

Management Guidelines for Acute Pelvic Inflammatory Disease (PID)

A Clinical Guideline recommended

For use in:	Norfolk and Norwich University Hospital, Gynaecology
By:	Doctors and Nurses
For:	Pelvic inflammatory disease
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Introduction

Management Guidelines for Acute Pelvic Inflammatory Disease (PID)

Pelvic inflammatory disease (PID) is usually the result of infection ascending from the endocervix causing endometritis, salpingitis, parametritis, oophoritis, tubo-ovarian abscess and/or pelvic peritonitis. The exact incidence is not known because the disease cannot be reliably diagnosed from clinical signs and symptoms. Risk factors mirror those for sexually transmitted infections – young age, reduced socio-economic status, low educational status and recent new sexual partner.

While sexually transmitted infections (STIs) such as *Chlamydia trachomatis* and *Neisseria gonorrhoea* have been identified as causative agents, additional STIs including *Mycoplasma genitalium*, anaerobes and other organisms may also be implicated.

PID carries a high morbidity; about 20% of affected women become infertile, 20% develop chronic pain, and 10% of those who conceive have an ectopic pregnancy. It is therefore important that patients with suspected PID receive the appropriate investigations and treatment in the hope of reducing the long-term morbidity.

Initial assessment

A thorough history should be taken including a contraceptive and sexual history. Documentation of examination findings should include the presence or absence of:

- Bilateral lower abdominal tenderness (sometimes radiating to the legs)
- Abnormal vaginal or cervical discharge
- Fever (greater than 38°C)
- Abnormal vaginal bleeding (intermenstrual, postcoital or 'breakthrough')
- Deep dyspareunia
- Cervical motion tenderness on bimanual vaginal examination
- Adnexal tenderness on bimanual vaginal examination (with or without a palpable mass).

Clinical symptoms and signs lack sensitivity and specificity (the positive predictive value of a clinical diagnosis is 65–90% compared with laparoscopic diagnosis, but laparoscopy may also lack sensitivity).

Investigations:

Women with suspected PID should be tested for gonorrhoea and Chlamydia. A positive result gives support to the clinical diagnosis of PID and reinforces the need to treat sexual partners. The absence of confirmed infection in the lower genital tract site does not exclude PID.

All patients should undergo:

- Ward urinalysis +/- MSU
- Urine pregnancy test
- Swab for chlamydia (+ gonococcus) - Testing for chlamydia & gonorrhoea should be ideally with an endocervical specimen for optimum sensitivity (blue aptima swab). If cervix is not visualised a vaginal swab (orange) is the alternative. It is however of lesser sensitivity for gonococci.

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- FBC and CRP
- HVS should be taken if a non-physiological discharge is present

Treatment

Empirical treatment is now recommended for suspected PID due to the low sensitivity and specificity of clinical diagnosis and the associated high morbidity.

Note: a negative lower genital tract swab does not exclude infection in the upper genital tract.

Systemically well patients may be managed as outpatients if there is no conflicting diagnosis.

Management of systemically well patients:

Outpatient antibiotic treatment should be commenced as soon as the diagnosis is suspected. Interactions between antibiotic therapy and hormonal contraception and other patient medications should be assessed and appropriate action taken.

Outpatient antibiotic treatment regimens:

- Oral ofloxacin 400 mg twice daily plus oral metronidazole 400 mg thrice daily for 14 days
- Intramuscular ceftriaxone 500 mg single dose, followed by oral doxycycline 100 mg twice daily plus metronidazole 400 mg thrice daily for 14 days
OR followed by 1 gm Azithromycin/week for 2 weeks.

In the outpatient setting, review at 72 hours is recommended, particularly for those with a moderate or severe clinical presentation.

A 14 day course of doxycycline will be dispensed from pharmacy if requested ie “please prescribe in full”.

Criteria for admission to Hospital:

- Surgical emergency cannot be excluded
- Clinically severe disease
- Tubo-ovarian abscess
- PID in pregnancy
- Lack of response to oral therapy
- Intolerance to oral therapy

Management of systemically unwell patients:

Early consultant involvement is essential. Inpatient antibiotic treatment should be based on intravenous therapy which should be continued until 24 hours after clinical improvement and followed by oral therapy.

Recommended regimens are:

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- (1) Ceftriaxone 2 g by intravenous infusion daily plus oral doxycycline 100 mg twice daily, followed by oral doxycycline 100 mg twice daily plus oral metronidazole 400 mg thrice daily for a total of 14 days
- (2) Intravenous clindamycin 900 mg three times daily plus intravenous gentamicin,* followed by either:
 - Oral clindamycin 450 mg four times daily to complete 14 days**OR**
 - Oral doxycycline 100 mg twice daily plus oral metronidazole 400 mg thrice daily to complete 14 days

(*Gentamicin should be given as a single daily dose of 5 mg/kg).

If gentamicin is used then serum drug levels and renal function should be monitored as per the trust guideline for the use of gentamicin in adults (Guideline Reg. no CA4048).

Other considerations:

Consideration should be given to removing an intrauterine contraceptive device (IUD) in women presenting with PID, especially if symptoms have not resolved within 72 hours.

Surgical treatment should be considered in severe cases or where there is clear evidence of a pelvic abscess. Surgery is especially recommended if the abscess is equal to or greater than 70 mm in any diameter.

Consideration should be given to ultrasound evidence of disease regression before discharge, based on clinical discretion.

Women with PID who are also infected with HIV should be treated with the same antibiotic regimens as women who are HIV negative. Women with HIV should be managed in conjunction with their GUM physician.

Follow-up

Follow-up is important to ensure symptoms have resolved, a review of investigation results and to carry out *contact screening* if necessary. All patients should have some form of follow-up arranged prior to discharge.

GUM Clinic

The following should prompt a referral to the GUM clinic:

- Strong suspicion of PID
- > 1 sexual partner in the last 12 months or a new partner in the last 3 months
- Age < 25yr

This group of patients should be advised **not** to have sexual intercourse until reviewed in the clinic and partners have been treated.

GP

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All other patients should be advised to see their GP within 2/52 of discharge and should receive advice about 'safe sex'.

Discharge Summary

PID is often a diagnosis of exclusion following admission to a Gynaecology ward. If there is a high clinical suspicion of PID please code 'PID' or 'probable PID'. Otherwise, list the main presenting symptoms on the discharge summary e.g. 'non-specific abdominal pain and vaginal bleeding'. This will help clinical coding to code these patients correctly and provide accurate data for audit etc

Auditable outcomes

Proportion of women receiving treatment with a recommended regimen – target 95%.

Acknowledgement

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References

1. Morcos R, Frost N, Hnat M et al. Laparoscopic vs clinical diagnosis of acute pelvic inflammatory disease. J Reprod Med 1993; **38**: 53-56
2. Metters J S et al Chlamydia Trachomatis: Summary and Conclusions of CMO's expert advisory group. London: Department of Health, 1998.
3. Management of acute pelvic inflammatory disease. Guideline 32 RCOG Press Nov 2008
4. Sexually transmitted infections : UK National screening and testing guidelines. August 2006. <http://www.bahh.org.uk>
5. UK National Guideline for the management of PID. British Association for sexual health and HIV (BASHH), June 2011.
6. CDC guidelines for treatment of PID, 2015.
7. Antibiotic therapy for pelvic inflammatory disease. Cochrane database of systematic reviews. Ricardo F Savaris, Daniele G Fuhrich, Rui V Duarte, Sebastian Franik, Jonathan Ross. April 2017.
8. Yuval Fouks, Aviad Cohen et al. Surgical Intervention in Patients with Tubo-Ovarian Abscess: Clinical Predictors and a Simple Risk Score. The Journal of Minimally Invasive Gynecology; Vol 26, No 3, March/April 2019: 535-543.