5. INTRAPARTUM CARE

5.1 INDUCTION OF LABOUR

5.1.2 ARTIFICIAL RUPTURE OF MEMBRANES (ARM)

**Purpose**

Deliberate surgical rupture of the amnion and chorion membranes to:

- Induce labour. See Restricted Area Clinical Guidelines: Section B 5.1 Induction of labour (IOL).
- Augment labour. See also 5.8.3 Management of delay in the first stage of spontaneous labour.
- Provide information on fetal wellbeing from amniotic fluid volume and colour.
- Introduce monitoring devices e.g., fetal scalp electrodes or intrauterine pressure transducers.

**Key Points**

- There is limited evidence about the effects of using amniotomy/ artificial rupture of membranes (ARM) alone to induce labour in women with an unfavourable cervix. Amniotomy is only possible when the membranes are physically accessible by the clinician. For spontaneous labour, routine ARM has not been shown to shorten labour duration. It may reduce the frequency of dystocia during labour for some women, and shorten the second stage for women who have had ARM, however routine use of ARM is not recommended in healthy women progressing normally in labour.

**Potential Risks Associated with ARM**

- Infection (ascending)
- Cord prolapse

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**Quick Reference Guide**

1. Confirm the ARM **indication**, check for any contraindications to ARM, & the placental location.
2. Confirm the patient’s identification.
3. **Explain the procedure** to the woman, gain her consent, collect all the equipment & maintain privacy.
4. Encourage bladder emptying prior to the procedure.
5. Perform an abdominal palpation (fetal engagement/presentation) & auscultate the fetal heart.
6. **Position** the woman on an absorbent continence sheet in modified dorsal (with wedge) or lithotomy.
7. **Perform hand hygiene** & put on gloves, attend a vaginal examination (check cervical dilation/progress, fetal presentation/station/position, & that no contraindications/cord/vasa praevia present).
8. **Identify the membranes**, slide the amnihook down your fingers and rotate against the membranes; or use an amnicot on your finger and turn upwards to **break membranes**.
9. **Observe** the amniotic fluid (colour, quantity, odour, consistency).
10. **Assess** the fetal heart rate.

Note: This flowchart represents minimum care & should be read in conjunction with the following full guideline & disclaimer. Additional care should be individualised as needed.
• Fetal compromise
• Rupture of a vasa praevia

**RELATIVE CONTRA-INDICATIONS TO PERFORMING AN ARM**

• Placenta Praevia or Vasa Praevia (or antenatal suspicion of)
• Human Immunodeficiency Virus (HIV) (ascending infection risk)
• Active herpes lesions (ascending infection risk)
• Presenting part high³ and mobile or malpresentation e.g. transverse lie.

**CIRCUMSTANCES WHEN A SENIOR MEDICAL OFFICER SHOULD BE PRESENT FOR AN ARM**

• Low lying placenta
• High presenting fetal part
• Polyhydramnios

**EQUIPMENT**

• Amnihook or Amnicot
• Lubricating Gel
• Gloves
• continence sheet
• Lithotomy poles – used at the discretion of doctor/midwife
• Fetal scalp electrode – if required

**PROCEDURE**

<table>
<thead>
<tr>
<th>1</th>
<th>Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Maintain the woman’s privacy/ dignity. Explain the procedure to the woman, involving her in decisions¹ and confirm consent.¹ Ensure there is indication for ARM.¹</td>
</tr>
<tr>
<td>1.2</td>
<td>Check for any contraindications¹ and ultrasound results for placental position.</td>
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<tr>
<td>1.3</td>
<td>Ensure the woman’s bladder is empty.¹</td>
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<tr>
<td>1.4</td>
<td>Perform an abdominal palpation prior to the procedure.¹</td>
</tr>
<tr>
<td>1.5</td>
<td>Auscultate the fetal heart prior to the procedure.</td>
</tr>
<tr>
<td>1.6</td>
<td>Position the woman in a modified dorsal position (use a wedge), or lithotomy position. Apply a continence sheet beneath to absorb the liquor.</td>
</tr>
</tbody>
</table>

**ADDITIONAL INFORMATION**

If THE ARM IS BEING performed for induction purposes, ensure the induction consent form or induction sticker has been signed, and follow: Restricted Area Clinical Guideline Section B 5.1 Induction of Labour.

Placental position should be identified before a vaginal examination.

A palpation determines presentation and level of engagement. A well fitting presenting part assists in prevention of cord prolapse.

Supine hypotension may occur if the woman lies on her back with the gravid uterus occluding the inferior vena cava and aorta.¹
## PROCEDURE

### 2.1 Perform a vaginal examination (VE) to:

1. Confirm the fetal presentation and station
2. Determine the position of the fetus
3. Exclude any contraindication to performing an ARM, e.g. high head, malpresentation, or cord presentation
4. Assess cervical dilation/ labour progress

Although an ARM is not painful as the membranes have no nerve endings, the vaginal examination may cause discomfort for the woman.

The midwife/doctor should exclude the presence of cord presentation and vasa praevia prior to attempting ARM.

### 2.2 Identify the cervical os and membranes.

- **Using an Aminihook:**
  - Slide the instrument alongside the fingers with the hook facing downwards, and then rotate the hook to face upwards to tear the membranes.
- **Using an Amnicot:**
  - Apply the amnicot over the middle or index finger and face it downwards when inserting into the vagina, then turn the hook upwards to tear the membranes.

Membranes lying in front of the fetal head.

Do not excessively scratch. Check for amniotic fluid after one or two well applied movements of the amnicot.

### 3 Post procedure

#### 3.1 Observe the amniotic fluid for:

- Colour
- Odour
- Consistency
- Quantity

Document & inform medical staff of any abnormalities in the colour, odour or consistency of the amniotic fluid. See also Clinical guideline 5.6.5 Meconium stained amniotic fluid.

A Singer’s test may be done on blood stained liquor if there is any concern about fetal bleeding from a vasa praevia. An APTS test can be ordered urgently from haematology.

#### 3.2 Assess FHR:

- With initial continuous electronic fetal monitoring.
- Intermittent auscultation should then be used unless indication for continuous monitoring.

As ARM can affect FHR, auscultation after is important to detect any changes which may indicate cord compression or cord prolapse.

Avoid interruptions to the initial monitoring period (e.g. toilet/ shower).

After initial FHR assessment, the choice of intermittent or continuous monitoring depends on individual medical, obstetric & fetal circumstances.

See Clinical guideline 5.6 Intrapartum fetal heart rate monitoring for ongoing frequency.

#### 3.3 Inform the woman of findings and replace the wet continence sheet.

Ensure the woman is dry and comfortable.
### PROCEDURE

<table>
<thead>
<tr>
<th>3.4</th>
<th>Document¹:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Time of ARM</td>
</tr>
<tr>
<td></td>
<td>• Vaginal examination findings</td>
</tr>
<tr>
<td></td>
<td>• Colour amniotic fluid</td>
</tr>
<tr>
<td></td>
<td>• Maternal and fetal observations</td>
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</tbody>
</table>

See Clinical Guideline 5.8.2 Use of a partogram. Progress can be documented on the CTG⁰, partogram and MR250 progress notes as appropriate.

<table>
<thead>
<tr>
<th>3.5</th>
<th>Maternal observations (in active first stage):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Temperature 2 hourly (1 hourly if febrile)</td>
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<tr>
<td></td>
<td>• Pulse &amp; amniotic fluid 1/2 hourly</td>
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<tr>
<td></td>
<td>• Blood pressure 2 hourly.</td>
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<tr>
<td></td>
<td>• Oxygen saturation with each set of vital signs.</td>
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</tbody>
</table>

Fever, chills, uterine tenderness, foul smelling vaginal discharge and fetal tachycardia may indicate maternal infection.¹

More frequent vital sign observations may be necessary if outside of normal ranges.

| 3.6 | Continue maternal care e.g. assess bladder, diet, mobility, pain management, progress. |

For continued management see Clinical Guidelines Section B 5.8.1 Care of a woman during the First Stage of labour.

### REFERENCES (STANDARDS)


### RESPONSIBILITY

<table>
<thead>
<tr>
<th>Policy Sponsor</th>
<th>HoD Obstetrics</th>
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<tbody>
<tr>
<td>Initial Endorsement</td>
<td>September 2001</td>
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<tr>
<td>Last Reviewed</td>
<td>May 2014</td>
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<tr>
<td>Last Amended</td>
<td></td>
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