Title:
Antibiotic Guideline for Acute Pelvic Inflammatory Disease

Version	• 3
Date ratified	• December 2007
Review date	• December 2009
Ratified by	• NUH Antimicrobial Guidelines Committee • Gynaecology Directorate
Authors	• Dr Vivienne Weston, Consultant Microbiologist • First version produced September 2001 , last update August 2005
Consultation:	• Gynaecology Consultant Miss Ten Hof • GUM Consultant Dr Ahmed • Members of Nottingham Hospitals Antimicrobial Guidelines Committee. Consultants Drs Weston, Soo, Wharton, Byrne, Whitehouse and Professor Finch. Microbiology/ID registrars Drs Snape, Evans and Lessells. Pharmacists Annette Clarkson, Tim Hills, Maureen Milligan and Sarah Pacey.
Evidence Base	• British Association for Sexual Health and HIV guidelines for pelvic inflammatory disease February 2005.
Changes from previous Guideline	• British Association for Sexual Health and HIV guidelines for pelvic inflammatory disease February 2005 and for uncomplicated Chlamydia infection revised 2006 http://www.bashh.org/guidelines/2005/pid_v4_0205.pdf http://www.bashh.org/guidelines/2006/chlamydia_0706.pdf. • Recommendation of azithromycin for uncomplicated Chlamydia infection as better compliance and reduction in treatment failures • Suitable oral regimen to treat gonorrhoea
Inclusion Criteria	• Female adult patients with pelvic inflammatory or uncomplicated Chlamydial or Gonococcal disease.
Audit	• Annual Directorate Audit Plans as appropriate
Distribution	• NUH Antibiotic websites • GUM and gynaecology departments
Local Contacts	• Dr Vivienne Weston, Consultant Microbiologist, QMC • Ext 64179 • E-mail vivienne.weston@nuh.nhs.uk

This guideline has been registered with the Trust. However, clinical guidelines are 'guidelines' only. The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician. If in doubt consult a senior colleague or expert. Caution is advised when using guidelines after the review date.

Contents:

OVERVIEW – ACUTE PELVIC INFLAMMATORY DISEASE

Symptoms Low abdominal pain, pyrexia,
vaginal discharge, intermenstrual bleeding
Previous history of GUM attendance

Clinical Features Abdominal tenderness, peritonism, tenderness right sub costal
in Fitz-Hugh-Curtis syndrome, cervical discharge, cervicitis,
cervical excitation tenderness, adnexal tenderness

Aetiology *Chlamydia trachomatis*, Gonococcus, Mycoplasmas, Ureaplasmas,
Streptococci, often mixed with Gram negatives and anaerobes
(previous GUM attendance - increases likelihood of Chlamydia or
Gonococcal infection)
Uncommon: Tuberculous PID and actinomycosis
Also: secondary to appendicitis or diverticulitis, following IUCD insertion (the
highest risk of developing PID is within the first three weeks)

Diff. Diagnosis Appendicitis, diverticulitis, ovarian cyst accident,
ectopic pregnancy, torsion of fallopian tube, endometriosis

Risks Septicaemia – can be life threatening, abscess formation, infertility,
chronic PID, adhesion formation and recurrent pelvic pain

Investigations Triple swabs: High Vaginal Swab for C&S,
Endocervical Swab for C&S, and Endocervical Swab for Chlamydia.
Full Blood Count (FBC)
Pregnancy test.
Consider referral to general surgery for opinion (appendicitis/diverticulitis)

Management Inform Registrar who will review the patient after admission (preferably
before initiating treatment)

Treatment

- Remove IUCD after consultation with the registrar or higher grade
- Send to microbiology (with clinical details) to exclude actinomycosis.
  (Do not send all removed IUCDs: only those from patients with suspected PID)

- Antibiotics as outlined below
  - IV therapy is required if :
    - A surgical emergency cannot be excluded
    - Lack of response to oral therapy
    - Clinically severe disease (temp >38^{o}C, signs of pelvic peritonitis, signs of a tubo-ovarian abscess)
    - Intolerance to oral therapy
    - Disseminated Gonococcal infection

- Analgesia and anti-emetics, as required (paracetamol/ dihydrococeine /diclofenac /other opiates)
- 4-hourly temperature, pulse & respiration checks

- Consider laparoscopy if no improvement in pain and/or temperature after 24 hours of antibiotic treatment (take swabs for C&S laparoscopically) – emergency list

- Adjust antibiotics according to C&S results only if no improvement, and after discussion with microbiology (in view of rising resistance in Gonococcal isolates)

- Discharge information should include safer sexual practices, and referral of patient and partner to GUM clinic for investigations/treatment/contact tracing if necessary

ANTIBIOTIC TREATMENT OF PELVIC INFLAMMATORY DISEASE (PID)

This is a common condition, which is difficult to diagnose and it is based on a combination of clinical symptoms and signs. i.e. lower abdominal pain with pelvic tenderness and cervical excitation.

Swabs should be taken for investigation for chlamydia and gonococcal infection.

Treatment

Mild/moderate disease

1st line	Doxycycline 100mg bd for 14 days **plus** Metronidazole 400 mg bd PO for 5 days **plus** Ceftriaxone 250mg IM stat (Ceftriaxone 1g IV or cefixime 400mg PO stat, if IM route contraindicated)
Alternative	if vomiting and initially unable to take oral medication:

Ceftriaxone 250mg IM stat **plus** Metronidazole 500 mg tds IV **plus** Clarithromycin 500 mg bd IV (change to Doxycycline **plus** Metronidazole as above when oral route is available)

Severe disease:

1st line — Ceftriaxone 1g od IV **plus** Metronidazole 500 mg tds IV **plus** Oral Doxycycline 100mg bd PO or Clarithromycin 500 mg bd IV if unable to take oral medication (change to oral Doxycycline **plus** Metronidazole to complete 14 days treatment when clinically improved for 24 hours, doses as above)

Alternative — if contraindication e.g. pregnancy:

Ceftriaxone 250 mg IM stat **plus** Metronidazole 400 mg bd PO for 5 days **plus** Erythromycin 500 mg qds PO for 14 days

if serious allergy (e.g. anaphylaxis) to penicillins or allergic to cephalosporins

Ofloxacin 400mg bd for 14 days **plus** Metronidazole 400mg bd for 5 days. If also NBM discuss with medical microbiologist.
NB due to rising quinolone resistance in gonococci, patients treated with this regimen should be monitored closely and any cultures reviewed for sensitivity

ANTIBIOTIC TREATMENT OF UNCOMPLICATED CHLAMYDIA INFECTION

If no cervical excitation or abdominal pain, presenting with IMB, cervicitis or asymptomatic carriage

Treatment

1st line — Azithromycin 1g PO single dose

Alternatives — Doxycycline 100 mg PO bd for 7 days

If pregnant — Erythromycin 500 mg PO qds for 7 day or
Erythromycin 500 mg PO bd for 14 days

Refer to GUM clinic for follow-up and contact tracing

ANTIBIOTIC TREATMENT OF UNCOMPLICATED GONOCOCCAL INFECTION

Both locally and nationally, resistance in gonococcal isolates has meant that both the penicillin and quinolone antibiotics can no longer be relied upon for empirical treatment of gonococcal disease. Intramuscular ceftriaxone is now the standard treatment for infections where sensitivity results are unknown.

Treatment

1st line	Ceftriaxone 250 mg IM stat
Or	Cefixime 400mg PO stat if IM route contraindicated (unlicensed indication)
Or	*if known ciprofloxacin sensitive strain and **not** pregnant or breastfeeding:* Ciprofloxacin 500mg orally stat