Prostatitis - chronic - Management

Scenario: Diagnosis of chronic prostatitis

How should I diagnose chronic prostatitis?

- Diagnose chronic prostatitis if:

o **The man has pain in the perineum or pelvic floor and lower urinary tract symptoms:**

o The most prominent symptom is pain. It is often described as an ache (deep, relentless, grinding, or gnawing) and can fluctuate from day to day. It can be experienced in the perineum, lower abdomen, penis (especially at the tip), testis, rectum, and lower back, but it can be very non-specific and may be described more as a general ache within the pelvis.

o Pain or discomfort can occur with ejaculation.

o Urinary symptoms include dysuria, frequency, hesitancy, urgency, and poor stream.

o Other symptoms include fatigue, arthralgia, and myalgia.

o On digital rectal examination, the prostate is normal or diffusely tender.

o **Symptoms have been present for at least 3 months.**

o **Other conditions have been excluded,** for example:

o Urinary tract infection, including urethritis, epididymo-orchitis, and epididymitis.

o Benign prostatic hypertrophy.

o Cancer of the prostate, bladder, or colon.

o Urethral stricture.

o Obstructive calculus in the urinary tract, or a foreign body.

o Pudendal neuralgia.

- **Urine culture** should be done to exclude urinary tract infection (urine dipstick tests are negative and are unlikely to change management).

- **Prostatic massage** (to obtain prostatic secretions to test for infection in the prostate) is not usually done in primary care.

- **Serum prostate-specific antigen (PSA) test** should only be considered if prostate cancer is suspected, for example if there are unexplained inflammatory or obstructive lower urinary tract symptoms, or the prostate is abnormal on digital rectal examination.

PSA test

Serum prostate-specific antigen (PSA) test

- Digital rectal examination and a PSA test should be performed (after counselling) for men with unexplained inflammatory or obstructive lower urinary tract symptoms.
- Urinary infection should be excluded before PSA testing.
- Before having a PSA test, men should not have:
  - An active urinary tract infection (wait at least 1 month after treatment).
  - Had a digital rectal examination (within the previous week).
  - Had vigorous exercise (within the previous 48 hours).
  - Had a prostate biopsy (within the previous 6 weeks).
- If the PSA test is positive, inform the man that this does not necessarily mean he has cancer of the prostate.
  - At least two thirds of men with a raised PSA do not have cancer.
  - He will need to consult a urologist for specialist examination and further tests to make a definitive diagnosis.

[Austoker and Kirby, 2009]

Basis for recommendation

These recommendations are based on UK national guidelines for the specialist management of chronic bacterial prostatitis and chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) [Luzzi, 2002; BASHH, 2008].

Prostatic massage

- Diagnostic prostatic massage is not recommended in primary care because it is not practical and is rarely done [BASHH, 2008]. However, guidelines for specialists recommend that infection of the

prostate be further assessed by culturing the urine both before and after massage of the prostate in an attempt to localize infection to the prostate.

Serum prostate-specific antigen (PSA) test

- Although the PSA level may be raised in bacterial prostatitis, it is neither specific nor sensitive for this. It is therefore not recommended as a routine investigation or when the prostate is tender, but should be considered if prostate cancer is suspected [BASHH, 2008].

- The National Institute for Health and Clinical Excellence (NICE) recommends using a PSA test to exclude prostate cancer in men with unexplained inflammatory or obstructive lower urinary tract symptoms [NICE, 2005].

Prostatitis - chronic - Management

Scenario: Prostatitis - chronic

How should I manage a man with chronic prostatitis?

- Assess the severity of pain, urinary symptoms, and impact on quality of life. The information will guide management (and the assessment may have therapeutic value in itself).
- Reassure that chronic prostatitis is not cancer and is not a sexually transmitted infection, although the cause is not understood. Although the condition is chronic and treatment is difficult, in most cases the trend is for symptoms to improve over months or years.
- Refer to urology for specialist assessment and management (which will often include a trial of an alpha-blocker for at least 3 months).
- If defecation is painful, offer a stool softener such as lactulose or docusate — see the CKS topic on Constipation.
- Consider a trial of paracetamol or a nonsteroidal anti-inflammatory drug (NSAID) for 1 month — see the CKS topic on NSAIDs - prescribing issues.
- If there is a history of urinary tract infection (or an episode of acute prostatitis) within the last 12 months, consider a single course of antibiotic treatment with a quinolone while waiting for the specialist appointment.
  - Options include:
  - Ciprofloxacin 500 mg twice a day for 28 days, *or*
  - Levofloxacin 500 mg once a day for 28 days, *or*
  - Ofloxacin 200 mg twice a day for 28 days, *or*
  - Norfloxacin 400 mg twice a day for 28 days.
  - If quinolones are not suitable, treat with trimethoprim while waiting for specialist review.
  - Trimethoprim 200 mg twice a day for 28 days.
- If the response to management recommended by the urologist is inadequate, consider referral to a chronic pain specialist.

Assessment

Assessing pain, urinary symptoms, and quality of life

- Pain is likely to be the most important symptom.

- The National Institutes of Health Chronic Prostatitis Symptom Index, NIH-CPSI (pdf), is recommended in guidelines for specialists, and is widely used in research for assessing the severity of pain, urinary symptoms, and loss of quality of life [Nickel, 2000]. The NIH-CPSI score can be useful in demonstrating that treatment has resulted in an objective improvement even if the man feels there has been no subjective improvement. However, it may not be practical for routine use in primary care.

Basis for recommendation

These recommendations are in line with guidelines published by the British Association for Sexual Health and HIV (BASHH) [BASHH, 2008].

- **Assessment:**

o Although the NIH-CPSI questionnaire is widely used in research and is recommended in guidelines for specialists, its usefulness in primary care has not been assessed, and it is therefore not recommended for routine use.

- **Trial of simple analgesics:**

o Although a trial of simple analgesics is not considered in the BASHH guideline [BASHH, 2008], a European guideline on chronic pelvic pain recommends (on the basis of expert opinion) a trial of NSAIDs [Fall et al, 2008].

o Little research has been conducted on the effects of NSAIDs in chronic prostatitis, but there is some evidence of limited clinical benefit. There are no clinical trials on the use of paracetamol for chronic prostatitis.

- **Referral:**

o There are no studies or guidelines on referral for chronic prostatitis. The recommendations reflect the opinion of CKS on what is considered to be good clinical practice.

- **Antibiotics for chronic bacterial prostatitis:**

- UK and European guidelines recommend antibiotics for chronic bacterial prostatitis on the basis of weak evidence [BASHH, 2008; European Association of Urology, 2008].

- There are no placebo-controlled, randomized controlled trials (RCTs) of antibiotics for bacterial prostatitis. Three RCTs comparing different antibiotics suggest that between 70% and 98% of men with bacterial prostatitis will be cured or improved when treated with a quinolone. There is no evidence from these trials to suggest that any quinolone is more effective or safer than any other quinolone. There is no good evidence on other classes of antibiotics.

- Quinolones are preferred to trimethoprim because they are effective against a wider range of urinary pathogens.

- Other antibiotics either do not penetrate the prostate as well, or are less effective against 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, levofloxacin, ofloxacin or norfloxacin are consistent with those made by the British Association for Sexual Health and HIV (BASHH) [BASHH, 2008].

- The benefits of treatment outweigh the risk of precipitating an antibiotic-induced infection with *Clostridium difficile* or meticillin-resistant *Staphylococcus aureus* (MRSA), and the risk of promoting resistance to quinolones.

- CKS recommends empirical treatment with a quinolone for men with a history of urinary tract infection because it is more likely that the presenting symptoms are caused by chronic infection, and because diagnostic prostatic massage (to confirm infection) is not practical in primary care.

- **Antibiotics for abacterial prostatitis:**

- BASHH guidelines do not recommend antibiotics for abacterial prostatitis, but observe that they are widely used [BASHH, 2008].

- Very weak evidence supports the use of antibiotics for chronic abacterial prostatitis.

- One small RCT found weak evidence that levofloxacin may be more effective than doxazosin (and as effective as a combination of the two). Improvements were not significant 2 weeks after treatment, but were significant 6 weeks after treatment. Participants had not previously been treated with antibiotics and had been symptomatic for less than a year on average.

- Two RCTs found that quinolones were not effective in men who had experienced symptoms for 6 years on average and had previously had a number of treatments including antibiotics.

o Some urologists recommend that all men with chronic prostatitis be treated with an antibiotic [Nickel, 2008a; Nickel et al, 2008]. However, others have raised the concern that, under this policy, many men without infection are being treated unnecessarily and bacterial resistance may be promoted [Taylor et al, 2008]. European guidelines recommend treatment of chronic pelvic pain syndrome with antibiotics if infection is strongly suspected [European Association of Urology, 2008].

o As all men with chronic prostatitis should be referred to a urologist who can exclude infection (for example with cultures of urine both before and after prostatic massage), CKS recommends that antibiotics are not prescribed in primary care for men who have chronic prostatitis (unless, as explained above, infection is suggested by a history of urinary tract infection).

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 (history of UTI): quinolones

Age from 16 years onwards

Norfloxacin tablets: 400mg twice a day

Norfloxacin 400mg tablets
Take one tablet twice a day for 28 days.
Supply 56 tablets.

Age: from 16 years onwards
NHS cost: £12.28
Licensed use: yes

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

Levofloxacin tablets: 500mg once a day

Levofloxacin 500mg tablets
Take one tablet once a day for 28 days.
Supply 28 tablets.

Age: from 18 years onwards
NHS cost: £72.38
Licensed use: yes

Alternative antibiotic (history of UTI): 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 100 tablets.

Age: from 16 years onwards
NHS cost: £1.56
Licensed use: yes

Ibuprofen tablets: 400mg up to 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: £2.38
OTC cost: £4.08
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 100 capsules.

Age: from 16 years onwards
NHS cost: £8.00
OTC cost: £13.80

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 1000 ml.

Age: from 16 years onwards
NHS cost: £5.80
OTC cost: £10.01
Licensed use: yes