



CLINICAL PRACTICE GUIDELINE

Pre-viable Rupture of Membranes

This document should be read in conjunction with the [Disclaimer](#)

Background Information

Mid-trimester preterm rupture of membranes (ROM) is defined as rupture of the fetal membranes before or at the limit of fetal viability, prior to 23 weeks. This is a rare complication, affecting less than 1% of all pregnancies¹. Many pregnancies complicated by pre-viable ROM 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 outcome³.

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 pregnancy⁶.

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}.

The management of preterm pre-labour rupture of membranes beyond the limit of fetal viability (between 24 and 37 weeks gestation) is discussed in a separate guideline. (See [Clinical Guideline Preterm Prelabour Rupture of Membranes](#))

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. Corticosteroids should be considered in consultation with senior obstetric staff when the limit of viability is approached.
4. Clinical signs of chorioamnionitis or maternal sepsis is an indication for broad spectrum antibiotics and expedited birth of the baby, the gestation at which this occurs needs to be in consideration of the requirements outlines in section 334 of the Health Act 1911 (See [Termination of Pregnancy: Information and legal obligations for medical practitioners](#)).
5. Antenatal corticosteroid administration should be timed according to the plan for neonatal management which may change around the limit of neonatal viability.
6. Outpatient management can be considered if the woman elects for conservative management in the absence of any risk factors or maternal or fetal compromise.

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}
- Note: There is no role for the use of the AI-sense Panty Liner <20 weeks gestation.

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' gestation¹². 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](#)
 - [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

Criteria for induction of labour:

1. Presence of signs of chorioamnionitis or maternal sepsis*
 - Septic screen including blood cultures
 - Commence broad spectrum antibiotics. Ref to KEMH Clinical Guideline [Maternal Sepsis and septic Shock](#)
2. Confirmed fetal demise
3. Woman's request*

* If induction of labour is being considered at 20+ weeks gestation with a live fetus and with no intent for neonatal resuscitation approval must be sought from the Ministerial Panel for Termination of Pregnancy as per section 334 of the Health Act of 1911 (See [Termination of Pregnancy: Information and legal obligations for medical practitioners](#)). In situations of overt clinical chorioamnionitis where there is a risk of severe maternal sepsis urgent advice should be sought from the Chair of the Panel so that definitive treatment is not unduly delayed.

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.

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.

References and resources

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Related policies

Related WNHS policies, procedures and guidelines

[NCCU guidelines on Palliative Care- Grief and Loss](#)

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