

Urethritis - male - Management

Scenario: Urethritis - male

How should I assess a man with suspected urethritis?

A sexually transmitted infection (STI) is generally considered to be the underlying cause of urethritis in most, (but not all), men. Ideally, urethritis should be managed in a service specializing in sexual health, or a general practice providing an enhanced sexual health service.

- If urethritis is [suspected](#), test for:
 - *Chlamydia trachomatis* — send a first-void urine sample for nucleic acid amplification testing (NAAT).
 - Gonorrhoea — check with the local laboratory whether a urethral swab is needed (see [testing](#)). Some laboratories use NAAT for gonococcal infection (see the CKS topic on [Gonorrhoea](#)).
 - Trichomoniasis (see the CKS topic on [Trichomoniasis](#)).
 - Other STIs (such as HIV, syphilis, hepatitis). It is recommended that everybody at risk of an STI should be offered an [HIV test](#).
- If a urinary tract infection is suspected, send a mid-stream urine sample for culture and sensitivity (see the CKS topic on [Urinary tract infection \(lower\) - men](#)).
- If the man is at low risk for an STI, consider other [causes](#) of urethritis, and check for:
 - Penile irritation or trauma (for example catheterization, sexual trauma).
 - Urethral stricture and penile ulceration (see the CKS topic on [Herpes simplex - genital](#)).
 - Urinary tract infection, prostatitis, epididymitis, and inguinal lymphadenopathy (see the CKS topic on [Prostatitis - acute](#)).
 - Adenoviral infection.
 - Skin rashes which also involve mucosal surfaces (for example Stevens–Johnson Syndrome).
 - Urinary calculi.

Laboratory tests

- **Confirm which testing methods are used locally** as there are a variety of laboratory tests available.

- Many laboratories now use nucleic acid amplification tests (NAATs) for chlamydia; some laboratories use a dual NAAT which also tests for gonorrhoea.
- **First-void urine sample**
 - If sending a first-void urine sample, follow the manufacturers instructions on the collecting kit.
 - Usually, urine should be collected at least 1 hour after the previous void but preferably after 2 hours.
- **Urethral swab**
 - Insert the swab 1–2 cm inside the urethra and rotate it once before removal. If discharge is present this can be sampled directly.
 - *Neisseria gonorrhoeae* cultures need a charcoal-based transport medium.
 - Send the swabs to the laboratory as soon as possible (within a maximum of 24 hours) and refrigerate while awaiting transportation.
- **Screening for HIV**
 - Screening for HIV should be carried out by a trained healthcare professional, who can offer pre-test counselling, advice, and appropriate follow up.
 - The primary purpose of a pre-test discussion is to establish informed consent for HIV testing (lengthy pre-test HIV counselling is not a requirement), explain the benefits of testing, and provide details on how the results will be given.

Basis for recommendation

These recommendations are based on a UK National Guideline on the *Management of non-gonococcal urethritis (NGU)*, published by the British Association for Sexual Health and HIV [[BASHH, 2007](#)], a European guideline [[Shahmanesh et al, 2009](#)], and a Canadian guideline [[Public Health Agency of Canada, 2008](#)].

History and examination

- Most men with urethritis will have a sexually transmitted infection (STI). It is important to assess the man's risk of STI, and if this is considered to be very low, an alternative cause for urethritis may be considered (for example prostatitis, irritation).

Testing for chlamydia and gonorrhoea

- Investigations are necessary to distinguish between infectious causes of urethritis as clinical features are unreliable [[RCGP and BASHH, 2006](#)].
- If chlamydia is suspected, a first-void urine sample should be sent for a nucleic acid amplification test (NAAT), as urine is obtained easily and more comfortably than a urethral swab [[BASHH, 2004](#)].
- The use of NAAT for gonorrhoea is complicated because of variable specificity between the commercial tests available, and concerns about the positive predictive value, particularly in low prevalence populations [[HPA, 2009](#)].
- If gonorrhoea is suspected, a urethral swab should be sent for culture and sensitivity testing [[BASHH and HPA, 2010](#)].
- Urethral swabs need to be sent to the laboratory promptly, otherwise the sensitivity of the test is markedly decreased [[BASHH, 2004](#); [BASHH, 2005](#)].

Testing for urinary tract infection

- Urinary tract infections are unusual in young men. It is thought that up to 6% of non-gonococcal urethritis is caused by a urinary tract infection [[Leung et al, 2002](#)].

How should I manage a man with confirmed urethritis?

A sexually transmitted infection (STI) is generally considered to be the underlying cause of urethritis in most, (but not all), men. Ideally, urethritis should be managed in a service specializing in sexual health, or a general practice providing an enhanced sexual health service. The following recommendations apply to men who cannot access these services within a reasonable time frame, or are unwilling to attend despite receiving appropriate [advice](#).

- **Treat empirically for chlamydial infection** following local antibiotic policy. If no policy exists, prescribe:
 - Doxycycline 100 mg twice a day for 7 days, *or*
 - Azithromycin 1 gram, single dose.
- **If gonococcal urethritis is suspected** (for example if there is a purulent discharge), or there is a local outbreak of gonorrhoea, consider treatment for gonorrhoea *after* discussing this with a specialist (see the CKS topic on [Gonorrhoea](#)).
- **If trichomoniasis is suspected** (for example if the man's partner has trichomoniasis), see the CKS topic on [Trichomoniasis](#).

- Provide [advice](#), offer [follow up](#), and ensure [partner notification](#) is undertaken for all men with urethritis.
- **Assess the sexual partners of men with urethritis before offering empirical treatment.**
- For at-risk sexual partners, offer empirical treatment (doxycycline 100 mg twice a day for 7 days or azithromycin 1 gram as a single dose) without waiting for microbiological diagnosis.
- For partners of men with proven chlamydial or gonorrhoeal infection, see the CKS topics on [Chlamydia - uncomplicated genital](#) and [Gonorrhoea](#).

Basis for recommendation

These recommendations are based on expert opinion from a UK National Guideline on the *Management of non-gonococcal urethritis (NGU)*, published by the British Association for Sexual Health and HIV (BASHH) [[BASHH, 2007](#)], and a primary care guideline published by BASHH and the Royal College of General Practitioners [[RCGP and BASHH, 2006](#)].

Empirical treatment

- Treating urethritis promptly not only alleviates symptoms but reduces ongoing transmission and halts the spread of infection [[RCGP and BASHH, 2006](#)].
- Empirical treatment should cover *Chlamydia trachomatis*, the infection most commonly associated with urethritis (see the section on [Treatment](#) in the CKS topic on [Chlamydia - uncomplicated genital](#)) [[NHS Lothian, 2008](#)].
- Azithromycin and doxycycline are effective in the treatment of chlamydial infection (a cure rate of over 95% has been shown in randomized controlled trials) [[Lau and Qureshi, 2002](#)].
- Azithromycin is given as a single dose, which improves compliance (an important factor to consider for people not likely to return for follow up).

Gonococcal treatment

- It is not usually possible to accurately clinically distinguish between gonococcal urethritis and non-gonococcal urethritis. Experts suggest that if purulent discharge is present, or there is a known local outbreak of gonorrhoea, then treatment for gonorrhoea should be considered [[RCGP and BASHH, 2006](#); [Kurahashi et al, 2007](#)].

- CKS recommends consulting with a specialist in genito-urinary medicine for advice on appropriate investigations and antibiotic treatment for gonorrhoea.
- Doxycycline and azithromycin are not recommended to treat *Neisseria gonorrhoea*, so additional investigation and treatment is required.
- *N. gonorrhoea* resistance to tetracycline (in isolates from GUM clinics) was reported to be 68% in 2009 [[HPA, 2010](#)]
- Although *Neisseria gonorrhoeae* resistance to azithromycin currently remains low [[HPA, 2010](#)], there is cause for concern because several of the resistant isolates had high-level resistance. A 2 gram dose of azithromycin is not recommended for the treatment of gonorrhoea because its gastrointestinal adverse effects limit its use [[Bignell, 2009](#)]. Although a 1 gram dose is better tolerated, there are concerns that this lower dose will select resistance, so its use is not recommended [[CDC, 2006](#)].
- For more information, see the CKS topic on [Gonorrhoea](#).

What advice should I provide a man with urethritis?

A sexually transmitted infection (STI) is generally considered to be the underlying cause of urethritis in most, (but not all), men. Ideally, urethritis should be managed in a service specializing in sexual health, or a general practice providing an enhanced sexual health service. The following recommendations apply to men who cannot access these services within a reasonable time frame, or are unwilling to attend.

- Try to persuade the man to attend an appropriate service. Explain this will provide:
 - Care that is non-judgemental and confidential.
 - Screening for STIs (such as HIV, syphilis, and hepatitis).
 - [Partner notification](#) and treatment.
 - Do not offer empirical treatment to the partners of men with urethritis without their prior assessment. For men with proven chlamydial or gonorrhoeal infection, see the CKS topics on [Chlamydia - uncomplicated genital](#) and [Gonorrhoea](#) for information on the management of their partners.
- Give advice (both verbal and written) about:
 - The most likely cause of urethritis which is usually, but not always, due to an STI.

- Abstaining from sex (including oral sex) until 7 days after treatment if azithromycin is used or on completion of doxycycline treatment; and until symptoms have resolved and any partners have been treated.
- The importance of safer sexual practices in reducing the future risk of acquiring STIs (for example the use of condoms, minimizing the number of sexual partners).
- Not squeezing or massaging the urethra repeatedly, as this could lead to aggravation of symptoms.
- The broader health implications for the man and his partner if urethritis is left untreated (such as persistent symptoms, risk of infertility in women if the urethritis is due to an STI, spread of infection, and increased susceptibility to HIV infection).
- For more information and resources, see www.fpa.org.uk.

Basis for recommendation

These recommendations are based on a UK National Guideline on the *Management of non-gonococcal urethritis (NGU)*, published by the British Association for Sexual Health and HIV (BASHH) [[BASHH, 2007](#)], a European guideline [[Shahmanesh et al, 2009](#)], and a primary care guideline published by BASHH and the Royal College of General Practitioners [[RCGP and BASHH, 2006](#)].

Safe sex

- It is best to avoid all sexual activities during treatment as transfer of organisms may occur prior to putting on a condom [[RCGP and BASHH, 2006](#)].

Sexually transmitted infection (STI) screening

- Screening for other STIs is in line with guidelines from the British Association for Sexual Health and HIV and the Health Protection Agency [[BASHH, 2006a](#); [RCGP and BASHH, 2006](#); [HPA, 2008](#)].

Partner notification

- Partners of men with urethritis should be contacted regardless of test results. Most episodes of NGU have no identifiable cause, therefore all at-risk sexual partners should be assessed and offered empirical treatment without waiting for microbiological diagnosis [[RCGP and BASHH, 2006](#)].

Health implications

- If NGU is not treated, symptoms will subside over 1–3 months in 30–70% of men [[McCormack and Rein, 1995](#)]. If gonococcal urethritis remains untreated, microbiological clearance occurs weeks or months after symptoms have settled. However, there is a high likelihood of transmission to others and the possibility of complications.
- Transmission to female partners can result in pelvic inflammatory disease, which may lead to infertility, ectopic pregnancy, and chronic pelvic pain (see the CKS topic on [Pelvic inflammatory disease](#)) [[BASHH, 2005](#); [BASHH, 2007](#)].
- HIV transmission and acquisition may be facilitated by gonococcal infection, and by chlamydial or other types of NGU [[MMWR, 2002](#); [Lindberg, 2003](#)].
- For more information on the health implications of chlamydia and gonorrhoea, see the CKS topics on [Chlamydia - uncomplicated genital](#) and [Gonorrhoea](#).

How should sexual partners be notified?

A sexually transmitted infection (STI) is generally considered to be the underlying cause of urethritis in most, (but not all), men. Ideally, urethritis should be managed in a service specializing in sexual health, or a general practice providing an enhanced sexual health service.

- There are three methods of partner notification:
 - **Patient referral** — the man is encouraged to notify his past and present partners (this is the usual method in primary care).
 - **Provider referral** — the healthcare professional notifies the man's partners on his behalf (provider referral should be facilitated by a trained health adviser).
 - **Contract referral** — the man is encouraged to notify his partners, with the understanding that a healthcare professional will later notify those partners who do not visit the health service within an allotted time.
- For each method, all actions and outcomes should be documented by the healthcare professional.
- For specific advice on partner notification for chlamydia and gonococcal infection, see the CKS topics on [Chlamydia - uncomplicated genital](#) and [Gonorrhoea](#).

Basis for recommendation

These recommendations are based on a UK National Guideline on the *Management of non-gonococcal urethritis (NGU)*, published by the British Association for Sexual Health and HIV (BASHH) [[BASHH, 2007](#)], a primary care guideline published by BASHH and the Royal College of General Practitioners [[RCGP and BASHH, 2006](#)], and a European guideline [[Shahmanesh et al, 2009](#)].

Partner notification in primary care

- There is expert consensus that if referral to a genito-urinary medicine clinic is not possible, contact tracing should be undertaken in primary care, and this should be documented [[Fitzgerald et al, 1996](#)].
- Evidence from the chlamydia screening studies and the National Chlamydia Screening Programme indicates that effective partner notification can be undertaken in primary care, by practice nurses who receive brief training and ongoing support from a health adviser [[Low et al, 2006](#)].

Method of partner notification

- A Cochrane systematic review (search date: around 2001) found evidence that both provider and contract methods result in more partners presenting for medical evaluation, compared with patient referral [[Mathews et al, 2001](#)].
- However, a recent randomized controlled trial of partner notification in primary care found that practice-based partner notification by trained nurses with telephone follow up by health advisers is at least as effective as referral to a specialist centre [[Low et al, 2006](#)].
- Providing a choice of method may help to increase the rate of partner notification.

How should I follow up a man with urethritis?

A sexually transmitted infection (STI) is generally considered to be the underlying cause of urethritis in most, (but not all), men. Ideally, urethritis should be managed in a service specializing in sexual health or a general practice providing an enhanced sexual health service. The following recommendations apply to men who cannot access these services within a reasonable time frame, or are unwilling to attend despite receiving appropriate [advice](#).

- Advise the man to re-attend in 2 weeks if his symptoms have not resolved.
- **If chlamydia is isolated**, the man should have a follow-up interview which may be conducted by telephone.
 - Ask whether:
 - Symptoms have resolved.

- Treatment has been adhered to.
- All his partners have been notified.
- The man has had sex with an untreated partner.
- Do not routinely test for microbiological cure if treatment was taken appropriately, there has been no sexual contact for 7 days, and symptoms have resolved.
- If symptoms have not resolved, see [Treatment failure](#).
- **If gonorrhoea is isolated**, see the CKS topic on [Gonorrhoea](#).
- **If trichomoniasis is isolated**, see the CKS topic on [Trichomoniasis](#).

Basis for recommendation

These recommendations are based on a primary care guideline, published by the British Association for Sexual Health and HIV and the Royal College of General Practitioners [[RCGP and BASHH, 2006](#)], a Canadian guideline [[Public Health Agency of Canada, 2008](#)], and a European guideline [[Shahmanesh et al, 2009](#)].

How should I manage treatment failure?

A sexually transmitted infection (STI) is generally considered to be the underlying cause of urethritis in most, (but not all), men. Ideally, urethritis should be managed in a service specializing in sexual health, or a general practice providing an enhanced sexual health service. The following recommendations apply to men who cannot access these services within a reasonable time frame, or are unwilling to attend despite receiving appropriate [advice](#).

- **If symptoms have improved but have not completely resolved** *and* provided treatment has been adhered to and sexual intercourse with an untreated partner has not occurred, explain that symptoms may take 2–3 weeks to resolve, despite effective treatment.
- **If the man has *not* adhered to treatment or has had sexual intercourse with an untreated partner**, [re-treat](#) (with azithromycin 1 gram as a single dose, or doxycycline 100 mg twice a day for 7 days) with appropriate partner notification.
- **If symptoms have not improved 1–2 weeks after treatment (or have not completely resolved 2–3 weeks after treatment) and the man has adhered to treatment and has not had sex with an untreated partner:**

- Exclude other [causes](#) of urethritis (such as trauma and irritation), or other [diagnoses](#) (such as prostatitis or malignancy).
- Discuss with the local genito-urinary medicine clinic and advise the man that referral is appropriate. If the man refuses to attend a specialist centre, consider:
- Azithromycin 500 mg dose once only, then 250 mg for the next 4 days, *plus* metronidazole 400 mg to 500 mg twice daily for 5 days.

Basis for recommendation

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Persistent/recurrent urethritis

- Persistent or recurrent urethritis occurs in 10–20% of men following treatment and the cause is complex and poorly understood. Although persistent *Mycoplasma genitalium* infection has been identified (in 20–40% of men with persistent/recurrent urethritis) and *Ureaplasma urealyticum* has also been implicated, in most men no infection is detected.
- Establishing an accurate diagnosis of ongoing urethritis is central to management and can usually only be undertaken by a trained specialist. Therefore, CKS strongly advises referral for all men with persistent or recurrent urethritis.

Prescriptions

For information on contraindications, cautions, drug interactions, and adverse effects, see the electronic Medicines Compendium (eMC) (<http://emc.medicines.org.uk>), or the British National Formulary (BNF) (www.bnf.org).

Empirical antibiotics: azithromycin or doxycycline

Age from 13 years onwards

Azithromycin capsules: 1 gram single dose

Azithromycin 250mg capsules
 Take four capsules as a single dose.
 Supply 4 capsules.

Age: from 13 years onwards

NHS cost: £8.83

Licensed use: no - off-label indication

Doxycycline capsules: 100mg twice a day

Doxycycline 100mg capsules

Take one capsule twice a day for 7 days.

Supply 14 capsules.

Age: from 13 years onwards

NHS cost: £0.97

Licensed use: yes

Patient information: Swallow the capsules whole, with a glass of water, with or after some food. Sit upright or stand while swallowing the medicine.

Treatment failure: azithromycin plus metronidazole

Age from 13 years onwards

Multi-therapy: Azithromycin plus metronidazole

Azithromycin capsules: 500mg now then 250mg daily for 4 days

Azithromycin 250mg capsules

Take TWO capsules now and then take ONE capsule once a day for the next 4 days.

Supply 6 capsules.

Age: from 13 years onwards

NHS cost: £13.27

Licensed use: no - off-label indication

Metronidazole tablets: 400mg twice a day for 5 days

Metronidazole 400mg tablets

Take one tablet twice a day for 5 days.

Supply 10 tablets.

Age: from 13 years onwards

NHS cost: £0.58

Licensed use: no - off-label indication