CLINICAL PRACTICE GUIDELINE

Rupture of membranes- spontaneous

This document should be read in conjunction with the Disclaimer

[Interim guideline update March 2024]

Contents

Rupture of membranes <23weeks

Background information

This is a rare complication, affecting less than 1% of all pregnancies[1]. These pregnancies may result in extreme prematurity, or birth prior to viability. It is therefore associated with significant perinatal morbidity and mortality.

Mid-trimester preterm ROM may occur spontaneously or following an invasive procedure such as an amniocentesis or fetoscopy. The pathophysiology of spontaneous ROM is poorly understood but recognised risk factors include infection, multiple pregnancy, antepartum haemorrhage and cervical incompetence.[2] ROM following a medical procedure tends to be associated with a more favourable outcome[3].

Gestational age at the time of birth is strongly predictive of both immediate survival and long term morbidity. Early gestational ROM with an ongoing pregnancy is not without serious complication, which can include pulmonary hypoplasia, musculoskeletal abnormalities, fetal compromise and maternal and fetal infections[1, 4, 5].

The individual prognosis is difficult to predict and each case presents a unique management situation. A review of local data supports the previously known relationship between gestation at time of ruptured membranes and length of the latent period. The median latent period for very early pre-viable ROM (16-20 weeks) was 18 days, for later pre-viable ROM (20-24 weeks) the latent period was shorter with a median of 7 days. The rate of survival (specified as at the time of discharge) was 17% for ROM between 16 and 20 weeks and almost 40% for 20-24 weeks, with no evidence that increased obstetric intervention beneficially impacted the outcome of the pregnancy[6].

Several studies demonstrate large differences between mean and median latency which is likely explained by the majority of these pregnancies progressing to delivery soon after presentation. Approximately 40 to 70% of women will deliver in the first week following spontaneous pre-viable ROM[7, 8].

Key points

1. Digital vaginal examination should be avoided unless the woman is in active labour or birth is imminent [9].
2. Early review with senior obstetric and neonatal staff is imperative.
3. When a fetus is approaching the lower limits of viability, the obstetric team is responsible for identifying which patients remain at risk of preterm birth, noting when they enter the gestational zone where active treatment can be offered (at KEMH currently around 23 weeks) and seeking an antenatal consult by neonatology **[RCA recommendation Mar 2024]**.

Reminder to staff on the importance of comprehensively documenting complex conversations in the patient's medical record. [RCA recommendation Mar 2024]

- Corticosteroids should be considered in consultation with senior obstetric staff when the limit of viability is approached. A woman at risk of birthing around 23 weeks (recognising there may be clinical condition of the woman that make steroids not a safe option for her) consideration should be given to administering antenatal corticosteroids whilst awaiting a consult from neonatology.
- If not given, revisit decision at 24 weeks gestation and arrange a second consultation with neonatology if not delivered **[RCA recommendation Mar 2024**].

4. Clinical signs of chorioamnionitis or maternal sepsis is an indication for broad spectrum antibiotics and expedited birth of the baby
5. Antenatal corticosteroid administration should be timed according to the plan for neonatal management which may change around the limit of neonatal viability.
6. If relevant, see section in this document: Cervical Cerclage
7. Outpatient management can be considered if the woman elects for conservative management in the absence of any risk factors or maternal or fetal compromise.

Assessment, examination, investigations and diagnosis

Key components of initial assessment

- Confirmation of ROM including assessment for differential diagnoses
- Confirmation of gestation
- Assessment of maternal wellbeing
- Assessment of fetal viability

Diagnosis

- The diagnosis of mid-trimester preterm rupture of membranes, similarly to PPROM is made based upon history, physical examination and ultrasound.

History

- Time, type and colour of fluid, amount, presence of signs indicative of infection (odour, abdominal pain, fever).

Assessment for differential diagnosis

- Incontinence, physiological discharge, vaginal infection.

Physical examination

- Abdominal palpation, noting any abdominal tenderness.

Investigations

- Sterile speculum examination including LVS and STI screening if indicated.
- Mid-stream urine.

- Ultrasound examination for fetal growth, presence of fetal heart and AFI (this provides a useful adjunct but is not diagnostic) [9, 11]

Management - After confirmation of ROM in the absence of imminent birth

1. Admit for a minimum of 72 hours for conservative management:
    - Ward 6 if <20 weeks
    - Antenatal ward if 20+ weeks
    - Note: women who are 20+ weeks and at risk of imminent birth are to be admitted to the Labour and Birth Suite (LBS).
2. Maternal baseline assessment should include:
    - Temperature, heart rate, blood pressure, respiratory rate, oxygen saturations, presence of uterine activity, uterine tenderness, details of any vaginal discharge, fetal movements and fetal heart rate (FHR)- ask the woman if she wishes for the fetal heart to be heard.
    - Full blood count, C-reactive protein
3. Commence oral erythromycin 250mg QID for 10 days in women beyond 20 weeks' gestation[12]. There is no evidence currently to support the use of antibiotics in PROM prior to 20 weeks.
4. Maternal education and counselling by senior obstetric staff (Senior Registrar or Consultant):
    - Prognosis and fetal viability
    - Provide pamphlets to the woman and her family on:
        - Pregnancy of Uncertain Viability (publication ID: 0578)
        - Birth of your baby at 23 to 25 weeks
    - Options for management:
        - Continuing the pregnancy with conservative management.
        - Elective termination of pregnancy
        - Continuity of team care
    - To ensure all relevant referrals have been made
5. Ongoing observations:
    - 4 hourly temperature, heart rate, fetal movements, presence of uterine activity, uterine tenderness, details of any vaginal discharge.
    - Daily blood pressure and FHR unless otherwise indicated.

Referrals to consider

1. Neonatology
2. Social work

3. Psychological Medicine
4. Aboriginal Liaison Officer
5. Perinatal Loss Service
6. Pastoral Care

Considerations for discharge

Consider discharge after 72 hours if:

- No evidence of infection
- No signs of preterm labour
- Close accessibility to the hospital
- Woman well informed and understanding of situation and risks

Outpatient management

- Woman to monitor temperature daily and return if above 37 degrees
- Fortnightly USS
- Weekly antenatal clinic review
- There is no role for weekly CRP/FBC or vaginal swabs [13]
- Arrange admission if signs of chorioamnionitis or maternal sepsis
- Woman to return if bleeding, signs of preterm labour, abnormal vaginal discharge
- Woman should be advised to avoid vaginal intercourse, the use of tampons and swimming/bathing
- Consider re-admission around 23 weeks for 48-72 hours for observation, administration of steroids; re-review by neonatology and to allow management planning for the remainder of the pregnancy

Criteria for induction of labour

1. Presence of signs of chorioamnionitis or maternal sepsis*
    - Septic screen including blood cultures
    - Commence broad spectrum antibiotics. Refer to Sepsis Pathway and WNHS Clinical Guideline: Antimicrobial Stewardship: Sepsis and Septic Shock: Antibiotics for Adult Patients at KEMH
2. Confirmed fetal demise
3. Woman's request

Birth

- Birth prior to 32 weeks should occur at KEMH
- Birth beyond 32 weeks should occur at KEMH unless senior obstetric staff have reviewed the woman and approved the transfer of care to a local centre

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Related WNHS policies, procedures and guidelines

Neonatology guideline: End of Life Care: Palliative Care, Grief and Loss

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Preterm prelabour rupture of membranes (PPROM): 23-37 weeks

Suspected PPROM: MFAU quick reference guide (QRG)

Assessment

Note: Do not perform a digital examination as it increases risk of infection

1. Document time and history of the reported vaginal loss. Note type, colour, amount, and any abnormal smelling discharge.
2. Document maternal temperature, pulse and blood pressure (BP), respirations& oxygen saturation.
3. Perform an abdominal palpation noting:
   - Symphysis fundal height
   - Lie (if appropriate depending on gestation)
   - Presentation (if appropriate depending on gestation)
   - Uterine tenderness, irritability / activity
4. Auscultate the fetal heart rate and confirm presence of fetal movements.
5. If ≥24 weeks gestation, commence a CTG if there is any tenderness or uterine activity. If the woman is having uterine tightenings > 1:10 minutes see Clinical Guideline Preterm Labour, and notify the Obstetric Medical team.
6. Sterile speculum examination should be undertaken and swabs sent to microbiology. Check for pooling of amniotic fluid. If no visible pooling, use amnicator, and bedside scan to assess liquor volume.
7. **If PROM is confirmed** perform:
   - Low vaginal swab (LVS) for culture
   - Rectal swab (assessing for group B streptococcus)
   - Endo cervical swab (ECS) – may be collected for Chlamydia trachomatis or Neisseria gonorrhoea if needed. Perform a High vaginal Swab (HVS) if there is a purulent discharge.
   - Collect further pathology, including Full blood picture & CRP, and any booking antenatal bloods and pathology tests as required.
   - See section covering medical and midwifery management on confirmed PROM.
8. **If PROM not confirmed**:
   - Routine antenatal follow up with the usual health provider.
   - Instruct the woman to contact MFAU/ MGP/CMP if there are any further signs of PPROM or change in colour of discharge.

9. **If PROM unknown**: Arrange review by the Obstetric Registrar or above
10. Arrange ultrasound assessment of amniotic fluid volume if there is a history suggestive of PPROM in the absence of clinical signs.

PPROM medical and midwifery management

Key points

1. **Digital vaginal examination** should be avoided unless the woman is in active labour or birth is imminent.[1]
2. Sterile speculum examination should be undertaken and swabs sent to microbiology.
3. Between 23 and $23^{+}6$ weeks gestation the decision for corticosteroids administration is made following consultation between the Obstetric/Paediatric Medical Team and the parents.
4. A single course of antenatal corticosteroids should be considered for administration to women with PPROM without signs of infection between 23 and 36+6 weeks gestation.
5. If gestation is less than 34 weeks and in the absence of infection or complications and in circumstances when a course of corticosteroids has not been completed, tocolysis may be considered for threatened premature labour. The extension of steroid use to 36^{+6} weeks does not mean that tocolytic therapy is recommended past 34 weeks.
6. Broad spectrum antibiotic administration is recommended following PPROM to prevent infection and prolong the pregnancy in the short term, leading to a reduction in neonatal and maternal morbidity.[2, 3]
7. It is the Obstetric Consultant's decision, as to when to deliver a preterm baby. If expectant management continues >34weeks, women should be advised of the increased risk for chorioamnionitis and the decreased risk of respiratory problems in the neonate.[2]
8. Provide information on the risks of not delivering at the time of PPROM, including the risk of cord prolapse although this is rare (0.3%) and no more common with expectant management than with immediate delivery.[4] [New May 2018].
9. Infections of the baby can be insidious and unpredictable in PPROM. This must be clearly relayed to the woman. [New May 2018]
10. All CMP clients who report or suspect premature pre-labour rupture of membranes at < 37 weeks gestation must be referred immediately to their supporting hospital for an obstetric review.
11. Outpatient management of women with PPROM must be approved by a consultant obstetrician.

Diagnosis

Diagnosis of PPROM is usually made on the basis of maternal history, physical examination, and ultrasound examination.

Medical history

On admission note and document:

- Time of PPROM
- Type and colour of fluid loss
- Amount of fluid loss
- Signs of infection including 'offensive smelling' vaginal discharge, uterine tenderness, maternal fever, and fetal tachycardia

Assess for a differential diagnosis:

- Leakage of urine (incontinence)[5]
- Physiological vaginal discharge[5]
- Bacterial infection e.g. bacterial vaginosis[5]
- Cervical mucous (show) which may be a sign of impending labour[5]

Physical examination

Abdominal palpation:

- Depending on the gestation abdominal palpation may be appropriate to assess fetal size and presentation
- Note any abdominal tenderness which may indicate infection

Perform speculum:

- If pooling of amniotic fluid, provide care consistent with having PROM.[6]
- If pooling not observed perform amnicator test on vaginal fluid[6], and perform bedside scan for liquor volume.

Ultrasound examination

Arrange ultrasound examination for gestational age, fetal well-being, growth and estimation of amniotic fluid index (AFI). This provides a useful adjunct for diagnosis of oligohydramnios but is not diagnostic.[1, 7]

Management

Management is influenced by gestation age of the fetus, presence of infection, advanced labour and evidence of fetal compromise.

Chorioamnionitis is an indication for delivery.[1]

Observations

1. **On admission** – perform baseline assessment for temperature, pulse, BP, respirations, O_2 saturation, uterine activity or tenderness, vaginal discharge and urinalysis.

2. Ongoing observations include:

   4 hourly: Temperature, pulse, fetal activity, uterine activity and/or tenderness, and vaginal discharge – assess colour and amount. Note if discharge is 'offensive smelling' which may indicate infection.

   Twice daily: Fetal heart rate

   Daily: BP and assess bowel activity

Note: Unless otherwise instructed by the medical team night-time observations shall be performed at 2200 and 0600.

Notify the medical team of any deviation from the normal observations. The frequency of observations shall be adjusted according to the maternal and fetal clinical condition.

Pathology tests

On admission with PPROM collect:

- Full blood picture (FBP)
- C-reactive protein (CRP) if clinically indicated – while studies have shown a CRP is a poor **predictor** of chorioamnionitis, studies cannot conclude that it is ineffective in detection of chorioamnionitis or neonatal sepsis.[8, 9]
- Mid-stream urine (MSU)
- Low vaginal swab (LVS) and rectal swab for culture, including specific Group B Streptococcus testing
- Endocervical swab (ECS) if screening required for Chlamydia[10].

Ongoing follow-up pathology tests may be ordered by the medical team if clinically indicated:

1. FBP and/or CRP if there is suspicion of infection
2. LVS as required.

If a woman is unbooked to KEMH ensure a copy of all tests and results done in her pregnancy are available for review. Order booking antenatal bloods and pathology tests as required. See WNHS Clinical Guideline, O&G: Antenatal Care Schedule: Initial visit.

Maternal education

1. Instruct the woman about personal hygiene including changing her sanitary pad 4 hourly or as required. Tampons should not be used.
2. Alert the woman to look out for changes in colour and odour of the PV loss.
3. Encourage frequent leg exercises and instruct the woman to wear graduated compression stockings until full ongoing mobility is assured. Elastic compression stockings assist in the prevention of deep vein thrombosis.[11]
4. Arrange a Paediatric consultation for gestations under 32 weeks or in pregnancies with other complications. Discuss management of preterm birth

e.g. feeding methods, Neonatal Intensive Care Unit (NICU) admissions, risk factors and outcomes.

5. Inform the woman that infections of the baby can be insidious and unpredictable in PPROM. This must be documented in the clinical notes. [New May 2018]
6. Inform the woman about the Health Information Resource Services (HIRS).
7. Advise women that sexual intercourse should be avoided with PPROM.

Referrals

As required offer referral to specialist services:

- Neonatologist- if <32 weeks gestation or other complications such as IUGR
- Aboriginal Liaison Office
- Social worker
- Psychological Medicine
- Physiotherapy
- Parent Education
- Dietician
- Activities Co-ordinator

Fetal surveillance

There is no clear evidence on the optimum frequency to perform fetal surveillance tests for women with PPROM.[12] The frequency of tests is adjusted according to the maternal and fetal clinical situation.

Fetal Surveillance	Frequency
Fetal Heart Rate (FHR)	On admission perform an initial period of electronic FHR monitoring & uterine activity monitoring (at ≥ 23 weeks) on admission.[1] Thereafter, FHR twice daily (morning / evening).
Fetal Activity	4 hourly
Cardiotocograph Monitoring (CTG)	Weekly if the gestation is more than 30 weeks. Between 23 -25 weeks gestation CTG monitoring should be discussed with the senior registrar or consultant before commencing.
Ultrasound	If the fetus is more than 23 weeks

	gestation: • Weekly AFI, BPP, umbilical artery (UA) doppler studies • Fortnightly fetal biometry.

NOTE: Report any abnormalities to the Medical Obstetric Team.

Antibiotics

Certain antibiotic administration to women with PPROM provides short-term benefits by prolonging pregnancy and reducing risk for infection. It has been shown to reduce some markers of maternal and neonatal morbidity and although it does not equate to a statistically significant reduction in perinatal mortality, research indicates it makes it possible to reduce risk or mortality.[13] The demonstrated delay in onset of labour may allow sufficient time for effective prophylactic corticosteroids. **Avoid** the use of Amoxicillin/Clavulanate as it is associated with neonatal necrotising enterocolitis in the setting of PPROM.[1, 7, 13]

Antibiotic dosage

- Oral Erythromycin 250mg four times a day for 10 days.[1, 14]
- If the woman has a positive screening result for Group B Streptococcus (GBS) see Clinical Guideline Group B Streptococcal Disease for management.

Corticosteroids

Evidence supports the use of a single course of antenatal corticosteroids to accelerate fetal lung maturation in women at risk of preterm birth.[1, 15] This reduces the risk of neonatal death, respiratory distress syndrome, intraventricular haemorrhage, necrotising enterocolitis, infectious morbidity and the need for respiratory support and neonatal intensive care admission.[16, 17]

Corticosteroid dosage and administration

- Consider administering corticosteroids between 23 and 36+6 weeks gestation.[18]
- Between 23 and $23^{+}6$ weeks gestation the decision for corticosteroids administration is made following consultation between the obstetric/paediatric medical team and the parents.

See WNHS Clinical Guideline, O&G: Corticosteroids: Use of.

Amniocentesis

Routine amniocentesis should not be performed for women with PPROM.[2] In selected cases it may be an option for detecting subclinical infection.

Amnioinfusion

There is currently insufficient evidence to support amnioinfusion for PPROM.[12]

Progesterone

Progesterone should not be commenced in women with PPROM and should be discontinued in women using it prior to PPROM.[19]

Prophylactic tocolysis

Tocolysis may be used to allow a course of corticosteroids to be completed and if a women is requiring transfer to a tertiary hospital, but should not routinely be continued after arrival.[5] Use of tocolysis with PPROM does not significantly improve perinatal outcome.[2] Furthermore, the risk of chorioamnionitis is increased when tocolytic therapy is used and further research is required to guide its general use.[1, 20]

See also WNHS Clinical Guidelines: O&M: Complications of Pregnancy: Preterm Labour; including section: LBS QRG Nifedipine Tocolytic Therapy.

Cervical cerclage

Cerclage management

- Remove cerclage due to increased risk of maternal chorioamnionitis and neonatal mortality from sepsis (however antibiotics administration may decrease risks)[21].
- Delayed suture removal until labour occurs or when delivery indicated, is associated with an increased risk of maternal/fetal sepsis, therefore is not recommended.
- Send the cervical suture for culture, once removed.

Magnesium sulphate

If early preterm birth (<30weeks) is planned or expected within 24 hours, a magnesium sulphate infusion can be offered (if no contra-indications) to women for potential fetal neuro protection.[1]

See WNHS Clinical Guideline, O&G: Preterm Labour & Birth: Magnesium Sulphate for Neuroprotection of the Fetus, including QRG.

Outpatient management

The safety, cost and women's views about home management with PPROM has not been established through large studies.[1, 22]

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.

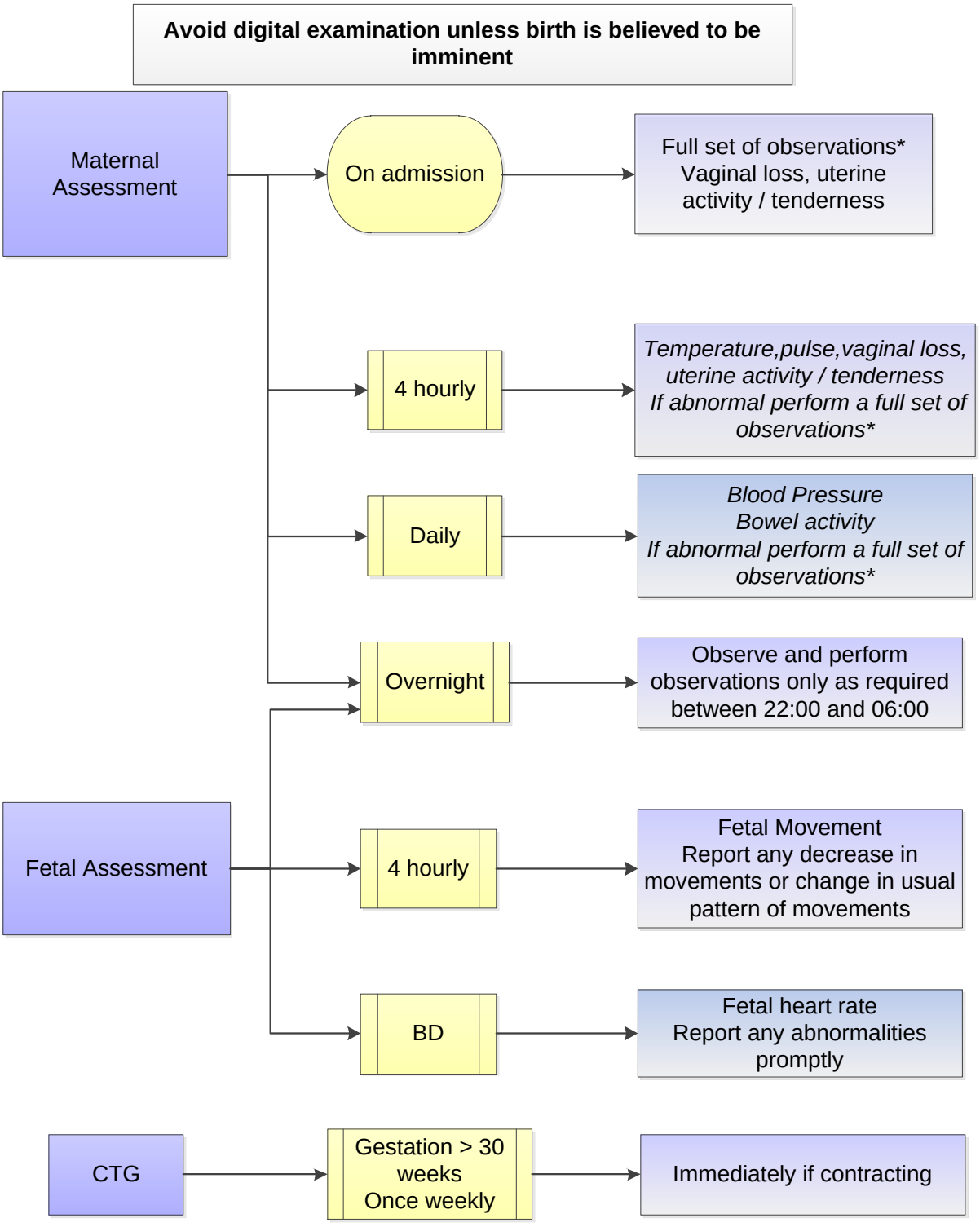
If a woman is deemed suitable for outpatient management she should be counselled to:

- Attend weekly outpatient visits to MFAU to monitor the clinical situation. See WNHS Clinical Guideline, O&M: Complications of Pregnancy: Preterm Prelabour Rupture of Membranes MFAU – QRG and / or
- Attend an antenatal clinic appointment for Obstetric Team Consultant review.
- Monitor her temperature. Instruction and demonstration of temperature taking procedure should be performed and documented prior to discharge. The woman is advised to contact KEMH if she notices any signs of infection or has a temperature of above 37 degrees Celsius.
- Wear sanitary pads not tampons, and return to hospital if she has abnormal smelling vaginal discharge, or abnormal appearance of the vaginal discharge.
- Avoid vaginal intercourse.
- Have showers rather than baths, and avoid swimming.
- Monitor fetal movements and notify the hospital (Maternal Fetal Assessment Unit- MFAU) if fetal movements are decreased.
- Notify and return to the hospital if any signs of threatened preterm labour, vaginal bleeding, or abdominal pain / tenderness.

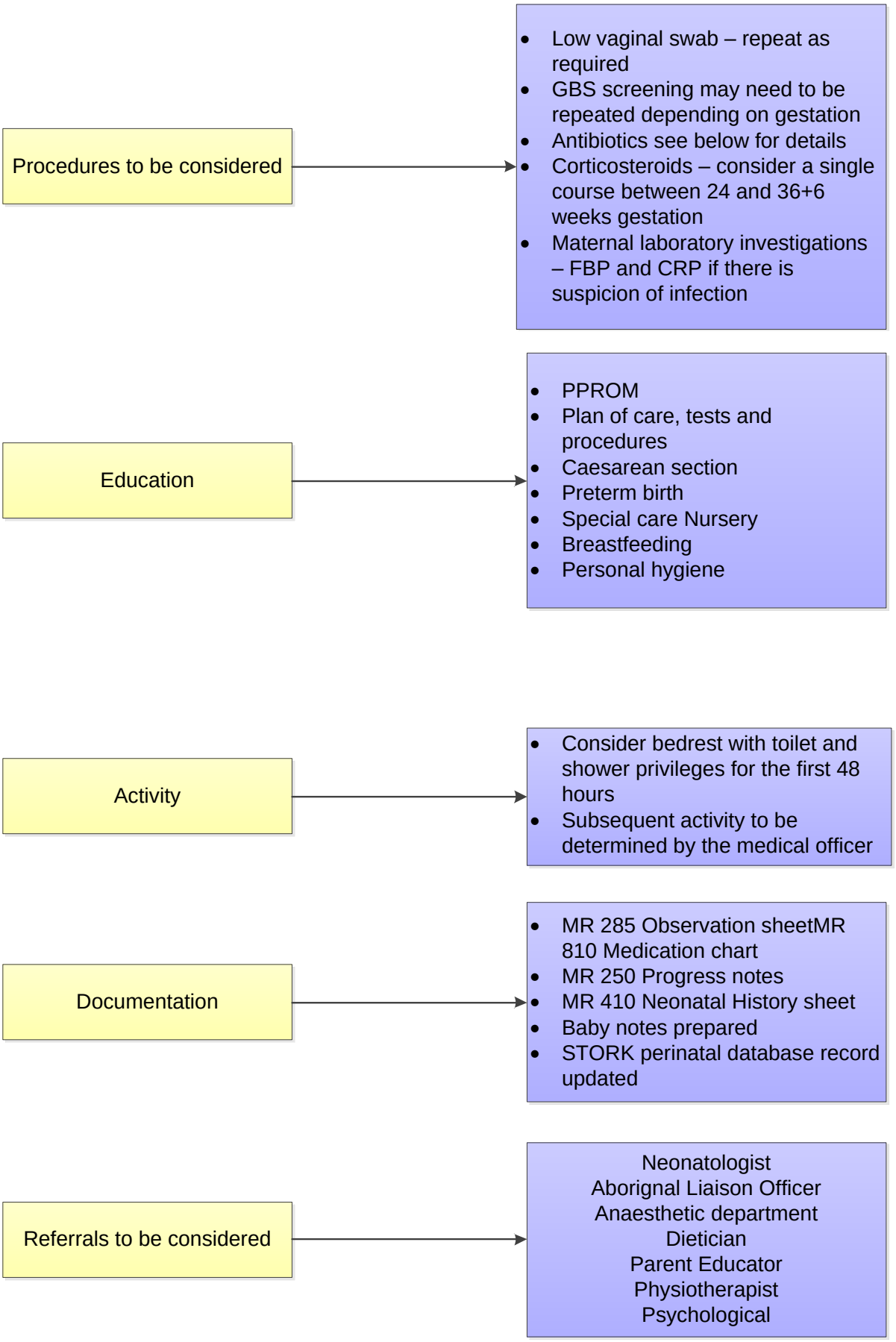
Future pregnancy

The KEMH Preterm Birth Prevention Clinic may be considered in future pregnancies for women with PPROM who continue on to have a preterm birth. The clinic aims to reduce the rate of preterm birth, and referral details can be found in The Whole Nine Months: Lasts a Lifetime booklet or website.

Confirmed PPROM: Care on the ward: QRG



* Full set of observations includes Blood Pressure, Pulse, Temperature, Respiration, O2 Saturation and conscious state.


Procedures to be considered
Low vaginal swab – repeat as required
GBS screening may need to be repeated depending on gestation
Antibiotics see below for details
Corticosteroids – consider a single course between 24 and 36+6 weeks gestation
Maternal laboratory investigations – FBP and CRP if there is suspicion of infection
Education
PPROM
Plan of care, tests and procedures
Caesarean section
Preterm birth
Special care Nursery
Breastfeeding
Personal hygiene
Activity
Consider bedrest with toilet and shower privileges for the first 48 hours
Subsequent activity to be determined by the medical officer
Documentation
MR 285 Observation sheetMR 810 Medication chart
MR 250 Progress notes
MR 410 Neonatal History sheet
Baby notes prepared
STORK perinatal database record updated
Referrals to be considered
Neonatologist
Aborignal Liaison Officer
Anaesthetic department
Dietician
Parent Educator
Physiotherapist
Psychological

Confirmed PPROM: Outpatient management: MFAU QRG

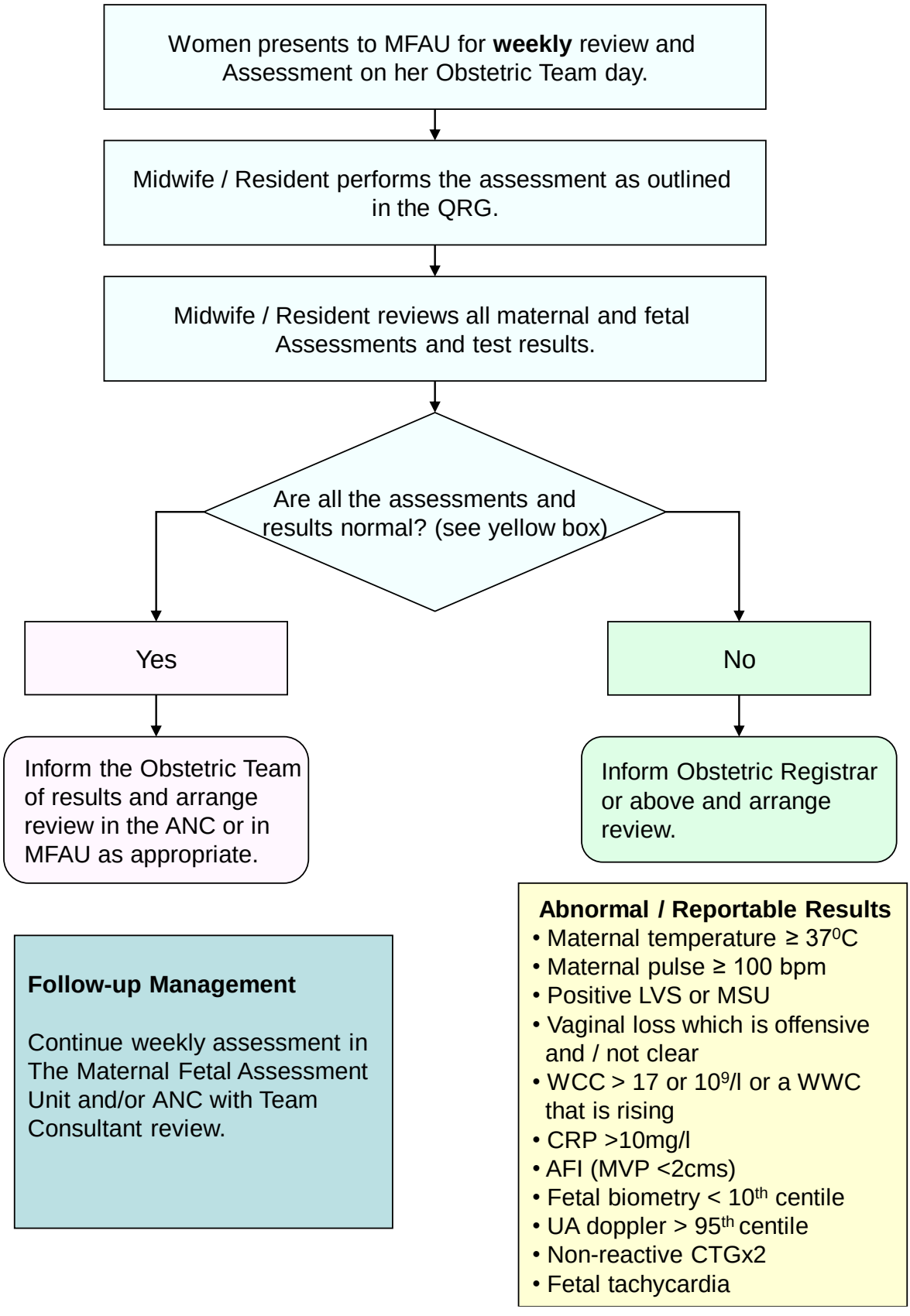
Assessment

Women with confirmed PPROM are assessed **once a week** on an outpatient basis. The Multiple Visit Record Sheet MR 226 is to be used each visit to record the assessment and any test results or treatment given.

Weekly assessments

1. Arrange weekly assessments on the woman's Obstetric Team day with Team Consultant.
2. Check and record maternal temperature, pulse and blood pressure, respirations & oxygen saturation. Ensure the woman has been taking her temperature at home daily,[2] and that recordings have been <37^{O}C.
3. Check vaginal loss recording the amount and nature of the loss.
4. Perform abdominal palpation noting:
    - Symphysis fundal height
    - Lie (if appropriate depending on gestation)
    - Presentation (if appropriate depending on gestation)
    - Uterine tenderness, irritability / activity
5. Perform a urinalysis and send an MSU for MC&S where there is proteinuria of >1+
6. Take a LVS, without using a speculum, for MC&S.
7. If the fetus is > 23 weeks gestational age arrange assessment of fetal wellbeing:
    - Ultrasound assessment for amniotic fluid index (AFI) and umbilical artery (UA) Doppler velocities at each visit
    - Fetal biometry every 2 weeks
    - CTG at each visit if / when > 30 weeks gestational age
8. Consider the woman for a single course of corticosteroid if the gestational age is between 23 and 36+6 weeks[18]). At gestations between 23-23+6 days, the decision to give steroids should take into account the parent's wishes for the management of the neonate.
9. Ensure the woman has received or has been commenced on a ten-day course of erythromycin 250mg QID. Obtain and review any results from the previous visit if these have not already been documented.
10. Provide the woman with information of management for PPROM after discharge. See section 'PPROM: Medical and Midwifery Management' in this document for detailed advice and care.

Confirmed PPROM: Outpatient management: Flow chart



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Related WNHS guidelines

Obstetrics & Gynaecology guideline: Emergency Procedures: Cord Prolapse

Useful resources

WNHS patient information book: Pregnancy, Birth and your Baby

Keywords:	PPROM, prelabour preterm rupture of membranes, suspected rupture of membranes, rupture of membranes in pregnancy,
Document owner:	Obstetrics, Gynaecology Directorate (O&GD)
Author / Reviewer:	O&GD Medical Co-Director
Date first issued:	September 2002

Term: Pre-labour rupture of membranes at term

Aim

To provide a management plan for the woman with prelabour rupture of the membranes at term.

Definition[1]

Pre-labour Rupture of Membranes (PROM) at term is defined as rupture of the amniotic sac prior to the onset of labour at or beyond 37 weeks gestation. Rupture of membranes (ROM) is colloquially known as “breaking the waters” or as “one’s waters breaking”.

The incidence of PROM at term is 8%[1].

Key points[1]

1. Women with PROM at term should be informed of the risks and benefits of the options of active and expectant management.[1]
2. Expectant management is appropriate in women who are group B streptococcus (GBS) negative or GBS unknown and have no signs of infection or other complications.
3. Induction of labour (IOL) with vaginal prostaglandins is associated with an increased risk of chorioamnionitis and neonatal infection in comparison with an oxytocin induction.
4. Oxytocin rather than vaginal prostaglandins is preferred for the IOL in the presence of PROM at term.
5. GBS positive women who present with PROM should be commenced on IV antibiotics immediately, and have an IOL within 6 hours of rupture of the membranes.[2]
6. If the woman has any signs of infection then advise immediate IOL.
7. If a woman is GBS negative or unknown and elects for expectant management she will be advised to:
    - Check her temperature every 4 hours during waking hours and report if she has a raised temperature of over 37.4°C [3]
    - Avoid sexual intercourse [3]
    - Report to treating hospital/health practitioner
        - if she is feeling unwell [3]
        - any change in colour or smell of her vaginal loss [3]
        - changes in fetal movements [3]

8. If a woman declines the recommended management outlined in this guideline an individual non-standard management plan must be documented in the woman's notes following a discussion between the woman, midwife and the Senior Registrar or more Senior Medical Officer.

Assessment

Assessment of women presenting with PROM at term should include:

- Confirmation of ROM
- Confirmation of gestation and presentation
- Performing maternal and fetal observations

Digital vaginal examination is to be avoided unless immediate induction is planned or cord prolapse is suspected.

Special cases

Cervical suture – if ROM is confirmed or uncertain the woman should be reviewed by the LBS Registrar or more Senior Medical Officer. If a cervical suture is present, there is a very high risk of sepsis. The suture should be removed as soon as possible and prompt birth must be considered

Confirmed ROM: Management

Expectant management

Criteria for expectant management

- GBS negative / unknown
- Cephalic presentation
- Clear liquor
- No signs of infection (maternal tachycardia, fever, uterine tenderness)
- No cervical suture[1]
- Woman able to assess
    - Temperature 4 hourly
    - vaginal loss
    - fetal mpovements[1]
- Reactive CTG
    - CTG only required if additional risk factors present [3]

At 18 hours following ROM

- Commence IV antibiotics. These may be commenced in the hospital, FBC or community setting.
- If woman in labour at 18 hours continue labour care.
- If woman NOT in labour at 18hours
    - Administer IV antibiotics as per Table 2
- The second dose of IV antibiotics (at 22 hours following ROM) can be given in MFAU/FBC/community if they have not established in labour at this time.
- IOL should be commenced when the membranes have been ruptured for 24 hours.

At 24 hours following ROM

- If woman NOT in labour transfer to hospital for clinical review and IOL.
- If the woman is in active labour prior to 24 hours post ROM she may continue to labour in her intended birth setting (FBC/community)

Active management

Criteria for active management

- GBS positive
    - Known carriers of group B streptococcus who present with PROM at term should be treated with IV antibiotics, and have labour induced within 6 hours of rupture of the membranes.[2]
- Cephalic presentation

If the woman is GBS –ve or unknown and is requesting IOL this may be facilitated dependent on the activity/acuity within the birthing unit.

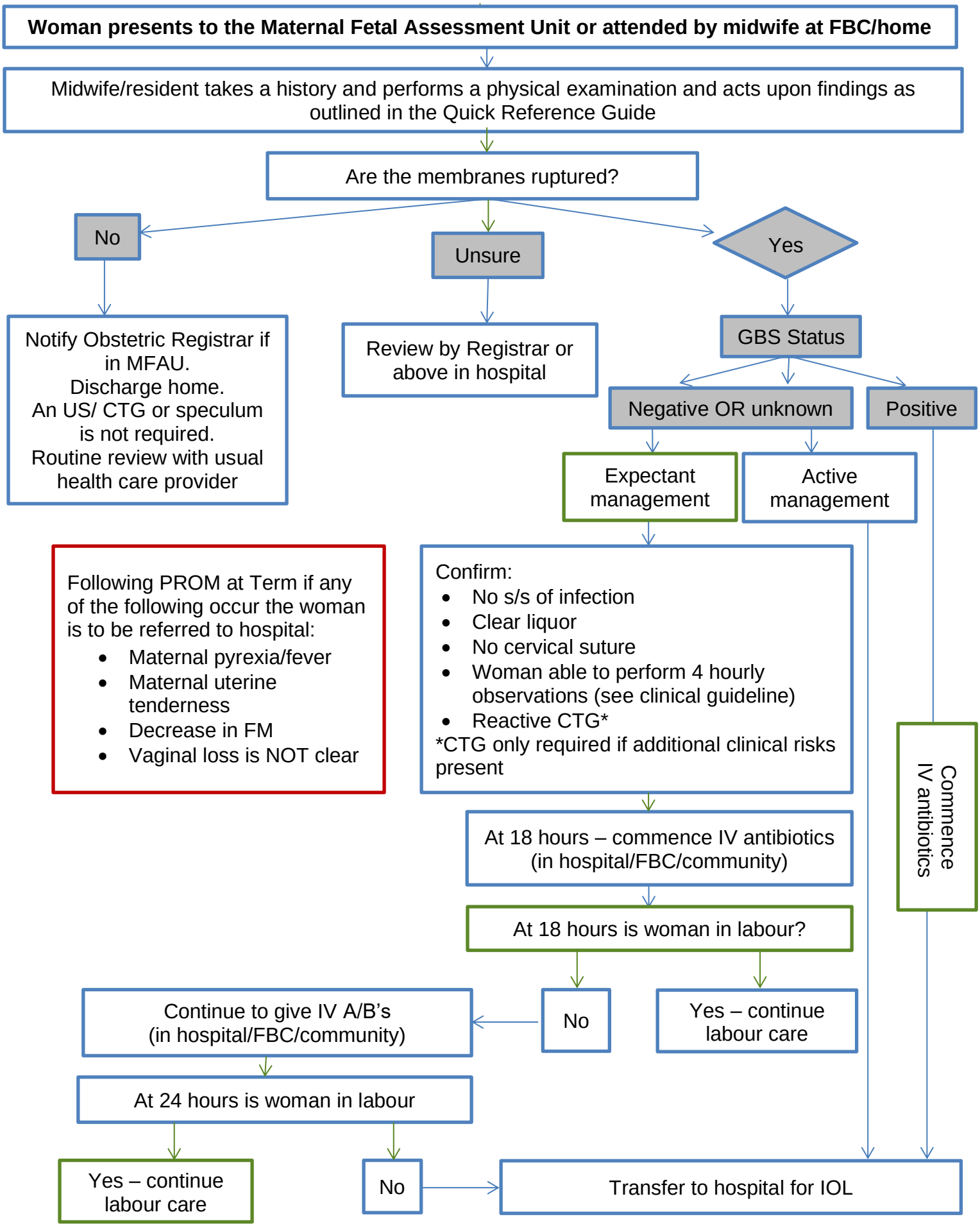
Antibiotic prophylaxis

Antibiotic prophylaxis in the event of PROM at term for:

- **GBS positive women**
- **GBS negative and unknown women whose ROM ≥ 18 hours**

Table 2

Medication	Dose	Route	Frequency
Benzyl penicillin	3g then 1.8g	IV	4 hourly
Clindamycin (if sensitive to penicillin)	900mg	IV	8 hourly


Woman presents to the Maternal Fetal Assessment Unit or attended by midwife at FBC/home
Midwife/resident takes a history and performs a physical examination and acts upon findings as outlined in the Quick Reference Guide
Are the membranes ruptured?
No
Unsure
Yes
Notify Obstetric Registrar if in MFAU.
Discharge home.
An US/ CTG or speculum is not required.
Routine review with usual health care provider
Review by Registrar or above in hospital
GBS Status
Negative OR unknown
Positive
Expectant management
Active management
Following PROM at Term if any of the following occur the woman is to be referred to hospital:
Maternal pyrexia/fever
Maternal uterine tenderness
Decrease in FM
Vaginal loss is NOT clear
Confirm:
No s/s of infection
Clear liquor
No cervical suture
Woman able to perform 4 hourly observations (see clinical guideline)
Reactive CTG*
*CTG only required if additional clinical risks present
Commence IV antibiotics
At 18 hours – commence IV antibiotics (in hospital/FBC/community)
At 18 hours is woman in labour?
No
Yes – continue labour care
Continue to give IV A/B's (in hospital/FBC/community)
At 24 hours is woman in labour
Yes – continue labour care
No
Transfer to hospital for IOL

References

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3. National Institute for Health & Care Excellence. Clinical guideline [CG190] 1.11. Prelabour rupture of membranes at term. February 2017. https://www.nice.org.uk/

Related KEMH guidelines

WNHS Clinical Guidelines: Obstetrics & Gynaecology [Restricted Area Guidelines available to WA Health employees through Healthpoint]: Induction Of Labour: Artificial Rupture of Membranes

Keywords:	PROM, prelabour rupture of membranes, term rupture of membranes, waters breaking at term
Document owner:	Obstetrics, Gynaecology Directorate (O&GD)
Author / Reviewer:	O&GD Medical Co-Director
Date first issued:	09/2002

References

See individual sections for references

Related legislation and policies

Health Act 1911 (section 334)

Related WNHS policies, procedures and guidelines

KEMH Clinical Guidelines:

- Antimicrobial Stewardship: Sepsis and Septic Shock: Antibiotics for Adult Patients at KEMH
- Neonatology guideline: End of Life Care: Palliative Care, Grief and Loss
- Obstetrics & Gynaecology:
  - Antenatal Care Schedule: Initial visit
  - Cord Prolapse: Umbilical
  - Cevical Cerclage Corticosteroids: Antenatal Use of.
  - Group B Streptococcal Disease
  - Induction Of Labour: Artificial Rupture of Membranes [Restricted Area Guideline available to WA Health employees through Healthpoint]
  - 'Preterm Labour' and 'Magnesium Sulphate for Neuroprotection of the Fetus'
- Pharmacy Medications: Erythromycin

Useful resources (including related forms)

Forms:

- MR 283: Maternal Sepsis Pathway (>20 weeks gestation and up to 42 days postpartum)
- MR 284: Adult Sepsis Pathway

Patient resources:

- Birth of your baby at 23 to 25 weeks
- Pregnancy, Birth and your Baby booklet
- Pregnancy of Uncertain Viability (publication ID: 0578)
- The Whole Nine Months: Lasts a Lifetime (external website, PDF, 6.24MB) booklet or website (external website)

Keywords:	pre-viable rupture of membranes, PROM, PROM before 23 weeks, PROM at term, mid-trimester ROM, midtrimester preterm ROM, PPROM, PPPROM, prelabour preterm rupture of membranes, suspected rupture of membranes, rupture of membranes in pregnancy, prelabour rupture of membranes, term rupture of membranes, waters breaking at term, SROM, spontaneous rupture of membranes
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Date first issued:	Nov 2019	Version:	2
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NSQHS Standards (v2) applicable:	1 Governance, 2 Partnering Consumers, 3 Preventing and Controlling Infection, 4 Medication Safety, 5 Comprehensive Care, 6 Communicating 8 Recognising & Responding to Acute Deterioration		
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Version history

Version number	Date	Summary
1	Nov 2019	First version. **History**: **RCA recommendation** to revise and amalgamate guidelines involving spontaneous ROM (all gestations) into one document. Three guidelines combined dating from Sept 2002 into one document **Supersedes**: 1. Previable Rupture of Membranes (mid-trimester) (dated Sept 2017) 2. Preterm Prelabour Rupture of Membranes (PPROM) (dated May 2018) 3. Pre-labour Rupture of Membranes at Term (dated May 2017) **Changes include:** • Instructions for AlSense pad removed • Suspected PROM 23-37 weeks: Sterile speculum examination should be undertaken and swabs sent to microbiology. Check for pooling of amniotic fluid. If no visible pooling, use amnicator, and bedside scan to assess liquor volume. • PROM management- Cervical cerclage section updated
2	Mar 2024	• Due to changes from the *Abortion Legislative Reform Act 2023*, this guideline removed mention of abortion processes and panel Section <23 weeks gestation: • When a fetus is approaching the lower limits of viability, the obstetric team is responsible for identifying which patients remain at risk of preterm birth, noting when they enter the gestational zone where active treatment can be offered (at KEMH currently around 23 weeks) and seeking an antenatal consult by neonatology **[RCA recommendation Mar 2024]**.

		• A woman at risk of birthing around 23 weeks (recognising there may be clinical condition of the woman that make steroids not a safe option for her) consideration should be given to administering antenatal corticosteroids whilst awaiting a consult from neonatology. • If not given, revisit decision at 24 weeks gestation and arrange a second consultation with neonatology if not delivered **[RCA recommendation Mar 2024]** • Reminder to staff on the importance of comprehensively documenting complex conversations in the patient's medical record. **[RCA recommendation Mar 2024**