Prostatitis (acute): antimicrobial prescribing

**Background**
- Acute prostatitis:
  - is a bacterial infection needing antibiotics
  - can occur spontaneously or after medical procedures
  - can last several weeks
  - can lead to acute urinary retention and prostatic abscess

**Self-care**
- Advise paracetamol (with or without a low-dose weak opioid, such as codeine) for pain, or ibuprofen if preferred and suitable
- Advise drinking enough fluids to avoid dehydration

**Antibiotics**
- When prescribing antibiotics, take account of severity of symptoms, risk of complications or treatment failure, previous urine culture and susceptibility results, previous antibiotic use which may have led to resistant bacteria, and local antimicrobial resistance data
- Give oral antibiotics first-line if people can take oral medicines, and the severity of their condition does not require intravenous antibiotics
- Review intravenous antibiotics by 48 hours and consider stepping down to oral antibiotics where possible

**Prostatitis (acute): antimicrobial prescribing**

- **Offer an antibiotic**
- **Send a midstream urine sample for culture and susceptibility testing**

**Advise:**
- usual course of acute prostatitis is several weeks
- possible adverse effects of antibiotics include diarrhoea and nausea
- seeking medical help if symptoms worsen at any time, or do not start to improve within 48 hours of taking the antibiotic, or the person becomes systemically very unwell

**When results of urine culture available:**
- review the choice of antibiotic, and
- change antibiotic according to susceptibility results if bacteria are resistant, using a narrow spectrum antibiotic when possible

**Reassess at any time if symptoms worsen, taking account of:**
- other possible diagnoses
- any symptoms or signs suggesting a more serious illness or condition, such as acute urinary retention, prostatic abscess or sepsis
- previous antibiotic use, which may have led to resistant bacteria

**Refer to hospital if:**
- there are any symptoms or signs of a more serious illness or condition (for example, sepsis, acute urinary retention or prostatic abscess), or
- symptoms are not improving 48 hours after starting the antibiotic

NICE uses ‘offer’ when there is more certainty of benefit and ‘consider’ when evidence of benefit is less clear

October 2019
# Prostatitis (acute): antimicrobial prescribing

## Choice of antibiotic: adults aged 18 years and over

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>Dosage and course length</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First-choice oral antibiotics (guided by susceptibilities when available)</strong>&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Ciprofloxacin (consider safety issues)&lt;sup&gt;3&lt;/sup&gt;</td>
<td>500 mg twice a day for 14 days then review&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td>Ofloxacin (consider safety issues)&lt;sup&gt;3&lt;/sup&gt;</td>
<td>200 mg twice a day for 14 days then review&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Alternative first-choice oral antibiotic if a fluoroquinolone antibiotic is not appropriate (seek specialist advice: guided by susceptibilities when available)</strong>&lt;sup&gt;2&lt;/sup&gt;</td>
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<tr>
<td>Trimethoprim</td>
<td>200 mg twice a day for 14 days then review&lt;sup&gt;4&lt;/sup&gt;</td>
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<tr>
<td><strong>Second-choice oral antibiotic (after discussion with a specialist)</strong></td>
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<tr>
<td>Levofloxacin (consider safety issues)&lt;sup&gt;3&lt;/sup&gt;</td>
<td>500 mg once a day for 14 days then review&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td>Co-trimoxazole&lt;sup&gt;5&lt;/sup&gt;</td>
<td>960 mg twice a day for 14 days then review&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>First-choice intravenous antibiotics (if unable to take oral antibiotics or severely unwell: guided by susceptibilities when available). Antibiotics may be combined if sepsis a concern</strong>&lt;sup&gt;2,6&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Ciprofloxacin (consider safety issues)&lt;sup&gt;3&lt;/sup&gt;</td>
<td>400 mg twice or three times a day</td>
</tr>
<tr>
<td>Levofloxacin (consider safety issues)&lt;sup&gt;3&lt;/sup&gt;</td>
<td>500 mg once a day</td>
</tr>
<tr>
<td>Cefuroxime</td>
<td>1.5 g three or four times a day</td>
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<tr>
<td>Ceftriaxone</td>
<td>2 g once a day</td>
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<tr>
<td>Gentamicin</td>
<td>Initially 5 to 7 mg/kg once a day, subsequent doses adjusted according to serum gentamicin concentration&lt;sup&gt;7&lt;/sup&gt;</td>
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<tr>
<td>Amikacin</td>
<td>Initially 15 mg/kg once a day (maximum per dose 1.5 g once a day), subsequent doses adjusted according to serum amikacin concentration (maximum 15 g per course)&lt;sup&gt;7&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Second-choice intravenous antibiotics - consult local microbiologist</strong></td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup> See BNF for appropriate use and dosing in specific populations, for example, hepatic impairment and renal impairment, and administering intravenous antibiotics.

<sup>2</sup> Check previous urine culture and susceptibility results and antibiotic prescribing and choose antibiotics accordingly.

<sup>3</sup> See MHRA advice for restrictions and precautions for using fluoroquinolone antibiotics due to very rare reports of disabling and potentially long-lasting or irreversible side effects affecting musculoskeletal and nervous systems. Warnings include: stopping treatment at first signs of serious adverse reaction (such as tendinitis), prescribing with special caution in people over 60 years and avoiding coadministration with a corticosteroid (March 2019).

<sup>4</sup> Review treatment after 14 days and either stop or continue for a further 14 days if needed (based on history, symptoms, clinical examination, urine and blood tests).

<sup>5</sup> Only consider when there is bacteriological evidence of sensitivity and good reasons to prefer this combination to a single antibiotic (BNF, August 2018).

<sup>6</sup> Review intravenous antibiotics by 48 hours and consider switching to oral antibiotics where possible for a total of 14 days, then review.

<sup>7</sup> Therapeutic drug monitoring and assessment of renal function is required (BNF, August 2018).

When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.