



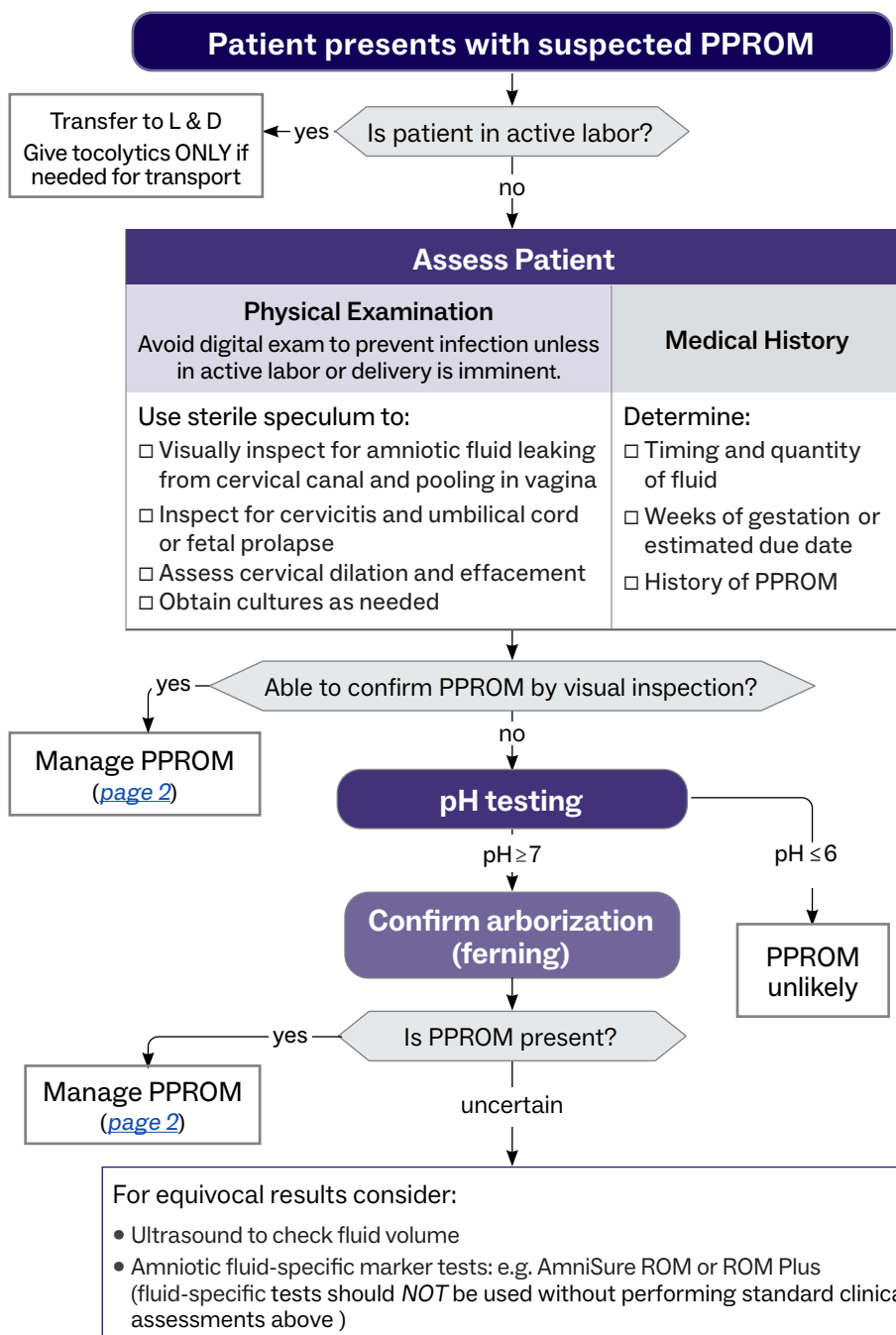
Management of

Pre-term Premature Rupture of Membranes (PPROM)

2023 Update

This care process model (CPM) was developed by Intermountain Health's Obstetrics (OB) Development Team under the guidance of the Women and Newborns clinical program. It provides evidence-based recommendations for assessing and managing pregnancies affected by preterm premature rupture of membranes (PPROM).

ASSESSMENT / DIAGNOSIS OF PPRM



PPROM GUIDANCE

ASSESSMENT..... [PAGE 1](#)

MANAGEMENT [PAGE 2](#)

MEDICATION TABLES [PAGE 3](#)

Intermountain Measures

The overarching goal of this CPM is to promote evidence-based practice and clinical consistency in the management of PPRM within the Intermountain Healthcare system. Specific measurements of efficacy include:

- Increase corticosteroid (betamethasone) administration given to patients at 24 to 33 weeks 6 days gestation

Supporting Evidence

Prelabor Rupture of Membranes
ACOG (2020)

Siegler Y, et al. ACOG Practice Bulletin No. 217: Prelabor Rupture of Membranes. *Obstet Gynecol.* 2020 Nov;136(5):1061



MANAGEMENT OF PPRM

Pregnant patient exhibits PPRM

Is intrauterine infection or bleeding sufficient to threaten maternal well-being or fetal death present?

DELIVER promptly

MANAGE per gestational age as outlined below

≤ 24 weeks

Counsel with patient and family. Neonatology consult strongly recommended**

Patient Choice

INDUCE LABOR

Refer to Intermountain's [Pregnancy Termination Policy](#)

MANAGE EXPECTANTLY

Consider inpatient evaluation for 24-48 hours

MEDICATION

- Antibiotics to prolong latency ([see pg 3](#))
- No GBS prophylaxis, corticosteroids, tocolytics or magnesium sulfate before viability unless resuscitation is considered

OUTPATIENT SURVEILLANCE

- Instruct patient contact provider if temperature ≥100.4°F/38°C
- Perform weekly ultrasound

If fetus reaches viability and patient and neonatal care team opt for resuscitation, admit and **MANAGE EXPECTANTLY INPATIENT**

24 weeks to 33 weeks 6 days

May manage expectantly per patient request IF (ALL):

- Discussion of risks with patient
- GBS negative

MANAGE EXPECTANTLY INPATIENT

INPATIENT SURVEILLANCE

- Daily nonstress test to monitor fetal health
- Periodic (not daily) ultrasound to assess fetal growth and amniotic fluid.

*If leak reseals, patient may be discharged home.

MEDICATION

- Antibiotics to prolong latency ([see pg 3](#))
- Corticosteroids if meet gestational criteria below:

23-23 wks 6 days: if resuscitation planned

24-33 wks 6 days: no criteria*

34-36 wks 6 days: ALL below

- no previous corticosteroids
- no chorioamnionitis
- delivery expected/anticipated >24 hours but <7 days

- Magnesium sulfate (neuroprotection) IF < 32 weeks AND delivery expected < 24 hours

SPECIAL POPULATIONS

- HSV, HIV, or hepatitis C positive: MFM consult and formal ultrasound
- Cerclage: leave in place unless infection or unexplained bleeding

34 weeks to 36 weeks 6 days

PROCEED TO DELIVERY (Generally by induction)

MEDICATION

- Antibiotics for GBS prophylaxis as needed
- Corticosteroids IF ALL below:
 - no previous corticosteroids
 - no chorioamnionitis
 - delivery expected/anticipated >24 hours but <7 days (do not delay birth for corticosteroid use)

*No recommendation for or against single rescue course if previously had single course.

GBS- Group B *Streptococcus*; **MFM**- maternal fetal medicine; **HSV**-herpes simplex virus; **HIV**- human immunodeficiency virus;

Antibiotics (to prolong latency); 7-day course

No penicillin allergy	Penicillin allergy - high risk of anaphylaxis
First 48 hours	First 48 hours
Ampicillin (2 grams IV every 6 hours) + Erythromycin* (250 mg IV every 6 hours)	Azithromycin (1 gram PO) OR Erythromycin (250 mg IV every 6 hours) + Clindamycin† (900 mg IV every 8 hours) + Gentamicin (5 mg/kg actual body weight IV every 24 hours)
Next 5 days	Next 5 days
Amoxicillin (250 mg PO every 8 hours) + Erythromycin* (333 mg PO every 8 hours)	Clindamycin (300 mg PO every 8 hours) + Erythromycin** (333 mg PO every 8 hours)

* Azithromycin- 1 gram single oral dose can be substituted for erythromycin (IV or PO). Because of its long half-life, use of azithromycin eliminates need for erythromycin during the remainder of the antibiotic course.

** If used the azithromycin was used during the first 48 hours, no erythromycin PO is required due to azithromycin's long half-life.

† If patient has tested positive for clindamycin resistant GBS or if susceptibility is unknown, replace clindamycin with vancomycin 20 mg/kg actual body weight IV, every 8 hours (maximum single dose 2 grams) for 48 hours. Follow-up with erythromycin 333 mg PO every 8 hours for 5 days.

Corticosteroid (to lower risk of respiratory distress syndrome)

Betamethasone* 12 mg IM every 24 hours for 48 hours. (Do not give if 34-37 weeks if patient was given previous corticosteroids.)

*If betamethasone not available, use dexamethasone 6 mg IM every 12 hours for 48 hours.

Magnesium sulfate (for neuroprotection if <32 weeks when delivery is expected within 24 hours)

Magnesium sulfate bolus 6 grams IV over 40 min. then infuse a 2 grams/hr maintenance dose from premixed 20 grams/500 mL bag until delivery or until 12 hours of therapy (if preterm delivery seems unlikely after 12 hours of therapy, discontinue therapy)

GBS- Group B *Streptococcus*; **IV-** intravenous; **PO-**orally; **mg-**milligram; **kg-**kilogram; **IM-** intramuscular; **mL-**milliliter

This CPM presents a model of best care based on the best available scientific evidence at the time of publication. It is not a prescription for every physician or every patient, nor does it replace clinical judgment. All statements, protocols, and recommendations herein are viewed as transitory and iterative. Although physicians are encouraged to follow the CPM to help focus on and measure quality, deviations are a means for discovering improvements in patient care and expanding the knowledge base. Send feedback to Annette Crowley, Clinical Programs Manager, Intermountain Health, (WomenandNewborns@imail.org).

Care Process Model Expert Consultants

Women's Health Clinical Program:

Amy Campbell, MSN, RN	Tiffany Hanson, MSN, RN
Annette Crowley, MSN, RN	Anh Lian, PharmD, BCPPS
Sean Esplin, MD	Flint Porter, MD
Donna Dizon-Townson, MD	Heidi Thompson, PhD (Medical Writer)

Unless otherwise stipulated, all members are employees of Intermountain Healthcare

