonorrhea infection can develop Ophthalmia neonatorum. Ophthalmia neonatorum presents within the first 3 weeks of life as an acute, inflammatory eye condition most commonly with purulent conjunctivitis and swollen red eyelids. DGI in neonates is rare.⁶ For more information refer to the Appendix for Ophthalmia neonatorum.¹¹

Laboratory Evidence

Laboratory Confirmation

Any of the following will constitute a confirmed case of gonorrhea when isolated from an appropriate clinical specimen (e.g., urogenital, rectal, pharyngeal, synovial fluid, blood, cerebrospinal fluid):

- Positive *N. gonorrhoeae* culture
- Positive *N. gonorrhoeae* nucleic acid amplification test (NAAT)
- Positive Gram stain negative intracellular diplococci on urethral smear (in males only)

Approved/Validated Tests

- Standard culture for *N. gonorrhoeae*
- NAAT for *N. gonorrhoeae*
- Gram-negative diplococci on a smear of urethral discharge (male only)

Indications and Limitations

- Antimicrobial susceptibility testing can only be performed on positive cultures.

For further information about diagnostic testing, contact [Public Health Ontario's laboratory](#).

Case Management

In addition to the requirements set out in the Requirement #2 of the “Management of Infectious Diseases – Sporadic Cases” and “Investigation and Management of Infectious Diseases Outbreaks” sections of the [Infectious Diseases Protocol, 2023](#) (or as current), the board of health shall investigate cases to determine the source of infection. Refer to Provincial Reporting Requirements above for relevant data to be collected during case investigation.³ Refer to [Sexual Health and Sexually Transmitted/Blood-Borne Infections Prevention and Control Protocol, 2019](#) (or as current).¹²

Boards of health can choose to consult the [PIDAC Sexually Transmitted Infections Case Management and Contact Tracing Best Practice Recommendations](#) (2009, or as current) for best practice guidance on case management.¹³

Treatment as per attending health care provider. Refer to the [Canadian Guidelines on Sexually Transmitted Infections](#) for treatment and follow up recommendations, including test of cure.¹⁴

Cases should be counselled to:

- Abstain from any sexual activity without barrier protection until treatment is complete and symptoms have resolved.¹⁵
- Avoid sexual contact with untreated partners to prevent re-infection.
- Seek a test of cure for all positive sites of infection at 3 to 7 days after treatment is completed to ensure the infection has been appropriately treated.
- Treatment failure is defined as absence of reported sexual contact during the post-treatment period AND one of the following:
 - Presence of intracellular Gram-negative diplococci on microscopy in specimens taken at least 72 hours after completion of treatment;
 - Positive *N. gonorrhoeae* on culture taken at least 72 hours after completion of treatment;
 - Positive *N. gonorrhoeae* NAAT taken at least 2-3 weeks post treatment.¹⁵

When assessing for gonorrhea re-infection versus treatment failure or inadequate treatment, consider the following factors:

- Type of treatment provided (i.e., preferred vs. alternate treatment);⁹
- Treatment adherence;
- Completion of recommended follow up (i.e., test of cure undertaken);

- Avoidance of unprotected sexual exposure during treatment period and 7 days post-treatment; and
- Persistence of compatible signs and symptoms.

Contact Management

For contact management of cases, refer to the [Sexual Health and Sexually Transmitted/Blood-Borne Infections Prevention and Control Protocol, 2019](#) (or as current), [Canadian Guidelines on Sexually Transmitted Infections](#), and [PIDAC Sexually Transmitted Infections Case Management and Contact Tracing Best Practice Recommendations](#) (2009, or as current).^{12,14,13}

Outbreak Management

Please see the [Infectious Diseases Protocol, 2023](#) (or as current) for the public health management of outbreaks or clusters in order to identify the source of illness, manage the outbreak and limit secondary spread.³

Prevention and Control Measures

Personal Prevention Measures

Actions that can be taken to prevent gonorrhea infection may include :

- Test and offer empiric treatment of all sexual partners of the index case within 60 days prior to symptom onset or date of collection (if index case is asymptomatic);
- Counselling and risk education about safer sex practices including use of condoms and dental dams for vaginal, anal, and oral sex;
- Screening for gonorrhea infection in sexually active individuals at regular intervals and as a part of routine prenatal screening.¹⁶

Risk factors for gonorrhea include :⁶

- Sexual contact with a person with laboratory-confirmed gonorrhea infection or compatible symptoms;
- Condomless sex with a new partner, anonymous partner, and/or multiple partners;
- Personal history of gonorrhea or other sexually transmitted infection;
- Individuals under 25 years of age who are sexually active;

- Individuals under 25 years of age who are experiencing homelessness or are underhoused;
- Individuals who identify as gay, bisexual, and other men who have sex with men;
- Individuals who exchange sex for money or drugs and their sexual partners;
- Neonates born via vaginal delivery to a person with a gonorrhea infection.

For more information on prevention measures, including screening recommendations, refer to [Sexual Health and Sexually Transmitted/Blood-Borne Infections Prevention and Control Protocol, 2019](#) (or as current), the [Canadian Guidelines on Sexually Transmitted Infections](#) and the [Public Health Ontario Laboratory Test Information Index](#).^{12,14,17}

Infection Prevention and Control Strategies

Refer to [PHO's website](#) to search for the most up-to-date information on Infection Prevention and Control (IPAC).¹⁸

Disease Characteristics

Aetiologic Agent - *Neisseria gonorrhoeae* (*N. gonorrhoeae*), a gram-negative diplococcus.⁷

Modes of Transmission:

- Sexual contact including vaginal, oral and anal sex; in children consider sexual abuse.
- Direct contact via vaginal delivery in newborns of a birthing parent with an infected birth canal.^{7,5,9}

Incubation Period – In individuals who display symptoms, the incubation period is usually 2 to 7 days but can range from 1 to 14 days.⁷

Period of Communicability - May extend for months if untreated; effective treatment usually ends communicability within hours.⁷

Reservoir - Humans.⁷

Host Susceptibility and Resistance - General susceptibility.

Please refer to [PHO's Infectious Disease Trends in Ontario tool](#) for the most up-to-date information on infectious disease trends in Ontario.¹⁹

For additional national and international epidemiological information, please refer to the Public Health Agency of Canada and the World Health Organization.

References

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Document History

Revision Date	Document Section	Description of Revisions
August 2025	Entire Document	Removal of reference to Ontario Gonorrhea Testing and Treatment Guidelines and replaced with referral to the Canadian Guidelines for Sexually Transmitted Infections
August 2025	Clinical Presentation	Minor content updates.
August 2025	Case Management	Minor content updates.
August 2025	Disease Characteristics	Minor content updates.
April 2022	Entire Document	New template. Appendix A and B merged. No material content changes.
April 2022	Epidemiology: Occurrence section	Removed.
April 2022	ICD Codes	Removed.