

# Lymphogranuloma venereum

## Cause

- *Lymphogranuloma venereum* (LGV) is caused by the bacterium [Chlamydia trachomatis](#) serovars L1-3 (non-LGV genital chlamydia is caused by the other serovars D-K).

## Clinical presentation

### Symptoms

#### Primary

- small ulcer/nodule on penis/vulva/anus (may go unnoticed)
- [proctitis](#)

#### Secondary

- Inguino-femoral lymph node swelling and/or discharge (Bubo), +/- erythema

#### Tertiary

- Chronic proctitis, fistulae, strictures, genital oedema, scarring of vulva (esthiomene)

### Complications

Long-term tertiary sequelae are rarely seen in Australia, but may occur with chronic untreated infection.

See [STI Atlas](#) for images.

### Special considerations

The site of the primary lesion depends on the site of inoculation: it could be on the genitals, perianal area or rarely in the mouth. [Proctitis](#) is characterised by rectal pain, bleeding, rectal discharge, tenesmus and changed bowel habit. LGV in Australia is usually symptomatic, hence routine screening of asymptomatic patients is not recommended.

## Diagnosis

| Site/Specimen                                              | Test                                                                                                                                                         | Consideration                                                                                                                                                                    |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rectal swab                                                | <a href="#">Chlamydia</a> NAAT<br>(Initial test; in patients with proctitis symptoms)                                                                        | Clinician-collected or self-collected rectal swab.<br>Write on request form <i>Proctitis: NAAT. If <a href="#">chlamydia</a> positive please send for LGV testing</i>            |
| Performed on same rectal sample collected for initial test | LGV specific NAAT<br>(Subsequent test performed on positive rectal <a href="#">chlamydia</a> test in symptomatic <a href="#">men who have sex with men</a> ) | Ensure laboratory has sent positive <a href="#">chlamydia</a> samples from <a href="#">men who have sex with men</a> with proctitis for LGV typing to local reference laboratory |

| Site/Specimen    | Test                                                                  | Consideration                                                                                                                                                                                                                   |
|------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Swab from ulcers | <a href="#">Chlamydia</a> NAAT<br>(Initial test to investigate ulcer) | Clinician-collected viral transport swab rolled directly over lesion.<br><a href="#">Chlamydia</a> NAAT is not a routine test for genital ulceration and should only be performed in those with high clinical suspicion of LGV. |

NAAT – Nucleic acid amplification test

LGV is a very uncommon vaginal infection in Australia. If suspected, referral to a local Sexual Health or Infectious Diseases clinic is advised.

### Specimen collection guidance

[Clinician collected](#) | [Self-collection](#)

### Investigations:

- LGV in [men who have sex with men \(MSM\)](#) is associated with a high rate of co-infection with [gonorrhoea](#), [syphilis](#), [hepatitis C](#) and human immunodeficiency virus ([HIV](#)). [Herpes simplex virus \(HSV\)](#) can also cause symptoms of proctitis, therefore HSV NAAT should be taken at the time of consultation. Tests for these conditions should be conducted at the time of initial consultation, and at follow-up. In addition to [syphilis](#) serology, [syphilis](#) NAAT can be performed from any area of ulceration.
- LGV testing is recommended for [men who have sex with men living with HIV](#) with a positive [chlamydia](#) rectal swab (even if they are asymptomatic) and all [men who have sex with men](#) with chlamydial proctitis.
- If proctoscopy is performed, a red, ulcerated, oedematous mucosa is typical, and may be accompanied by mucopurulent discharge. A gram stain showing > 20

white cells on high powered film is suggestive of LGV.

## Management

### Principal treatment option

| Situation                  | Recommended                                       | Alternative                                                                                                                     |
|----------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Suspected or confirmed LGV | Doxycycline 100 mg orally twice a day for 21 days | Alternative regimens are not recommended due to lack of efficacy data. If alternative regimen required, seek specialist advice. |

### Treatment advice

- Studies have shown that LGV DNA can persist in the rectum for up to **16 days** after initiation of treatment, hence a long course (**21 days**) is required.
- At initial consultation for the patient with proctitis with a suspicion of LGV, treat also for [gonorrhoea](#) and [HSV](#). LGV serovar results may take some time to return from the laboratory.

### Other immediate management

- Advise no sexual contact for **21 days** while taking treatment.
- Advise no sex with partners from the last **3 months** until the partners have been tested and treated if necessary.
- Contact tracing.
- Provide patient with [factsheet](#).
- Primary care professionals do not have to notify the state or territory health departments about LGV.

## Special Treatment Situations

### Special considerations

Consider seeking specialist advice before treating any complicated presentation.

| Situation                                         | Recommended                                                                                                                    |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Persistence of symptoms despite initial treatment | Check other sexually transmitted infections ( <a href="#">STI</a> ) tests were done at initial consult. Seek specialist advice |
| <a href="#">Pregnancy</a>                         | Seek specialist advice                                                                                                         |
| Allergy to principal treatment choice             | Seek specialist advice                                                                                                         |
| Inguinal buboes                                   | These may require drainage through normal skin under ultrasound guidance. Seek specialist advice.                              |

## Contact Tracing

- LGV is rare in Australia, therefore contact tracing is of high priority and should be performed in all patients with confirmed infection.
- All partners should be traced back for a minimum of **3 months** before the development of primary symptoms, or since arrival from an LGV endemic area if infection likely to have occurred overseas.
- If asymptomatic, contact tracing for sex partners in the last **6 months** is recommended.

See [Australasian Contact Tracing Manual – LGV](#) for more information.

## Follow Up

Review in **1 week** provides an opportunity to:

- Review results from initial consultation.
- Confirm patient adherence with treatment and assess for symptom resolution.
- Confirm contact tracing procedures have been undertaken or offer more contact tracing support.
- Educate about condom use, contraception, HIV PrEP/PEP, safe injecting practices, consent, CST and vaccinations for HAV, HBV and HPV as indicated.

### Test of cure

- Test of cure by [chlamydia](#) NAAT should occur at **6 weeks** (3 weeks after treatment completion).
- If test of cure is positive, seek specialist advice. This sample should be sent for LGV testing if positive to confirm LGV persistence. If negative, there is no need to send for LGV.

### Retesting

Full [STI](#) testing including [syphilis](#), [HIV](#) (if negative initially) and [hepatitis C](#) testing should be performed at **3 months**, and then as required depending on clinical guidelines e.g. guidelines for [men who have sex with men](#).

## Auditable Outcomes

- 100% of patients diagnosed with LGV have contact tracing completed (patient or provider).
- 100% of patients are recommended to repeat [HIV](#) and [hepatitis C](#) testing at 3 months.

## Further reading

1. White J, O'Farrell N, Daniels D; British Association for Sexual Health and HIV. 2013 UK National Guideline for the management of lymphogranuloma venereum: Clinical Effectiveness Group of the British Association for Sexual Health and HIV (CEG/BASHH) Guideline development group. *Int J STD AIDS* 2013;24:593-601. Available at: <http://std.sagepub.com/content/24/8/593> (last accessed 13 October 2021).
2. de Vries HJ, Zingoni A, White JA, Ross JD, Kreuter A. 2013 European Guideline on the management of proctitis, proctocolitis and enteritis caused by sexually transmissible pathogens. *Int J STD AIDS*. 2014 Jun;25(7):465-74. Available at: <http://std.sagepub.com/content/25/7/465> (last accessed 13 October 2021).
3. Centers for disease Control and Prevention (CDC). Lymphogranuloma Venereum (LGV) [internet]. Available at: <https://www.cdc.gov/std/treatment-guidelines/lgv.htm> (last accessed 13 October 2021).