

50 Preterm Labor**Labor and Delivery****S When was the onset of contractions and how intense are they?**

True preterm labor (PTL) is likely to have a rapid onset with contractions similar in intensity to term labor.

Are there any other accompanying symptoms?

Additional symptoms of PTL include:

- Backache
- Vaginal spotting
- Increased vaginal discharge

Does the patient have a history of PTL or preterm birth (PTB) with previous pregnancy?

History of preterm labor puts the patient at higher risk to have a repeat problem.

O What are the results of the U/S?

A comprehensive U/S should be performed.

- Fetus
 - ◆ Estimated gestational age/estimated fetal weight (EFW) is the most important piece of information when forming management plans for PTL.
 - ◆ Several findings contraindicate tocolysis:
 - Intrauterine growth restriction
 - Fetal anomalies
 - EFW > 2500 g
 - ◆ Note presentation
- Amniotic fluid index
 - ◆ Evaluate for preterm premature rupture of membranes if oligohydramnios is present.
- Placental location
- Uterine abnormalities
 - ◆ Uterine fibroids may contribute to PTL.
- Cervix
 - ◆ Cervical length can be assessed for shortening by transvaginal U/S.
 - ◆ A length > 3.5 cm places pt at low risk for impending delivery.
 - ◆ Note any funneling (as the internal os opens, the relationship of the cervix to the lower uterus changes from a “T” to a “Y” to a “U” shape).
 - ◆ Observe any changes with pt performing Valsalva.

What is the result of the fetal fibronectin (FFN)?

FFN is a protein found between the decidua and placenta.

- It is normally absent in cervical/vaginal secretions between 24 and 34 wks.
- Detection (by cervical/vaginal swab) during this time places the pt at increased risk for PTB.
 - ◆ Results are reported as positive or negative.
- Swab cannot be performed if pt had digital vaginal exam in previous 24 hrs.

What is the pt's cervical exam?

Cervical exam should be performed after sampling for FFN is done.

Note dilation, effacement, and station.

Is there any evidence of infection?

CBC should be assessed for possible elevated WBCs.

U/A should be assessed for possible infection.

A Preterm Labor

PTL is defined as the onset of labor before 37 wks' gestation.

- PTL is not as easy to diagnose as term labor, and a diagnosis is often made retrospectively.
 - ◆ Management must proceed based on all findings, erring on the conservative side.
 - ◆ Customarily, cervical change while under observation or a cervical exam with a dilation > 2 cm or 80% effacement is considered diagnostic.

Etiologies include:

- | | |
|--------------------------|--|
| - Infection | - Uterine anomalies |
| - Mechanical factors | - Intrinsic premature activation of labor by the fetus |
| - Uterine overdistention | - Cervical incompetence |

P Start tocolysis

A trial of tocolysis is begun in all gestations < 35 wks.

- This gestational age is empiric because, after 35 wks, the risk of the fetus developing respiratory distress syndrome (RDS) is minimal.

Contraindications to tocolysis include severe hypertension, hemorrhage, and cardiac disease.

Several acceptable tocolytics are available:

- Magnesium sulfate 4 g IV load and then 2 g IV qh
 - ◆ Watch for respiratory depression and blunted deep tendon reflexes.
 - ◆ Consider checking level if suspicious of toxicity.
 - ◆ Reduce dose with renal insufficiency.
- Calcium channel blockers
 - ◆ Nifedipine 10 mg SL × 3 load and then 10 mg tid
 - Avoid use with MgSO₄
- β-adrenergics
 - ◆ Terbutaline 0.25 mg SQ q 1–4 hrs (max 5 mg/24 hrs)
 - Avoid with hyperthyroidism and uncontrolled diabetes mellitus.
- NSAIDs
 - ◆ Indomethacin 25 mg PR load and then 25 mg PO q 4–6 hrs
 - Potential ductus arteriosus closure and oligohydramnios

Consider steroids

All gestations < 34 wks should receive steroids to enhance fetal lung development and minimize the risk of a preterm infant developing RDS.

- Two agents and regimens are available:
 - ◆ Betamethasone 12 mg IM q 24 hrs × 2 (Rec)
 - ◆ Dexamethasone 6 mg IM q 12 hrs × 4 (Alt)

Caution should be exercised with diabetic pts because steroids can increase blood sugar and increase the risk of pt developing diabetic ketoacidosis.

Culture for GBS and start antibiotics

Preterm infants are especially susceptible to early-onset group B streptococcus disease and should be cultured for this upon arrival (see Third Trimester Visit p. 6).

While awaiting culture results, antibiotics should be started:

- Penicillin G 5 million U load and then 2.5 million U q4h (Rec)
- Ampicillin 2 g IV load and then 1 g q4h (Alt)
- Clindamycin 900 mg IV q8h (Alt)