Pre-term

Prelabour Rupture of Membranes (P-PROM)

Speciality: Maternity
Approval body: Antenatal Forum
Approval Date: 11 May 2018
Date of Review: 11 May 2021
**Diagnosis of preterm pre-labour rupture of membranes (P-PROM)**

Preterm pre-labour rupture of membranes (P-PROM) is the presenting symptom in around 20% of all women who develop spontaneous preterm labour. Although many women with preterm rupture of the fetal membranes go into labour fairly quickly thereafter, those who do not are at risk of infection ascending into the uterine cavity. Such infection can be very harmful to mother and baby, hence a diagnosis of P-PROM warrants careful clinical monitoring to facilitate early detection and treatment of in utero infection and chorioamnionitis. Accurate diagnosis of P-PROM is therefore important. (NICE 2015)

**DIAGNOSIS**

- The diagnosis is best achieved by maternal history followed by sterile speculum to check for pooling liquor.
- This should be done in the appropriate area by an obstetrician if under 37/40.
- High vaginal swab to be taken at first examination.
- Ultrasound examination is useful in some cases to help confirm the diagnosis, but should not be used as a stand-alone test.
- Digital examination should be avoided when PPROM is suspected.
DIAGNOSIS OF PPROM

Woman presents with suspected SROM

Maternal history taken. Baseline observations temperature, pulse and blood pressure.

Woman over 37/40

Follow SROM at term policy

Woman under 37/40

Assessment needed in AAU by obstetrician.

Sterile speculum examination to confirm SROM. Digital examination should be avoided when PPROM is suspected.

No evidence of SROM seen. Obstetrician to decide if to be treated as PPROM or discharged.

Confirmed SROM take High Vaginal swab (HVS) Bloods for CRP and FBC

Under 24/40 Fetal auscultation. Referral to fetal medicine

24-26/40 fetal heart auscultation consider corticosteroids

Over 26/40 CTG monitoring give corticosteroids

Ultrasound scan is useful but not to be used as a standalone diagnosis of PPROM

Admit to antenatal ward prescribe erythromycin 250mg QDS for 10 days. See ward management algorithm.
MANAGEMENT

Admit the patient and confirm diagnosis of PPROM as above
Antibiotic therapy - Erythromycin (250 mg orally 6 hourly) should be given for 10 days following the diagnosis of PPROM.
The current ABMU Antimicrobial Guideline for PPROM suggests Clindamycin 150mg qds for 10days if there is macrolide (erythromycin) allergy.
Antenatal Corticosteroids should be administered in women with PPROM reducing the risk of:

- Respiratory distress syndrome
- Intraventricular haemorrhage
- Necrotising enterocolitis

Observations:
Women should be observed for signs of clinical chorionamnionitis at least 12 hourly:
The frequency of maternal temperature, pulse and fetal heart rate auscultation should be between 4-8 hours.

- Maternal pyrexia
- Maternal tachycardia
- Leucocytosis (Rise in WCC)
- Uterine tenderness
- Offensive vaginal discharge
- Fetal tachycardia
- Maternal pyrexia (above 37.5°C), offensive vaginal discharge and fetal tachycardia (rate above 160 bpm) can indicate clinical chorionamnionitis.

SURVEILLANCE AND SUBSEQUENT MANAGEMENT WHILST AN INPATIENT.

- A fetus with a gestation under 24 weeks should be referred to fetal medicine consultant for opinion.
- Women with P-PROM and uterine activity who require intrauterine transfer or antenatal steroids should be considered for tocolysis.
- ECTG at least twice daily if over 26 weeks.
• A woman should **only** be considered for outpatient management if **strict criteria are met** and following Obstetric Consultant review.

The decision is based on:

- Gestation and presentation.
- Close accessibility to the hospital
- Absence of signs of threatened premature labour.
- No evidence of infection.
- Absence of maternal or fetal risk factors.
- Absence of fetal compromise.

• Outpatient monitoring should be considered only after a period of **48-72 hours** of inpatient observation.

• Women should be advised of the signs and symptoms of chorionamnionitis and under what circumstances they should seek specialist advice.

• Women being monitored at home for P-PROM should take their temperature (Thermometers to be given out on ward) at least twice daily or should be advised of the symptoms associated with infection.

• If not under a consultant referral to be done and ensure follow up appointment made by the antenatal ward and ultrasound scan arranged.

• Ensure ADAU appointments in place for ongoing management

• Give RCOG leaflet ‘When your water’s break early’

• Give ABM fetal movement leaflet which has contact numbers included.
CARE ON THE WARD

Maternal

On admission

4 hourly

Daily

Overnight

4 Hourly

BD

Full set of observations, vaginal loss, uterine activity/tenderness. VTE assessment/TED stockings.

NO BATHS (even if for pain relief due to the infection risk)

Temperature, pulse, vaginal loss, uterine activity / tenderness. If abnormal perform a full set of observations.

Blood Pressure, Bowel activity. If abnormal perform a full set of observations.

Observe and perform observations only as required between 22:00 and 06:00 (Allow women to sleep)

Fetal Movements. Report any reduction in movements or change in usual pattern of movements.

CTG if over 26 weeks, otherwise fetal heart rate if less than 26 weeks. If contracting/tightening CTG immediately. Report any abnormalities promptly.

Whilst an inpatient if reaches 24 weeks gestation and not had corticosteroids consider getting prescribed.
Continue giving oral erythromycin.
Give RCOG information “When your waters break early”.
Repeat FBC/CRP weekly.
CTG twice weekly (When week of no scan. If scanned no need for CTG unless reports AFM or AFI below 50mm.)
ON DISCHARGE FROM WARD

Ensure TTO of erythromycin 250mg QDS given (10 days total needed)

Ensure has been given RCOG information leaflet “When your waters break early”.
   Give ABMU fetal movement leaflet.

Advise women to have showers NOT baths.
   Avoid swimming
   Avoid vaginal intercourse

Wear sanitary pads not tampons, and advise woman to contact the hospital if she has abnormal smelling vaginal discharge, or abnormal appearance of the vaginal discharge.

Monitor fetal movements and notify the hospital ADAU/AAU if fetal movements are altered. Give out Fetal movement leaflet with contact numbers.

Notify and return to the hospital if any signs of threatened premature labour, vaginal bleeding, or abdominal pain/tenderness.

If feels unwell or cold/flu like symptoms to call ADAU/AAU.

Arrange follow up appointment with ADAU for ongoing management of PPROM. Give thermometer and advise woman to check their temperature at home twice a day. Give out table and explain how to complete. If reading above 37.5°C to contact AAU/ADAU for advice.

Ensure antenatal follow up appointment is made or in place prior to discharge from the ward.
**Ongoing management preterm pre-labour of rupture of membranes (PPROM) in ADAU**

Management care plan must be clearly documented in the woman’s hand held maternity notes by the Obstetrician. If not already under a consultant obstetrician a referral is to be made.

**Management in ADAU :**

- If < 36 weeks prophylactic Dexamethasone/Betamethasone 12mg administration (24 hours apart. Can be given 12 hours apart if threatened preterm labour or delivery imminent) if not already had at diagnosis
- ECTG twice weekly. (Only once a week if had an USS). If reports Altered fetal movements (AFM) commence CTG or EDF reduced/Absent commence CTG.
- Fortnightly USS for growth, Liquor volume and Doppler flow.
- Weekly USS if indicated such as oligohydramnios under 50mm or altered fetal movements.
- If reduced/abnormal EDF scan more frequently. (As per ABMU Guidelines).
- Blood tests once a week for FBC and CRP. (If has temperature or any other concerns can repeat bloods.
- Maternal pulse and temperature should be recorded at every visit
- Observation of colour & quantity of vaginal loss should be made at each visit. If PV loss has changed or is concerning for HVS (Preferred) or LVS as indicated be registrar.

Due to the increased risk of pre term delivery, arrangements should be made for parents to visit SCBU and if possible discuss prognosis with Paediatricians. Paediatric alert.

**In the event of abnormal results or signs of infection arrange immediate referral to the Obstetrician.**

**Abnormal / Reportable Results**

- Maternal temperature ≥ 37.5°C
- Maternal pulse ≥ 100 bpm
- Positive LVS or MSU
- Vaginal loss which is offensive and not clear
- WCC > 17 or 109/l or a WCC that is rising
- CRP >10mg/l
- AFI (<20mm)
- Fetal biometry < 10th centile
- EDF reduced/absent/reversed
- Non-reactive CTG
- Fetal tachycardia

**Timing of delivery**

In the absence of chorioamnionitis, delivery should be delayed until 37 weeks. This has shown to have better outcomes for the infant. (PPROMPT Trial 2016).

If a woman has preterm pre-labour rupture of membranes, induction of labour should not be carried out before 34 weeks unless there are additional obstetric indications (for example, infection or fetal compromise).

If a woman has preterm pre-labour rupture of membranes after 34 weeks, the maternity team should discuss the following factors with her before a decision is made about whether to induce labour, using vaginal PGE₂

- Risks to the woman (for example, sepsis, possible need for caesarean section)
- Risks to the baby (for example, sepsis, problems relating to preterm birth)
- Local availability of neonatal intensive care facilities.
- Membrane sweeps should not be given to women who have been diagnosed with PPROM. (NICE 2008)
ON GOING MANAGEMENT OF PPROM

Woman to attend ADAU twice a week

If under 24 weeks:
Maternal BP, Temperature, Respirations and pulse.
Auscultation of fetal heart
FBC/CRP once a week
Fortnightly ultrasound scan (Weekly if indicated)
Referral to fetal medicine consultant if not already done so. If reaching 24 weeks consider giving corticosteroids
Discuss PV loss at every visit
Registrar review if any abnormal results (see list)

If 26-28/40 weeks:
Maternal BP, Temperature, Respirations and pulse.
Attempt CTG (If unable to get a decent trace due to early gestation abandon CTG and document reason)
FBC/CRP once a week
Fortnightly ultrasound scan
Ensure consultant follow up in place
Check if had corticosteroids
Discuss fetal movements and PV loss at every visit
Registrar review if any abnormal results (see list)

If 28/40 weeks plus:
Maternal BP, Temperature, Respirations and pulse.
CTG at every visit (if had scan no need to CTG if normal unless reports AFM)
FBC/CRP once a week
Fortnightly ultrasound scan
Ensure consultant follow up in place
Discuss fetal movements and PV loss at every visit
Registrar review if any abnormal results (see list)
P-PROM SURVEILANCE FORM

01792 286111 (AAU 24 hr line) or 285214 (ADAU)

Please contact ADAU or AAU if temperature rises above 37.5°C, if you feel unwell or flu like symptoms, if your vaginal loss changes (becomes offensive or changes colour from clear fluid).

<table>
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### Maternity Services

**Checklist for Clinical Guidelines being Submitted for Approval by Maternity Quality & Safety Group**

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<td>Jayne Bowden</td>
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<tr>
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<td>Antenatal Forum</td>
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