## PREMATURE LABOR

### DEFINITION
Onset of labor between 20-37 weeks. The diagnosis of labor is made clinically, based on regular uterine contractions accompanied by a change in cervical dilation, effacement or both. If the patient presents with contractions and cervical dilation ≥ 2 cm, the diagnosis is also confirmed.

### SUBJECTIVE
- **Must exclude:**
  1. Rupture of membranes.
  2. Heavy vaginal bleeding.
  3. Fever, chills.
  4. Other indications for delivery (preeclampsia, fetal distress, etc).

- **Must include:**
  1. Gestational age 20-37 weeks
  2. Uterine contractions (regular or irregular) or new onset of low back pain or pelvic pressure.

- **May include:**
  1. Prior preterm delivery.
  2. Bloody show or increased vaginal discharge or increased mucus.
  3. Vaginal discharge.
  4. Decreased fetal movement.
  5. Risk factors:
     a. Multiple fetuses.
     b. Prior cervical surgery.
     c. Tobacco addiction.
     d. Short cervix on screening exam.
     e. Infection.
     f. Oligohydramnios, polyhydramnios.
     g. Family history of preterm birth.
     h. HIV infection, especially with HAART use.

*DO NOT PERFORM ANY VAGINAL EXAM IF PATIENT HAS HEAVY VAGINAL BLEEDING* (see Third Trimester Vaginal Bleeding protocol).

*DO NOT PERFORM A DIGITAL EXAM IF POSSIBLE RUPTURE OF MEMBRANES* (see Spontaneous Rupture of Membranes in Pregnancy protocol).

### OBJECTIVE
- **Must exclude:**
  1. Maternal fever (T> 100.5°F) or tachycardia (pulse >90 bpm)
  2. Uterine tenderness
  3. Fetal tachycardia (>160 bpm) or decelerations

- **Must include:** Palpable uterine contractions

### LABORATORY
- **May include:**
  1. Microscopic evaluation of vaginal discharge
  2. Urine dipstick

### ASSESSMENT
Possible premature labor.

### PLAN
1. Confirm fetal age, position, presentation and station.
2. Listen to fetal heart through contraction to rule out fetal distress.
3. Perform speculum exam to rule out rupture of membranes and to collect specimens for microscopic evaluation.
4. If membranes intact, perform digital examination to assess cervical changes.
### PLAN (Continued)

5. If painful uterine contractions accompanied by cervical changes (preterm labor), maternal infection, or fetal distress, refer to ER.
   a. Contact accepting hospital to determine best mode of transport and any interim therapies needed (e.g. IV fluids, tocolytics, steroids etc).
   b. Have patient rest in left lateral recumbent position and record BP, pulse, UCs and fetal heart rate at least every 15 minutes until patient transported out of the facility.

6. If patient with infrequent uterine contractions but no change in her closed cervix:
   a. Treat any infection found (e.g. UTI, vaginitis, cervicitis).
   b. Consult MD to determine if patient needs future evaluation or if she is candidate for progesterone therapy.
   c. Provide reassurance that over 80% of women with such contractions deliver at term.
   d. Advise her about signs of labor and rupture of membranes. Encourage her to go to hospital if such symptoms develop.

### PATIENT EDUCATION

1. If patient referred to ER:
   a. Explain to the patient that she is possibly having premature labor and discuss the importance of hospital evaluation to help prevent premature delivery.
   b. Assist patient in contacting family about impending hospital admission and provide explanations to the family.

2. If patient not thought to be experiencing significant uterine contractions, provide reassurance, instruct about symptoms of labor, and encourage her to seek care if these symptoms develop:
   a. Reassure her that over 80% of women with such contractions but no cervical changes deliver at or near term unless she has a history of prior preterm birth.
   b. Recommend she return to normal daily activities, without any heavy lifting.
   c. Bed rest not helpful, and may increase the risk of blood clot formation.
   d. Reassure, if appropriate that periodontal disease did not increase her risk of early labor.
   e. If she asks, counsel her that there are no reliable biomarkers or tests to predict preterm birth.
   f. Advise patient that in future pregnancies, moderate consumption of fish (up to 3 meals per week) before 22 weeks gestational age may decrease risk of preterm birth.

### REFER to ER/MD

Women with cervical changes on exam (preterm labor), with risk signs or symptoms of chorio-amnionitis, women with evidence of fetal distress and those with history of prior preterm delivery.

### REFERENCES


