Australian STI Management Guidelines for Use in Primary Care

Pelvic inflammatory diseases (PID)

Overview

- A syndrome comprising a spectrum of inflammatory disorders of the upper genital tract, including any combination of endometritis, salpingitis, tubo-ovarian abscess and pelvic peritonitis.
- Clinical presentation varies widely in both severity and symptomatology.
- Prompt treatment is essential to prevent long-term sequelae (including tubal infertility, ectopic pregnancy and chronic pelvic pain).

Possible Causes
Possible causes

- Polymicrobial.
- Sexually transmitted infections (STIs) (e.g. *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, *Mycoplasma genitalium* implicated)
- Vaginal facultative bacteria and other vaginal bacteria have also been implicated including those associated with bacterial vaginosis.
- Disruption of the cervical epithelium facilitates change in cervicovaginal environment allowing vaginal bacteria to ascend to the upper genital tract, for example during Intrauterine device (IUD) insertion.

Clinical presentation

Symptoms	Considerations
Pelvic pain	Typically bilateral, may worsen with movement and may localise to one side Pain may refer to right upper quadrant
Dyspareunia	Deep

Vaginal/cervical discharge	Blood stained or purulent discharge
Vaginal bleeding	Intermenstrual, postcoital and heavy menstrual bleeding
Fever, nausea, vomiting	Indicate severe infection. Absence of these symptoms does not exclude a diagnosis of PID.

Diagnosis

Diagnosis is clinical and a low threshold of suspicion is necessary due to wide clinical spectrum (asymptomatic to severe).

- Examination is important to make an accurate diagnosis.
- New onset of pelvic pain among sexually active people < 30 years is highly predictive of PID (with exclusion of surgical emergencies).
- Rapid response to appropriate antibiotic treatment is highly predictive of PID.
- Risks include: recent partner change, partner with STI or symptoms of an STI, recent uterine instrumentation (e.g. IUD insertion, surgical abortion).
- Exclude other causes of acute pelvic and abdominal pain e.g. ectopic pregnancy, appendicitis.
- The presence of an STI supports the diagnosis; in 70% of cases no organism is detected.

Infection	Site/specimen	Test
Gonorrhoea	Endocervical swab	NAAT plus culture
Chlamydia	Endocervical swab	NAAT
Mycoplasma genitalium	Endocervical swab	NAAT

NAAT – Nucleic acid amplification test

Specimen collection guidance

Clinician collected | Self-collection

Clinician collected specimens are recommended. However self-collection can be used if patient declines speculum and bimanual examination.

Investigations

- All people with a uterus of reproductive age with new onset abdominal pain should have the following investigations:
    - Urine pregnancy test and, if positive, arrange urgent pelvic ultrasound (exclude ectopic pregnancy)
    - Testing for STIs with endocervical swab
    - Urinalysis – the presence of nitrites, blood or leucocytes plus prominent symptoms of dysuria and frequency makes a urinary tract infection (UTI) a possible differential diagnosis.
- Bimanual examination is necessary to elicit cervical motion tenderness and adnexal or uterine tenderness. However, although a bimanual is ideal, the inability to perform this should not alter making a provisional diagnosis and commencing treatment.
- Eliciting pain on bimanual examination is a poor predictor of the presence of PID however the absence of pain makes the diagnosis of PID unlikely.
- Speculum examination allows for visualisation of the cervix. The presence of cervical mucopurulent discharge supports the diagnosis of PID.
- Pelvic ultrasound is useful to detect alternative causes of pain, if the diagnosis is uncertain. In PID, the pelvic ultrasound may be normal or may show indicators of pelvic inflammation with thickened and dilated fallopian tubes +/- free fluid. Transvaginal ultrasound is preferred.

Management

Principal treatment options	
Infection	**Recommended**
Mild – moderate Outpatient treatment	Ceftriaxone 500 mg in 2 mL of 1% lignocaine IMI, or 500 mg IV, stat PLUS Metronidazole 400 mg PO, BD for 14 days PLUS Doxycycline 100 mg PO, BD for 14 days

Severe Inpatient treatment	Ceftriaxone 2 g IV, daily OR Cefotaxime 2 g IV, TDS PLUS Azithromycin 500 mg IV, daily PLUS Metronidazole 500 mg IV, *BD*

* If M. genitalium confirmed see guidelines for treatment or seek specialist advice.

Treatment advice

- Begin treatment immediately with provisional diagnosis, without waiting for test results.
- For patients who may be breast feeding or non-adherent to doxycycline, consider replacing with Azithromycin 1g PO stat plus a further dose 1 week later
- Consider removal of IUD if no response to treatment within 48-72 hours. Balance decision with risk of pregnancy and consider oral emergency contraception.
- Consider admission if:
    - diagnosis uncertain
    - a surgical emergency cannot be excluded
    - suspicion or definitive diagnosis of a pelvic abscess
    - severe illness or a lack of response to outpatient management
    - intolerance to oral therapy
    - pregnancy
    - homeless or unstable accommodation.

Other immediate management

- Patient to avoid sexual intercourse for a week following treatment or until symptomatically better
- Rest and simple analgesia where required (non-steroidal anti-inflammatory medications, paracetamol)
- Contact tracing
- Provide patient with factsheet.

Special Treatment Situations

Situation	Recommended
Complicated infection such as People with immunosuppression due to human immunodeficiency virus (HIV)	Seek specialist advice
Pregnancy	If pregnant or breastfeeding, avoid doxycycline and use azithromycin regimen i.e. for mild-to-moderate infection: Ceftriaxone 500 mg in 2 mL of 1% lignocaine IMI, or 500 mg IV, stat. PLUS Metronidazole 400 mg PO, BD for 14 days PLUS Azithromycin 1 g PO, stat PLUS Azithromycin 1 g PO, stat, 1 week later
Allergy to principal treatment choice	Seek specialist advice

Contact Tracing

Counselling, clinical examination, test for *C. trachomatis*, *N. gonorrhoeae* and *M. Genitalium*

- Where organism is isolated, refer to relevant STI guideline for contact tracing recommendations:
- Gonorrhoea
- Chlamydia
- M. genitalium.

See Australasian Contact Tracing Manual – PID for more information.

Follow Up

Follow-up provides an opportunity to:

- Review at 48-72 hours to assess adherence and response to treatment
- Further review at 1-2 weeks to ensure adequate clinical response to treatment, adherence and treatment of sexual contacts; repeat pregnancy test, if clinically indicated.

For **test of cure** and **retesting** see:

- Gonorrhoea
- Chlamydia
- M. genitalium

Auditable Outcomes

100% of people diagnosed with PID have had investigations for gonorrhoea and chlamydia.

Endorsement: These guidelines have been endorsed by the Blood Borne Viruses and Sexually Transmitted Infections Standing Committee (BBVSS).

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