

ACUTE EPIDIDYMO-ORCHITIS V2.0

Comments from the Expert Advisory Group

1. Acute epididymo-orchitis is a clinical syndrome consisting of pain, swelling and inflammation of the epididymis +/- testes usually caused by local extension of infection from the urethra (sexually transmitted) or the bladder (urinary).
2. Patients with epididymo-orchitis typically present with unilateral scrotal pain and swelling of relatively acute onset. There may be symptoms of urethritis or a UTI depending on the causative organism.
3. **Testicular torsion is the most important differential diagnosis. It is a surgical emergency.** It should be considered in all patients, is more likely in younger patients and the onset of severe pain is usually short (i.e. within four hours).
4. In men under 35 years epididymo-orchitis is more often caused by a sexually transmitted infection (e.g. chlamydia, gonorrhoea or *Mycoplasma genitalium*). In men over 35 years, it is more often caused by a non-sexually transmitted gram-negative enteric pathogen causing urinary tract infection. A sexual history should be taken to determine risk of STIs. Mumps and TB can also cause epididymo-orchitis.
5. Gay, bisexual and other men-who-have-sex-with-men (gbMSM) who engage in insertive anal intercourse are at risk of epididymo-orchitis secondary to sexually transmitted enteric organisms.
6. Further investigation of acute epididymo-orchitis is advisable in all cases where sexual transmission of infection has been ruled out as anatomical or functional abnormalities are more common in this group.
7. All patients presenting with signs and symptoms of epididymo-orchitis should have a mid-stream urine sent for culture and sensitivity and should be offered a full STI screen (which includes a first void urine for chlamydia, gonorrhoea and *Mycoplasma genitalium*), chlamydia and gonorrhoea testing from other anatomical sites in line with sexual history and bloods for HIV, syphilis and hepatitis B. *Mycoplasma genitalium* positive cases should be referred to GU / ID service for treatment and follow up.
8. [Hepatitis C \(HCV\) testing](#) should be considered part of routine sexual health screening in the following circumstances: gbMSM, people living with HIV, commercial sex workers, people who inject drugs (PWID). Partners of the above should also be considered for HCV testing.
9. Individuals diagnosed with epididymo-orchitis should be advised to abstain from sexual intercourse until treatment completed and where indicated, their partner has been treated.
10. Where chlamydia or gonorrhoea are diagnosed, partner notification should be undertaken as per recommendations for those infections (see 'Window period, Lookback period and Partner notification' on the '[Approach to an STI Consultation in Primary Care](#)' page). All patients with a diagnosis of *Mycoplasma genitalium* should be referred to a GUM clinic.
11. Where chlamydia or gonorrhoea have been diagnosed in patients with epididymo-orchitis, these infections are [notifiable diseases](#). Notification process is usually initiated by the testing laboratory.

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Treatment

- > Rest, analgesia (paracetamol and/or ibuprofen if appropriate) and scrotal support are recommended.
- > Empirical antimicrobial therapy should be given to all patients with epididymo-orchitis before culture/NAAT results are available.
- > The antibiotic regimen chosen should be determined by age, sexual history, recent urinary tract instrumentation, other symptoms and where available initial test results (urethral smear, urinalysis, urine microscopy).
- > Follow-up is recommended within 3 days if symptoms don't settle with empiric treatment.

ACUTE EPIDIDYMO-ORCHITIS ANTIMICROBIAL TREATMENT TABLE

Drug	Dose	Duration	Notes
Likely to be sexually transmitted pathogen but NOT gonorrhoea			
Doxycycline PO	100 mg every 12 hours	10-14 days	Risk of photosensitivity. Advise to take with a glass of water and sit upright for 30 minutes after taking. Absorption of doxycycline significantly impaired by antacids, iron/ calcium/ magnesium/ zinc-containing products and should be separated by at least 3 hours.
Likely to be sexually transmitted INCLUDING gonorrhoea			
<ul style="list-style-type: none"> • NAAT testing does not currently give information on gonorrhoea antimicrobial susceptibility. Where possible, culture should be taken in all gonorrhoea cases diagnosed by NAAT prior to antibiotics being given so that susceptibility testing can be performed and resistant strains identified. This is ideally carried out with gonorrhoea specific culture plates (in GUM clinics) but can be performed in general practice with a urethral swab sent in charcoal, sent without delay and with clear information that gonorrhoea culture and sensitivity is requested. • Where referral to a GUM clinic is not possible, treatment can be initiated, as outlined in the table below, without sensitivity results. • If allergic to cephalosporins, recommend onward referral to a dedicated GUM clinic. 			
Ceftriaxone IM PLUS Doxycycline PO	1 g 100 mg every 12 hours	Single dose 10-14 days	Ceftriaxone: Dissolve 1 g ceftriaxone in 3.5 mL of 1% Lidocaine Injection for IM injection. Not for IV injection. Cephalosporins should not be used in severe penicillin allergy. Doxycycline: Risk of photosensitivity. Advise to take with a glass of water and sit upright for 30 minutes after taking. Absorption of doxycycline significantly impaired by antacids, iron/ calcium/ magnesium/ zinc-containing products and should be separated by at least 3 hours.
Likely to be enteric pathogen* (urinary tract source such as in older age, previous UTI / urological procedure, known abnormalities of urinary tract, recent instrumentation of urinary tract, no urethral discharge, not sexually active).			
*Enteric pathogens include bacteria that live and reside within the intestinal tract. In this context refers to a non-sexually transmitted gram-negative enteric pathogen causing urinary tract infection. Men who practice insertive anal intercourse may acquire enteric infections from this exposure.			
Ciprofloxacin PO	500 mg every 12 hours	10 days	Multiple adverse effects associated with fluoroquinolones Check drug interactions before prescribing

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Other information

- > [National guidelines for the prevention and control of gonorrhoea and for minimising the impact of antimicrobial resistance in *Neisseria gonorrhoeae*](#)
- > [Guidance on *Mycoplasma genitalium* testing and management in Ireland](#)

Patient Information

- > [Epididymo-orchitis patient information leaflet](#)