

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

Infectious Disease Protocol

Appendix 1:

Case Definitions and Disease-Specific Information

Disease: Ophthalmia neonatorum

Effective: May 2022

Ophthalmia neonatorum

Communicable

Virulent

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

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

Provincial Reporting Requirements

Confirmed case

Probable case

As per Requirement #3 of the "Reporting of Infectious Diseases" section of the *Infectious Diseases Protocol, 2018* (or as current), the minimum data elements to be reported for each case are specified in the following:

- [O. Reg. 569](#) (Reports) under the HPPA;³
- 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

Laboratory confirmation of *Neisseria gonorrhoeae* (*N. gonorrhoeae*) or *Chlamydia trachomatis* (*C. trachomatis*) in conjunctival specimens from an infant (most commonly occurs in infants less than or equal to 28 days in age).

Probable Case

- Laboratory confirmation of *N. gonorrhoeae* or *C. trachomatis* in maternal

specimen

AND/OR

- Clinically compatible signs and symptoms in an infant (most commonly occurs in infants less than or equal to 28 days in age)

Outbreak Case Definition

Not applicable

Clinical Information

Clinical Evidence

Acute redness and swelling of conjunctiva in one or both eyes, with mucopurulent or purulent discharge in which gonococci are identifiable by microscopic and culture methods. Corneal ulcer, perforation and blindness may occur if specific treatment is not given promptly.

Clinical Presentation

Acute, inflammatory condition of the eye, occurring within 3 weeks of life. Signs and symptoms include, purulent conjunctivitis, and swollen red eyelids.¹

Laboratory Evidence

Laboratory Confirmation

Any of the following will constitute a confirmed case of Ophthalmia neonatorum:

- Positive *N. gonorrhoeae* or *C. trachomatis* culture
- Positive for *N. gonorrhoeae* or *C. trachomatis* nucleic acid

Approved/Validated Tests

Standard culture for *N. gonorrhoeae* or *C. trachomatis* by enzyme immunoassay (EIA) or direct fluorescent antibody (DFA)

Indications and Limitations

Not applicable

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, 2018* (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.

Treatment is under the direction of the attending health care provider. Mother and infant should also be treated for appropriate infection.¹

Contact Management

See above, Management of Cases.

Outbreak Management

Not applicable

Prevention and Control Measures

Personal Prevention Measures

Preventative measures:

- Screening and treatment of maternal infection;^{1,2}
- The use of an established, effective preparation for protection of babies' eyes at birth is mandated in [O. Reg. 557](#) under the HPPA - “Eyes of New-Born”.⁴

Effective January 1, 2019, an amendment to O. Reg. 557 (Communicable Diseases – General) allows parents to opt-out of the mandatory prophylactic eye treatment

administered to all infants at birth to prevent disease transmission. The amendment to the Regulation stipulates that an opt-out request, made by a parent in writing to their healthcare professional, may only be granted if the healthcare professional attending at the birth of the child is satisfied that:

- The parent of the child making the request has received information on the benefits and risks of administration of the ophthalmic agent as part of their routine prenatal care
- The parent has received information on the likely consequences of non-administration of the ophthalmic agent as part of their routine prenatal care; and
- An assessment has been done, as part of their routine prenatal care, to confirm there is no serious risk of transmission to the child of an infectious agent that might cause ophthalmia neonatorum.⁴

Infection Prevention and Control Strategies

Contact isolation for the first 24 hours after treatment.¹

Disease Characteristics

Aetiologic Agent - Eye infection of newborn infant acquired during birth and caused by a maternal infection with *Neisseria gonorrhoeae* (*N. gonorrhoea*), and/or *Chlamydia trachomatis* (*C. trachomatis*).¹

Modes of Transmission - Contact with the infected birth canal during childbirth.¹

Incubation Period – Usually 1-5 days for gonococcal infection; 5-14 days for chlamydial infection.¹

Period of Communicability - While discharge persists, if untreated; no longer communicable after 24 hours of treatment (1).

Reservoir - Infected maternal genital tract.¹

Host Susceptibility and Resistance - Susceptibility is general.¹ Infants at increased risk for gonococcal ophthalmia are those whose mothers are at risk for sexually

transmitted infections (STIs).²

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

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

Comments

- The most common infectious cause is *C. trachomatis*, which produces inclusion conjunctivitis that usually appears 5-14 days after birth.
- In the situation where *C. trachomatis* is isolated from both the lung and the eye of a newborn, the case should be reported as chlamydia pneumonitis.

References

1. Heymann DL, editor. Control of Communicable Diseases Manual. 20 ed. Washington, D.C: American Public Health Association; 2015.
2. Moore DL, MacDonald NE. Preventing ophthalmia neonatorum. Canadian Journal of Infectious Diseases and Medical Microbiology. 2015;26(3):122-5.
3. Health Protection and Promotion Act, R.S.O. 1990, Reg. 569, Reports, (2018). Available from: <https://www.ontario.ca/laws/regulation/900569>
4. Health Protection and Promotion Act, R.S.O. 1990, Reg 557/18, Communicable Diseases – General (2019). Available from: <https://www.ontario.ca/laws/regulation/900557>

Case Definition Sources

Heymann DL, editor. Control of Communicable Diseases Manual. 20 ed. Washington, D.C: American Public Health Association; 2015.

Public Health Agency of Canada. Canadian Guidelines on Sexually Transmitted Infections [Internet]. Ottawa, ON: Her Majesty the Queen in Right of Canada; 2018

[cited May 15, 2018]. Available from: <https://www.canada.ca/en/public-health/services/infectious-diseases/sexual-health-sexually-transmitted-infections/canadian-guidelines/sexually-transmitted-infections.html>

Document History

Revision Date	Document Section	Description of Revisions
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.