Pelvic Inflammatory Disease

MANAGEMENT SUMMARY

TEST IF
- Woman at risk of STIs presents with lower abdominal or pelvic pain.

RECOMMENDED TESTS
- Vulvovaginal swab for chlamydia and gonorrhoea testing by NAAT (e.g. PCR or SDA) (see Chlamydia guideline and/or Gonorrhoea guideline www.nzshs.org/guidelines)
- High vaginal culture swab for bacterial vaginosis, trichomoniasis and candidiasis
- Additional anorectal NAAT swab as indicated based on sexual history
- Bimanual examination for pelvic masses or tenderness
- Urine pregnancy test and urinalysis dipstick
- Serology for HIV and syphilis
- Full blood count (FBC) and C-reactive protein (CRP) *(for severe cases or diagnostic uncertainty)*
- Vital signs: Temperature, pulse, blood pressure

Treat immediately on the basis of symptoms of lower abdominal pain and EITHER uterine OR cervical OR adnexal tenderness.

MANAGEMENT
- **Ceftriaxone 500mg** im stat (make up with 2ml lignocaine 1% or as per data sheet) PLUS
- **Doxycycline 100mg** po twice daily for 2 weeks PLUS
- **Metronidazole 400mg** po twice daily for 2 weeks. *(Metronidazole may be discontinued at review if not tolerated.)*
- Advise treatment may take time to work
- Advise to abstain from sex until abdominal pain has settled and to use condoms for 14 days after initiation of treatment and until 7 days after all sexual contacts have been treated

PID IS CLASSIFIED AS SEVERE IF
- Acute abdomen
- Pregnant
- Fever, vomiting or systemically unwell
- Clinical failure or intolerant of oral therapy

REFER IF
- Ectopic pregnancy cannot be excluded
- Severe PID
- Severe drug allergies to above

PARTNER NOTIFICATION
- Be clear about language: 'partner' implies relationship – all sexual contacts in the last 2 months should be advised so they can have a sexual health check and treatment
- Contact(s) should have a sexual health check and if asymptomatic treat empirically for chlamydia with azithromycin 1g po stat
- If sexual contact(s) has symptoms of urethritis (see Urethritis in Men guideline www.nzshs.org/guidelines)
- Contacts should be treated without waiting for their test results and advised to use condoms or abstain from sex for 7 days; if positive for an STI, refer to specific guideline
- Most choose to tell contacts themselves. Giving written information is helpful
- Notifying all contacts may not be possible, e.g. if there is insufficient information or a threat of violence

72 HOUR FOLLOW-UP FOR MODERATE/SEVERE PID
- Repeat bimanual exam to assess resolution of signs and refer if not improved
- No unprotected sex?
- Tolerated medication?
- Notifiable contacts informed?
- Any risk of reinfection? Will need further treatment if re-exposed to untreated contact

1 TO 2 WEEK FOLLOW-UP FOR MILD PID (PHONE OR IN PERSON)
- As above – bimanual where practical or where symptoms not improved
- Re-infection is common; offer repeat STI check in 3-6 months

Further guideline information – www.nzshs.org or phone local sexual health service.

This Best Practice Guide has been produced by NZSHS. Every effort has been taken to ensure that the information in this guideline is correct at the time of publishing (February 2015).

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Introduction

- Pelvic inflammatory disease (PID) is the term used to describe upper genital tract infection in women.
- Infection may involve the endometrium, with or without involving the fallopian tubes and peritoneal space.
- PID is usually a sexually transmitted condition.
- The organisms most commonly implicated are *Chlamydia trachomatis, Neisseria gonorrhoeae,* mycoplasmas and mixed anaerobes.
- True incidence is unknown due to non-specificity of lack of symptoms.

Risk factors

- Age < 25.
- Recent change in sexual partner.
- Multiple partners.
- Previous STI.

In addition to sexual transmission, PID may follow:

- Intrauterine device (IUD) insertion.
- Termination of pregnancy.
- Postpartum states.
- Upper genital tract instrumentation.

Symptoms and signs

- Estimated up to 60% sub-clinical – that is may have no or minimal symptoms.
- May present with lower abdominal pain, deep dyspareunia, abnormal vaginal bleeding or discharge.
- On examination may have cervical motion tenderness, uterine and/or adnexal tenderness, cervicitis or fever.

Complications

- Tubo-ovarian abscess.
- Chronic pelvic pain.
- Ectopic pregnancy and tubal factor infertility.
- Perihepatitis (Fitz-Hugh Curtis syndrome) occurs rarely.

Diagnosis

- Diagnosis is clinical, taking into account the history, clinical findings and supplemental tests.
- No single laboratory test is diagnostic of PID and STI tests will often be negative.
- A low threshold for treatment is appropriate in view of important sequelae and diagnostic uncertainty.

Initiate PID treatment for the following criteria

- Pelvic pain AND
- Uterine tenderness OR adnexal tenderness OR cervical motion tenderness.

Additional supportive features

- Abnormal cervical or vaginal mucopurulent discharge.
- Fever >38°C.
- Elevated white blood cell (WBC) or CRP.
- Confirmed infection with an STI or bacterial vaginosis.

Differential diagnoses

The main differential diagnoses to consider are:

- Pregnancy complications, e.g. ectopic, spontaneous abortion.
- Appendicitis.
- Urinary tract infection.
- Ruptured ovarian cyst.

Diagnostic tests (see Chlamydia guideline and/or Gonorrhoea guideline www.nzshs.org/guidelines)

All women with suspected PID should have a full evaluation for STIs including:

- A vulvovaginal swab for chlamydia and gonorrhoea testing by NAAT (e.g. PCR or SDA).
- A high vaginal culture swab for bacterial vaginosis, trichomoniasis and candidiasis.
- Additional anorectal NAAT swab as indicated based on sexual history.
- Bimanual examination to assess for tenderness and pelvic masses.
- Urine pregnancy test to exclude ectopic pregnancy.
- Consider FBC and CRP, urine dipstick.
- Serology for syphilis and HIV is recommended.

Management

- Assess for PID severity (mild, moderate or severe).
- Treatment should cover for infection with gonorrhoea, chlamydia and anaerobes.
- Patients with severe infection, pregnancy or a suspected tubo-ovarian abscess require gynaecology referral.
- Contact sexual health services for advice if breastfeeding.

Treatment regimens

Mild/moderate PID

Few regimens provide >90% efficacy.

- Ceftriaxone 500mg im stat (make up with 2ml lignocaine 1% or as per data sheet) PLUS
- Doxycycline 100mg po twice daily for 14 days PLUS
- Metronidazole 400mg po twice daily for 14 days.
- Advise to abstain from sex until abdominal pain has settled and to use condoms for 14 days after initiation of treatment and/or until 7 days after all sexual contacts have been treated.

Note:

- Metronidazole may be discontinued if not tolerated.
- The regimen may be used for mild penicillin allergy.
- Contraindications to administration of ceftriaxone are cephalosporin allergy or previous severe penicillin allergy such as anaphylaxis.
- Discuss with specialist if unsure.

Concerns about poor compliance

- Ceftriaxone 500mg im stat (make up with 2ml lignocaine 1% or as per data sheet) PLUS
- Azithromycin 1g po on day 1 and day 8.

Note:

- There is insufficient data on long term efficacy to recommend this regimen for first line use.

IUD users

- Evidence suggests PID treatment is not hindered by the presence of an IUD.
- The decision as to whether or not an IUD should be left in situ should be made on a case by case basis in consultation with the patient.
- If the IUD is removed, recommend delaying this until approximately 24 hours into antibiotic therapy and consider ECP if unprotected sex in the previous 7 days.
- If there is inadequate clinical response at review, IUD removal should be considered.

Partner notification and management of sexual partners

Partner notification

- Be clear about language: 'partner' implies relationship – all sexual contacts in the last 2 months should be advised so they can have a sexual health check and treatment.
- Contacts should be treated without waiting for their test results; if positive, then their recent contacts need to be informed.
- Most choose to tell contacts themselves.
- Giving written information is helpful.
- Notifying all contacts may not be possible, e.g. if there insufficient information or a threat of violence.

Management of sexual partners/contacts

- Perform a full sexual health check
- Do not wait for test results – treat empirically with azithromycin 1g stat.
  - If gonococcal infection is suspected then add ceftriaxone 500mg im stat.
- Advise them to use condoms or abstain from sex for 7 days after initiation of treatment until results of tests are available.
- If chlamydia or gonorrhoea tests positive – further partner notification as above.

Follow-up

- In mild PID, patients should be reviewed in 1 week and bimanual examination repeated to confirm resolution of signs and review results.
- In moderate PID, patients should be reviewed in 48-72 hours and if not improving consider gynaecology referral.
- Repeat a sexual health check 3 months after treatment.

Referral guidelines

Referral to a specialist sexual health service is recommended for:

- Management of sexual partners if clinician wishes.
- Recurrent/persistent PID.

Further guideline information – www.nzshs.org or phone local sexual health service.