PELVIC PAIN IN WOMEN/PID

Exclude ectopic pregnancy in all acute pelvic pain by doing a urinary pregnancy test

Key Changes

- ***M.genitalium* testing is now routine in suspected pelvic infection**
- **The negative predictive value of microscopy can be helpful in all cases, even if Ct/GC already excluded**
- **Ceftriaxone i.m. increases the efficacy of treatment in all cases**
- **Bloods sent with NaSH numbers are inaccessible to clinicians outside Sandyford, potentially delaying emergency care and wasting NHS resources**

Diagnosis

The diagnosis of pelvic inflammatory disease is clinical. A low threshold for therapy on empirical grounds is recommended because of the significant consequences of not treating. You cannot diagnose clinical pelvic infection without a pelvic examination.

Where a history is suggestive of PID **routine investigations** should consist of:

1. **Pregnancy test** (document in NASH near-patient test form)
2. **Speculum and bimanual pelvic examination** and documentation (NASH female examination form)
3. **Sexual health screen including microscopy, Ct/ GC NAAT, *M. genitalium* PCR and endocervical swab for GC culture.** (Taxi cervical slide and charcoal swab to lab if in Connect setting). Abnormal cervical discharge is associated with PID. Absence of cervical white cells on microscopy makes PID extremely unlikely (negative predictive value 95%, compared to positive predictive value just 17%).
   For *M.genitalium* testing place the Ct/GC samples in Box C and the BMS staff will add a red M gen additional test label – there is no need to take a second specimen.
4. **C-reactive protein (CRP)/ Full blood count (FBC)**. Elevated CRP or WBC supports diagnosis but is non- specific and usually only abnormal in moderate/ severe PID; They are a good indicator of treatment response if raised initially. Send using CHI labels with patient's permission.
5. If clinically unwell: perform and document **temperature, pulse and blood pressure** (NASH female examination form).

Symptoms and signs that may suggest PID:

ACUTE PID	CHRONIC PID
• Ill, toxic patient (Fever >38°C) • Severe pelvic pain • Deep dyspareunia • Bilateral adnexal tenderness • Cervical motion pain • Leucocytosis	• Bilateral lower abdominal pain • Deep dyspareunia • Adnexal tenderness • Cervical motion pain • Menstrual disturbance

Other useful criteria:

- Abnormal vaginal discharge (wet mount microscopy showing excess PMNs is associated with PID but may also be due to lower genital tract infection)
- Genital tract evidence of *N. gonorrhoea* or *C. trachomatis* (absence of infection at this site does not exclude diagnosis of PID)
- Transvaginal ultrasound findings of free fluid, thickened dilated tubes/tubo-ovarian abscesses

Other causes of acute pelvic pain

• Ectopic pregnancy *Pregnancy can occur without disturbance of menstrual pattern. A negative urinary βHCG means the primary cause of pain is not an ectopic pregnancy because rupture of the fallopian tube does not normally occur before 5 to 6 weeks when the βHCG would be positive.*	• Endometriosis • Rupture of corpus luteum cyst • Complication of ovarian cyst • Urinary tract infection or renal colic • Miscarriage (PDT would be positive) • Acute appendicitis or other intra-abdominal pathology

Other causes of chronic pelvic pain

• Endometriosis • Pelvic congestion syndrome. • Ovarian cyst • Diverticulitis/diverticulosis	• Cholecystitis • Duodenal ulcers or other abdominal pathology, e.g. constipation • Psychosomatic • Bladder pain syndromes

Management:

- It is likely that delaying treatment increases the risk of long term sequelae such as ectopic pregnancy, infertility and pelvic pain. Because of this, and the lack of definitive diagnostic criteria, a low threshold for empirical treatment of PID is recommended. Broad spectrum antibiotic therapy is required to cover the wide range of aerobic and anaerobic bacteria commonly isolated from the upper genital tract in women with PID.
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- Women who have had recent instrumentation of the genital tract eg hysteroscopy, endometrial ablation, evacuation of uterus, termination of pregnancy, egg retrieval etc are at higher risk of ascending infection caused by organisms such as coliforms. A high vaginal charcoal swab should be taken from the lateral vaginal wall.
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All patients should be advised to complete treatment regardless of CT and GC NAAT results

Acute pelvic pain with POSITIVE βHCG

When the location of the pregnancy is not known i.e. not yet had an ultrasound scan:

- If the client is clinically unstable, send urgently to the nearest hospital A+E unit by emergency ambulance
- If the client is in Sandyford central and clinically stable, liaise with the SRH Dr of Day (DoD) to arrange an urgent ultrasound scan to ascertain location of the pregnancy
- If the client is in a Connect or Satellite setting, and clinically stable, refer urgently to acute gynae unit or local early pregnancy unit

When the location of the pregnancy is already known to be intra-uterine, clients with acute pelvic pain should be assessed, and if unwell, referred to acute services as appropriate e.g. gynaecology, obstetrics, general surgery. Please discuss with SRH DoD

Suspected severe acute pelvic inflammatory disease (negative βHCG)

- If patient appears shocked or septicaemic (low BP, tachycardia, poor perfusion) arrange urgent hospital admission or dial 999.
- If clinically safe, do a full sexual health screen preferably with immediate microscopy and direct plating to exclude cervical gonorrhoea as this may alter care
- Admission to hospital advisable for initial IV antibiotics which should cover gonorrhoea and chlamydia.

For treatment of in- patient PID follow GGC gynaecology guideline
[CG] Pelvic Inflammatory Disease, Acute Management (nhsggc.org.uk) [Accessed September 2023]

Outpatient treatment

1st Line Therapy:

IM Ceftriaxone 1gm stat followed by oral doxycyline 100mg BD plus metronidazole 400mg BD 14 days.

2nd Line Therapy:

Oral ofloxacin 400mg twice daily *plus* oral metronidazole 400mg twice daily for 14 days **or** Oral moxifloxacin 400mg once daily for 14 days (1st line if Mycoplasma genitalium known cause of infection)

Quinolones should be avoided if high risk of GC and are also associated with other issues so are second line (see below).

NB1: Pregnancy- PID in pregnancy is rare but associated with maternal and fetal morbidity. Discuss the possibility of admission for parenteral therapy with receiving obstetrician for booked patients, and gynaecology for unbooked/first trimester women. Use of the recommended antibiotic regimens (listed above for non-pregnant women) in very early pregnancy (prior to a pregnancy test becoming positive) is justified by the benefits of treatment of PID at any stage of pregnancy being likely to outweigh any possible risks.

NB2: **Ofloxacin** can enhance warfarin effect. Caution if history of epilepsy or psychiatric disturbance. Discontinue immediately if signs of tendon damage. Oral iron reduces absorption of ofloxacin. Avoid strong sunlight / sunbeds with doxycycline and ofloxacin, discontinue if skin erythema. Warn re alcohol and metronidazole.

NB3: The evidence for whether an intrauterine contraceptive device should be left in situ or removed is limited. Removal of the IUD may be associated with better short term outcomes. The decision to remove the IUD needs to be balanced against the risk of pregnancy in those who have had otherwise unprotected intercourse in the preceding 7 days. Removal of the IUD should be considered if there is limited or no improvement to antibiotic therapy, and emergency oral contraception considered.

Discuss requirement of oral emergency contraception and ongoing contraception if needed.

NB4: Quinolones can also cause QT PROLONGATION: Certain medications including fluconazole, macrolide and quinolone antibiotics cause QT prolongation and should not be prescribed with interacting medications. Please use BNF Interaction Checker to ensure these medications are safe to prescribe for your patient and discuss with a senior colleague if necessary.

Analgesia

- Provide or prescribe appropriate analgesia

Patient Information

- Provide information e.g. BASHH leaflet https://www.bashhguidelines.org/media/1311/pid_pil_mobile-pdf.pdf

[accessed September 2032]

Partner Notification in suspected PID (MANDATORY)

- **All patients** should see a health adviser as soon as practicable.
- **No sex** at all until antibiotics complete and partner(s) treated.
- **Screen and treat** all current sexual partners epidemiologically with doxycycline 100mg BD for 7 days (substantially reduces risk of recurrence of PID).
- **If woman found to have an STI follow infection specific guidance for testing and treating of contacts**

Follow-up

- Review severe cases at 48 to 72 hours to ensure clinical improvement via Sandyford Central health adviser referral (SC SHA Referral). If no clinical improvement an urgent care slot should be arranged within 24 hours.
- Review mild/moderate cases in 2/52 by adding to Sandyford Central health adviser telephone clinic.
- If positive for GC or Mycoplasma TOC should be performed as per infection specific guidance.
- Repeat testing for gonorrhoea or Chlamydia, and *Mycoplasma genitalium* is appropriate in those in whom persisting symptoms, antibiotic resistance (gonorrhoea), compliance with treatment and/or partner notification indicate the possibility of persisting or recurrent infection.
- If symptoms and signs are persistent and chronic PID thought unlikely, referral to medical gynaecology can be offered. Ultrasound, endometrial biopsy, and referral for laparoscopy may be considered.
- If the history is suggestive of non-gynaecological pathology referrals should be made to appropriate surgical outpatients or back to general practitioner.
- Future contraceptive options: all women diagnosed with PID should receive information about future contraceptive options. If patient is clinically well consider reinsertion of IUD after 4 weeks of completion of treatment.
- A detailed explanation of PID should be given, with particular emphasis on the implications for their future reproductive health and that of their partner(s). The importance of partner notification should be emphasised. This should all be supported by clear written information.

References

British Association for Sexual health and HIV UK National Guidelines for the Management of Pelvic Inflammatory Disease: 2019 https://www.bashhguidelines.org/media/1217/pid-update-2019.pdf [Accessed Sept 2023]

Acute Pelvic Pain Management, Initial Management Gynaecology. NHS GGC Clinical Guideline (May 2018) [Accessed Sept 2023]
[CG] Acute pelvic pain: Initial Management, Gynaecology (nhsggc.org.uk)

Pelvic Inflammatory Disease, Acute Management. NHS GGC Clinical Guideline (November 2020) [Accessed Sept 2023]
[CG] Pelvic Inflammatory Disease, Acute Management (nhsggc.org.uk)

Appendix 1: How to reconstitute 1 gram ceftriaxone with lidocaine

To reduce the pain experienced by patients receiving intramuscular ceftriaxone the drug is administered with 1% lidocaine (lignocaine).

1. Take 1G vial of ceftriaxone powder.
2. Draw up 3.5ml lidocaine 1% into a syringe.
3. Reconstitute the 1G vial of ceftriaxone with 3.5ml of lidocaine 1%.
4. Draw up the reconstituted ceftriaxone solution from the vial into one syringe. This makes a total of 4.1ml.
5. Administer the 4.1ml solution of ceftriaxone 1gram by deep intramuscular injection. Well-developed muscles e.g. ventrogluteal, vastus lateralis and dorsogluteal can take up to 5mls volume.