Prostatitis - acute - Management

Scenario: Diagnosis of acute prostatitis

How should I diagnose acute prostatitis?

- **Suspect acute prostatitis** in a man who presents with:
  - A feverish illness of sudden onset.
  - Irritative urinary voiding symptoms (dysuria, frequency, urgency) or acute urinary retention.
  - Perineal or suprapubic pain (low back pain, pain on ejaculation, and pain during bowel movements can also occur).
  - Exquisitely tender prostate on rectal examination.
  - Urine dipstick test suggesting that there are white blood cells and bacteria in the urine.
- **To make the diagnosis:**
  - Confirm urinary infection with a urine culture — do not collect prostatic secretions as prostatic massage could lead to septicaemia or a prostatic abscess, may be very painful, and is not needed for the diagnosis (infection is confirmed with urine culture).
  - Exclude conditions with similar presentations, including:
  - Prostatic abscess — consider this if the prostate is fluctuant on gentle palpation.
  - Chronic prostatitis — consider this if the symptoms have been present for several weeks or months.
  - Cystitis, urethritis, or upper urinary tract infection — consider these if there are no symptoms suggesting that the prostate is affected.
  - Acute unilateral or bilateral epididymo-orchitis — consider these if the scrotum, testis, or epididymis are painful or swollen.
  - Local invasion from cancer of the prostate, bladder, or rectum; or a leaking aortic aneurysm.

Basis for recommendation

These recommendations are based on the opinions of experts [BASHH, 2008; Ludwig, 2008].

Prostatitis - acute - Management

Scenario: Prostatitis - acute

How should I treat acute prostatitis?

- **Admit to hospital if the man is unable to take oral antibiotics, or is severely ill.**
- **Start antibiotic treatment immediately,** while waiting for the urine culture results.
  - A quinolone (ciprofloxacin 500 mg twice daily, or ofloxacin 200 mg twice daily) for 28 days is recommended.
  - If ciprofloxacin and ofloxacin cannot be taken, trimethoprim 200 mg twice daily for 28 days is recommended.
- **Treat the pain:**
  - Paracetamol and/or ibuprofen (taken regularly) is recommended first-line.
  - For severe pain, offer codeine with paracetamol.
  - If defecation is painful, offer a stool softener such as docusate or lactulose.
- Advise the man to seek urgent medical advice if the condition deteriorates before their follow-up appointment.
- **Reassess after 24–48 hours:**
  - Review the culture results and ensure that an appropriate antibiotic is being used.
  - Refer to urology if the infection is not responding adequately to treatment — prostatic abscess may need to be excluded or treated.
- **Following recovery, refer for investigation** to exclude structural abnormality of the urinary tract.

Basis for recommendation

These recommendations are in line with UK guidelines [RCGP and BASHH, 2006; BASHH, 2008; HPA and Association of Medical Microbiologists, 2008], and international guidelines [Naber et al, 2001; European Association of Urology, 2008; Ludwig, 2008].

Choice of antibiotic

- These recommendations are based on expert opinion because there is no evidence from controlled clinical trials of quinolones or trimethoprim for acute prostatitis.
- Treatment with a quinolone or trimethoprim results in high concentrations of these drugs in the prostate.
- Quinolones and trimethoprim are effective treatments for most of the likely pathogens.
- Other antibiotics either do not penetrate the prostate as well, or are less effective against urinary pathogens.
- Quinolones are preferred to trimethoprim because they are effective against a wider range of urinary pathogens.
- There is no evidence to suggest that any particular quinolone is more effective or more hazardous than any other. CKS recommendations of ciprofloxacin or ofloxacin are consistent with those made by the British Association for Sexual Health and HIV (BASHH) [BASHH, 2008].
- The benefits of antibiotic treatment outweigh any increased risk of infection with *Clostridium difficile* or meticillin-resistant *Staphylococcus aureus* (MRSA), and the risk of promoting resistance to quinolones.

Duration of antibiotic treatment

- CKS recommendations are in line with UK guidelines, which recommend treatment for at least 4 weeks to prevent the development of chronic prostatitis [BASHH, 2008]. However, European guidelines would consider 10 days' treatment adequate [European Association of Urology, 2008].

Choice of stool softener

- Laxatives other than docusate and lactulose are not recommended:
  - Bulk-forming agents may not ease defecation, and it will be several days before they take effect.
  - Stimulant agents will not soften the stool.
  - Enemas and rectal preparations are likely to be painful to insert.
  - Co-danthrusate has limited prescribing indications.
  - Liquid paraffin is generally not recommended.

When should I refer a man with acute prostatitis?

- **Admit** when there is:

- Acute urinary retention — suprapubic catheterization is required (inserting a urethral catheter may spread the infection through the blood).
- Deteriorating symptoms despite appropriate antibiotic treatment.

- **Refer urgently** if the man has:
  - An inadequate response to appropriate antibiotic treatment — complications such as prostatic abscess should be assessed for, and this may require transrectal ultrasound examination or computed tomography (CT) scan of the prostate.
  - Pre-existing urological conditions (such as benign prostatic hypertrophy or an indwelling catheter) — specialist urological management may be required.
- **Consider urgent referral** for any man who is immunocompromised or has diabetes.
- **Refer all men when they have recovered.** Investigation of the urinary tract is required to exclude structural abnormality.

Basis for recommendation

These recommendations on referral reflect expert opinion of good practice in the UK [RCGP and BASHH, 2006; BASHH, 2008].

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).

1st-line antibiotics: quinolones

Age from 18 years onwards

Ciprofloxacin tablets: 500mg twice a day

Ciprofloxacin 500mg tablets
Take one tablet twice a day for 28 days.
Supply 56 tablets.

Age: from 18 years onwards
NHS cost: £3.34
Licensed use: yes

Ofloxacin tablets: 200mg twice a day

Ofloxacin 200mg tablets
Take one tablet twice a day for 28 days.

Supply 56 tablets.

Age: from 18 years onwards
NHS cost: £43.85
Licensed use: yes

Alternative antibiotic: trimethoprim

Age from 16 years onwards

Trimethoprim tablets: 200mg twice a day

Trimethoprim 200mg tablets
Take one tablet twice a day for 28 days.
Supply 56 tablets.

Age: from 16 years onwards
NHS cost: £3.60
Licensed use: yes

Analgesia use when required

Age from 16 years onwards

Paracetamol tablets: 1g up to four times a day

Paracetamol 500mg tablets
Take two tablets every 4 to 6 hours when required for pain relief. Maximum of 8 tablets in 24 hours.
Supply 50 tablets.

Age: from 16 years onwards
NHS cost: £0.78
OTC cost: £1.38
Licensed use: yes

Add on if severe pain: codeine tablets

Codeine 30mg tablets
Take one to two tablets every 4 to 6 hours when required for additional pain relief. Maximum of 8 tablets in 24 hours.
Supply 28 tablets.

Age: from 16 years onwards
NHS cost: £0.88
Licensed use: yes

Ibuprofen 400mg three times a day

Ibuprofen 400mg tablets
Take one tablet three times a day when required for pain relief. Do not exceed the stated dose.
Supply 84 tablets.

Age: from 16 years onwards
NHS cost: £2.31
OTC cost: £5.00
Licensed use: yes

Stool softeners: docusate or lactulose

Age from 16 years onwards

Docusate capsules: 100mg to 200mg once or twice a day

Docusate 100mg capsules
Take one to two capsules once or twice a day when required.
Supply 30 capsules.

Age: from 16 years onwards
NHS cost: £2.40
OTC cost: £4.23
Licensed use: yes

Lactulose solution: 15ml twice a day

Lactulose 3.1-3.7g/5ml oral solution
Take three 5ml spoonfuls twice a day.
Supply 300 ml.

Age: from 16 years onwards
NHS cost: £2.51
OTC cost: £4.50
Licensed use: yes