Ectopic Pregnancy
Emergency Clinic Guideline
(GL1061)

Approval

<table>
<thead>
<tr>
<th>Approval Group</th>
<th>Job Title, Chair of Committee</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gynaecology Clinical Governance</td>
<td>Chair, Gynaecology Clinical Governance</td>
<td>15th February 2019</td>
</tr>
</tbody>
</table>

Change History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Author, job title</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>July 2016</td>
<td>Jayne Waite, Sister</td>
<td>New Guidance Document</td>
</tr>
<tr>
<td>2</td>
<td>January 2018</td>
<td>Baljinder Chohan, O&amp;G Consultant</td>
<td>Reviewed in line with current NICE/RCOG guidance</td>
</tr>
</tbody>
</table>

Author: Baljinder Chohan  
Date: February 2019  
Job Title: O&G Consultant  
Review Date: February 2021  
Policy Lead: Urgent Care Group Director  
Version: V2.0 ratified 15/2/19  
Location: Corporate Governance shared drive – GL1061
Contents

1.0 Purpose .................................................................................................................. 3
2.0 Scope ..................................................................................................................... 3
3.0 Roles and responsibilities .................................................................................. 3
4.0 Introduction ......................................................................................................... 4
5.0 Diagnosis ............................................................................................................ 4
5.1 History ................................................................................................................ 4
5.2 Observations ....................................................................................................... 4
5.3 Examination ....................................................................................................... 5
5.4 Investigations ..................................................................................................... 5
5.5 Management of confirmed ectopic pregnancy .................................................. 6
  5.5.1 Conservative management ......................................................................... 6
  5.2.2 Surgical management ................................................................................. 7
5.3 Consent for Laparoscopy .................................................................................... 7
5.4 Follow-up ........................................................................................................... 8
Table 1. Flowchart for management of ectopic pregnancy ..................................... 9
6. References ............................................................................................................ 10
1.0 Purpose

This guidance has been developed in line with NICE Pathway for Management of Ectopic Pregnancy.

The aim of this guidance is to provide high quality, efficient service and care for the patients attending the RBH’s Emergency Clinic (EC) with ectopic pregnancy. The Trust is committed to the provision that is fair, accessible and meets the needs of all individuals.

2.0 Scope

For all staff, medical, nursing and clerical, to provide uniformity of conservative and surgical management options for patients attending the EC with ectopic pregnancy.

The provision of evidence based high quality management of patients from referral to discharge from the EC.

3.0 Roles and responsibilities

The team consists of:

- **Emergency gynaecology/ Early pregnancy consultants:**
  - To ensure that all junior doctors understand the content of the protocol and are able to follow the guidelines in ensuring that patients are managed sensitively and effectively through this process.
  - To work with lead nurse to ensure that the protocol is reviewed regularly and updated to reflect any changes to current guidance.

- **Lead Sister for Emergency Gynaecology/Early Pregnancy Clinic – Sister Jayne Waite**
  - Co-ordinate training of all staff to ensure that protocol is utilised effectively.
  - To ensure that all patients within the Emergency Gynaecology Clinic and/or ward who are diagnosed with an ectopic pregnancy are given appropriate support and guidance through diagnosis and treatment.
  - To work alongside Consultant Lead to review protocol regularly and update as necessary to reflect changes in current national guidance.

- **All Doctors and Nurses working within the Gynaecology Unit**
  - All staff to provide competent, effective and compassionate care for women diagnosed with an ectopic pregnancy.
4.0 Introduction
The incidence of ectopic pregnancy has remained static over recent years but it remains the leading cause of maternal death in the first trimester. With the widespread availability of early pregnancy units and high resolution transvaginal scanning (TVS), the number of early, stable ectopic pregnancies diagnosed has increased, leading to a wider selection of treatment options. These include conservative, medical and surgical management.

5.0 Diagnosis
5.1 History
Consider ectopic pregnancy if a patient presents with a positive pregnancy test and:

- Lower abdominal pain, particularly unilateral
- Vaginal bleeding - may be absent, light or brown discharge
- Nausea/vomiting
- Faintness
- Shoulder tip pain
- Diarrhoea
- Asymptomatic but with one or more of the following risk factors:
  - History of ectopic pregnancy/Pelvic Inflammatory Disease (PID)/Tubal surgery
  - Known tubal damage / blockage
  - Subfertility
  - IUD (failure)
  - Sterilisation (failure)
  - Previous abdominal surgery
  - Extremes of reproductive age

5.2 Observations
- Temperature, pulse and blood pressure (BP) are recorded for all women presenting to the EC.
- Fit, young women can lose up to 40% of their circulating blood volume before effects are seen on their pulse and blood pressure.
- Tachycardia usually precedes a fall in blood pressure but some ruptured ectopic pregnancies have a vasovagal effect, causing a bradycardia.

Author: Baljinder Chohan
Date: February 2019
Job Title: O&G Consultant
Review Date: February 2021
Policy Lead: Urgent Care Group Director
Version: V2.0 ratified 15/2/19
Location: Corporate Governance shared drive – GL1061
5.3 Examination

**General**
(i) Does the patient appear pale?
(ii) Are the peripheries cold and "shut down"?
(iii) Can the patient mobilise freely?

**Abdominal**
(i) Is the abdomen distended?
(ii) Pain - may be unilateral and localised or generalised if rupture has occurred and there is a significant haematoperitoneum.
(iii) Guarding and rebound tenderness.

**Consider pelvic examination at the discretion of the clinician**
(i) Presence of pain / how examination tolerated?
(ii) Site of pain.
(iii) Cervical excitation.
(iv) Does uterus feel enlarged, appropriate to the number of weeks' gestation?
(v) Is there a palpable adnexal mass?

5.4 Investigations

**Laboratory**
(i) Full blood count (FBC).
(ii) Group and Save (G&S) or Group and Cross match 4 units (G&XM) – dependent on observations and clinical presentation.
(iii) ßhCG (repeat after 48 hours), progesterone.

**Ultrasound**
(i) If >6 weeks' by dates at first presentation.
(ii) If patient presents with pain.
(iii) If suboptimal (<66%) increase in ßhCG over 48 hours, regardless of absolute values.

- The concept of combining USS with measurements of serum ßhCG using a discriminatory zone of 1000-1500 U/l has long been described (6).
- Many ectopic gestations never reach a ßhCG above these cut offs.
- Tubal rupture can occur at levels below these cut offs.

*If a woman has significant pain on questioning or examination of the ßhCG has risen sub optimally (see above) the next step is to perform a TVS.*
5.5 Management of confirmed ectopic pregnancy

For summary flow chart of conservative, medical and surgical management – see Table 1 (page 8). For medical management – see separate guidance (CG623 Medical Management of Ectopic Pregnancy).

5.5.1 Conservative management

Introduction

Less than 10% of the ectopic population diagnosed in high risk, tertiary referral Early Pregnancy Units (EPUs) is estimated to be suitable for conservative management.

Inclusion criteria:

(i) Patient is clinically stable
(ii) Patient is willing and able to comply with follow up
(iii) Initial $\beta hCG < 1,000$ U/l
(iv) $\beta hCG$ decreasing over 48 hours (by at least 50% from last HCG)
(v) Progesterone < 20 nMol/l
(vi) No blood/Free fluid in pelvis on ultrasound scanning

Anechoic free fluid is found in approximately 60% of early pregnancies. Blood has a "ground glass" appearance, caused by internal echoes on TVS. If there is any doubt about the nature of fluid described in the scan report, please discuss this with the ultra-sonographer who performed the scan or ask the Emergency Clinic (EC) consultant or On Call Consultant to review the images.

Management

- The decision to offer conservative management can only be made by the consultant on call or lead clinician for EC.
- Medical Notes of any patient having conservative management for their ectopic pregnancy must remain within the EC so easily accessible by all staff at any time.
- The patient needs to return for clinical review and repeat serum $\beta hCG$ testing once a week until the $\beta hCG$ is negative (<10U/l).
- If the patient experiences worsening pain, faintness or shoulder tip pain, she must contact EC directly or call an ambulance.
- If the $\beta hCG$ level becomes static or is not declining or the patient has worsening symptoms – the patient should be seen and assessed and then discussed with the EC consultant or the On call consultant, with consideration of another scan and then switching management to either the medical or surgical pathway,
dependent on the clinical circumstances.

Follow up

− The patient should be kept under review until the serum ßhCG is <10U/I.
− All women should be advised to contact EC to arrange an early scan at six weeks' gestation in any future pregnancy because of the increased risk, over the background risk, of a further ectopic pregnancy.

5.5.2 Surgical management

Background

− Laparoscopy should be reserved for treatment and not to make a diagnosis.
− Clinical, TVS and biochemical data should provide the diagnosis in the majority of cases of suspected ectopic pregnancy.
− An Early Pregnancy Unit's "false positive" laparoscopy rate is a nationally recommended, auditable standard (8)

Inclusion criteria

(i) Criteria for conservative or medical management not met.
(ii) Failed conservative or medical management.
(iii) Direct inspection of the pelvis indicated (known tubal disease subfertility).
(iv) Heterotopic pregnancy.
(v) Live ectopic.

Exclusion criteria

These are all relative contra-indications:

(i) Interstitial (cornual) or cervical pregnancy.
(ii) Multiple previous abdominal procedures.
(iii) Raised Body Mass Index (BMI), particularly in conjunction with other risk factors for anaesthesia and surgery.

5.6 Consent for Laparoscopy

In addition to consent for laparoscopy, patients should also consent to:

− Laboratory analysis to confirm the diagnosis
− Mortuary blessing and cremation in conjunction with RBH policy of sensitive disposal of early pregnancy remains pathway.
Method of operation

Laparoscopy is the treatment of choice unless:

(i) The patient is cardiovascularly compromised to the extent that they cannot tolerate a pneumoperitoneum.

(ii) The patient has had multiple previous abdominal procedures or has a raised BMI (relative contra-indications).
   - Patients should be counselled that if they have a second fallopian tube and this is normal, the tube with the affected pregnancy will be removed (salpingectomy).
   - Salpingectomy decreases the risk of a further ectopic pregnancy and does not significantly reduce the chances of a further intra-uterine pregnancy, providing the remaining tube is normal.
   - Anti-D is required if the patient is Rhesus D Negative.

5.7 Follow-up

- If the patient and on call operating team agree to perform a salpingostomy (removal of the pregnancy but leaving the tube) the patient must have the ßhCG checked on Day 0 and 48 hours later to ensure a significant drop in ßhCG (at least 50%), and then attend EC weekly for serum ßhCG testing until the ßhCG is negative (<10U/l). This is to exclude the presence of residual trophoblast.

- If a patient is found to have other gynaecological disease at the time of laparoscopy e.g. hydrosalpinx, a follow up appointment should be made in GOPD.

- Ask the patient to contact EC for an early scan at 6 weeks' gestation in any future pregnancy because of the increased risk, over the background risk, of a further ectopic pregnancy.

5.8 Negative laparoscopy

If the patient has a negative laparoscopy for a presumed ectopic pregnancy then, as with conservative management of ectopic pregnancy, the ßhCG should be tested on Day 0 and 48 hours later to ensure a significant drop in ßhCG (at least 50%), and then attend EC weekly for serum ßhCG testing until the ßhCG is negative (<10U/l). If there is not a significant decrease in ßhCG levels or the patient becomes/continues to be symptomatic, the patient should be discussed with the EC or on call consultant.
Table 1. Flowchart for management of ectopic pregnancy

Registrar on-call to review patient.

Discuss case with consultant on call.

Conservative management

- Patient fulfils ‘Inclusion criteria’ for conservative management – see 5.3.1
  - Consultant on call decision
  - Keep record in Emergency Clinic Clinical review & βhCG x1 per week.
  - If βhCG not decreasing or
    - Patient clinically unwell: →Instigate medical or surgical management, as clinically indicated.

Surgical management

- Patient fulfils ‘Inclusion criteria’ for surgical management – see 5.3.2
  - Registrar books patient on theatre priority list
  - FBC/G&S or XM
  - Consent for laparoscopy and sensitive disposal of pregnancy tissue

Medical management

See separate guidance

- Nurse co-ordinator to arrange admission and
- Request hospital notes
6. **NICE QUALITY STANDARDS**

- **Statement 1.** Women referred to early pregnancy assessment services are seen by the service at least within 24 hours of referral.

- **Statement 2.** Women who are referred with suspected ectopic pregnancy or miscarriage are offered a trans-vaginal ultrasound scan to identify the location and viability of the pregnancy.

- **Statement 3.** Women with a suspected miscarriage who have had an initial trans-vaginal ultrasound scan are offered a second assessment to confirm the diagnosis.

7. **References**

6.1 Guy’s and St Thomas’ Emergency Gynaecology Unit Guideline on the management of ectopic pregnancy, September 2015.


