Management of Pelvic Inflammatory Disease (PID)

- Presence of inflammation and infection in the upper genital tract, and usually results from ascending infection from the vagina causing a spectrum of disease including endometritis, salpingitis, parametritis, oophoritis, tubo-ovarian abscess and/or pelvic peritonitis.
- Untreated PID is associated with high morbidity, with increased risk of long term sequelae pelvic pain/abscess, tubal factor infertility and ectopic pregnancy.
- May be symptomatic (varying from mild to severe) or asymptomatic. Even when present signs and symptoms lack sensitivity and specificity.
- Causative organisms include *N. gonorrhoeae*, *Chlamydia trachomatis*, *Garderella vaginalis*, anaerobes, coliforms and these are covered with empirical antibiotic treatment recommended below. Pathogen negative PID is common.
- Insertion of IUD increases risk of developing PID but only for 4-6 weeks after insertion and risk greater if pre-existing *N. gonorrhoeae* or *C. trachomatis* infection
- Higher risk if younger age (usually <25y) not using barrier contraception and with a history of new sexual partner
- *Taking a sexual history should include whether sexually active, recent change of partner, past history of STI and presence of abnormal vaginal discharge or bleeding.

Assessment: **History** (which should include sexual* and contraceptive histories) **Bimanual examination**

The following symptoms and signs are common (but not always) present:

- lower abdominal pain/tenderness (usually bilateral)
- temperature >38°C in moderate to severe disease
- deep dyspareunia
- abnormal vaginal bleeding including post coital or intermenstrual bleeding
- abnormal vaginal or cervical discharge often purulent
- adnexal tenderness/mass and/or cervical motion tenderness on bimanual examination

Differential diagnosis:

- Ectopic pregnancy
- Endometriosis – establish relationship between symptoms and menstrual cycle
- Functional pain – may be associated with long standing symptoms
- UTI – often associated with dysuria and/or frequency – refer to guidance
- IBS – disturbance in bowel habit and persistence of symptoms over a prolonged period are common
- Acute appendicitis – N&V occur in most patients
- Ovarian cyst complications – often very sudden onset
- Post natal endometritis– refer to separate guidance

REFERRAL FOR INPATIENT TREATMENT: Contact oncall Gynae team

- surgical emergency cannot be excluded
- clinically severe disease or sepsis – calculate NEWS2 score
- clinical signs of tubo-ovarian abscess
- lack of response or intolerance to oral therapy after 72 hours
- pregnancy

NO

OUTPATIENT INVESTIGATIONS:

- Full sexual health screen including HIV & syphilis serology
- MSSU for culture and sensitivity (red top boricon container)
- Urine pregnancy test • Urinalysis • FBC, CRP
- **Self (or clinician) taken vulvovaginal swab for chlamydia and gonorrhoea PCR is essential**
- Endocervical swab for gonorrhoea culture

OUTPATIENT TREATMENT: For 14 days

Preferred treatment for all but especially if < *18y or patient at high risk of gonorrhoea* (partner with gonorrhoea, sexual contact abroad, or gram negative diplococci on microscopy of endocervical swab):
IM Ceftriaxone 1g single dose
+
Doxycycline 100mg twice daily + Metronidazole 400mg twice daily

OR alternative treatment if gonorrhoea unlikely, or tested negative and preferred treatment contra-indicated/declined/not available
**ofloxacin 400mg twice daily+ metronidazole 400mg twice daily
If ofloxacin not available replace with **levofloxacin 500mg daily + metronidazole 400mg twice daily or **moxifloxacin 400mg daily monotherapy (moxifloxacin preferred if confirmed or suspected *M. genitalium* infection)

If treated in primary care and no improvement refer patient

Breastfeeding: use link for information or contact pharmacist for advice

Patients with an IUCD do not need to have this routinely removed.
Treatment should be provided as normal with follow up to review clinically.
Where an IUCD is removed, patients should be offered hormonal emergency contraception where relevant.

General Advice for Patient:

- Rest
- Analgesia
- Sexual abstinence until they and partner/s have completed treatment
- Provide written information leaflet
- Signpost to Sexual Health Clinic

**Quinolone warnings

YES

INPATIENT INVESTIGATIONS:

- As per outpatient +
- **if patient has sepsis**
  – lactate and blood cultures (prior to antibiotic therapy)
- Transvaginal scan if tubo-ovarian abscess suspected

INPATIENT TREATMENT:
IV Ceftriaxone 2g daily + IV Metronidazole 500mg three times daily
+ PO Doxycycline 100mg twice daily
(or IV Azithromycin 500mg daily if not able to take oral doxycycline)
Review IV antibiotics daily and follow **IV to oral switch criteria**
Step down to oral doxycycline 100mg twice daily
+ metronidazole 400mg twice daily to complete 14 days (IV + PO)

Severe penicillin allergy:
IV Clindamycin 900mg tds + IV Gentamicin as per local guidance
Step down to oral doxycycline and metronidazole as above

Pregnancy (rare in pregnancy – discuss with O&G):
IV Ceftriaxone 2g daily + IV Erythromycin 500mg four times daily
+ IV Metronidazole 500mg three times daily
Step down to oral erythromycin 500mg qds + oral metronidazole 400mg tds to complete 14 days (IV + PO)
Pregnancy and Severe penicillin allergy: IV Clindamycin 900mg tds + IV Gentamicin as per local **pregnancy guidance**. Step down to oral clindamycin 450mg qds or 600mg three times daily to complete 14 days (IV + PO)

Breastfeeding: contact pharmacist for advice
Patients with an IUCD: as per advice in outpatient box

References:
BASHH 2018 IUSTI 2017 CDC 2021

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Follow Up:

- Partner Notification: All current partners should be offered sexual health screening and treatment as contact. Patients should be advised to discuss with their partner who can present to sexual health or general practice.
- Review outpatients at 72 hours: failure to improve suggests need for further investigation or inpatient treatment
- Advise patient to seek review at 2-4/52 if not improving