

Acute Bacterial Epididymo-Orchitis in Adults - Microbiology Summary Clinical Guideline

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Symptoms and signs of acute bacterial epididymo-orchitis

Consider the infective differential diagnosis:

- [Urinary tract infection](#)
- [Acute bacterial prostatitis](#)
- [Prostate abscess](#)
- [Chronic bacterial prostatitis](#).
- [Mumps](#)

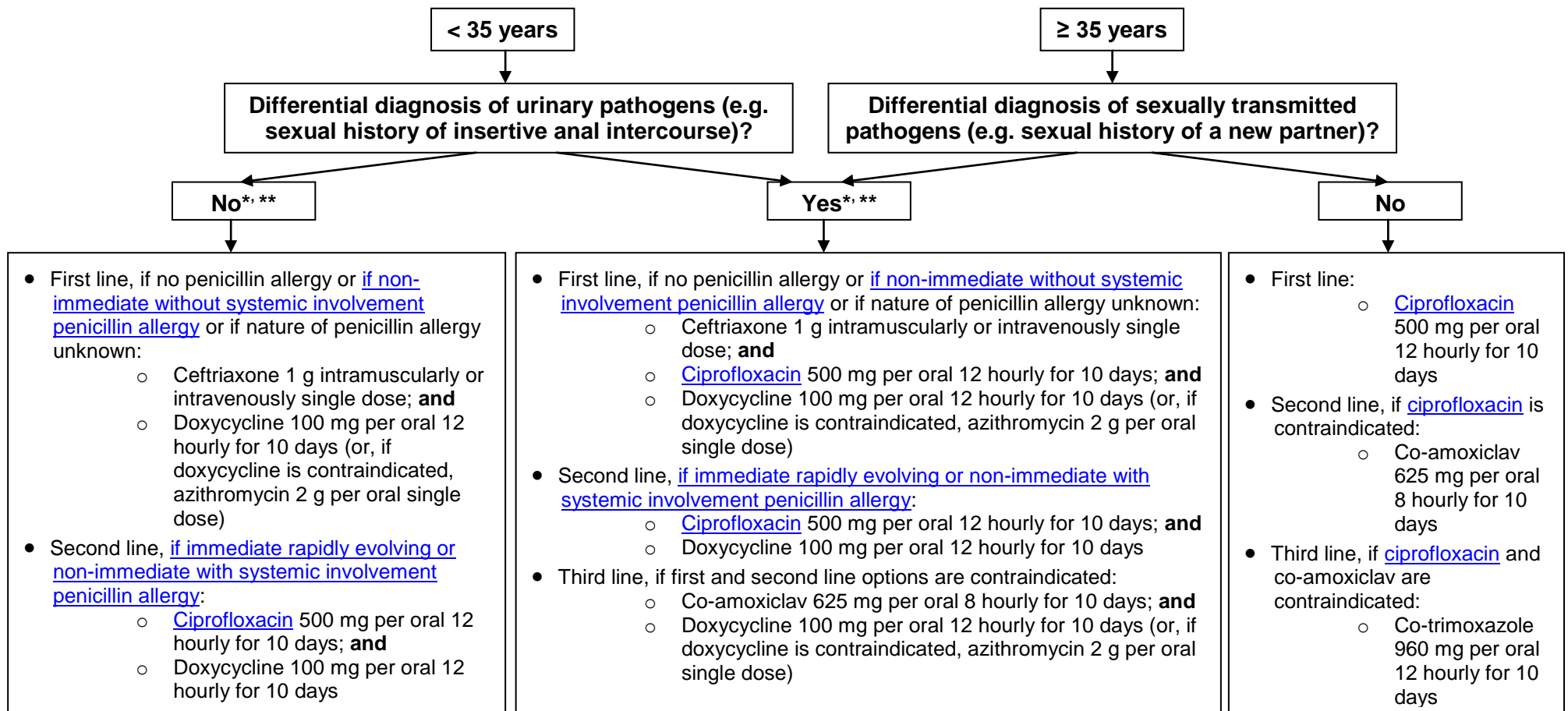
Consider the non-infective differential diagnosis:

- **Testicular torsion (immediate collaboration with the urology registrar/consultant on call is required for this surgical emergency)**
- Amiodarone, Behcet's disease, Familial Mediterranean Fever, Henoch-Schönlein purpura, polyarteritis nodosa

Investigations for acute bacterial epididymo-orchitis

- ± Preliminary (e.g. if management in a GUM clinic):
 - Urethral swab microscopy
 - Urine leukocyte esterase urinalysis
- Laboratory; in GP, GUM, or hospital settings; before starting antibiotics:
 - Urethral swab culture and susceptibilities:
 - Re this urethral swab: pus swab in Amies charcoal medium
 - Urethral swab or FPU *Chlamydia trachomatis* and *Neisseria gonorrhoeae* PCR:
 - Re this urethral swab: yellow top cobas® PCR Media
 - Re the FPU: volume of urine (as per manufacturer's instruction) in yellow top cobas® PCR Media
 - Mid-stream urine MC&S
 - Serum for blood-borne virus (HIV, hepatitis B, and hepatitis C) screen
 - ± Blood cultures:
 - If there are temperature spikes, episodes of haemodynamic instability, and/or criteria for intravenous antibiotics
 - FBC, CRP, lactate, U&Es, and LFTs

Treatments for acute bacterial epididymo-orchitis

**NB1 If septic**

- First line, if no penicillin allergy or [if non-immediate without systemic involvement penicillin allergy](#) or if nature of penicillin allergy unknown: meropenem 1 g intravenously 8 hourly, **and** doxycycline 100 mg per oral 12 hourly (or, if doxycycline is contraindicated, azithromycin 2 g per oral single dose)
- Second line, [if immediate rapidly evolving or non-immediate with systemic involvement penicillin allergy](#): [ciprofloxacin](#) 400 mg intravenously 8 hourly, and doxycycline 100 mg per oral 12 hourly

*NB2 Please refer the patient to a sexual health clinic (0800 328 3383; <https://www.yoursexualhealthmatters.org.uk/>), to enable screening for other sexually transmitted infections and also to facilitate tracing of sexual contacts

** NB3 Please recommend the patient abstain from sexual intercourse, whilst on empiric antibiotics and whilst awaiting a sexual health appointment, to reduce the risk of on-going transmission

References

Bennett, J. E., Dolin, R., and Blaser, M. J. 2015. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases, 8th Edition. Elsevier.

BASHH. 2019. United Kingdom BASHH national guideline for the management of epididymo-orchitis, 2019. Available at: [eo-2019.pdf \(bashhguidelines.org\)](#) (accessed September 2021).

Eyre, R. C. 2020. Acute scrotal pain in adults. Available at: [Acute scrotal pain in adults - UpToDate](#) (accessed September 2021).

Sanford Guide Antimicrobial Therapy. 2021. Available at: <https://www.sanfordguide.com/products/digital-subscriptions/> (accessed November 2021).

Document Control

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