▸ **Click here** to view the complete care process model, ***Prevention and Management of Preterm Birth (Spontaneous and Indicated)***

▸ ALGORITHM: PTL ASSESSMENT AND MANAGEMENT

Pregnant patient with SYMPTOMS consistent with preterm labor (a)

ADMISSION, INITIAL ASSESSMENT

- Determine presence/frequency of contractions (palpation and external monitor), other signs and symptoms of PTL. **(a)**
- Determine whether there is uterine bleeding (suggesting placental abruption, placenta previa).
- Check fetal well-being with **electronic fetal monitor (EFM).**
- Send urine for **urinalysis (UA)** with reflex to urine culture if positive.
- Perform **sterile speculum exam**: visually inspect for PROM, cervicitis, umbilical cord prolapse, or fetal prolapse; assess cervical dilation and effacement; obtain and hold **fetal fibronectin (fFN) and GBS culture before digital exam** (if penicillin allergic, request sensitivities at time of culture).

If evident intrauterine infection, placental abruption, or fetal compromise: → DELIVER EXPEDITIOUSLY

If PROM: → FOLLOW PROM CPM

TVU available?

yes → **TRIAGE**

- Do **TVU**
- Triage based on CERVICAL LENGTH (CL) on TVU

- LOW RISK OF PTB CL ≥ 3 cm → Discard fFN → DISCHARGE HOME. Follow-up. **(b)**
- MEDIUM RISK OF PTB CL 2–3 cm → Send fFN → negative fFN → DISCHARGE HOME. Follow-up. **(b)**; positive fFN → **Inpatient care**
- HIGH RISK OF PTB CL < 2 cm → Discard fFN → **Inpatient care**

no → **TRIAGE**

- Do **digital exam**
- Triage based on cervical DILATION

- ≥ 3 cm DILATED → Discard fFN → **Inpatient care**
- < 3 cm DILATED → Depending on clinical concern, either:

Monitor

Check for cervical change with serial digital exams every 1–2 hours

- cervical CHANGE → Discard fFN → **Inpatient care**
- NO cervical CHANGE → DISCHARGE HOME. Follow-up. **(b)**

Send fFN → negative fFN → DISCHARGE HOME. Follow-up. **(b)**; positive fFN → **TVU** available within 12 hours?

- *no* → **Inpatient care**
- *yes* → **Assess further**

Inpatient care

1. Admit for inpatient management (transfer to tertiary care center as per leveling criteria)
2. Consult Maternal-Fetal Medicine and Neonatology
3. Give IVF hydration
4. Send GBS culture and CBC

Use Preterm Labor Admission Orders

Medication (c)

Give medication as appropriate for:

- **fetal benefit**
- **tocolysis**
- **GBS prophylaxis**

Delivery

At delivery:

- **If <30 weeks milk umbilical cord** (three times, from close to the base of the placental cord insertion toward the neonate with 1–2 second pause between. Total milking time ≅10–15 seconds)
- **Obtain cord gas**

Newborn/NICU and postpartum care for infant and mother

Assess further

- Do **TVU when available**
- Triage based on CERVICAL LENGTH (CL) on TVU

- Cervical LENGTH < 2.5 cm → **Inpatient care**
- Cervical LENGTH ≥ 2.5 cm → Notify perinatal care manager, then DISCHARGE HOME. Follow-up. **(b)**

MEASURES

As appropriate for threatened PTB:

- **Admit/transfer to appropriate facility per leveling criteria**
- **Administer steroids** to lower RDS risk
- **Administer magnesium sulfate** for fetal neuroprotection

At delivery:

- **Milk umbilical cord of all infants <30 weeks** gestation

ALGORITHM NOTES

Identifying women with preterm contractions who will deliver early is an inexact process. In one review, about 30% of preterm labors resolved spontaneously. Others have reported that 50% of patients hospitalized for PTL go on to deliver at term.[3] This algorithm presents a practical and evidence-based approach to assessing and managing women with symptoms of preterm labor.

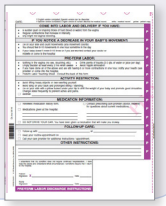
(a) Signs and symptoms of PTL

- Menstrual-like cramping, low back pain
- Uterine contractions (should be confirmed/documented via palpation and external monitoring)
- Vaginal discharge

Cervical change, effacement, and/or dilation are included in PTL diagnostic criteria; the algorithm indicates how cervix should be assessed.

(b) Follow-up after evaluation and discharge for PTL

- Instruct patient to call if additional signs and symptoms of PTL (give Preterm Labor Discharge Instructions)
- Schedule a visit within 1 to 2 weeks



(c) PTL/PTB Medication Table

The use of these medications is generally reserved for pregnancies between ≅ 22 and 34 weeks gestation. For pregnancies at 24 or fewer weeks, consult with neonatologists and counsel patient and family to determine choices for care and resuscitation. For pregnancies at 34 weeks gestation, consider allowing labor to progress to delivery without use of tocolytics; medication for fetal benefit is not indicated at this gestational age.

Note that per risk-specific protocols, some high-risk patients may already be receiving medication for fetal benefit and tocolysis.

Use in PTB	Recommendations	
FETAL BENEFIT	To lower risk of RDS, give a corticosteroid to all patients 23 to 34 weeks gestation: . ❑ **BETAMETHASONE**: 12 mg IM every 24 hours x 2 doses. If betamethasone isn't available, may use **dexamethasone:** 6 mg IM every 12 hours x 4 doses.	
	For neuroprotection at ≤31 weeks gestation, give: ❑ **MAGNESIUM SULFATE, IV:** Bolus 6 grams over 40 minutes, then infuse 2 grams/hour maintenance dose from premixed 20 gram/500 mL bag until delivery or until 12 hours of therapy. (If preterm delivery seems unlikely after 12 hours of therapy, discontinue therapy.) If magnesium is used for neuroprotection and patient continues to have contractions, magnesium may be combined with another medication for tocolysis.[1] (see row below.)	
TOCOLYSIS	For short-term prolongation of pregnancy (to allow time for transfer of patient, administration of medications for fetal benefit), give a tocolytic for up to 48 hours:	
	If <32 weeks gestation, give: ❒ as first choice, **INDOMETHACIN:** 50 mg PO x 1, then 25 mg PO every 6 hours up to 48 hours ❒ as second choice, **NIFEDIPINE:** 10 mg PO, may repeat every 15 minutes x 4 doses, then 20 mg PO every 6 hours up to 48 hours (maximum dose 160 mg in 24 hours) **If 32 to 34 weeks gestation, give:** ❑ **NIFEDIPINE:** 10 mg PO, may repeat every 15 minutes x 4 doses, then 20 mg PO every 6 hours up to 48 hours (maximum dose 160 mg in 24 hours)	*Notes:* • *Tocolysis is contraindicated when risks of use outweigh potential benefits; e.g., in case of nonreassuring fetal status, severe preeclampsia or eclampsia, maternal bleeding with hemodynamic instability, chorioamnionitis, preterm PROM, or agent-specific maternal contradictions.* • *In multiple gestation pregnancies, use tocolytics judiciously; in these pregnancies, tocolytics have not been shown to improve outcomes and are associated with a greater risk of maternal complications such as pulmonary edema.*[1]
GBS PROPHYLAXIS (if the patient is penicillin allergic, request sensitivities at time of culture)	**Follow Intermountain's Prevention of Perinatal GBS algorithm. For all patients, as needed give EITHER:** ❑ **PENICILLIN G:** 5 million units IV initial dose, then 2.5–3.0 million units every 4 hours until delivery ❑ **AMPICILLIN:** 2 grams IV initial dose, then 1 gram every 4 hours until delivery or the threat of PTB is low **If penicillin allergy, low risk** (e.g., isolated maculopapular rash without urticaria or pruritus): ❑ **CEFAZOLIN:** 2 grams IV initial dose, then 1 gram every 8 hours until delivery **If penicillin allergy, high risk** (e.g., anaphylaxis, angioedema, respiratory distress, urticaria): ❑ **CLINDAMYCIN:** 900 mg IV every 8 hours until delivery	