Urethritis in men

# **Cause**

* Urethritis can be classified as gonococcal or non- gonococcal urethritis (NGU)
* NGU is caused most commonly by *Chlamydia trachomatis* and *Mycoplasma genitalium*.
  + Herpes simplex virus, adenovirus and *Trichomonas vaginalis* are less common causes.
  + Occasionally coliforms (such as *E. coli* acquired through anal sex) and bacteria found in the respiratory tract (such *Haemophilus influenzae* and *Neisseria meningitidis* from oral sex) will be detected as a cause of NGU.
* In the majority of cases of NGU no pathogen is identified.
  + Some organisms can be present in the normal urethra and detection does not necessarily indicate infection or the need for treatment. These include *Mycoplasma hominis* and *Ureaplasma urealyticum.*

# **Clinical features**

* Urethral discomfort, discharge and dysuria
  + some men will report only dysuria or discomfort without discharge
  + gonococcal urethritis is usually purulent
* Clinical features that suggest a viral aetiology include marked and persistent dysuria, an inflamed meatus and in the case of adenovirus concurrent conjunctivitis.

# **Diagnosis**

|  |  |  |
| --- | --- | --- |
| **Test** | **Site/Specimen** | **Comments** |
| Gram stain | Urethral swab smear | Urethral polymorphs and Gram-negative intracellular diplococci are indicative of gonorrhoea  May also assist with the diagnosis of NGU: a raised urethral polymorph count will be present in the majority but not in about 30% of cases of urethritis where chlamydia and *M. genitalium* are detected. Therefore men with suspected urethritis based on risk and symptoms should be treated for NGU even where there are no polymorphs present on urethral smear. |
| Culture | Urethral swab smear | Test for gonorrhoea  Culture prior to treatment is important for surveillance for gonorrhoea resistance |
| NAAT | Urethral swab smear or first pass urine | Test for gonorrhoea, chlamydia and *M. genitalium*  Suspect adenovirus and herpes if NGU persist despite antibiotic treatment. Adenovirus is typically associated with conjunctivitis. Herpes may be present in the absence of ulceration. Trichomonas is uncommon in Australian cities but should be suspected if there has been sex overseas or if NGU persists despite initial antibiotic treatment. Wet preparation for trichomonas from a urethral swab is insensitive: PCR is more sensitive. |

**NAAT = nucleic acid amplification test**

# **Management**

|  |  |  |
| --- | --- | --- |
| **Condition** | **Recommended** | **Comments** |
| **Non-gonococcal urethritis** | **Doxycycline 100 mg, twice daily for 1 week** | Alternative is **Azithromycin 1 g as a single dose**  Add **ceftriaxone 500mg in 2ml of 1% lignocaine by intramuscular injection** if gonorrhoea is suspected or cannot be excluded e.g. if there is purulent discharge and risk factors for gonorrhoea such as sex overseas or men who have sex with men.  If trichomonas is suspected add **tinidazole or metronidazole 2 gram as a single dose.** |
| **NGU – viral cause suspected** | Consider antiviral for [herpes](https://www.mshc.org.au/LinkClick.aspx?link=https%3a%2f%2fmshc.org.au%2fHealthProfessional%2fMSHCTreatmentGuidelines%2fHerpes.aspx) | Antivirals will only benefit individuals with herpes urethritis and are not effective for adenovirus. |

## Follow up

* If a specific pathogen (chlamydia, gonorrhoea or *M. genitalium*) is confirmed on testing please refer to the relevant MSHC treatment guideline for specific treatment, advice on tests of cure or tests for re-infection, and management of sexual partners.
* NGU usually improves within a few days but occasionally takes 2-3 weeks to resolve completely. With persistent symptoms consider:
  + non-compliance with medication
  + re-infection with a specific pathogen e.g. with chlamydia or M. genitalium from untreated sexual partner(s)
  + *M. genitalium* resistant to doxycycline or azithromycin
  + Testing for other less common causes of NGU: adenovirus, herpes and trichomonas
* Men with persistent NGU who did not comply with the treatment regimen or who have been re-exposed to an untreated sex partner can be retreated with the same regimen.
* In men who have persistent symptoms after treatment but without a confirmed pathogen or objective signs of urethritis, the value of extending the duration of antimicrobials has not been demonstrated.
* Urologic examinations usually do not reveal a specific aetiology.
* Underlying anxiety may be present and if present should be discussed.

## Sexual partners

* Female partners of men with NGU should be recalled for assessment and STI testing (regardless of the STI results of the man), as these women may have an increased risk for pelvic inflammatory disease. Symptomatic female partners should be managed according to their symptoms, see relevant MSHC treatment guidelines. Asymptomatic female partners should be treated presumptively with **Doxycycline 100 mg twice daily for 7 days.**