# Chlamydia trachomatis

#### **2015 UK BASHH Guideline for the Management of Chlamydia trachomatis Genital Infection**

#### **1. Scope & Key Updates**

* Applies to patients ≥16 y seen in UK Level-3 STI services; principles adaptable to all settings.
* 2015 revisions highlight: NAAT/POCT use, repeat-testing advice, azithromycin efficacy debate, management of rectal infection, pregnancy/neonate issues.

#### **2. Epidemiology & Aetiology**

* *C. trachomatis* serovars D–K cause urogenital disease; L1–L3 cause LGV.
* Most common curable bacterial STI in UK – >208 000 cases (2013); 70 % in 15-24 y.
* Prevalence 1.5–4.3 % in general population surveys; higher (5–10 %) in specific studies.
* Risk factors: <25 y, new/multiple partners, inconsistent condom use.
* Up to 75 % partner concordance; up to 50 % spontaneous clearance at 12 months.

#### **3. Clinical Presentation**

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| **Site** | **Symptoms** | **Signs** | **Complications** |
| **Women** | discharge, PCB/IMB, dysuria, pelvic pain, dyspareunia | mucopurulent cervicitis, pelvic tenderness | PID (≤ 16 %), infertility, ectopic, perihepatitis, SARA |
| **Men** | urethral discharge, dysuria (often mild) | urethral discharge | epididymo-orchitis, SARA |
| **Rectum** | usually asymptomatic; may have discharge, discomfort | – | proctitis, LGV |
| **Pharynx** | usually silent | – | – |
| **Conjunctiva** | chronic unilateral irritation | – | – |

#### **4. Diagnosis**

##### **4.1 Preferred Assay**

* **NAATs** – highest sensitivity/specificity for genital & extra-genital sites. No routine requirement for dual-platform confirmation except medico-legal cases.

##### **4.2 Optimal Specimens**

* **Women**: self- or clinician-taken vulvo-vaginal swab (VVS) – sensitivity 96–98 % (preferred to endocervical or urine).
* **Men**: first-catch urine (FCU) equal/ superior to urethral swab.
* **Rectum / Pharynx**: NAAT on swab; blind or proctoscopic rectal sampling acceptable.
* **LGV testing**: all patients with proctitis and all HIV-positive MSM with CT at any site. Samples sent to PHE STBRU.

##### **4.3 Practical Points**

* Window: if exposure <14 days, test now and repeat at 2 weeks.
* Inhibition controls desirable; be aware of nvCT deletion issue (assays now redesigned).

#### **5. Management**

##### **5.1 General**

* No need to remove IUD/IUS for uncomplicated infection.
* Abstain from all sexual contact (including oral) until both partners treated (+7 d after azithro).
* Offer full STI screen incl. HIV; vaccinate/test for HBV where indicated. Provide written info.

##### **5.2 Recommended Regimens**

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| **Clinical Scenario** | **First-line** | **Alternatives / Notes** |
| **Uncomplicated genital or pharyngeal CT** | Doxycycline 100 mg bd × 7 d **or** Azithromycin 1 g stat | Ofloxacin 200 mg bd × 7 d or Erythromycin 500 mg bd 10–14 d if contraindications |
| **Rectal CT (non-LGV)** | **Doxycycline 100 mg bd × 7 d** (preferred) | Azithromycin 1 g stat (perform TOC or give longer doxy if LGV not excluded) |
| **Pregnancy / Breast-feeding** | Azithromycin 1 g stat (safe & effective) | Erythro 500 mg qds × 7 d, Erythro 500 mg bd × 14 d, or Amoxicillin 500 mg tds × 7 d; avoid doxy/ofloxacin |
| **Gonorrhoea + CT** | Usual GC therapy (ceftriaxone 500 mg IM + azithro 1 g) covers CT; if rectal CT/LGV, still add doxy 100 mg bd × 7–21 d |  |
| **HIV-positive** | Same regimens; if rectal CT without LGV result, treat 3 w doxy or TOC |  |

##### **5.3 Adverse-effect pearls**

* Doxycycline – GI upset, photosensitivity, oesophagitis (take with water; remain upright).
* Azithromycin – GI upset, potential QT prolongation.
* Erythromycin – high GI intolerance; avoid in cholestatic liver disease.

#### **6. Test of Cure (TOC) & Retesting**

* **TOC not routine** – residual DNA up to 5 wks. Indicated in pregnancy, suspected non-adherence, persistent symptoms or where LGV cannot be excluded (rectal infection treated with 1 g azithro/7 d doxy).
* Perform ≥3 wks after completion.
* **Repeat screening**: all positive patients <25 y – offer test at 3 months (reinfection 10–30 %). Insufficient evidence for routine >25 y unless high risk.

#### **7. Partner Notification**

* Look-back:
  + Symptomatic males (urethral): contacts since, and 4 wks prior to, symptom onset.
  + All others (women, asymptomatic men, rectal/pharyngeal cases): contacts in prior 6 months.
* Offer epidemiological treatment to all contacts; document PN outcomes within 4 wks.

#### **8. Pregnancy & Neonate**

* Vertical transmission → conjunctivitis (5–12 d) or pneumonia (1–3 m).
* Treat infant: **Erythromycin 50 mg/kg/day PO ÷4 doses × 14 d** (oral preferred; topical insufficient).
* Test & treat mother + partners; schedule TOC ≥3 wks post-therapy.

#### **9. Point-of-Care Testing (POCT)**

* Older EIA POCTs insensitive; newer NAAT-based POCTs emerging – comparable accuracy + rapid turnaround, but extra-genital validation ongoing.

#### **10. Exam-Focused Take-Home Messages**

1. **Doxy 7 d vs. Azithro 1 g** – equivalent for genital CT, but doxy preferred for rectal disease.
2. **Vulvo-vaginal swab** is the best sample in women; urine acceptable but less sensitive.
3. **LGV testing** mandatory in proctitis & HIV-positive MSM with CT; treat 3 w doxy if unsure.
4. **TOC** only when clinically indicated; always ≥3 weeks post-therapy.
5. **Repeat test at 3 months in <25 y** – high reinfection risk & PID prevention.
6. **Pregnancy** – azithro single dose is safe; avoid tetracyclines/fluoroquinolones.
7. **Partner management & risk reduction counselling** are central – document actions.

## **A. Extra details you may want to add to your *Chlamydia trachomatis* notes**

1. **Self-sampling acceptability** – multiple studies show good uptake and diagnostic performance for self-taken rectal & pharyngeal swabs in both sexes, supporting home-based or nurse-free testing pathways. bashh\_chlamydia
2. **Medico-legal cases** – take NAATs from *all* penetrated sites; confirm a positive with a second NAAT target/platform because of evidential standards. bashh\_chlamydia
3. **Auditable outcomes** – BASHH expects ≥97 % documentation of partner-action plans, LGV serovar confirmation (where relevant) and correct SHHAPT coding; keep this in mind for quality-improvement OSPE questions.

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| **Theme** | **Extra detail in guideline** | **Citation** |
| **What’s new in 2015** | Guideline highlights six changes (NAAT + POCT use, advice on repeat testing, debate over 1 g azithro, co-treating gonorrhoea, rectal infection therapy, vertical transmission/neonate care). |  |
| **Sampling – practical pearls** | ▸ *Inhibition control*: labs should know whether their NAAT includes one, as inhibitors give false-negatives. ▸ *Female FCU*: less sensitive than VVS; if used, collect **first 20 ml after ≥1 h void abstinence**. |  |
| **Point-of-care NAAT** | New-generation NAAT-based POCTs reach ≈82–84 % sens. vs lab NAAT and look cost-effective; EIA-based POCT no longer acceptable. |  |
| **Medico-legal testing** | Positive NAAT must be **confirmed on a second genetic target**; culture no longer recommended. |  |
| **General management advice** | Chlamydia is *not* an indication to remove an IUD/IUS; treatment should be >95 % effective, ≤bd dosing, low side-effect. |  |
| **Broader STI screen & vaccination** | Offer HIV (repeat if in window), and hepatitis B screen/vaccine to all index cases and contacts. |  |
| **Risk-reduction counselling** | One-to-one, theory-based discussion at/after treatment; complex cases referred to PN-trained staff; evidence grade A. |  |
| **Partner-notification follow-up** | PN outcome for each contact should be documented **within 4 weeks** of first discussion. |  |
| **Auditable outcome measures** | Four ≥97 % targets: correct therapy, LGV testing on reactive rectals, written patient info given, PN documented per BASHH. |  |
| **Acceptability of self-taken extragenital swabs** | Multiple studies show good performance & patient acceptability for self-collected rectal/pharyngeal swabs in MSM. |  |
| **Natural history facts** (exam fodder) | Up to **50 %** untreated infections clear spontaneously by ~12 months; transmission concordance ≤75 %. |  |