Term prelabour rupture of membranes (PROM)

IMPORTANT: *Consider individual clinical circumstances. Read the full disclaimer at* www.health.qld.gov.au/qcg

Aspect	Considerations
Relevant to:	· Pregnant women with a live singleton, fetus with cephalic presentation equal to or greater than 37+0 weeks gestation, with suspected prelabour rupture of membranes
Context	· Occurs in around 8% of pregnancies[1] · Majority (60–95%[2-7]) of women will spontaneously establish in labour within 24–48 hours · Advise women to present for assessment when PROM is suspected
Initial assessment	· Review history and time of fluid loss (sudden gush or continued leakage of fluid per vagina) · Conduct a clinical assessment [refer to Queensland Clinical Guideline: *Normal birth*[8]] · Avoid digital vaginal examinations as may increase risk of infection[9,10] · Sterile speculum examination: o Visualise pooling of amniotic fluid or leakage from the cervical os with coughing o Visualise cervical length and dilatation o Exclude cord prolapse · If required, test vaginal secretions with immunoassay (e.g. AmniSure®) or pH stick (e.g. Nitrazine) as per manufacturer's instructions · Low vaginal and anal swab for Group B *Streptococcus* (GBS) · If unable to confirm diagnosis and/or repeat presentation with good history, consider ultrasound scan of liquor volume, increased surveillance or active management · Advise about risk of cord prolapse and emergency management if occurs
Management options	· Expectant management: o Waiting for the spontaneous onset of labour · Active management o Planned intervention intended to lead to birth (induction of labour (IOL) or caesarean section (CS)) o Refer to Queensland Clinical Guideline: *Induction of labour*[11] · Offer women information about the risks and benefits of expectant and active management
Clinical indications for active management (IOL or CS)	· Maternal choice · PROM greater than 24 hours · Head high or not fixed at pelvic brim · Group B Streptococcus (GBS) positive[12,13] or previous baby with early onset GBS (EOGBSD) · Signs of maternal infection · Concern for maternal or fetal wellbeing · Meconium/blood stained liquor[1,14,15] · Cervical suture—remove and send for culture (IOL may/may not be indicated) · Non-cephalic presentation (consider CS) · Contraindications to vaginal birth[16] (CS)
Antibiotics	· Routine prophylactic antibiotics are not recommended for women with term PROM prior to the onset of labour[17] · PROM of 18 hours or more prior to birth is a risk factor for EOGBSD o At the onset of labour, if maternal risk factors for EOGBSD, recommend IV prophylactic antibiotics [refer to Queensland Clinical Guideline: *EOGBSD*[12]] · If chorioamnionitis or other infection suspected, recommend IV antibiotics[18] o Refer to Queensland Clinical Guideline: *Preterm labour and birth*[18]

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Outcomes of active management compared to expectant management

*Active compared to expectant management[19]	Risk with active management
Time from ROM to birth (MD -10.10 hours; 95% CI -12.15 to -8.06; 9 trials n=1484)	Decreased
Chorioamnionitis (RR 0.55; 95% CI 0.37 to 0.82; 8 trials, n=6874)	Decreased
Caesarean section (RR 0.84; 95% CI 0.69 to 1.04; 23 trials, n=8576)	No significant difference
Maternal length of stay (MD -0.79 days; 95% CI -1.20 to -0.38; 2 trials, n=748)	Decreased
Positive maternal experience[19,20]	Mixed reports
Admission to neonatal/special care (RR 0.75; 95% CI 0.66 to 0.85; 8 trials n= 6179,)	Decreased
Neonatal sepsis (definite or probable) (RR 0.73; 95% CI 0.58 to 0.92; 16 trials, n=7314)	Decreased
Postpartum antibiotic use, pyrexia, endometritis, operative vaginal birth, primary postpartum haemorrhage, caesarean section for fetal distress, uterine rupture, epidural analgesia, cord prolapse, stillbirth, Apgar < 7 at 5 minutes, definite neonatal sepsis, perinatal mortality	No significant difference
Breastfeeding, postnatal depression, meningitis, respiratory distress syndrome, necrotising enterocolitis, neonatal encephalopathy, disability at childhood follow-up	No data

*Generally low-quality evidence with significant heterogeneity; Of the 8615 women from 23 trials included in the analysis, 5042 are from one trial.
All trials included women with singleton pregnancy with PROM at 37 weeks or later. CI: confidence interval; MD: mean difference, n: number; RR: risk ratio

Expectant management

PROM an	Consideration
Model of care	• Individually, assess women when recommending at home or inpatient expectant care o There is limited high quality data about the safety of home versus inpatient care[6] • Follow local protocols/criteria to determine suitability for model of care—if no local protocol, for at home care, suggested criteria includes[13]: o Maternal choice o No clinical indications for active management o Sufficient staffing and established systems for follow-up contact and advice o Woman able to self-monitor for signs of infection and return to hospital o Home environment safe, supportive and conducive to monitoring and rest[21]
Maternal and fetal care	• Assess fetal movement and heart rate at initial contact[22] o Routine CTG not indicated until after 24 hours of PROM unless other risk factors present[23] o Refer to Queensland Clinical Guideline: *Intrapartum fetal surveillance*[23] • Avoid digital vaginal examinations[13] in the absence of contractions to reduce risk of chorioamnionitis[15] • Assess for signs/symptoms of infection o Feeling unwell or flu-like symptoms o Maternal temperature (37.5 °C or above) o Offensive vaginal discharge or presence of meconium o Uterine tenderness o Maternal tachycardia (greater than 100 beats per minute (bpm)) o Fetal tachycardia (greater than 160 bpm) o Maternal concern about fetal movements [refer to Queensland Clinical Guideline: *Fetal movements*[24]]
Recommend IOL	• If labour not established by 24 hours of PROM advise women: o Risk of chorioamnionitis almost double after 24 hours (OR 1.77, 95% CI 1.27 to 2.47)[15] o Limited high level evidence about maximum duration of expectant management[6] • If woman chooses longer than 24 hours of expectant management then: o Advise return to hospital each 24 hours for fetal and maternal assessment • Recommend IOL if: o Concern for maternal or fetal wellbeing o Woman requests IOL
Advise women	• To report (and return to hospital if at home) concern about fetal movements or if signs of infection (as above) o Vaginal intercourse may be associated with increased risk of infection[22] o Showering or bathing is not associated with increased risk of infection[22] • To avoid tampon use

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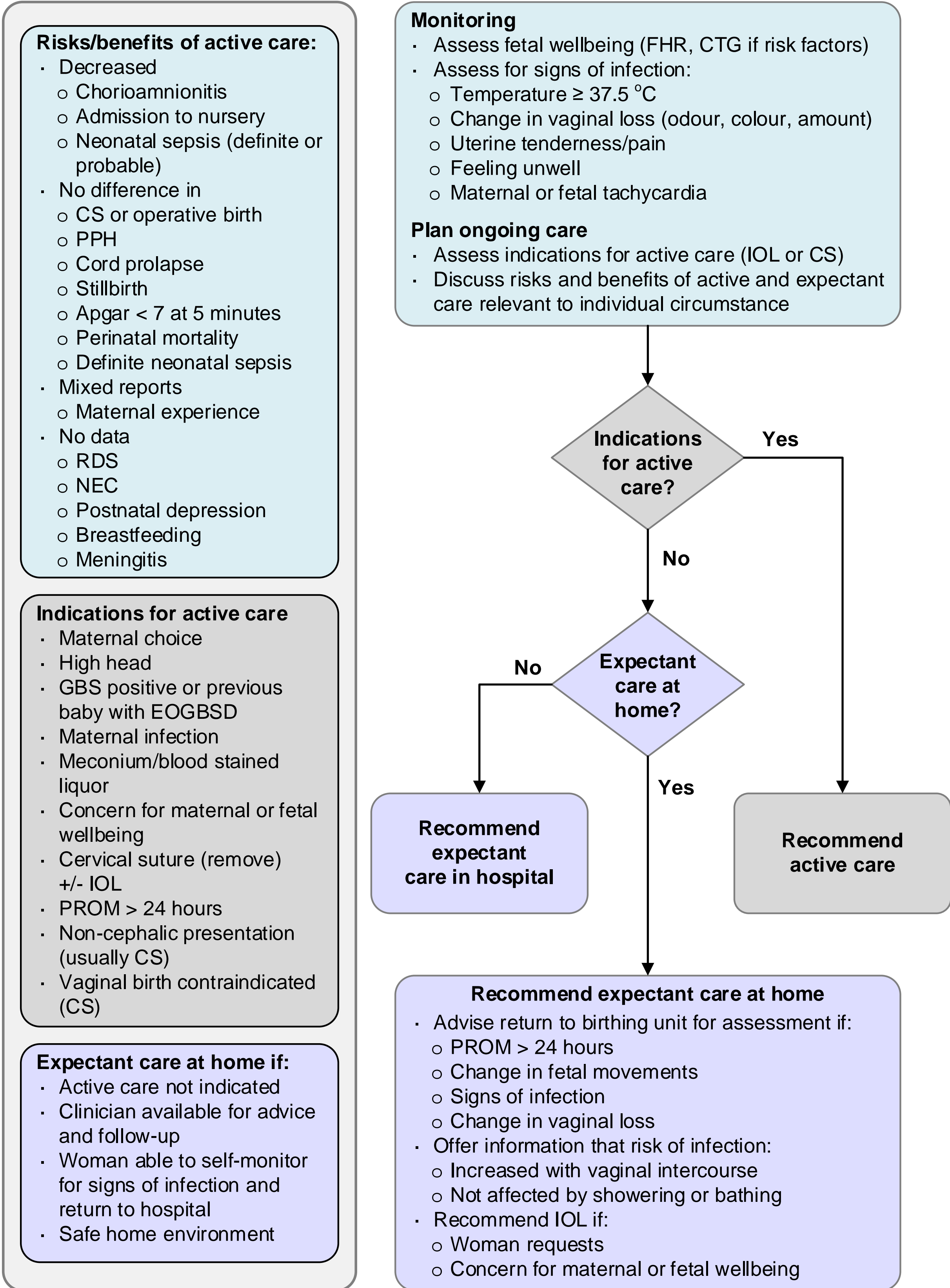
Summary flowchart: Prelabour rupture of membranes at term



CS: caesarean section, **CTG:** cardiotocograph, **EOGBSD:** early onset Group B *Streptococcus* Disease, **FHR**: fetal heart rate, **GBS:** Group B *Streptococcus*, **IOL:** induction of labour, **NEC:** necrotising enterocolitis, **PPH:** primary postpartum haemorrhage, **PROM:** prelabour rupture of membranes, **QCG:** Queensland Clinical Guidelines, **RDS:** respiratory distress syndrome, **ROM:** rupture of membranes, **>:** greater than, **≥:** greater than or equal to

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