GIG CYMRU NHS WALES

Bwrdd Iechyd Prifysgol Cwm Taf Morgannwg University Health Board

Guideline for the Diagnosis and Treatment of Pelvic Inflammatory Disease (PID)

Initiated By	Cwm Taf Morgannwg University Health Board Obstetrics and Gynaecology Directorate
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AUTHORSHIP, RESPONSIBILITY AND REVIEW

Author	Rebecca Davies	Ratification Date	January 2023
Job Title	Senior Nurse Gynaecology	Review Date	January 2026
Service Group	Women and Children	Clinical Director	Mr Mohammed Elnasharty
Service Lead	Mr Phillip White and Jonathan Pembridge	Directorate Manager	Hannah Lloyd

Table of Contents

BACKGROUND *3*

Guideline Definition 3

Purpose 3

Scope 3

Roles and Responsibilities 3

Training Requirements 3

Monitoring of Compliance 3

Complaints 3

Guidelines for the diagnosis and treatment of Pelvic Inflammatory Disease (PID) *4*

Introduction 4

Aeitology 4

Clinical Features and symptoms 4

Diagnosis 5

Investigations 6

Treatment regimens for PID 8

Pregnancy and PID 8

Criteria for admissions 8

Follow-ups 10

References *10*

BACKGROUND

Guideline Definition

Clinical guidelines are systemically developed statements that assist clinicians and patients in making decisions about appropriate treatments for specific conditions.

They allow deviation from a prescribed pathway according to the individual circumstances and where reasons can be clearly demonstrated and documented.

Purpose

To provide readily available recommendations on the diagnostic tests, treatment and health promotion principles for effective management of PID based on best available evidence.

Scope

For all staff, medical, nursing and clerical, to provide uniformity in the diagnosis, management and treatment of Pelvic Inflammatory Disease (PID)

Roles and Responsibilities

In seeking further advice on any uncertainties contained in this document, or if you feel that there is new or more updated advice it is your responsibility to contact the guideline author or Approval Group manager so that any amendments can be made.

The guideline Approval Group is responsible for disseminating this guideline to all appropriate staff.

The guideline author or a named alternative is responsible for updating the guideline with any amendments that they become aware of or are highlighted to them.

All health professionals are responsible to ensure that the guideline is utilised effectively, and to ensure that they are competent and compassionate in the implementation of it.

Training Requirements

There is no mandatory training associated with this guideline.

Monitoring of Compliance

- By audit and review of complaints relating to miscarriage diagnosis and management.
- The Governance Department will collate any complaints and distribute to the relevant individuals for comments, and share any learning points.
- The Service Lead will oversee any governance issues, make relevant recommendations to the directorate, and advise the Clinical Director or the directorate of any matters that require implementation.
- The Health Board reserves the right, without notice, to amend any monitoring requirements in order to meet any statutory obligations or the needs of the organisation

Complaints

All complaints should try to be resolved with the patient during any contact to avoid escalation. There concerns should be listened to and documented. If it is not possible to address any concerns at the time, or if the complaint is of a serious nature, the patient's complaint should be discussed with the consultant in charge for the day, or the patient should be given details of how to raise a formal complaint via the local governance department.

Guideline for the Diagnosis and Treatment of Pelvic Inflammatory Disease (PID)

Introduction

Pelvic Inflammatory Disease (PID) is a result of the ascending spread of infection from the genital tract resulting in endometritis, salpingitis, adnexitis, and tubo-ovarian abscess with/without peritonitis. It accounts for 1 in 60 GP consultations and the long term sequelae include subfertility, ectopic pregnancy and chronic pelvic pain.

Aetiology

PID is usually the result of infection ascending from the endocervix causing endometritis, salpingitis, parametritis, oophoritis, tubo-ovarian abscess and/or pelvic peritonitis.

Neisseria Gonorrhoeae and Chlamydia trachomatis have been identified as causative agents but account for only a quarter of cases in the UK, whilst Gardnerella vaginalis, anaerobes (including Prevotella, Atopobium and Leptotrichia) and other organisms commonly found in the vagina may also be implicated. Mycoplasma Genitalium has also been associated with upper Genital tract infection in women. It is important to note that an absence of infection does not exclude PID.

Clinical Features/ Symptoms:

- Lower abdominal pain which is typically bilateral but can also be unilateral in some cases
- Deep dyspareunia;
- Abnormal Vaginal Discharge/Bleeding including post coital, inter- menstrual and menorrhagia
- Fever
- Secondary dysmenorrhoea

Signs:

- Temperature >38˚C;
- Lower abdominal tenderness which is usually bilateral;
- Adnexal tenderness on bimanual examination;
- Cervical motion tenderness.

Mild PID

Women with PID may be asymptomatic and it is only opportunistic screening (for example at colposcopy or following termination of pregnancy) that reveals infection with causative agents. Other women may present with mild pelvic discomfort or even abnormal intermenstrual bleeding. Signs include general lower abdominal tenderness with bilateral adnexal tenderness and cervical motion tenderness on examination with no evidence of a competing diagnosis. Systemically, however, these women are reasonably well.

Moderate PID

Women are symptomatic with the above, but the symptoms and elicited signs are more pronounced.

Severe PID

Women are systemically unwell, with fever, signs of guarding and rebound on palpation of the pelvis, with the possible formation of a tubo-ovarian abscess.

Diagnosis

PID may be symptomatic or asymptomatic. Even when present, clinical symptoms and signs lack sensitivity and specificity. A diagnosis of PID should be made on clinical grounds. Do not delay making a diagnosis and initiating treatment whilst waiting for the results of laboratory tests. Negative swab results do not rule out a diagnosis of PID.

Take a history:

- Ask about the symptoms experienced (if any). Suspect PID if any of the following symptoms are present:
- Pelvic or lower abdominal pain (usually bilateral but can be unilateral).
- Deep dyspareunia particularly of recent onset.
- Abnormal vaginal bleeding (intermenstrual, postcoital, or 'breakthrough') which may be secondary to associated cervicitis and endometritis.
- Abnormal vaginal or cervical discharge as a result of associated cervicitis, endometritis, or bacterial vaginosis. This is often very slight and may be transient, especially with chlamydial infection.
- Right upper quadrant pain due to peri-hepatitis (Fitz–Hugh–Curtis syndrome).
- Secondary dysmenorrhoea.
- Ask about the possibility of pregnancy.

Examine the woman.

Look for:

- Lower abdominal tenderness (usually bilateral).
- Adnexal tenderness (with or without a palpable mass), cervical motion tenderness, or uterine tenderness (on bimanual vaginal examination).
- Abnormal cervical or vaginal mucopurulent discharge (on speculum examination).
- A fever of greater than 38°C, although the temperature is often normal.
- Arrange investigations as appropriate (see Investigations below)

Differential Diagnosis:

- Ectopic pregnancy - pregnancy should be excluded in all women suspected of having PID.
- Acute appendicitis - nausea and vomiting occur in most patients with appendicitis but only 50% of those with PID. Cervical movement pain will occur in about a quarter of women with appendicitis.
- Endometriosis - the relationship between symptoms and the menstrual cycle may be helpful in establishing a diagnosis.
- Complications of an ovarian cyst- torsion, haemorrhage, rupture.
- Functional pain (pain of unknown aetiology) - may be associated with longstanding symptoms.
- Irritable Bowel Syndrome
- Urinary Tract Infection

Investigation

All sexually active women who are potentially fertile should be offered a pregnancy test to exclude ectopic pregnancy

Swab Taking

All women with suspected PID should have a speculum examination and should be screened for Chlamydia Trachomatis, Neisseria Gonorrhoeae and Mycoplasma Genitalium (if testing is available) (BASHH, 2019). Therefore the following swabs should be taken:

- Dry charcoal swab – do a high vaginal swab, then with the same swab do an endocervical swab – mark on form HVS and ECS. Following discussion with the Consultant in Microbiology & Infectious

Diseases, this should reliably pick up Gonorrhoeae from the endocervix and any pathogens from the high vagina.

- Endocervical swab – Chlamydia and Gonorrhoeae is tested by using the Nucleic Acid Amplification testing (NAAT) kit which has a reported detection sensitivity of >90%. The BD ProbTecTM Cleaning – Collection and Transport System contains a large cleaning swab, a smaller specimen swab and a Transport medium bottle. Remove the excess mucus from the cervical os with the large cleaning swab and discard. Insert the sampling swab into the cervical canal (the smaller swab) and rotate for 15-30 seconds. Withdraw the swab carefully, avoiding contact with the vaginal mucosa. Place the swab into the transport tube, making sure the cap is tightly secured. Label the tube and send to the laboratory.

Urine Testing

Urine samples can be utilised if a speculum examination is not possible.

To collect the urine sample:

- The patient should not have urinated for at least 1hr prior to specimen collection.
- Collect the specimen in a sterile, plain white capped universal container.
- The patient should collect the first 15-60 ml of voided urine (the first part of the stream- NOT midstream).
- Cap and label the sample with patient identification and date/time collected.

Storage and Transport

Store at 2-8ºC, and transport to the laboratory as soon as possible. If refrigeration is not available samples must be received in the laboratory within 24 hrs.

Other Investigations to Consider

- Full blood count (FBC),
- C Reactive Protein(CRP),
- Urea & Electrolytes' (U&E),
- Blood cultures (if febrile)
- Mid-Stream specimen of Urine (MSU),
- Ultrasound scan of the pelvis
- MRI/CT of pelvis (may be necessary to distinguish PID from alternative diagnoses).

Treatment regimens for PID

Mild or Moderate PID

https://viewer.microguide.global/CWMTAF/Abx#content,da1fcf80-d46e-49a8-94f4-2bdbb9a43807

Severe PID

https://viewer.microguide.global/CWMTAF/Abx#content,21f94808-1ef0-48fe-8d5f-0eb8f59d87bb

Pregnancy and PID:

In pregnancy, PID is associated with an increase in both maternal and fetal morbidity; therefore, parenteral therapy is advised, taking into account local antibiotic sensitivity patterns, although none of the suggested evidence-based regimens is of proven safety in this situation.

There is insufficient data from clinical trials to recommend specific regimen and empirical therapy with agents effective against gonorrhoea, C. trachomatis and anaerobic infections. It should be considered and taken into account local antibiotic sensitivities patterns; contact microbiology for advice.

Criteria for Admission:

Patients requiring parenteral therapy, observation, further investigation and/or possible surgical intervention are likely to be admitted.

A surgical emergency cannot be excluded:

- Lack of response to oral therapy;
- Clinically severe disease;
- Tubo-ovarian abscess;
- Intolerance to oral therapy;
- Pregnancy
- Ectopic pregnancy cannot be ruled out
- Symptoms/signs are severe (nausea and vomiting, fever >38oc
- Signs of pelvic peritonitis
- Women are unwell and there is diagnostic doubt

Follow up of the patient and her partner needs to be arranged with the GUM clinic, both to ensure clinical resolution and contact tracing.

For advice regarding partner notification please follow the links below.

https://www.bashhguidelines.org/media/1217/pid-update-2019.pdf (On page 15)

Empiric treatment of PID should be initiated in sexually active young women and other women at risk for STDs if the following minimum criteria are present and no other cause(s) for the illness can be identified:

- Uterine/adnexal tenderness; or
- Cervical motion tenderness.

In patients with both pelvic tenderness and signs of lower genital tract inflammation, the diagnosis of PID should be considered. Treatment may be indicated based on a patient's risk profile.

For women with Intrauterine Copper Devices (IUDS) or Intrauterine Systems (IUS) with mild to moderate PID the IUD/IUS may be left in situ but a review should be performed after 48-72 hours and the IUD/IUS removed if significant clinical improvement has not occurred. The decision to remove the IUD/IUS needs to be balanced against the risk of pregnancy in those who have had otherwise unprotected intercourse in the preceding 7 days. Emergency hormonal contraception following removal of an IUD/IUS may be appropriate for some women in this situation.

General advice:

- Rest is advised in those with severe disease
- Appropriate analgesia should be provided
- Intravenous therapy is recommended for patients with severe disease, pyrexia>38oC, clinical signs of tubo-ovarian abscess, signs of pelvic peritonitis
- A detailed explanation of their condition with particular emphasis on the long-term implications for the health of themselves and their partner(s) should be provided, reinforced with clear and accurate written information. For patient information leaflets, please follow link below https://www.bashhguidelines.org/media/1116/pid_pil_print_2015.pdf

When giving information to patients, the clinician must consider the following:

- An explanation of what treatment is being given and its possible side effects
- That following treatment fertility is usually maintained but there remains a risk of future infertility, chronic pelvic pain or ectopic pregnancy.

- Clinically more severe disease is associated with greater squealae
- Repeat episodes of PID are associated with an exponential increase in fertility issues
- Patients should be advised to avoid oral and genital intercourse until they, and their partner(s), have completed their treatment to avoid reinfection
- Safe sexual practices as barrier methods greatly reduces the risk of reinfection as well as protection from other sexually transmitted infections.

Follow-Up

Review at 72 hours is recommended for those with moderate or severe symptoms. Failure to improve suggests the need for further investigation, parenteral therapy and/or surgical intervention.

If initial testing for Gonorrhoea was positive, repeat testing should be performed after 2-4 weeks. If initial testing for Chlamydia was positive, repeat testing after 5 weeks is appropriate for women who have persistent symptoms, where compliance with oral antibiotics and/or tracing of sexual partners indicate the possibility of persisting or recurrent infection and in women who are pregnant.

References

BASHH (2019), United Kingdom National Guideline for the Management of Pelvic Inflammatory Disease,

Available at https://www.bashhguidelines.org/media/1217/pid-update-2019.pdf

Pelvic inflammatory disease CKS (2022), National Institute of Clinical Excellence, Available at: https://cks.nice.org.uk/topic/pelvic-inflammatory-disease/