

Lymphogranuloma venereum

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1 Lymphogranuloma venereum (LGV) is an aggressive, sexually transmitted infection caused by specific strains of *Chlamydia trachomatis*

The L1, L2, and L3 strains are more invasive than those causing most anogenital infections.¹⁻⁴ Before 2004, LGV was rare in Canada, but has since become endemic. Between 2013 and 2020, 2052 *C. trachomatis* isolates forwarded to the National Microbiology Laboratory tested positive for LGV-causing strains (Dr. Alberto Severini, National Microbiology Laboratory, Winnipeg: personal communication, 2021). Outbreaks continue in Western Europe and North America, and primarily affect men who have sex with men.²⁻⁶

2 Lymphogranuloma venereum can have variable presentations that can be misdiagnosed

Though LGV can be asymptomatic, the most common presentation is proctitis syndrome, whereby direct anal inoculation results in painful hemorrhagic proctitis, often mimicking inflammatory bowel disease.¹⁻⁶ In inguinal syndrome, however, infection usually begins with a painless papule, and subsequently progresses to ulceration and inguinal lymphadenopathy.^{1,4} Systemic symptoms, such as fever, malaise and arthralgia, are often present.²⁻⁶

3 People with symptoms suggestive of LGV, or risk factors, should be tested for *C. trachomatis* using a nucleic acid amplification test (NAAT)

Swabs should be inserted 2 to 3 cm into the anal canal; alternatively, swabs can be collected by direct visualization during anoscopy. Lymph node aspirates and swabs of suspicious genital lesions can also be sent for NAAT. In many Canadian centres, rectal swabs positive for *C. trachomatis* will automatically undergo further testing for LGV serovars.

4 Treatment for LGV is longer than for other forms of chlamydia

Canadian guidelines¹ recommend oral doxycycline (100 mg, twice a day) for 21 days as first-line treatment. A test of cure should be performed 3 weeks after completion of treatment. Left untreated, LGV can lead to irreversible tissue destruction, scarring, fistulae and lymphatic obstruction.¹⁻⁶

5 Sexual partners should be treated empirically with the same regimen as a diagnosed case, pending test results

All sexual partners within 60 days of a patient's symptom onset should also be tested for LGV; those who test positive require further clinical follow-up, including test of cure and public health investigation.

References

1. Canadian guidelines on sexually transmitted infections. Ottawa: Public Health Agency of Canada; 2020. Available: <https://www.canada.ca/en/public-health/services/infectious-diseases/sexual-health-sexually-transmitted-infections/canadian-guidelines/chlamydia-lgv.html> (accessed 2021 Jan. 4).
2. Weiss E, Sano M. Proctocolitis caused by lymphogranuloma venereum. *CMAJ* 2018;190:E331-3.
3. Williamson DA, Chen MY. Emerging and reemerging sexually transmitted infections. *N Engl J Med* 2020;382:2023-32.
4. Mabey D, Peeling RW. Lymphogranuloma venereum. *Sex Transm Infect* 2002;78:90-2.
5. Boutin CA, Venne S, Fiset M, et al. Lymphogranuloma venereum in Quebec: re-emergence among men who have sex with men. *Can Commun Dis Rep* 2018;44:55-61.
6. Cole MJ, Field N, Pitt R, et al. Substantial underdiagnosis of lymphogranuloma venereum in men who have sex with men in Europe: preliminary findings from a multicentre surveillance pilot. *Sex Transm Infect* 2020;96:137-42.

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