Title: British Association for Sexual Health and HIV UK National guideline for the management of infection with *Chlamydia trachomatis, 2026*
Version No.: version for consultation dated 04/02/2026

Title: British Association for Sexual Health and HIV **UK national guideline for the management of infection with *Chlamydia trachomatis, 2026***

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Short Title: Chlamydia guideline
Lead author: John Saunders
Version No.: Version for consultation dated 04/02/2026

Abstract: This guideline provides details on the pathology and clinical features of *Chlamydia trachomatis* infection and makes recommendations for diagnostic tests, treatment regimens and the health promotion principles needed for the effective management of infections, in people aged 16 years or older attending sexual health services. The guideline is primarily aimed at level 3 sexual health services in the UK, although it could also serve as a reference guide for sexually transmitted infection services at other levels. This guideline is an update of the previous one published in 2015.

Keywords: Chlamydia (*Chlamydia trachomatis)*, bacterial disease, treatment, diagnosis

What is new in the 2026 guideline?

- Inclusion of considerations for people following genital reconstructive surgery (GRS).
- Doxycycline 100mg twice a day for seven days now sole first line recommended treatment (unless contraindicated).
- Inclusion of considerations for the management of chlamydia in people taking doxycycline post exposure prophylaxis.
- Recommended time for a retest changed to two - six months following treatment based on RCT evidence that positivity is similar across time points but statistically significantly more people retest at 2 months compared to other time points.

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Introduction and methodology

Scope and purpose

This guideline provides evidence-based recommendations for the diagnosis, treatment, and management of *Chlamydia trachomatis*.

The recommendations encompass diagnostic tests, treatment regimens, and health promotion principles essential for effectively managing *Chlamydia trachomatis* infections in individuals aged 16 years and older. For those under 16 years, the British Association for Sexual Health and HIV (BASHH) guideline on STI and Related Conditions in Children and Young People should be consulted.

The guideline is aimed primarily at patients aged 16 years or older presenting to healthcare professionals working in departments offering specialist level 3 care in sexually transmitted infections (STIs) management within the United Kingdom (UK). However, the principles of the recommendations are applicable across levels of STI care providers, and non-specialist services may need to develop, where appropriate, local referral pathways.

Search strategy and methods

This guideline was produced according to specifications set out in the CEG document '2020 Framework for guideline development and assessment' accessed at https://www.bashhguidelines.org/media/1247/2020-guidelines-framework.pdf and has been updated by reviewing the previous chlamydia guideline (2015) and medical literature since its publication. The Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) system was used to assess the evidence and make recommendations as detailed in the guidance.

A search of published articles from January 2015 to August 2025 was conducted in MEDLINE, Embase, and the Cochrane Library using the same search strategy as the 2015 guideline (appendix). The writing group also formulated four 'PICO' questions addressing the patient problem or population (P), intervention (I) (or aetiology/diagnosis/frequency/prognosis), comparison (C) and outcome(s) (O), which formed the basis for more focused literature searches and article identification (appendix). Articles were limited to those in the English language, humans, randomised controlled trials, systematic reviews or observational studies.

Article titles and abstracts were reviewed and if relevant the full text article obtained. Abstracts from meetings in the relevant period were hand-searched and considered. Priority was given to randomised controlled trial and systematic review evidence, and recommendations made and graded based on the best available evidence.

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Equality impact assessment

An assessment of the guideline and its recommendations was undertaken to ensure the principles of equality and diversity were adhered to (appendix).

BASHH has adopted an anatomical approach without assuming gender in most guidelines and uses gender terminology in line with BASHH 'sexual health standards for trans, including non-binary, people'.

Stakeholder Involvement, Piloting and Feedback

The first draft was produced by the writing group and then circulated to the BASHH Clinical Effectiveness Group (CEG) for reviewing using the AGREE appraisal tool. The second draft of the guideline was posted on the BASHH website for wider consultation (2 months) and any comments received during the consultation period were reviewed by the authors and acted on appropriately. The document was also reviewed by a patient representative, target users and the public panel of BASHH, and their feedback was considered by the authors and used to inform the guideline. The final draft was presented to the CEG for review and piloting in sexual health clinics.

Once the guideline is published, the CEG will keep it under review should critical new evidence become available that affects the current recommendations. The guideline will be formally reviewed and updated, if necessary, every five years.

Aetiology

Genital chlamydial infection is caused by the obligate intracellular bacterium *Chlamydia trachomatis*. It is the most diagnosed bacterial STI in the UK.[1] Infection is associated with younger age, reporting a new partner and higher numbers of partners in the last year.[2] The primary sites of infection are the mucous membranes of the urethra, endocervix, rectum, pharynx and conjunctiva. Genovars D–K can cause urogenital, pharyngeal and ocular infection and are the focus for these guidelines. Genovars L1-L3 cause the disease Lymphogranuloma Venereum (LGV).[3] The management of LGV is addressed in separate BASHH guidelines. A-C genovars infect the conjunctiva and cause the disease trachoma which is not covered in this guideline.

Clinical Features

Infection is primarily through penetrative sexual intercourse, although the organism can be detected in the conjunctiva and nasopharynx without concomitant genital infection and in the rectum in the absence of reporting anal sex.[4-6]

If untreated, infection may persist or resolve spontaneously.[7-16] Studies evaluating the natural history of untreated genital *C. trachomatis* infection have shown that clearance increases with the duration of untreated infection, with up to 50% of infections spontaneously resolving approximately 12 months from initial diagnosis.[7,10,13,15]

Chlamydia infection can cause significant short- and long-term morbidity. Complications of untreated infection are experienced predominantly by people with a uterus and uterine tubes and include pelvic inflammatory disease (PID), tubal infertility and ectopic pregnancy which can have a significant impact on quality of life and substantial healthcare costs.[17-19] In England, the National Chlamydia Screening Programme (NCSP) aims to reduce the harms of untreated chlamydia through opportunistic screening of sexually active women and other people with a womb and ovaries under 25 years of age.[20]

Symptoms and Signs

A large proportion of individuals with chlamydial infection are asymptomatic.[21,22]

Penile urethral infection in people assigned male at birth

Symptoms of urethral inflammation (urethral irritation and discomfort, discharge and dysuria) occur in approximately 50% of individuals, usually between 1-3 weeks after infection.[23] A cloudy urethral discharge may be present on examination.

Urethral infection in people assigned female at birth

Symptoms of urethral inflammation may be present but most individuals with infection at this site are asymptomatic.[23]

Endocervical infection

Many individuals with infection at this site have no signs or symptoms. Symptoms may include increased vaginal discharge, post-coital and intermenstrual bleeding, lower abdominal pain, and deep dyspareunia. Mucopurulent cervicitis with or without contact bleeding, pelvic tenderness and cervical motion tenderness may be present on examination.

Rectal infection

Most cases are asymptomatic, but symptoms may include anorectal discomfort and discharge.[22,24] The median time to clearance of untreated rectal chlamydia among men who have sex with men (MSM) is around 9 weeks.[25]

The prevalence of rectal chlamydia in cisgender women attending sexual health services in high-income countries is estimated to be around 6% with around 68% of those testing positive for urogenital chlamydia also having rectal infection.[6] Rectal infection in cisgender women is not

associated with reporting anal sex.[6] However, the clinical importance of rectal infection is not well understood nor the utility of targeted versus routine rectal sampling.

Pharyngeal infection

This is predominantly asymptomatic and not known to be associated with any significant morbidity.[22,24,26] Diagnosis rates of chlamydia carriage in the throat are low.[26-29] Spontaneous clearance occurs in up to 50% of individuals between testing and receiving treatment.[26,30-32] In one study among women, of those with a persistent positive chlamydia test between baseline and treatment, three-quarters had non-viable infection.[31] The median time to clearance of untreated pharyngeal chlamydia among MSM is around 6 weeks.[25,26,33]

Ocular infection

Chlamydial conjunctivitis can occur following direct inoculation or autoinoculation of genital secretions infected with *C. trachomatis*. The presentation can be acute or chronic, bilateral or more typically, unilateral.[34] Rare cases assumed to be associated with non-sexual close contact have been reported.[35] A follicular conjunctivitis is the principal feature, but it can be difficult to distinguish from other forms of conjunctivitis, especially viral conjunctivitis. Reliable differentiation is only achieved through laboratory testing. In most cases there is clinical resolution following treatment without sequelae.[36]

Complications

C. trachomatis infections may cause epididymo-orchitis, pelvic inflammatory disease (PID), peri-hepatitis and reactive arthritis.[23] It is estimated that epididymitis occurs in 2% of susceptible people with asymptomatic chlamydia.[37,38]

The estimated risk of developing PID after genital *C. trachomatis* infection varies considerably in the literature because of different diagnostic techniques, clinical definitions and study populations. A multi parameter evidence synthesis of the prevalence and incidence of *C. trachomatis* in the UK and its complications suggests that following an untreated infection 17% and 7% of individuals will develop chlamydia related PID (symptomatic or asymptomatic) and salpingitis, respectively.[14] Salpingitis is considered a necessary precondition for progression to infertility and ectopic pregnancy.[39] Estimated progression rates from chlamydia-related salpingitis to tubal factor infertility and ectopic pregnancy is 10.8% and 7.6%, respectively.[40]

Exposure to *C. trachomatis*, either by persistent infection, or by re-infection is considered a major contributing factor for tubal tissue damage,[41,42] and early diagnosis and treatment is important in reducing the risk of subsequent infertility.[43]

Re-infection with chlamydia is common with around 10% to 15% of young adults diagnosed with chlamydia testing positive at a subsequent test and the percentage testing positive at a repeat

test is up to three times higher in those with an initial positive test compared to those who test negative.[44-51]

Diagnosis and specimen collection

Diagnostic Tests

The diagnosis of chlamydia is established by the detection of *C. trachomatis* at the sampled site by nucleic acid amplification tests (NAATs). NAATs are the standard of care for all cases, including medico-legal cases and extra-genital infections.[52-56] Where diagnostic tests are available syndromic management of infection is not appropriate.

Although no test is 100% sensitive or specific, many highly sensitive and specific commercial NAAT assays are available.[52 ,57-64]

There remains debate as to whether a single reactive NAAT requires further confirmation by re-testing using a second NAAT with a different target/platform. Many authorities no longer recommend testing with a second platform (except for medico-legal cases) as the positive predictive value of a single positive result is high in the context of a high prevalence population (GRADE 1D). [65-69] However, confirmation may be appropriate in low prevalence settings.

Historically, diagnosis of *C. trachomatis* infection utilised enzyme immunoassay (EIA) and/or tissue culture in some settings. However, as NAATs are known to be significantly more sensitive and specific (compared to EIA) than these methods, neither is considered appropriate in the current diagnostic climate. Additionally, tissue culture for investigation of treatment failure is no longer available at the UKHSA reference laboratory.

Point-of-care testing (POCT)

Most chlamydia tests available in clinical practice are laboratory-based with a varying lag time between testing and diagnosis, depending on local clinical pathways.

Non-NAAT based point-of-care tests (POCTs) lack sensitivity [70-73]; however, POCTs using NAAT technologies have been developed with sensitivities approaching 100% when compared to traditional laboratory-based NAAT.[72 ,74-82] These are suitable for genital samples and considerably reduce the time from testing to diagnosis.[83] When testing extra-genital specimens, and as confirmatory tests using residual specimens from other commercial platforms, these tests require more validation.[55 ,84]

Window period

The BASHH Bacterial STI Special Interest Group recommends that patients undergo testing for chlamydia when they first present, and that if there is concern about a sexual exposure within

the last two weeks, that they return for a repeat NAAT test two weeks after the exposure (GRADE 1D).

Sites to be sampled

Female genital tract

A vulvo-vaginal swab (VVS) is the specimen of choice for detecting infection of the female genital tract (GRADE 1B).[85-87]

VVS has a sensitivity of 96–98% and can be either taken by the patient or a healthcare worker (HCW). Several studies indicate that VVS sensitivities are higher than those of endocervical swabs, as they pick up organisms in other parts of the genital tract.[88] Self-taken VVS are more acceptable to patients than urine or cervical specimens.[89]

Variable sensitivities have been reported using first catch urine (FCU) specimens in cisgender women.[88] The lower sensitivity is attributed to the presence of fewer organisms in the female urethra compared to other parts of the female genital tract. As self-taken VVS have a high acceptance rate, and sensitivity, these are the recommended sample type (GRADE 1B).

Penile urethra

FCU in cisgender men is reported to be as, or more sensitive than urethral sampling. [90-92] Urine samples are easy to collect, do not cause discomfort and thus are preferable to urethral swabs (GRADE 1B).

Studies of self-taken penile-meatal swabs have yielded good results but may be less acceptable to patients compared to urine.[93 ,94]

Rectal and oro-pharynx

NAATs are the assays of choice for extra-genital samples, though the sensitivities are variable (GRADE 1B).[54 ,65 ,67 ,95 ,96]

Rectal swabs can be obtained via proctoscopy or taken ‘blind’ by the patient or a healthcare worker (GRADE 1B).[65 ,97] Oro-pharyngeal swabs can also be clinician- or self-collected (GRADE 1B).[65 ,97] Self-collected swabs have shown high sensitivity and acceptability.[97-99]

Conjunctiva

NAATs are the assays of choice for ocular samples. The use of commercial PCR assays for the detection of *C. trachomatis* in ocular samples shows similar sensitivity (96%) and specificity (100%) to that of urogenital swabs (GRADE 1B).[100]

Considerations for people following genital reconstructive surgery (GRS)

The susceptibility of a site to chlamydial infection is likely to be related to the nature of the reconstruction, with sites constructed from mucosal tissue (e.g., from the vaginal or bowel mucosa) being more susceptible than sites constructed from skin.

Chlamydial infections of the neovagina following penile-inversion and intestinal vaginoplasty surgery have been reported and cases resolved following treatment with a single dose of azithromycin 1g orally.[101] We were unable to find any reports of chlamydial infection of the neopenis.

We recommend that optimal genital testing in transgender women, non-binary and other gender diverse people at risk of chlamydia should include swabs from the neovagina (if appropriate) and first-pass urine (Grade 1D).

We recommend first-pass urine as the specimen of choice from people with a neopenis (Grade 1D). Where the vagina is still present following GRS a vaginal swab should be considered as directed by the sexual history and symptoms.

Extragenital testing should be guided by sexual history and symptoms.

Further Considerations

New variant Chlamydia trachomatis (nvCT)

There have been two incidents where a variant of *C. trachomatis* has escaped molecular detection. In 2006, the Swedish new variant of CT (S-nvCT) harboured a 377 base pair deletion in the cryptic plasmid, a common NAAT target.[102,103] Additionally, in 2019, the Finnish new variant (F-nvCT) escaped detection on the Hologic AC2 assay with a C1515T mutation in the 23S rRNA gene target region and was subsequently also detected in Sweden, Norway and Denmark.[104-107] No cases of this F-nvCT were detected during a case-finding exercise by the UK Health Security Agency in England.[108,109] However, four samples with two other CT variants escaping AC2 assay detection were identified; nvCT-C1514T and nvCT-G1523A. These, plus an additional variant (G1526A) were recently reported in a small number of samples during surveillance in Canada.[110] The AC2 assay has been updated to detect these variants, as well as potential new variants arising due to mutations in that region of the 23S rRNA gene.

However, this experience, along with the emergence of SARS-CoV-2 escape variants, clearly shows the risk of using single-target NAATs for molecular diagnostics. Ideally all diagnostic platforms should employ more than one diagnostic target to prevent mutants from escaping detection. There are, however, financial advantages of using a single diagnostic assay, and the

decision about which assay to use should be appropriately assessed when choosing the diagnostic pathway.

Pooling of specimens

To reduce testing costs, some centres combine samples by pooling urine, rectal and oro-pharyngeal swabs into a single sample. Centres can consider pooling specimens (GRADE 2D). If pooling is undertaken, we recommend local validation of this approach as the pooling may reduce sensitivity and in the event of a reactive result, the precise site of infection would be unknown (GRADE 1D).[111-116]

Management

General advice

Patients should be given a detailed explanation on the natural history of chlamydia infection, as well as its transmission, treatment, complications, and implications for themselves and their sexual partner(s). This should be reinforced with the provision of clear and accurate written or web-based patient information (GRADE 1D). A patient information leaflet for *C. trachomatis* can be found on the guidelines page of the BASHH website.

Patients should be advised to abstain from sexual intercourse (including oral sex) until they have completed treatment (or wait seven days if treated with azithromycin) and symptoms have resolved (GRADE 1D).

Patients should be counselled appropriately on the antimicrobial given to them including adverse drug reactions and advice to discard any unnecessary medicines should an oversupply be given in line with antimicrobial stewardship best practices (GRADE 1D).[117]

Further Investigation

All patients diagnosed with *C. trachomatis* should be encouraged to have screening for other STIs, including HIV, and where indicated, hepatitis B screening and vaccination (GRADE 1D).

If the patient is within the window periods for HIV and syphilis, these should be repeated at an appropriate time interval. All contacts of *C. trachomatis* should be offered the same screening tests (GRADE 1D).

Treatments

Urogenital infection

A meta-analysis of randomised controlled trials comparing doxycycline with azithromycin published in 2014 found a small (3%), but statistically significant increased benefit of doxycycline over azithromycin for urogenital chlamydia and a benefit of doxycycline over azithromycin of 7% in men with symptomatic urethral chlamydia. The quality of studies varied, and there were few double-blind, placebo-controlled trials.[118]

These findings are supported by a later randomised controlled trial demonstrating that doxycycline has a marginally higher cure rate (100% versus 97% for azithromycin) with noninferiority of azithromycin not being established.[119] An association of azithromycin use with higher rates of treatment failure compared to doxycycline has been observed in multiple, more recent, studies.[120-123]

Given this evidence for elevated failure rates with azithromycin, doxycycline is recommended as first line treatment for urogenital chlamydial infection (GRADE 1A).

Rectal infection

There have been two systematic reviews and meta-analyses of the efficacy of doxycycline versus azithromycin for the treatment of rectal chlamydia.[124,125] Fifteen unique studies are included across these meta-analyses including two randomised controlled trials.[126,127] Both meta-analyses show that doxycycline achieves superior microbiological cure rates compared to azithromycin for rectal chlamydia.

Given this evidence for the superiority of doxycycline over azithromycin, doxycycline is recommended as first line treatment for rectal chlamydial infections (GRADE 1A).

Pharyngeal infection

There are no randomised controlled trials comparing the efficacy of doxycycline with azithromycin for the treatment of pharyngeal infection. In a recent prospective observational study, there was a non-significant greater cure rate with doxycycline versus azithromycin.[31]

Doxycycline is recommended as first line treatment for pharyngeal chlamydial infections (GRADE 1B).

Recommended and Alternative Regimens

Uncomplicated urogenital infection (GRADE 1A) and pharyngeal infection (GRADE 1B).

Preferred treatment:

- Doxycycline 100 mg orally twice a day for seven days (contraindicated in pregnancy)

Alternative regimens (if doxycycline is contraindicated or cannot be tolerated):

- Azithromycin 1 g orally as a single dose (GRADE 1A)
- Erythromycin 500 mg bd for 10–14 days (GRADE 1C)
- Ofloxacin 200 mg bd or 400 mg od for seven days (GRADE 1A)

Rectal infection (non-LGV)

Preferred treatment:

- Doxycycline 100 mg orally twice a day for seven days (contraindicated in pregnancy) (GRADE 1A)

Alternative regimen:

- Azithromycin 1 g orally as a single dose (see section on Test of Cure below) (GRADE 1A)

Ocular infection

Given the high prevalence of concomitant genital infection (up to 80%), and possible colonisation at other sites, oral antibiotics are the recommended treatment for chlamydial conjunctivitis.[4,128] There are no recent clinical trials on the management of chlamydia conjunctivitis but small, randomised trials have demonstrated non-inferiority between oral azithromycin and doxycycline.[129,130] Contact lens wearers are advised to stop lens wear until symptoms are fully resolved. Referral to Ophthalmology is not required unless symptoms persist despite treatment or there is co-infection with *N. gonorrhoeae* (please refer to BASHH 2024 gonorrhoea guideline).

Doxycycline is recommended as first line treatment for ocular chlamydia infections based on ensuring adequate treatment at other sites (GRADE 1B). Oral treatment should be initiated at first diagnosis and not be delayed for sexual health review (if the patient is attending and diagnosed initially in a non-sexual health setting). Ophthalmologists commonly prescribe adjunctive topical antibiotics but there are no data to support the use of topical therapy in addition to systemic treatment.

Note on dose of azithromycin

We identified two observational studies using a 2g dose of azithromycin for the treatment of urogenital chlamydia: one study used a 2g single dose of azithromycin extended release [ref] and one other that used a 5-day course (500mg on day 1 and 250mg on the following 4 days).[131,132] Neither showed any additional benefit in terms of microbiological cure (91.5% and

98.8%, respectively). Diarrhoea was common among those receiving a 2g dose (35.2%). Despite this paucity of trial evidence, a 2g dose (single or extended) could be considered when there are concerns about concomitant infection with *Mycoplasma genitalium* (GRADE 2D) although we recommend *Mycoplasma genitalium* testing according to current BASHH guidelines (GRADE 1D).

Other antimicrobials

Evidence to support the use of antimicrobials other than doxycycline and azithromycin is less robust. A systematic review of non-standard treatments for uncomplicated urogenital infection found successful treatment with ofloxacin, levofloxacin, sitafloxacin, rifalazil, and amoxicillin. Pivmecillinam is not recommended due to higher levels of treatment failure.[133]

Ofloxacin, levofloxacin, sitafloxacin (GRADE 1A)

These fluoroquinolones achieve comparable microbiological cure rates to doxycycline in limited studies but they carry increased risk of *Clostridium difficile* infection and tendon rupture.[133,134] Fluoroquinolones have also been associated with adverse effects involving muscles, joints, nerves, or mental health which can be irreversible and the current advice from the Medicines and Healthcare products Regulatory Agency (MHRA) is to not prescribe fluoroquinolones for non-severe or self-limiting infections, or for mild to moderate infections unless other antibiotics that are commonly recommended for those infections are considered inappropriate.[135]

Safety, cost, availability, concomitant medication, and frequency of dosing should all be considered before prescribing fluoroquinolones for chlamydia treatment.

Erythromycin (GRADE 1C)

A meta-analysis of azithromycin versus erythromycin for the treatment of chlamydia in pregnancy found erythromycin to have similar treatment success to azithromycin.[136] Erythromycin is associated with more side effects than azithromycin.[136] Erythromycin as a multiple-dose regimen is recommended but a superior regimen has not been established.[137] When taken four times daily, 20–25% of individuals may experience side-effects sufficient to cause discontinuation of treatment with erythromycin.[138] A 10–14 day-course appears to be more efficacious than a seven-day course of 500 mg twice a day, with a cure rate >95%.[138]

Treatment of gonorrhoea co-infection

Individuals with gonorrhoea co-infection should be managed according to the most recent BASHH guideline for the management of gonorrhoea.

Considerations for people taking doxycycline pre- or post-exposure prophylaxis for STIs

Doxycycline post-exposure prophylaxis (doxyPEP) involves taking a single 200mg dose of doxycycline within 72 hours (ideally within 24 hours) of condomless sex. This has been shown to significantly reduce the incidence of chlamydia and syphilis among participants of three RCTs and gonorrhoea in two.[139-141] Currently, evidence to support the use of doxycycline pre-exposure prophylaxis (doxyPrEP) is more limited - it has been shown to reduce the incidence of bacterial STIs in a single, small and unpowered study and not currently a recommended regimen within the BASHH doxyPEP guideline.[142 ,143]

For individuals diagnosed with chlamydia who report using doxyPEP, we recommend using the first line treatment outlined above (unless contraindicated) (GRADE 2D).

For the management of individuals using doxyPEP who attend as a sexual contact of chlamydia, healthcare professionals should follow recommendations in the current BASHH UK national guideline for the use of doxyPEP.[143]

Pregnancy & Breastfeeding

Pregnancy

Although the BNF recommendation is to avoid tetracyclines at all stages of pregnancy, BASHH supports the use of doxycycline in pregnant people only when the full course of treatment can be completed prior to 15 weeks gestation (GRADE 2D).[144]

Recommended regimens (GRADE 1A)

- Azithromycin 1 g as a single dose

or

- Erythromycin 500 mg four times daily for seven days

or

- Erythromycin 500 mg twice daily for 14 days

or

- Amoxicillin 500 mg three times a day for seven days.

Clinical experience and published studies suggest that azithromycin is safe and efficacious in pregnancy,[138 ,145-148] and the World Health Organization (WHO) recommends its use in pregnancy although the British National Formulary (BNF) states that manufacturers advise use only if adequate alternatives are not available.

Erythromycin has a significant side-effect profile and is less than 95% effective.[136] A meta-analysis showed erythromycin has the same effectiveness for the treatment of chlamydia in pregnancy but its use is associated with significantly more gastrointestinal side effects and discontinuation.[136] This higher level of discontinuation may be a reason for lower microbiological cure rates seen in some studies.

Amoxicillin had a similar cure rate to erythromycin and a much better side effect profile.[146] However, penicillin in vitro has been shown to induce latency and re-emergence of infection at a later date is a theoretical concern of some experts.[149]

It is recommended that individuals treated for chlamydia in pregnancy undergo a test of cure (TOC) which should be performed no earlier than three weeks after completing treatment (GRADE 2C).

Breastfeeding / Chestfeeding

NICE recommends the use of specialist resources for up-to-date information regarding medications in lactation such as UKDILAS or Lactmed.

Recommended regimens (GRADE 1A).

- Azithromycin 1 g as a single dose

or

- Erythromycin 500 mg four times daily for seven days

or

- Erythromycin 500 mg twice daily for 14 days

or

- Amoxicillin 500 mg three times a day for seven days.

Alternative

- Doxycycline 100mg twice a day for seven days

When using antibiotics in breastfeeding/chestfeeding, it is recommended to monitor infants for side effects such as vomiting, diarrhoea and candida (GRADE 1D).

Macrolide use in infants is associated with infantile hypertrophic pyloric stenosis (IHPS), and this is association is strongest when administration occurs during the first two weeks of life.[124] The majority of the infants included in this analysis were prescribed erythromycin. Erythromycin is excreted in breast milk although the quantity excreted is likely to be low.[150] There have been isolated reports of erythromycin excreted in breastmilk associated with IHPS.[151] However, in a systematic review and meta-analysis, infantile exposure to macrolides including erythromycin during lactation was not significantly associated with IHPS.[152] A discussion with the parent, considering the age of the infant, the low likelihood of IHPS occurring as a result of exposure through breastmilk and the benefits of treatment should be documented (GRADE 1D).

Doxycycline was previously not recommended during lactation due to risk of bone deposition or staining of tooth enamel. However, this is unlikely to occur with short courses (less than three weeks) and so can be considered if alternatives are not acceptable (GRADE 2D).

In People Living with HIV

People living with HIV with chlamydial infection should be managed in the same way as HIV-negative individuals (GRADE 1C).

Reactions to Treatment

Doxycycline may cause dysphagia, oesophageal irritation and photosensitivity. Patients should be advised to swallow capsules whole with plenty of fluid during meals while sitting or standing and should be advised to avoid sunlamps and direct sunshine.

Generally, all antibiotics may cause gastro-intestinal upset including nausea, vomiting, abdominal discomfort and diarrhoea. These side-effects are more common with erythromycin than with azithromycin. With all macrolides, hepatotoxicity (including cholestatic jaundice) and rash may occur but are infrequent.

Azithromycin may be associated with prolongation of the QT interval and should be used with caution or avoided in individuals with abnormalities of cardiac rhythm, increasing age, female sex, or on other QT-prolonging medicines.

Follow-up

Test of Cure (TOC)

TOC is not routinely recommended for uncomplicated chlamydia infection, because treatment success rates are high and residual, nonviable chlamydial DNA may be detected by NAAT for 3–5 weeks following treatment.[153,154] There are few data on the optimum time to perform a TOC; we recommend this should be deferred for at least three weeks after treatment is completed (GRADE 1C).[153-155]

TOC is recommended in pregnancy, where poor compliance is suspected and where symptoms persist (GRADE 1C). A TOC may be considered if azithromycin was used to treat rectal infection (GRADE 1D).

Re-infection and repeat testing

TOC should be differentiated from testing for re-infection. Genital infection with chlamydia provides limited immunity to repeat infections.[156] Re-infection is common, with individuals testing positive for chlamydia being at higher risk of testing positive in subsequent tests compared to those who initially test negative.[157] Approximately 10% to 15% of young adults diagnosed with chlamydia test positive in their next test and the percentage of positive results in repeat tests is two to three times higher in individuals with an initial positive test compared to those with an initial negative test.[44-50] Repeat diagnoses may arise for various reasons, including re-infection

from untreated or new sexual partners, inadequate adherence to treatment, treatment failure or a false-positive result. In practice, it may be difficult to distinguish between treatment failure and rapid re-infection.

Modelling using US data from women aged 15 to 25 years suggests a peak in repeated infections between 2–5 months after treatment for an initial infection.[158] A single RCT of retesting 8, 16 or 26 weeks after treatment of urogenital chlamydia found similar positivity between the three groups (median age 23 years, interquartile range 21-26) but a statistically significant greater uptake of retesting in the 8-week group compared to the other groups.[159] We recommend retesting for chlamydia for those aged under 25 years between 2-6 months after treatment (GRADE 1B).

Several studies suggest that retesting rates can be improved with the use of SMS reminders.[160] [161]

Tracing and Treatment of Contacts

Contact tracing for specific STIs should be performed according to BASHH guidelines (www.bashh.org/guidelines), with reference to look back periods. Patients should be informed of the importance of partner notification and supported to do this by appropriately trained professionals.

All patients identified with *C. trachomatis* should have partner notification (PN) discussed at the time of diagnosis by a trained healthcare professional. The method of PN for each partner/contact identified should be documented, as should PN outcomes. All sexual partners should be offered, and encouraged to take up, full STI screening, including HIV testing and if indicated, hepatitis B screening and vaccination (GRADE 1C).

Treatment for partners

In keeping with good antimicrobial stewardship, the unnecessary use of antibiotics should be avoided. Between a third and two thirds of contacts will test negative for chlamydia and treating all contacts will result in overtreatment.[162-164] The likelihood of a partner testing positive is a function of different variables including partner type (e.g. established partner versus one off partner), symptoms and bacterial load in the index, age, and use of condoms and dPEP. However, identifying which contacts of chlamydia are most likely to have the infection is challenging. Test and wait strategies are reliant on testing at an appropriate time point following sex and may be more costly because of additional visits for those who subsequently test positive.[165] It is important to note that there is no strong evidence to support the recommendations below which are based on expert opinion (GRADE 1D).

We recommend that:

- symptomatic contacts should be offered epidemiological treatment alongside testing

- asymptomatic contacts attending within two weeks of sex with the index partner should be offered epidemiological treatment alongside testing
- waiting for test results may be appropriate if the contact is asymptomatic, had sex with the index partner at least 2 weeks prior to testing, there is a low risk of transmission whilst waiting for the result and they are likely to return for treatment if the test is positive
- asymptomatic contacts who are using dPEP do not require epidemiological treatment

Look-back period

HCWs should refer to the BASHH statement on PN.[166] There are limited data regarding how far back to go when trying to identify sexual partners potentially at risk of infection. Any sexual partners in the look back periods below should be notified, if possible, that they have potentially been in contact with *C. trachomatis*.

Index cases with penile-urethral symptoms: all contacts since, and in the four weeks prior to, the onset of symptoms (GRADE 1C).

All other index cases (i.e., all individuals with vaginal, rectal, throat and eye infections and those with asymptomatic penile-urethral infection): all contacts in the six months prior to presentation (GRADE 1C).

Auditable outcomes

- The percentage of cases offered a recommended treatment according to the type of chlamydial infection (performance standard 97%).
- The percentage of LGV tests performed on C. trachomatis reactive rectal specimens, both for MSM with proctitis, as well as for MSM with HIV infection (with or without symptoms) (performance standard 97%).
- Individuals provided with written information about their diagnosis and management (performance standard 97%).
- PN performed and documented according to BASHH Statement on PN for sexually transmissible infections (see www.bashh.org/guidelines) (performance standard 97%).

Recommendations for further research

- Clinical and microbiological cure with first line doxycycline treatment in patients who take doxyPEP
- Optimal time to test following sexual exposure
- Optimal time to TOC and re-testing
- Interventions to optimise partner notification and management outcomes

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Version No.: version for consultation dated 04/02/2026

Qualifying Statement

The recommendations in this guideline may not be appropriate for use in all clinical situations. Decisions to follow these recommendations must be based on professional clinical judgement, consideration of individual patient circumstances and available resources.

All possible care has been undertaken to ensure specification of the correct dosage of medication and route of administration. However, it remains the responsibility of the prescribing clinician to ensure the accuracy and appropriateness of the medication they prescribe.

Review Arrangements

An author group will be invited by the BASHH CEG to review and revise the guideline in 20xx using the BASHH framework for guideline development. However, addenda may be issued sooner than 20xx, particularly if relevant new data are available relating to testing or treatment options.

Disclosures

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<<to be written post-consultation>>

Declaration of Conflicting Interests

All members of the guideline writing committee completed the BASHH conflict of interest declaration and submitted it to the CEG. No authors had any relevant conflicts of interest to declare, and the content of the guideline is not attributed to any organisation they are associated with.

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Editorial Independence

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Current membership of the BASHH Clinical Effectiveness Group is available at www.bashh.org/bashh-groups/clinical-effectiveness-group/

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References

1. Migchelsen S, daahir U, MacDonald C, et al. Sexually transmitted infections and screening for chlamydia in England, 2024. June 2025, UK Health Security Agency, London. In: Agency UHS, ed.: UK Health Security Agency, 2024.
2. Sonnenberg P, Clifton S, Beddows S, et al. Prevalence, risk factors, and uptake of interventions for sexually transmitted infections in Britain: findings from the National Surveys of Sexual Attitudes and Lifestyles (Natsal). *Lancet* 2013;382(9907):1795–806. doi: 10.1016/S0140-6736(13)61947-9 [published Online First: 20131126]
3. Schachter J. Biology of Chlamydia trachomatis. *Sexually Transmitted Diseases K K Holmes New York, McGraw-Hill* 1999
4. Postema EJ, Remeijer L, van der Meijden WI. Epidemiology of genital chlamydial infections in patients with chlamydial conjunctivitis; a retrospective study. *Genitourin Med* 1996;72(3):203–5. doi: 10.1136/sti.72.3.203
5. Stenberg K, Mardh PA. Treatment of concomitant eye and genital chlamydial infection with erythromycin and roxithromycin. *Acta Ophthalmol (Copenh)* 1993;71(3):332–5. doi: 10.1111/j.1755-3768.1993.tb07144.x
6. Chandra NL, Broad C, Folkard K, et al. Detection of Chlamydia trachomatis in rectal specimens in women and its association with anal intercourse: a systematic review and meta-analysis. *Sex Transm Infect* 2018;94(5):320–26. doi: 10.1136/sextrans-2017-053161 [published Online First: 20180203]
7. Geisler WM, Wang C, Morrison SG, et al. The natural history of untreated Chlamydia trachomatis infection in the interval between screening and returning for treatment. *Sex Transm Dis* 2008;35(2):119–23. doi: 10.1097/OLQ.0b013e318151497d
8. Golden MR, Schillinger JA, Markowitz L, et al. Duration of untreated genital infections with chlamydia trachomatis: a review of the literature. *Sex Transm Dis* 2000;27(6):329–37. doi: 10.1097/00007435-200007000-00006

9. Joyner JL, Douglas JM, Jr., Foster M, et al. Persistence of Chlamydia trachomatis infection detected by polymerase chain reaction in untreated patients. *Sex Transm Dis* 2002;29(4):196–200. doi: 10.1097/00007435-200204000-00002
10. Molano M, Meijer CJ, Weiderpass E, et al. The natural course of Chlamydia trachomatis infection in asymptomatic Colombian women: a 5-year follow-up study. *J Infect Dis* 2005;191(6):907–16. doi: 10.1086/428287 [published Online First: 20050209]
11. Morre SA, van den Brule AJ, Rozendaal L, et al. The natural course of asymptomatic Chlamydia trachomatis infections: 45% clearance and no development of clinical PID after one-year follow-up. *Int J STD AIDS* 2002;13 Suppl 2:12–8. doi: 10.1258/095646202762226092
12. Parks KS, Dixon PB, Richey CM, et al. Spontaneous clearance of Chlamydia trachomatis infection in untreated patients. *Sex Transm Dis* 1997;24(4):229–35. doi: 10.1097/00007435-199704000-00008
13. Price MJ, Ades AE, Angelis DD, et al. Mixture-of-exponentials models to explain heterogeneity in studies of the duration of Chlamydia trachomatis infection. *Stat Med* 2013;32(9):1547–60. doi: 10.1002/sim.5603 [published Online First: 20120905]
14. Price MJ, Ades AE, Soldan K, et al. The natural history of Chlamydia trachomatis infection in women: a multi-parameter evidence synthesis. *Health Technol Assess* 2016;20(22):1–250. doi: 10.3310/hta20220
15. Sheffield JS, Andrews WW, Klebanoff MA, et al. Spontaneous resolution of asymptomatic Chlamydia trachomatis in pregnancy. *Obstet Gynecol* 2005;105(3):557–62. doi: 10.1097/01.AOG.0000153533.13658.c2
16. van den Brule AJ, Munk C, Winther JF, et al. Prevalence and persistence of asymptomatic Chlamydia trachomatis infections in urine specimens from Danish male military recruits. *Int J STD AIDS* 2002;13 Suppl 2:19–22. doi: 10.1258/095646202762226100
17. Adams EJ, Turner KM, Edmunds WJ. The cost effectiveness of opportunistic chlamydia screening in England. *Sex Transm Infect* 2007;83(4):267–74; discussion 74–5. doi: 10.1136/sti.2006.024364
18. Aghaizu A, Adams EJ, Turner K, et al. What is the cost of pelvic inflammatory disease and how much could be prevented by screening for chlamydia trachomatis? Cost analysis of the Prevention of Pelvic Infection (POPI) trial. *Sex Transm Infect* 2011;87(4):312–7. doi: 10.1136/sti.2010.048694 [published Online First: 20110328]
19. Roberts TE, Robinson S, Barton P, et al. Screening for Chlamydia trachomatis: a systematic review of the economic evaluations and modelling. *Sex Transm Infect* 2006;82(3):193–200; discussion 01. doi: 10.1136/sti.2005.017517
20. National Chlamydia Screening Programme. Information, data, guidance and resources about the NCSP. *https://wwwgovuk/government/collections/national-chlamydia-screening-programme-ncsp* 2023
21. Low N, McCarthy A, Macleod J, et al. Epidemiological, social, diagnostic and economic evaluation of population screening for genital chlamydial infection. *Health Technol Assess* 2007;11(8):iii–iv, ix–xii, 1–165. doi: 10.3310/hta11080
22. Tabesh M, Fairley CK, Hocking JS, et al. Comparison of the patterns of chlamydia and gonorrhoea at the oropharynx, anorectum and urethra among men who have sex with men. *Sex Transm Infect* 2022;98(1):11–16. doi: 10.1136/sextrans-2020-054632 [published Online First: 20210112]
23. Stamm WE. Chlamydia trachomatis Infections. Sexually Transmitted Diseases. K. K. Holmes. New York, McGraw-Hill. 1999
24. Yang LG, Zhang XH, Zhao PZ, et al. Gonorrhea and chlamydia prevalence in different anatomical sites among men who have sex with men: a cross-sectional study in

Guangzhou, China. *BMC Infect Dis* 2018;18(1):675. doi: 10.1186/s12879-018-3579-6 [published Online First: 20181218]
25. Barbee LA, Khosropour CM, Soge OO, et al. The Natural History of Rectal Gonococcal and Chlamydial Infections: The ExGen Study. *Clin Infect Dis* 2022;74(9):1549–56. doi: 10.1093/cid/ciab680
26. Khosropour CM, Soge OO, Golden MR, et al. Incidence and Duration of Pharyngeal Chlamydia Among a Cohort of Men Who Have Sex With Men. *Clin Infect Dis* 2022;75(5):875–81. doi: 10.1093/cid/ciab1022
27. Chan PA, Robinette A, Montgomery M, et al. Extragenital Infections Caused by Chlamydia trachomatis and Neisseria gonorrhoeae: A Review of the Literature. *Infect Dis Obstet Gynecol* 2016;2016:5758387. doi: 10.1155/2016/5758387 [published Online First: 20160605]
28. Evers YJ, Dukers-Muijrers N, van Liere G, et al. Pharyngeal Chlamydia trachomatis in Men Who Have Sex With Men (MSM) in The Netherlands: A Large Retrospective Cohort Study. *Clin Infect Dis* 2022;74(8):1480–84. doi: 10.1093/cid/ciab685
29. Lewis D, Newton DC, Guy RJ, et al. The prevalence of Chlamydia trachomatis infection in Australia: a systematic review and meta-analysis. *BMC Infect Dis* 2012;12:113. doi: 10.1186/1471-2334-12-113 [published Online First: 20120514]
30. Apewokin SK, Geisler WM, Bachmann LH. Spontaneous resolution of extragenital chlamydial and gonococcal infections prior to therapy. *Sex Transm Dis* 2010;37(5):343–4. doi: 10.1097/OLQ.0b013e3181d73639
31. Dukers-Muijrers N, Wolffs P, Lucchesi M, et al. Oropharyngeal Chlamydia trachomatis in women; spontaneous clearance and cure after treatment (FemCure). *Sex Transm Infect* 2021;97(2):147–51. doi: 10.1136/sextrans-2020-054558 [published Online First: 20200731]
32. van Rooijen MS, van der Loeff MF, Morre SA, et al. Spontaneous pharyngeal Chlamydia trachomatis RNA clearance. A cross-sectional study followed by a cohort study of untreated STI clinic patients in Amsterdam, The Netherlands. *Sex Transm Infect* 2015;91(3):157–64. doi: 10.1136/sextrans-2014-051633 [published Online First: 20140918]
33. van Liere G, Hoebe C, Dirks JA, et al. Spontaneous clearance of urogenital, anorectal and oropharyngeal Chlamydia trachomatis and Neisseria gonorrhoeae in women, MSM and heterosexual men visiting the STI clinic: a prospective cohort study. *Sex Transm Infect* 2019;95(7):505–10. doi: 10.1136/sextrans-2018-053825 [published Online First: 20190311]
34. Petrovay F, Nemeth I, Balazs A, et al. Chlamydial conjunctivitis: prevalence and serovar distribution of Chlamydia trachomatis in adults. *J Med Microbiol* 2015;64(9):967–70. doi: 10.1099/jmm.0.000115 [published Online First: 20150630]
35. Moore R, Mallett P, Hull S, et al. Chlamydia trachomatis conjunctivitis in the pre-pubertal child. *Arch Dis Child Educ Pract Ed* 2023;108(2):104–08. doi: 10.1136/archdischild-2022-323845 [published Online First: 20220614]
36. Azari AA, Barney NP. Conjunctivitis: a systematic review of diagnosis and treatment. *JAMA* 2013;310(16):1721–9. doi: 10.1001/jama.2013.280318
37. Welte R, Jager H, Postma MJ. Cost-effectiveness of screening for genital Chlamydia trachomatis. *Expert Rev Pharmacoecon Outcomes Res* 2001;1(2):145–56. doi: 10.1586/14737167.1.2.145
38. Welte R, Kretzschmar M, Leidl R, et al. Cost-effectiveness of screening programs for Chlamydia trachomatis: a population-based dynamic approach. *Sex Transm Dis* 2000;27(9):518–29. doi: 10.1097/00007435-200010000-00005

39. Darville T, Hiltke TJ. Pathogenesis of genital tract disease due to Chlamydia trachomatis. *J Infect Dis* 2010;201 Suppl 2(Suppl 2):S114–25. doi: 10.1086/652397
40. Westrom L, Joesoef R, Reynolds G, et al. Pelvic inflammatory disease and fertility. A cohort study of 1,844 women with laparoscopically verified disease and 657 control women with normal laparoscopic results. *Sex Transm Dis* 1992;19(4):185–92.
41. Mardh PA. Tubal factor infertility, with special regard to chlamydial salpingitis. *Curr Opin Infect Dis* 2004;17(1):49–52. doi: 10.1097/00001432-200402000-00010
42. Ness RB, Soper DE, Richter HE, et al. Chlamydia antibodies, chlamydia heat shock protein, and adverse sequelae after pelvic inflammatory disease: the PID Evaluation and Clinical Health (PEACH) Study. *Sex Transm Dis* 2008;35(2):129–35. doi: 10.1097/olq.0b013e3181557c25
43. Hillis SD, Joesoef R, Marchbanks PA, et al. Delayed care of pelvic inflammatory disease as a risk factor for impaired fertility. *Am J Obstet Gynecol* 1993;168(5):1503–9. doi: 10.1016/s0002-9378(11)90790-x
44. Rietmeijer CA, Van Bemmelen R, Judson FN, et al. Incidence and repeat infection rates of Chlamydia trachomatis among male and female patients in an STD clinic: implications for screening and rescreening. *Sex Transm Dis* 2002;29(2):65–72. doi: 10.1097/00007435-200202000-00001
45. Batteiger BE, Tu W, Ofner S, et al. Repeated Chlamydia trachomatis genital infections in adolescent women. *J Infect Dis* 2010;201(1):42–51. doi: 10.1086/648734
46. Walker J, Tabrizi SN, Fairley CK, et al. Chlamydia trachomatis incidence and re-infection among young women--behavioural and microbiological characteristics. *PLoS One* 2012;7(5):e37778. doi: 10.1371/journal.pone.0037778 [published Online First: 20120525]
47. Gotz HM, Bom RJ, Wolfers ME, et al. Use of Chlamydia trachomatis high-resolution typing: an extended case study to distinguish recurrent or persistent infection from new infection. *Sex Transm Infect* 2014;90(2):155–60. doi: 10.1136/sextrans-2013-051218 [published Online First: 20131114]
48. Gotz HM, van den Broek IV, Hoebe CJ, et al. High yield of reinfections by home-based automatic rescreening of Chlamydia positives in a large-scale register-based screening programme and determinants of repeat infections. *Sex Transm Infect* 2013;89(1):63–9. doi: 10.1136/sextrans-2011-050455 [published Online First: 20120623]
49. Turner KM, Horner PJ, Trela-Larsen L, et al. Chlamydia screening, retesting and repeat diagnoses in Cornwall, UK 2003-2009. *Sex Transm Infect* 2013;89(1):70–5. doi: 10.1136/sextrans-2012-050696 [published Online First: 20120928]
50. Woodhall SC, Turner KM, Hughes G. Maximising the effectiveness of the National Chlamydia Screening Programme in England: should we routinely retest positives? *Sex Transm Infect* 2013;89(1):2–3. doi: 10.1136/sextrans-2012-050967
51. Scott Lamontagne D, Baster K, Emmett L, et al. Incidence and reinfection rates of genital chlamydial infection among women aged 16-24 years attending general practice, family planning and genitourinary medicine clinics in England: a prospective cohort study by the Chlamydia Recall Study Advisory Group. *Sex Transm Infect* 2007;83(4):292–303. doi: 10.1136/sti.2006.022053 [published Online First: 20061018]
52. Skidmore S, Horner P, Mallinson H. Testing specimens for Chlamydia trachomatis. *Sex Transm Infect* 2006;82(4):272–5. doi: 10.1136/sti.2005.019034
53. Adamson PC, Klausner JD. Diagnostic Tests for Detecting Chlamydia trachomatis and Neisseria gonorrhoeae in Rectal and Pharyngeal Specimens. *J Clin Microbiol* 2022;60(4):e0021121. doi: 10.1128/JCM.00211-21 [published Online First: 20211103]
54. Adamson PC, Pandori MW, Doernberg SB, et al. Analytical Evaluation of the Abbott RealTime CT/NG Assay for Detection of Chlamydia trachomatis and Neisseria

gonorrhoeae in Rectal and Pharyngeal Swabs. *J Mol Diagn* 2020;22(6):811–16. doi: 10.1016/j.jmoldx.2020.03.004 [published Online First: 20200402]
55. Bristow CC, McGrath MR, Cohen AC, et al. Comparative Evaluation of 2 Nucleic Acid Amplification Tests for the Detection of Chlamydia trachomatis and Neisseria gonorrhoeae at Extragenital Sites. *Sex Transm Dis* 2017;44(7):398–400. doi: 10.1097/OLQ.0000000000000627
56. Van Der Pol B, Chernesky M, Gaydos CA, et al. Multicenter Comparison of Nucleic Acid Amplification Tests for the Diagnosis of Rectal and Oropharyngeal Chlamydia trachomatis and Neisseria gonorrhoeae Infections. *J Clin Microbiol* 2022;60(1):e0136321. doi: 10.1128/JCM.01363-21 [published Online First: 20211103]
57. Cheng A, Qian Q, Kirby JE. Evaluation of the Abbott RealTime CT/NG assay in comparison to the Roche Cobas Amplicor CT/NG assay. *J Clin Microbiol* 2011;49(4):1294–300. doi: 10.1128/JCM.02595-10 [published Online First: 20110216]
58. Choe HS, Lee DS, Lee SJ, et al. Performance of Anyplex II multiplex real-time PCR for the diagnosis of seven sexually transmitted infections: comparison with currently available methods. *Int J Infect Dis* 2013;17(12):e1134–40. doi: 10.1016/j.ijid.2013.07.011 [published Online First: 20130907]
59. Cook RL, Hutchison SL, Ostergaard L, et al. Systematic review: noninvasive testing for Chlamydia trachomatis and Neisseria gonorrhoeae. *Ann Intern Med* 2005;142(11):914–25. doi: 10.7326/0003-4819-142-11-200506070-00010
60. Han Y, Shi MQ, Jiang QP, et al. Clinical Performance of the Xpert((R)) CT/NG Test for Detection of Chlamydia trachomatis and Neisseria gonorrhoeae: A Multicenter Evaluation in Chinese Urban Hospitals. *Front Cell Infect Microbiol* 2021;11:784610. doi: 10.3389/fcimb.2021.784610 [published Online First: 20220103]
61. Kumamoto Y, Matsumoto T, Fujisawa M, et al. Detection of Chlamydia trachomatis and Neisseria gonorrhoeae in urogenital and oral specimens using the cobas(R) 4800, APTIMA Combo 2(R) TMA, and ProbeTec ET SDA assays. *Eur J Microbiol Immunol (Bp)* 2012;2(2):121–7. doi: 10.1556/EuJMI.2.2012.0001 [published Online First: 20120411]
62. Le Roy C, Le Hen I, Clerc M, et al. The first performance report for the Bio-Rad Dx CT/NG/MG assay for simultaneous detection of Chlamydia trachomatis, Neisseria gonorrhoeae and Mycoplasma genitalium in urogenital samples. *J Microbiol Methods* 2012;89(3):193–7. doi: 10.1016/j.mimet.2012.03.009 [published Online First: 20120315]
63. Mushanski LM, Brandt K, Coffin N, et al. Comparison of the BD Viper System with XTR Technology to the Gen-Probe APTIMA COMBO 2 Assay using the TIGRIS DTS system for the detection of Chlamydia trachomatis and Neisseria gonorrhoeae in urine specimens. *Sex Transm Dis* 2012;39(7):514–7. doi: 10.1097/OLQ.0b013e31824f2f5b
64. Watson EJ, Templeton A, Russell I, et al. The accuracy and efficacy of screening tests for Chlamydia trachomatis: a systematic review. *J Med Microbiol* 2002;51(12):1021–31. doi: 10.1099/0022-1317-51-12-1021
65. Alexander S, Ison C, Parry J, et al. Self-taken pharyngeal and rectal swabs are appropriate for the detection of Chlamydia trachomatis and Neisseria gonorrhoeae in asymptomatic men who have sex with men. *Sex Transm Infect* 2008;84(6):488–92. doi: 10.1136/sti.2008.031443
66. Hopkins MJ, Smith G, Hart IJ, et al. Screening tests for Chlamydia trachomatis or Neisseria gonorrhoeae using the cobas 4800 PCR system do not require a second test to confirm: an audit of patients issued with equivocal results at a sexual health clinic in the Northwest of England, U.K. *Sex Transm Infect* 2012;88(7):495–7. doi: 10.1136/sextrans-2012-050535 [published Online First: 20120601]

67. Ota KV, Tamari IE, Smieja M, et al. Detection of Neisseria gonorrhoeae and Chlamydia trachomatis in pharyngeal and rectal specimens using the BD Probetec ET system, the Gen-Probe Aptima Combo 2 assay and culture. *Sex Transm Infect* 2009;85(3):182–6. doi: 10.1136/sti.2008.034140 [published Online First: 20090106]
68. Schachter J, Chow JM, Howard H, et al. Detection of Chlamydia trachomatis by nucleic acid amplification testing: our evaluation suggests that CDC-recommended approaches for confirmatory testing are ill-advised. *J Clin Microbiol* 2006;44(7):2512–7. doi: 10.1128/JCM.02620-05
69. Skidmore S, Corden S. Second tests for Chlamydia trachomatis and Neisseria gonorrhoeae. *Sex Transm Infect* 2012;88(7):497. doi: 10.1136/sextrans-2012-050781 [published Online First: 20120914]
70. van der Helm JJ, Sabajo LO, Grunberg AW, et al. Point-of-care test for detection of urogenital chlamydia in women shows low sensitivity. A performance evaluation study in two clinics in Suriname. *PLoS One* 2012;7(2):e32122. doi: 10.1371/journal.pone.0032122 [published Online First: 20120229]
71. Bartelsman M, de Vries HJ, Schim van der Loeff MF, et al. Leucocyte esterase dip-stick test as a point-of-care diagnostic for urogenital chlamydia in male patients: A multi-center evaluation in two STI outpatient clinics in Paramaribo and Amsterdam. *BMC Infect Dis* 2016;16(1):625. doi: 10.1186/s12879-016-1946-8 [published Online First: 20161103]
72. Grillo-Ardila CF, Torres M, Gaitan HG. Rapid point of care test for detecting urogenital Chlamydia trachomatis infection in nonpregnant women and men at reproductive age. *Cochrane Database Syst Rev* 2020;1(1):CD011708. doi: 10.1002/14651858.CD011708.pub2 [published Online First: 20200129]
73. Peng L, Chen JL, Wang D. Progress and Perspectives in Point of Care Testing for Urogenital Chlamydia trachomatis Infection: A Review. *Med Sci Monit* 2020;26:e920873. doi: 10.12659/MSM.920873 [published Online First: 20200416]
74. Adamson PC, Loeffelholz MJ, Klausner JD. Point-of-Care Testing for Sexually Transmitted Infections: A Review of Recent Developments. *Arch Pathol Lab Med* 2020;144(11):1344–51. doi: 10.5858/arpa.2020-0118-RA
75. May L, Ware CE, Jordan JA, et al. A Randomized Controlled Trial Comparing the Treatment of Patients Tested for Chlamydia and Gonorrhea After a Rapid Polymerase Chain Reaction Test Versus Standard of Care Testing. *Sex Transm Dis* 2016;43(5):290–5. doi: 10.1097/OLQ.0000000000000438
76. Badman SG, Willie B, Narokobi R, et al. A diagnostic evaluation of a molecular assay used for testing and treating anorectal chlamydia and gonorrhoea infections at the point-of-care in Papua New Guinea. *Clin Microbiol Infect* 2019;25(5):623–27. doi: 10.1016/j.cmi.2018.08.001 [published Online First: 20180811]
77. Bourgeois-Nicolaos N, Jaureguy F, Pozzi-Gaudin S, et al. Benefits of Rapid Molecular Diagnosis of Chlamydia Trachomatis and Neisseria Gonorrhoeae Infections in Women Attending Family Planning Clinics. *Sex Transm Dis* 2015;42(11):652–3. doi: 10.1097/OLQ.0000000000000351
78. Dawkins M, Bishop L, Walker P, et al. Clinical Integration of a Highly Accurate Polymerase Chain Reaction Point-of-Care Test Can Inform Immediate Treatment Decisions for Chlamydia, Gonorrhea, and Trichomonas. *Sex Transm Dis* 2022;49(4):262–67. doi: 10.1097/OLQ.0000000000001586
79. Garrett N, Mitchev N, Osman F, et al. Diagnostic accuracy of the Xpert CT/NG and OSOM Trichomonas Rapid assays for point-of-care STI testing among young women in South Africa: a cross-sectional study. *BMJ Open* 2019;9(2):e026888. doi: 10.1136/bmjopen-2018-026888 [published Online First: 20190219]

80. Gaydos CA, Ako MC, Lewis M, et al. Use of a Rapid Diagnostic for Chlamydia trachomatis and Neisseria gonorrhoeae for Women in the Emergency Department Can Improve Clinical Management: Report of a Randomized Clinical Trial. *Ann Emerg Med* 2019;74(1):36–44. doi: 10.1016/j.annemergmed.2018.09.012 [published Online First: 20181102]
81. Harding-Esch EM, Cousins EC, Chow SC, et al. A 30-Min Nucleic Acid Amplification Point-of-Care Test for Genital Chlamydia trachomatis Infection in Women: A Prospective, Multi-center Study of Diagnostic Accuracy. *EBioMedicine* 2018;28:120–27. doi: 10.1016/j.ebiom.2017.12.029 [published Online First: 20180110]
82. Morris SR, Bristow CC, Wierzbicki MR, et al. Performance of a single-use, rapid, point-of-care PCR device for the detection of Neisseria gonorrhoeae, Chlamydia trachomatis, and Trichomonas vaginalis: a cross-sectional study. *Lancet Infect Dis* 2021;21(5):668–76. doi: 10.1016/S1473-3099(20)30734-9 [published Online First: 20201123]
83. Gaydos CA, Van Der Pol B, Jett-Goheen M, et al. Performance of the Cepheid CT/NG Xpert Rapid PCR Test for Detection of Chlamydia trachomatis and Neisseria gonorrhoeae. *J Clin Microbiol* 2013;51(6):1666–72. doi: 10.1128/JCM.03461-12 [published Online First: 20130306]
84. Goldenberg SD, Finn J, Sedudzi E, et al. Performance of the GeneXpert CT/NG assay compared to that of the Aptima AC2 assay for detection of rectal Chlamydia trachomatis and Neisseria gonorrhoeae by use of residual Aptima Samples. *J Clin Microbiol* 2012;50(12):3867–9. doi: 10.1128/JCM.01930-12 [published Online First: 20120919]
85. Schachter J, Chernesky MA, Willis DE, et al. Vaginal swabs are the specimens of choice when screening for Chlamydia trachomatis and Neisseria gonorrhoeae: results from a multicenter evaluation of the APTIMA assays for both infections. *Sex Transm Dis* 2005;32(12):725–8. doi: 10.1097/01.olq.0000190092.59482.96
86. Schachter J, McCormack WM, Chernesky MA, et al. Vaginal swabs are appropriate specimens for diagnosis of genital tract infection with Chlamydia trachomatis. *J Clin Microbiol* 2003;41(8):3784–9. doi: 10.1128/JCM.41.8.3784-3789.2003
87. Schoeman SA, Stewart CM, Booth RA, et al. Assessment of best single sample for finding chlamydia in women with and without symptoms: a diagnostic test study. *BMJ* 2012;345:e8013. doi: 10.1136/bmj.e8013 [published Online First: 20121212]
88. Lunny C, Taylor D, Hoang L, et al. Self-Collected versus Clinician-Collected Sampling for Chlamydia and Gonorrhea Screening: A Systemic Review and Meta-Analysis. *PLoS One* 2015;10(7):e0132776. doi: 10.1371/journal.pone.0132776 [published Online First: 20150713]
89. Ogale Y, Yeh PT, Kennedy CE, et al. Self-collection of samples as an additional approach to deliver testing services for sexually transmitted infections: a systematic review and meta-analysis. *BMJ Glob Health* 2019;4(2):e001349. doi: 10.1136/bmjgh-2018-001349 [published Online First: 20190422]
90. Chernesky MA, Martin DH, Hook EW, et al. Ability of new APTIMA CT and APTIMA GC assays to detect Chlamydia trachomatis and Neisseria gonorrhoeae in male urine and urethral swabs. *J Clin Microbiol* 2005;43(1):127–31. doi: 10.1128/JCM.43.1.127-131.2005
91. Gaydos CA, Cartwright CP, Colaninno P, et al. Performance of the Abbott RealTime CT/NG for detection of Chlamydia trachomatis and Neisseria gonorrhoeae. *J Clin Microbiol* 2010;48(9):3236–43. doi: 10.1128/JCM.01019-10 [published Online First: 20100728]
92. Wisniewski CA, White JA, Michel CE, et al. Optimal method of collection of first-void urine for diagnosis of Chlamydia trachomatis infection in men. *J Clin Microbiol* 2008;46(4):1466–9. doi: 10.1128/JCM.02241-07 [published Online First: 20080130]

93. Berry L, Stanley B. Comparison of self-collected meatal swabs with urine specimens for the diagnosis of Chlamydia trachomatis and Neisseria gonorrhoeae in men. *J Med Microbiol* 2017;66(2):134–36. doi: 10.1099/jmm.0.000428 [published Online First: 20170307]
94. Chernesky MA, Jang D, Portillo E, et al. Self-collected swabs of the urinary meatus diagnose more Chlamydia trachomatis and Neisseria gonorrhoeae infections than first catch urine from men. *Sex Transm Infect* 2013;89(2):102–4. doi: 10.1136/sextrans-2012-050573 [published Online First: 20120928]
95. Bachmann LH, Johnson RE, Cheng H, et al. Nucleic acid amplification tests for diagnosis of Neisseria gonorrhoeae and Chlamydia trachomatis rectal infections. *J Clin Microbiol* 2010;48(5):1827–32. doi: 10.1128/JCM.02398-09 [published Online First: 20100324]
96. Schachter J, Moncada J, Liska S, et al. Nucleic acid amplification tests in the diagnosis of chlamydial and gonococcal infections of the oropharynx and rectum in men who have sex with men. *Sex Transm Dis* 2008;35(7):637–42. doi: 10.1097/OLQ.0b013e31817bdd7e
97. Vavala G, Goldbeck C, Bristow CC, et al. Adolescents may accurately self-collect pharyngeal and rectal clinical specimens for the detection of Chlamydia trachomatis and Neisseria gonorrhoeae infection. *PLoS One* 2021;16(9):e0255878. doi: 10.1371/journal.pone.0255878 [published Online First: 20210927]
98. Freeman AH, Bernstein KT, Kohn RP, et al. Evaluation of self-collected versus clinician-collected swabs for the detection of Chlamydia trachomatis and Neisseria gonorrhoeae pharyngeal infection among men who have sex with men. *Sex Transm Dis* 2011;38(11):1036–9. doi: 10.1097/OLQ.0b013e318227713e
99. Wayal S, Llewellyn C, Smith H, et al. Self-sampling for oropharyngeal and rectal specimens to screen for sexually transmitted infections: acceptability among men who have sex with men. *Sex Transm Infect* 2009;85(1):60–4. doi: 10.1136/sti.2008.032193 [published Online First: 20080815]
100. Kowalski RP, Karenchak LM, Raju LV, et al. The verification of nucleic acid amplification testing (Gen-Probe Aptima Assay) for chlamydia trachomatis from ocular samples. *Ophthalmology* 2015;122(2):244–7. doi: 10.1016/j.ophtha.2014.08.038 [published Online First: 20141014]
101. Radix AE, Harris AB, Belkind U, et al. Chlamydia trachomatis Infection of the Neovagina in Transgender Women. *Open Forum Infect Dis* 2019;6(11):ofz470. doi: 10.1093/ofid/ofz470 [published Online First: 20191111]
102. Ripa T, Nilsson P. A variant of Chlamydia trachomatis with deletion in cryptic plasmid: implications for use of PCR diagnostic tests. *Euro Surveill* 2006;11(11):E061109 2. doi: 10.2807/esw.11.45.03076-en [published Online First: 20061109]
103. Herrmann B, Torner A, Low N, et al. Emergence and spread of Chlamydia trachomatis variant, Sweden. *Emerg Infect Dis* 2008;14(9):1462–5. doi: 10.3201/eid1409.080153
104. Rantakokko-Jalava K, Hokynar K, Hieta N, et al. Chlamydia trachomatis samples testing falsely negative in the Aptima Combo 2 test in Finland, 2019. *Euro Surveill* 2019;24(22) doi: 10.2807/1560-7917.ES.2019.24.22.1900298
105. Hadad R, Jensen JS, Westh H, et al. A Chlamydia trachomatis 23S rRNA G1523A variant escaping detection in the Aptima Combo 2 assay (Hologic) was widespread across Denmark in July-September 2019. *APMIS* 2020;128(6):440–44. doi: 10.1111/apm.13043 [published Online First: 20200504]
106. Johansen TB, Klovstad H, Rykkvin R, et al. The 'Finnish new variant of Chlamydia trachomatis' escaping detection in the Aptima Combo 2 assay is widespread across Norway, June to August 2019. *Euro Surveill* 2019;24(42) doi: 10.2807/1560-7917.ES.2019.24.42.1900592

107. Unemo M, Hansen M, Hadad R, et al. Finnish new variant of Chlamydia trachomatis escaping detection in the Aptima Combo 2 assay also present in Orebro County, Sweden, May 2019. *Euro Surveill* 2019;24(26) doi: 10.2807/1560-7917.ES.2019.24.26.1900370
108. Cole MJ, Davis GS, Fifer H, et al. No widespread dissemination of Chlamydia trachomatis diagnostic-escape variants and the impact of Neisseria gonorrhoeae positivity on the Aptima Combo 2 assay. *Sex Transm Infect* 2022;98(5):366–70. doi: 10.1136/sextrans-2021-054988 [published Online First: 20210911]
109. Roberts DJ, Davis GS, Cole MJ, et al. Prevalence of new variants of Chlamydia trachomatis escaping detection by the Aptima Combo 2 assay, England, June to August 2019. *Eurosurveillance* 2019;24(38):1900557.
110. Roy F, Beirnes J, LeBlanc JJ, et al. Surveillance for Chlamydia trachomatis variants escaping detection with the Aptima Combo 2 assay in Canada from 2019 to 2021. *Microbiol Spectr* 2025;13(3):e0206224. doi: 10.1128/spectrum.02062-24 [published Online First: 20250123]
111. Aboud L, Xu Y, Chow EPF, et al. Diagnostic accuracy of pooling urine, anorectal, and oropharyngeal specimens for the detection of Chlamydia trachomatis and Neisseria gonorrhoeae: a systematic review and meta-analysis. *BMC Med* 2021;19(1):285. doi: 10.1186/s12916-021-02160-9 [published Online First: 20211125]
112. Almeria J, Pham J, Paris KS, et al. Pooled 3-Anatomic-Site Testing for Chlamydia trachomatis and Neisseria gonorrhoeae: A Systematic Review and Meta-Analysis. *Sex Transm Dis* 2021;48(12):e215–e22. doi: 10.1097/OLQ.0000000000001558
113. Badman SG, Bell SFE, Dean JA, et al. Reduced sensitivity from pooled urine, pharyngeal and rectal specimens when using a molecular assay for the detection of chlamydia and gonorrhoea near the point of care. *Sex Health* 2020;17(1):15–21. doi: 10.1071/SH19028
114. Moran A, Gipson M, Hazra A, et al. Evaluating specimen pooling for Neisseria gonorrhoeae, Chlamydia trachomatis, and Mycoplasma genitalium screening in asymptomatic men who have sex with men. *Int J STD AIDS* 2022;33(8):761–65. doi: 10.1177/09564624221100098 [published Online First: 20220524]
115. Speers DJ, Chua IJ, Manuel J, et al. Detection of Neisseria gonorrhoeae and Chlamydia trachomatis from pooled rectal, pharyngeal and urine specimens in men who have sex with men. *Sex Transm Infect* 2018;94(4):293–97. doi: 10.1136/sextrans-2017-053303 [published Online First: 20171024]
116. Verougstraete N, Verbeke V, De Canniere AS, et al. To pool or not to pool? Screening of Chlamydia trachomatis and Neisseria gonorrhoeae in female sex workers: pooled versus single-site testing. *Sex Transm Infect* 2020;96(6):417–21. doi: 10.1136/sextrans-2019-054357 [published Online First: 20200513]
117. Royal Pharmaceutical Society. Antimicrobial Resistance and Stewardship 2023 [Available from: https://www.rpharms.com/resources/pharmacy-guides/ams-amr accessed 17th December 2023.
118. Kong FY, Tabrizi SN, Law M, et al. Azithromycin versus doxycycline for the treatment of genital chlamydia infection: a meta-analysis of randomized controlled trials. *Clin Infect Dis* 2014;59(2):193–205. doi: 10.1093/cid/ciu220 [published Online First: 20140411]
119. Geisler WM, Uniyal A, Lee JY, et al. Azithromycin versus Doxycycline for Urogenital Chlamydia trachomatis Infection. *N Engl J Med* 2015;373(26):2512–21. doi: 10.1056/NEJMoa1502599
120. Kang-Birken SL. Challenges in Treating Chlamydia trachomatis, Including Rectal Infections: Is It Time to Go Back to Doxycycline? *Ann Pharmacother* 2022;56(3):330–38. doi: 10.1177/10600280211029945 [published Online First: 20210703]

121. Kissinger PJ, White S, Manhart LE, et al. Azithromycin Treatment Failure for Chlamydia trachomatis Among Heterosexual Men With Nongonococcal Urethritis. *Sex Transm Dis* 2016;43(10):599–602. doi: 10.1097/OLQ.0000000000000489
122. Mohammadzadeh F, Dolatian M, Jorjani M, et al. Urogenital chlamydia trachomatis treatment failure with azithromycin: A meta-analysis. *Int J Reprod Biomed* 2019;17(9):603–20. doi: 10.18502/ijrm.v17i9.5093 [published Online First: 20190922]
123. Páez-Canro C, Alzate JP, Gonzalez LM, et al. Antibiotics for treating urogenital Chlamydia trachomatis infection in men and non-pregnant women. *Cochrane Database of Systematic Reviews* 2019(1)
124. Chen LF, Wang TC, Chen FL, et al. Efficacy of doxycycline versus azithromycin for the treatment of rectal chlamydia: a systematic review and meta-analysis. *J Antimicrob Chemother* 2021;76(12):3103–10. doi: 10.1093/jac/dkab335
125. Kong FY, Tabrizi SN, Fairley CK, et al. The efficacy of azithromycin and doxycycline for the treatment of rectal chlamydia infection: a systematic review and meta-analysis. *J Antimicrob Chemother* 2015;70(5):1290–7. doi: 10.1093/jac/dku574 [published Online First: 20150129]
126. Dombrowski JC, Wierzbicki MR, Newman LM, et al. Doxycycline Versus Azithromycin for the Treatment of Rectal Chlamydia in Men Who Have Sex With Men: A Randomized Controlled Trial. *Clin Infect Dis* 2021;73(5):824–31. doi: 10.1093/cid/ciab153
127. Lau A, Kong FYS, Fairley CK, et al. Azithromycin or Doxycycline for Asymptomatic Rectal Chlamydia trachomatis. *N Engl J Med* 2021;384(25):2418–27. doi: 10.1056/NEJMoa2031631
128. Garland SM, Malatt A, Tabrizi S, et al. Chlamydia trachomatis conjunctivitis. Prevalence and association with genital tract infection. *Med J Aust* 1995;162(7):363–6.
129. Katusic D, Petricek I, Mandic Z, et al. Azithromycin vs doxycycline in the treatment of inclusion conjunctivitis. *Am J Ophthalmol* 2003;135(4):447–51. doi: 10.1016/s0002-9394(02)02094-9
130. Malamos P, Georgalas I, Rallis K, et al. Evaluation of single-dose azithromycin versus standard azithromycin/doxycycline treatment and clinical assessment of regression course in patients with adult inclusion conjunctivitis. *Curr Eye Res* 2013;38(12):1198–206. doi: 10.3109/02713683.2013.822893 [published Online First: 20130918]
131. Takahashi S, Kiyota H, Ito S, et al. Clinical Efficacy of a Single Two Gram Dose of Azithromycin Extended Release for Male Patients with Urethritis. *Antibiotics (Basel)* 2014;3(2):109–20. doi: 10.3390/antibiotics3020109 [published Online First: 20140402]
132. Unemo M, Endre KM, Moi H. Five-day Azithromycin Treatment Regimen for Mycoplasma genitalium Infection Also Effectively Eradicates Chlamydia trachomatis. *Acta Derm Venereol* 2015;95(6):730–2. doi: 10.2340/00015555-2108
133. Krahn J, Louette A, Caine V, et al. Non-standard treatment for uncomplicated Chlamydia trachomatis urogenital infections: a systematic review. *BMJ Open* 2018;8(12):e023808. doi: 10.1136/bmjopen-2018-023808 [published Online First: 20181204]
134. Kitchen VS, Donegan C, Ward H, et al. Comparison of ofloxacin with doxycycline in the treatment of non-gonococcal urethritis and cervical chlamydial infection. *J Antimicrob Chemother* 1990;26 Suppl D:99–105. doi: 10.1093/jac/26.suppl_d.99
135. Medicines and Healthcare products Regulatory Agency. Fluoroquinolone antibiotics: reminder of the risk of disabling and potentially long-lasting or irreversible side effects. https://www.gov.uk/drug-safety-update/fluoroquinolone-antibiotics-reminder-of-the-risk-of-disabling-and-potentially-long-lasting-or-irreversible-side-effects#fn:1, 2024.
136. Pitsouni E, Iavazzo C, Athanasiou S, et al. Single-dose azithromycin versus erythromycin or amoxicillin for Chlamydia trachomatis infection during pregnancy: a meta-analysis of

randomised controlled trials. *International Journal of Antimicrobial Agents* 2007;30(3):213–21. doi: https://doi.org/10.1016/j.ijantimicag.2007.04.015
137. Crofts M, Horner P. Chlamydia (uncomplicated, genital). *BMJ Clin Evid* 2015;2015 [published Online First: 20150416]
138. Linnemann CC, Jr., Heaton CL, Ritchey M. Treatment of Chlamydia trachomatis infections: comparison of 1- and 2-g doses of erythromycin daily for seven days. *Sex Transm Dis* 1987;14(2):102–6.
139. Molina JM, Charreau I, Chidiac C, et al. Post-exposure prophylaxis with doxycycline to prevent sexually transmitted infections in men who have sex with men: an open-label randomised substudy of the ANRS IPERGAY trial. *Lancet Infect Dis* 2018;18(3):308–17. doi: 10.1016/S1473-3099(17)30725-9 [published Online First: 20171208]
140. Luetkemeyer AF, Donnell D, Dombrowski JC, et al. Postexposure Doxycycline to Prevent Bacterial Sexually Transmitted Infections. *N Engl J Med* 2023;388(14):1296–306. doi: 10.1056/NEJMoa2211934
141. Molina JM, Bercot B, Assoumou L, et al. ANRS 174 DOXYVAC: an open-label randomized trial to prevent STIs in MSM on PrEP. Conference on Retroviruses and Opportunistic Infections. Seattle, 2023.
142. Bolan RK, Beymer MR, Weiss RE, et al. Doxycycline prophylaxis to reduce incident syphilis among HIV-infected men who have sex with men who continue to engage in high-risk sex: a randomized, controlled pilot study. *Sex Transm Dis* 2015;42(2):98–103. doi: 10.1097/OLQ.0000000000000216
143. Saunders J, Deering J, Dewsnap C, et al. British Association for Sexual Health and HIV (BASHH) UK national guideline for the use of doxycycline post-exposure prophylaxis (DoxyPEP) for the prevention of syphilis, 2025. *Int J STD AIDS* 2025;36(10):756–64. doi: 10.1177/09564624251352053 [published Online First: 20250612]
144. Grant A. BASHH position statement on doxycycline use in pregnancy. 2024
145. Adair CD, Gunter M, Stovall TG, et al. Chlamydia in pregnancy: a randomized trial of azithromycin and erythromycin. *Obstet Gynecol* 1998;91(2):165–8. doi: 10.1016/s0029-7844(97)00586-3
146. Brocklehurst P, Rooney G. Interventions for treating genital chlamydia trachomatis infection in pregnancy. *Cochrane Database Syst Rev* 2000;1998(2):CD000054. doi: 10.1002/14651858.CD000054
147. Rahangdale L, Guerry S, Bauer HM, et al. An observational cohort study of Chlamydia trachomatis treatment in pregnancy. *Sex Transm Dis* 2006;33(2):106–10. doi: 10.1097/01.olq.0000187226.32145.ea
148. Sarkar M, Woodland C, Koren G, et al. Pregnancy outcome following gestational exposure to azithromycin. *BMC Pregnancy Childbirth* 2006;6:18. doi: 10.1186/1471-2393-6-18 [published Online First: 20060530]
149. Wyrick PB. Chlamydia trachomatis persistence in vitro: an overview. *J Infect Dis* 2010;201 Suppl 2(Suppl 2):S88–95. doi: 10.1086/652394
150. Matsuda S. Transfer of antibiotics into maternal milk. *Biol Res Pregnancy Perinatol* 1984;5(2):57–60.
151. Stang H. Pyloric stenosis associated with erythromycin ingested through breastmilk. *Minn Med* 1986;69(11):669–70, 82.
152. Abdellatif M, Ghozy S, Kamel MG, et al. Association between exposure to macrolides and the development of infantile hypertrophic pyloric stenosis: a systematic review and meta-analysis. *European journal of Pediatrics* 2019;178:301–14.
153. Dukers-Muijrers NH, Morre SA, Speksnijder A, et al. Chlamydia trachomatis test-of-cure cannot be based on a single highly sensitive laboratory test taken at least 3 weeks after

treatment. *PLoS One* 2012;7(3):e34108. doi: 10.1371/journal.pone.0034108 [published Online First: 20120328]
154. Renault CA, Israelski DM, Levy V, et al. Time to clearance of Chlamydia trachomatis ribosomal RNA in women treated for chlamydial infection. *Sex Health* 2011;8(1):69–73. doi: 10.1071/SH10030
155. Wind CM, Schim van der Loeff MF, Unemo M, et al. Time to clearance of Chlamydia trachomatis RNA and DNA after treatment in patients coinfected with Neisseria gonorrhoeae - a prospective cohort study. *BMC Infect Dis* 2016;16(1):554. doi: 10.1186/s12879-016-1878-3 [published Online First: 20161011]
156. Batteiger BE, Xu F, Johnson RE, et al. Protective immunity to Chlamydia trachomatis genital infection: evidence from human studies. *J Infect Dis* 2010;201 Suppl 2(S2):S178–89. doi: 10.1086/652400
157. Lee VF, Tobin JM, Harindra V. Re-infection of Chlamydia trachomatis in patients presenting to the genitourinary medicine clinic in Portsmouth: the chlamydia screening pilot study - three years on. *Int J STD AIDS* 2004;15(11):744–6. doi: 10.1258/0956462042395203
158. Heijne JC, Herzog SA, Althaus CL, et al. Insights into the timing of repeated testing after treatment for Chlamydia trachomatis: data and modelling study. *Sex Transm Infect* 2013;89(1):57–62. doi: 10.1136/sextrans-2011-050468 [published Online First: 20120608]
159. van der Helm JJ, Koekenbier RH, van Rooijen MS, et al. What Is the Optimal Time to Retest Patients With a Urogenital Chlamydia Infection? A Randomized Controlled Trial. *Sex Transm Dis* 2018;45(2):132–37. doi: 10.1097/olq.0000000000000706
160. Kampman C, Koedijk F, Driessen-Hulshof H, et al. Retesting young STI clinic visitors with urogenital Chlamydia trachomatis infection in the Netherlands; response to a text message reminder and reinfection rates: a prospective study with historical controls. *Sex Transm Infect* 2016;92(2):124–9. doi: 10.1136/sextrans-2015-052115 [published Online First: 20150924]
161. Rose SB, Garrett SM, Hutchings D, et al. Clinician education, advice and SMS/text reminders improve test of reinfection rates following diagnosis of Chlamydia trachomatis or Neisseria gonorrhoeae: before and after study in primary care. *BMJ Sex Reprod Health* 2019 doi: 10.1136/bmjsrh-2018-200185 [published Online First: 20191018]
162. Op de Coul ELM, Peek D, van Weert YWM, et al. Chlamydia trachomatis, Neisseria gonorrhoea, and Trichomonas vaginalis infections among pregnant women and male partners in Dutch midwifery practices: prevalence, risk factors, and perinatal outcomes. *Reprod Health* 2021;18(1):132. doi: 10.1186/s12978-021-01179-8 [published Online First: 20210626]
163. Pearce E, Chan DJ, Smith DE. Empiric antimicrobial treatment for asymptomatic sexual contacts of sexually transmitted infection in the era of antimicrobial resistance: time to rethink? *Int J STD AIDS* 2019;30(2):137–39. doi: 10.1177/0956462418799181 [published Online First: 20181006]
164. van Aar F, van Benthem BHB, van den Broek IVF, et al. STIs in sex partners notified for chlamydia exposure: implications for expedited partner therapy. *Sex Transm Infect* 2018;94(8):619–21. doi: 10.1136/sextrans-2017-053364 [published Online First: 20180111]
165. Frackelton R, Jones K, Hamer B, et al. Managing contacts of chlamydia: should clinics implement a test and wait process? *Int J STD AIDS* 2021;32(1):38–44. doi: 10.1177/0956462420956852 [published Online First: 20201029]
166. McClean H, Carne CA, Sullivan AK, et al. Chlamydial partner notification in the British Association for Sexual Health and HIV (BASHH) 2011 UK national audit against the

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Version No.: version for consultation dated 04/02/2026

BASHH Medical Foundation for AIDS and Sexual Health Sexually Transmitted Infections Management Standards. *Int J STD AIDS* 2012;23(10):748–52. doi: 10.1258/ijsa.2012.012035

Title: British Association for Sexual Health and HIV UK National guideline for the management of infection with *Chlamydia trachomatis, 2026*
Version No.: version for consultation dated 04/02/2026
Appendix

Search Strategy:

1. Medline, Pubmed and NeLH Guidelines Database searches. The search strategy comprised the following terms in the title or abstract:

- Chlamydia trachomatis
- Management of Chlamydia trachomatis
- Management of neonatal chlamydia infection
- Natural history of Chlamydia trachomatis
- Pelvic inflammatory disease
- Chlamydia screening
- Chlamydia treatment
- Chlamydia partner notification
- Chlamydia sequelae
- Chlamydia repeat testing
- Chlamydia treatment failure
- Extra genital chlamydia infection

Additional searches:

Search questions:

1. First line treatment: In adults, with chlamydia, is doxycycline more effective than azithromycin in achieving microbiological cure?

2. Management in pregnancy and neonates: In pregnant patients with chlamydia, how do erythromycin or amoxicillin compare to other antibiotics in terms of cure rates and prevention of neonatal complications?

3. Testing methods: Are NAATs more accurate than culture or antigen detection methods for diagnosing chlamydia?

4. Re-testing for chlamydia: In adults previously treated for chlamydia, does routine retesting at 3/ 6 months compared to no retesting or symptom-based testing improve detection of reinfection and reduce long term complications or transmission?

Search strategy:

Full search strategies are located in the **Appendix**.

Title: British Association for Sexual Health and HIV UK National guideline for the management of infection with *Chlamydia trachomatis, 2026*
Version No.: version for consultation dated 04/02/2026

Number of results:

Source (in order searched)	**Before removing duplicates**	**After removing duplicates**
Medline	34	33
Embase	95	59
TOTAL	**129**	**92**

Duplicates were removed using EndNote.

Limits applied to the search

Age group	Language	Publication type	Time limit	Geography
n/a	**English**	**n/a**	**2015 -**	**International**

Databases / search strategies

1. First line treatment: In adults, with chlamydia, is doxycycline more effective than azithromycin in achieving microbiological cure?

Medline

1. exp Chlamydia/
2. exp Chlamydia Infections/
3. (Chlamydia or "Chlamydia infection*").tw,kf,kw.
4. 1 or 2 or 3
5. *Doxycycline/
6. doxycycline.tw,kf,kw.
7. 5 or 6
8. *Azithromycin/

9. azithromycin.tw,kf,kw.
10. 8 or 9
11. (cure or "microbiological cure" or "clinical cure").tw,kf,kw.
12. 4 and 7 and 10 and 11
13. limit 12 to (english language and humans and yr="2015 -Current")

Embase

1. exp Chlamydia/
2. exp Chlamydia infection/
3. (Chlamydia or "Chlamydia infection*").tw,kf,kw.
4. 1 or 2 or 3
5. *doxycycline/
6. doxycycline.tw,kf,kw.
7. 5 or 6
8. *azithromycin/
9. azithromycin.tw,kf,kw.
10. 8 or 9
11. (cure or "microbiological cure" or "clinical cure").tw,kf,kw.
12. 4 and 7 and 10 and 11
13. limit 12 to (human and english language and yr="2015 -Current")

2. Management in pregnancy and neonates: In pregnant patients with chlamydia, how do erythromycin or amoxicillin compare to other antibiotics in terms of cure rates and prevention of neonatal complications?

Medline

1. exp Pregnant People/

2. exp Pregnancy/
3. ("Pregnant people" or "pregnant person*" or pregnan*).tw,kf,kw.
4. 1 or 2 or 3
5. *Chlamydia/
6. *Chlamydia Infections/
7. (Chlamydia or "Chlamydia infection*").tw,kf,kw.
8. 5 or 6 or 7
9. *erythromycin/ or *amoxicillin/
10. (erythromycin or amoxicillin).tw,kf,kw.
11. 9 or 10
12. *doxycycline/ or *azithromycin/
13. (doxycycline or azithromycin).tw,kf,kw.
14. 12 or 13
15. 4 and 8 and 11 and 14
16. limit 15 to (english language and humans and yr="2015 -Current")

Embase

1. exp pregnant person/
2. exp pregnancy/
3. ("Pregnant people" or "pregnant person*" or pregnan*).tw,kf,kw.
4. 1 or 2 or 3
5. *Chlamydia/
6. *Chlamydia infection/
7. (Chlamydia or "Chlamydia infection*").tw,kf,kw.
8. 5 or 6 or 7

9. *erythromycin/ or *amoxicillin/
10. (erythromycin or amoxicillin).tw,kf,kw.
11. 9 or 10
12. *doxycycline/ or *azithromycin/
13. (doxycycline or azithromycin).tw,kf,kw.
14. 12 or 13
15. (cure or "maternal cure" or "clinical cure" or "neonatal complication*").tw,kf,kw.
16. 4 and 8 and 11 and 14
17. limit 16 to (human and english language and yr="2015 -Current")

3. Testing methods: Are NAATs more accurate than culture or antigen detection methods for diagnosing chlamydia?

Medline

1. exp Chlamydia/
2. exp Chlamydia Infections/
3. (chlamydia or "chlamydia infection*" or "chlamydia test*" or "people tested for chlamydia").tw,kf,kw.
4. 1 or 2 or 3
5. *Nucleic Acid Amplification Techniques/
6. ("nucleic acid amplification te*" or NAAT*).tw,kf,kw.
7. 5 or 6
8. ("antigen detection" or "culture detection" or "bacterium detection").tw,kf,kw.
9. *Diagnosis/
10. (diagnosis or "diagnostic accuracy").tw,kf,kw.
11. 9 or 10
12. 4 and 7 and 8 and 11

13. limit 12 to (english language and humans and yr="2015 -Current")

Embase

1. exp Chlamydia/
2. exp Chlamydia infection/
3. exp Chlamydia rapid test/
4. (chlamydia or "chlamydia infection*" or "chlamydia test*" or "people tested for chlamydia").tw,kf,kw.
5. 1 or 2 or 3 or 4
6. *nucleic acid amplification techniques/
7. ("nucleic acid amplification te*" or NAAT*).tw,kf,kw.
8. 6 or 7
9. exp antigen detection/
10. exp bacterium detection/
11. ("antigen detection" or "culture detection" or "bacterium detection").tw,kf,kw.
12. 9 or 10 or 11
13. *diagnosis/
14. *diagnostic accuracy/
15. (diagnosis or "diagnostic accuracy").tw,kf,kw.
16. 13 or 14 or 15
17. 5 and 8 and 12 and 16
18. limit 17 to (human and english language and yr="2015 -Current")

4. Re-testing for chlamydia: In adults previously treated for chlamydia, does routine retesting at 3/ 6 months compared to no retesting or symptom-based testing improve detection of reinfection and reduce long term complications or transmission?

Medline

1. exp Chlamydia/
2. exp Chlamydia Infections/
3. (chlamydia or "chlamydia infection*" or "chlamydia test*" or "people tested for chlamydia").tw,kf,kw.
4. (("previously test*" or "previously treated") adj5 chlamydia).tw,kf,kw.
5. 1 or 2 or 3 or 4
6. routine testing.tw,kf,kw.
7. re?testing for chlamydia.tw,kf,kw.
8. ((re?testing or "routine test*" or "routine re?test*") adj3 chlamydia).tw,kf,kw.
9. 6 or 7 or 8
10. *Reinfection/
11. ("detetion of reinfection" or reinfection or "prevention of complications" or "transmission rate*").tw,kf,kw.
12. 10 or 11
13. 5 and 9 and 12
14. limit 13 to (english language and humans and yr="2015 -Current")

<u>Embase</u>

1. exp Chlamydia/
2. exp Chlamydia Infections/
3. (chlamydia or "chlamydia infection*" or "chlamydia test*" or "people tested for chlamydia").tw,kf,kw.
4. (("previously test*" or "previously treated") adj5 chlamydia).tw,kf,kw.
5. 1 or 2 or 3 or 4
6. routine testing.tw,kf,kw.
7. retesting for chlamydia.tw,kf,kw.

8. ((re?testing or "routine test*" or "routine re?test*") adj3 chlamydia).tw,kf,kw.
9. 6 or 7 or 8
10. *reinfection/
11. ("detetion of reinfection" or reinfection or "prevention of complications" or "transmission rate*").tw,kf,kw.
12. 10 or 11
13. 5 and 9 and 12
14. limit 13 to (human and english language and yr="2015 -Current")

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