Summary

This guideline will provide evidence based guidance on the management of Pelvic Inflammatory Disease

A low threshold for empirical treatment is recommended due to lack of definitive diagnostic criteria and a delay in treatment likely to increase risk of long term complications

Negative swabs do not rule out Pelvic inflammatory disease (PID)

Consider offering empiric antibiotics

Mild and moderate disease can be treated as outpatient

Follow-up under genitourinary medicine (GUM) services
1. Aim/Purpose of this Guideline

1.1. This guideline will provide evidence based guidance on the management of Pelvic Inflammatory Disease.

1.2. Pelvic inflammatory disease (PID) is usually the result of an ascending infection from the endocervix resulting in the formation of endometritis, salpingitis, parametritis, oophoritis, tubo-ovarian abscess +/- pelvic peritonitis. i

1.3. Chlamydia trachomatis and Neisseria gonorrhoea are only implicated in 25% of PID cases. i 10-45% of endocervical Neisseria gonorrhoea and 10-30% of endocervical Chlamydia trachomatis will develop into PID. ii

1.4. Organisms commonly found in the vagina such as Gardnerella vaginalis, anaerobes and Haemophilus influenza have been implicated. Mycoplasma genitalium has also been associated with PID. iii

2. The Guidance

2.1. Risk factors ii
   - < 25 years old
   - Early first coitus
   - Multiple sexual partners
   - Recent change in sexual partner (<3 months)
   - Personal or partner history of sexual transmitted disease
   - Recent termination of pregnancy
   - Recent insertion of IUCD (<6 weeks)
   - HSG/IVF/ISCI

2.2. Complications i
   - Tubal infertility
   - Risk of ectopic pregnancy
   - Chronic pelvic pain
   - Perihepatitis and pelvic adhesions

2.3. Symptoms i,ii
   - Lower abdominal pain (often bilateral)
   - Deep dyspareunia (recent onset)
   - Abnormal uterine bleeding (Inter-menstrual/ post-coital)
   - Abnormal vaginal discharge (can be slight and transient)
   - Right upper quadrant pain (secondary to Fitz-Hugh Curtis syndrome- 10-20%)

2.4. Signs i,ii
   - Bilateral lower abdominal pain
   - Cervical motion tenderness
   - Adnexal tenderness
   - Temperature >38°C
PID may be asymptomatic and clinical symptoms and signs have a poor PPV (65-90%).

2.5. **Differential Diagnosis**

- Ectopic pregnancy
- UTI
- Complications of an ovarian cyst (torsion or rupture)
- Acute appendicitis
- Endometriosis
- Functional pain
- Bowel disorders including inflammatory bowel disease and irritable bowel syndrome

2.6. **Investigations**

- Urinary pregnancy test
- ‘Triple swabs’
  - Vulvovaginal swab for Chlamydia trachomatis and Neisseria gonorrhoea NAAT. (CTNG Panther swab)
  - Cervical charcoal swab for Neisseria gonorrhoea culture.
  - High vaginal charcoal swab if vaginitis (and consider HVS for TV culture if vaginitis associated with purulent discharge).
- Bloods
  - Recommend HIV & syphilis serology
  - Consider FBC and CRP (if raised this supports diagnosis but is non-specific) \(^1,2\)

2.7. **Management**

2.7.1. A low threshold for empirical treatment is recommended due to lack of definitive diagnostic criteria and a delay in treatment likely to increase risk of long term complications (as above). \(^1\) Negative swabs do not rule out PID. \(^2\)

2.7.2. Consider offering empiric antibiotics if: \(^1\)

- <25y/o and sexually active and/or recent change in sexual partner
- Plus new onset of bilateral lower abdominal pain with local tenderness on bimanual examination (cervical motion tenderness +/- adnexal tenderness)
- Negative urinary pregnancy test.

2.7.3. Mild and moderate disease can be treated as outpatient. Inpatient criteria: \(^1\)

- Surgical emergency cannot be excluded
- Severe disease clinically e.g. clinical signs of tubo-ovarian abscess, pelvic peritonitis, vomiting, or pyrexia (>38°C)
- No clinical response to oral treatment or not tolerated

2.7.4. NB If intra-uterine device (IUD/S) in situ, the Faculty of Sexual and Reproductive Healthcare (FSRH) recommend starting antibiotics and review at 72 hours, with removal of device if no improvement. There is little RCT evidence on treatment of PID with intra-uterine device in
situ, but evidence does suggest better short term clinical outcomes if removed. If sexual intercourse without a barrier method has occurred within the previous 7 days, there may be a risk of pregnancy if IUD/S is removed - hormonal emergency contraception and follow-up pregnancy testing may be appropriate.

2.8. Antibiotic Treatment

2.8.1. Outpatient regimens-
   - IM ceftriaxone 500mg stat then oral doxycycline 100mg BD + metronidazole 400mg BD for 14 days
     OR
   - Oral ofloxacin 400mg BD + oral metronidazole 400mg BD for 14 days (only if resistant gonorrhea can be excluded).

2.8.1.1. NB ofloxacin should not be used in patients at high risk of gonococcal PID due to quinolone resistance. If metronidazole not tolerated in mild or moderate PID it can be discontinued.

2.8.2. Inpatient regimens-
   - IV ceftriaxone 2g OD + IV/PO doxycycline 100mg BD.
     o Oral switch to oral metronidazole 400mg BD + doxycycline 100mg BD for total 14 days
     OR
   - IV clindamycin 900mg TDS + IV gentamicin (2mg/kg loading dose) followed by 1.5mg/kg TDS (or 7mg/kg OD).
     o Oral switch to either oral clindamycin 450mg QDS or oral doxycycline 100mg BD + oral metronidazole 400mg BD to complete 14 days.

2.8.3. If alternative regimes are required due to allergies please see BASHH guideline or discuss with microbiology and GUM senior doctor.

2.8.4. NB- IV antibiotics should be continued for 24hrs after clinical improvement then oral switch. IV doxycycline is not licensed in UK but is available from IDIS world medicines.

2.9. Advice for patients

2.9.1. Explain condition, treatment (possible side effects) and complications.
2.9.2. Obtain consent to phone call and/or e-mail from GU +/- discuss the need to screen her sexual contacts for infection.
2.9.3. Advise to avoid sexual intercourse until patient and partner have been treated.
2.9.4. Give patient information leaflet and contact details for GU services.
2.10. Follow-up under GUM services (see flow diagram for referral pathway)-

2.10.1. Telephone call /e-mail to patient in first 72hrs to initiate partner notification, check is any problems with treatment and education.

2.10.2. Follow up as necessary depending on results/ adherence to treatment and clinical response. Usually will be at 1-2weeks, either in clinic or by telephone.

3. Monitoring compliance and effectiveness

<table>
<thead>
<tr>
<th>Element to be monitored</th>
<th>Audit the compliance to guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>Miss Lisa Verity, Consultant O&amp;G</td>
</tr>
<tr>
<td>Tool</td>
<td>Ad hoc monitoring of guidance as part of routine audit activity</td>
</tr>
<tr>
<td>Frequency</td>
<td>Annual review at the Audit and Governance meeting</td>
</tr>
<tr>
<td>Reporting arrangements</td>
<td>Audit and Governance meeting</td>
</tr>
<tr>
<td>Acting on recommendations and Lead(s)</td>
<td>Audit and Governance meeting</td>
</tr>
<tr>
<td>Change in practice and lessons to be shared</td>
<td>Required changes to practice will be identified and actioned within 3 months. A lead member of the team will be identified to take each change forward where appropriate. Lessons will be shared with all the relevant stakeholders</td>
</tr>
</tbody>
</table>

4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the ‘Equality, Diversity & Human Rights Policy’ or the Equality and Diversity website.

4.2. Equality Impact Assessment

The Initial Equality Impact Assessment Screening Form is at Appendix 2.
## Appendix 1. Governance Information

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Pelvic Inflammatory Disease Clinical Guideline V1.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Issued/Approved:</td>
<td>October 2018</td>
</tr>
<tr>
<td>Date Valid From:</td>
<td>February 2019</td>
</tr>
<tr>
<td>Date Valid To:</td>
<td>February 2022</td>
</tr>
<tr>
<td>Directorate / Department responsible (author/owner):</td>
<td>Miss Lisa Verity, Consultant O&amp;G</td>
</tr>
<tr>
<td>Contact details:</td>
<td>01872 252685</td>
</tr>
<tr>
<td>Brief summary of contents</td>
<td>For all clinical staff working in the Division of women, children &amp; sexual health to provide evidence based guidance on the management of Pelvic Inflammatory Disease</td>
</tr>
<tr>
<td>Suggested Keywords:</td>
<td>Pelvic, Inflammatory, PID, Gynaecology, genitourinary medicine</td>
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<tr>
<td>Target Audience</td>
<td>RCHT  CFT  KCCG</td>
</tr>
<tr>
<td>Executive Director responsible for Policy:</td>
<td>Medical Director</td>
</tr>
<tr>
<td>Date revised:</td>
<td>New Document</td>
</tr>
<tr>
<td>This document replaces (exact title of previous version):</td>
<td>New Document</td>
</tr>
<tr>
<td>Approval route (names of committees)/consultation:</td>
<td>Obstetric &amp; Gynaecology Directorate meeting 14 November 2018</td>
</tr>
<tr>
<td>Divisional Manager confirming approval processes</td>
<td>Care Group General Manager</td>
</tr>
<tr>
<td>Name and Post Title of additional signatories</td>
<td>Not Required</td>
</tr>
<tr>
<td>Name and Signature of Divisional/Directorate Governance Lead confirming approval by specialty and divisional management meetings</td>
<td>{Original Copy Signed}</td>
</tr>
<tr>
<td>Signature of Executive Director giving approval</td>
<td>Name: Caroline Amukusana</td>
</tr>
<tr>
<td>Publication Location (refer to Policy on Policies – Approvals and)</td>
<td>Internet &amp; Intranet  ✓ Intranet Only</td>
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Version Control Table

<table>
<thead>
<tr>
<th>Date</th>
<th>Version No</th>
<th>Summary of Changes</th>
<th>Changes Made by (Name and Job Title)</th>
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<tbody>
<tr>
<td>October 2018</td>
<td>V1.0</td>
<td>Initial Issue</td>
<td>Jess Leese O&amp;G Registrar</td>
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This document is to be retained for 10 years from the date of expiry. This document is only valid on the day of printing

Controlled Document
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Appendix 2. Initial Equality Impact Assessment Form

This assessment will need to be completed in stages to allow for adequate consultation with the relevant groups.

<table>
<thead>
<tr>
<th>Name of the strategy / policy / proposal / service function to be assessed</th>
<th>Directorate and service area: Observations and Gynaecology (Obs and Gynae)</th>
<th>Is this a new or existing Policy?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelvic Inflammatory Disease Clinical Guideline V1.0</td>
<td></td>
<td>New</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Name of individual completing assessment:</th>
<th>Miss Lisa Verity</th>
<th>Telephone: 01872 252730</th>
</tr>
</thead>
</table>

1. **Policy Aim**

   **Who is the strategy / policy / proposal / service function aimed at?**

   Standardised best practice for all clinical staff working in the Division of women, children & sexual health for the management of Pelvic Inflammatory Disease

2. **Policy Objectives**

   As above

3. **Policy – intended Outcomes**

   As above

4. **How will you measure the outcome?**

   See section 3

5. **Who is intended to benefit from the policy?**

   All obs & gynae patients

6a. **Who did you consult with?**

   Workforce | Patients | Local groups | External organisations | Other
   ---|---|---|---|---
   X | | | | |

   **b). Please identify the groups who have been consulted about this procedure.**

   Obstetric & Gynaecology Directorate meeting

   **What was the outcome of the consultation?**

   Guideline agreed 14 November 2018
7. The Impact

Please complete the following table. **If you are unsure/don’t know if there is a negative impact you need to repeat the consultation step.**

<table>
<thead>
<tr>
<th>Equality Strands:</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
<th>Rationale for Assessment / Existing Evidence</th>
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</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td>x</td>
<td></td>
<td>No areas indicated</td>
</tr>
<tr>
<td>Sex (male, female, trans-gender / gender reassignment)</td>
<td></td>
<td></td>
<td>x</td>
<td>No areas indicated</td>
</tr>
<tr>
<td>Race / Ethnic communities / groups</td>
<td></td>
<td></td>
<td>x</td>
<td>No areas indicated</td>
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<tr>
<td>Disability - Learning disability, physical impairment, sensory impairment, mental health conditions and some long term health conditions.</td>
<td></td>
<td></td>
<td>x</td>
<td>Those with any identified additional needs will be referred for additional support as appropriate - i.e to the Liaison team or for specialised equipment. Written information will be provided in a format to meet the patient and their family’s needs e.g. easy read, audio etc</td>
</tr>
<tr>
<td>Religion / other beliefs</td>
<td></td>
<td></td>
<td>x</td>
<td>No areas indicated</td>
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<tr>
<td>Marriage and Civil partnership</td>
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<td>No areas indicated</td>
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<tr>
<td>Pregnancy and maternity</td>
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<td>No areas indicated</td>
</tr>
<tr>
<td>Sexual Orientation, Bisexual, Gay, heterosexual, Lesbian</td>
<td></td>
<td></td>
<td>x</td>
<td>No areas indicated</td>
</tr>
</tbody>
</table>

You will need to continue to a full Equality Impact Assessment if the following have been highlighted:

- You have ticked “Yes” in any column above and
- No consultation or evidence of there being consultation - this excludes any policies which have been identified as not requiring consultation. or
- Major this relates to service redesign or development

8. Please indicate if a full equality analysis is recommended. [ ] Yes [ ] No [x]

9. If you are not recommending a Full Impact assessment please explain why.

No areas indicated
Keep one copy and send a copy to the Human Rights, Equality and Inclusion Lead
c/o Royal Cornwall Hospitals NHS Trust, Human Resources Department, Knowledge Spa,
Truro, Cornwall, TR1 3HD

This EIA will not be uploaded to the Trust website without the signature of the
Human Rights, Equality & Inclusion Lead.

A summary of the results will be published on the Trust’s web site.

Signed __  Miss Lisa Verity ________________
Date ___30 Jan 3019______________
Symptoms and signs of PID (e.g. Bilateral abdominal pain, cervical motion tenderness, bilateral adnexal tenderness, +/- vaginal discharge or bleeding)

Negative urinary pregnancy test

Swabs
- Vulvo-vaginal swab for CT/GC (CTGNPanther NAAT test)
- Cervical charcoal swab for gonococcal culture and sensitivities
- Vaginal charcoal +/- TV culture if vaginitis
- Bloods
- HIV & Syphilis. Consider FBC & CRP.

Severe PID/ High risk

Inpatient regime:
IV ceftriaxone 2g OD + IV/PO doxycycline 100mg BD.
- Oral switch to oral metronidazole 400mg BD + doxycycline 100mg BD for total 14 days
IV clindamycin 900mg TDS + IV gentamicin (2mg/kg loading dose) followed by 1.5mg/kg TDS (or 7mg/kg OD).
- Oral switch to either oral clindamycin 450mg QDS or oral doxycycline 100mg BD + oral metronidazole 400mg BD to complete 14 days.

Mild/moderate PID

Outpatient regime:
IM ceftriaxone 500mg stat then oral doxycycline 100mg BD + metronidazole 400mg BD for 14 days
- Oral ofloxacin 400mg BD + oral metronidazole 400mg BD for 14 days (if resistant gonorrhea can be excluded).

Educate patient re condition & treatment.
Consent taken for phone call +/- e-mail from GU team and confirm contact number/e-mail address.
Warn patient not to have sexual intercourse on discharge from hospital, even with a condom
Provide patient with RCOG PID information leaflet

Maxims referral
Plus phone call/ email to GUM
Tel- 01872 255077 Email: rch-tr.Adminsexualhealth@nhs.net

Phone call to patient from GU team within 72 hours, to advise re partner notification and treatment
Follow up appointment organised as required.

Follow up in GU clinic or by telephone at 1-2 week with:
- Results
- Confirm symptom improvement and compliance with antibiotics
- Complete partner notification
- Arrange any follow-up tests as required.
- Referral back to OG if chronic pelvic pain at 3 months for consideration of laparoscopy