

PROTOCOL FOR CARE/DISPOSITION OF WOMEN PRESENTING WITH SYMPTOMS OF PRETERM LABOR

PURPOSE: To provide guidance and direction to nursing and medical staff in the identification, assessment and disposition of patients presenting with symptoms of preterm labor.

LEVEL: Interdependent

SUPPORTIVE DATA: Preterm labor is the onset of regular uterine contractions that produce cervical change, effacement and/or dilation after fetal viability is established, but before fetal maturity is achieved.

Preterm delivery is the primary cause of perinatal morbidity and mortality.

Preterm labor must have all of the following components:

- a) labor occurring between 20 and 37 weeks of pregnancy;
- b) uterine contractions of 4/20 minutes or 6/60 minutes, with or without ruptured membranes;
- c) evidence of cervical change (dilation, effacement, consistency, position), OR
the cervix at >2 cm dilated or \geq 80% effaced

Data does not support the number of contractions that would lead to preterm birth. Hence, uterine contractions by themselves are NOT LABOR. This is best supported by data on home uterine activity monitoring, as well as data (Iams, J.D., et al, 2002) regarding the circadian rhythm of the uterus across gestation.

The early warning signs of preterm labor are often subtle and may be unrecognized until labor is advanced. Early detection and inhibition of preterm labor can potentially reduce perinatal morbidity and mortality. In addition, it is important to rule out preterm labor and avoid hospitalization, tocolysis, and family disruptions, if possible.

POLICY: Patients presenting with symptoms of premature labor will be cared for according to the following procedure/algorithm.

EQUIPMENT:

- Fetal monitor
- Blood pressure cuff
- Stethoscope
- Thermometer
- Sterile speculum
- Lab materials for fFN, GBS, ferning tests, Nitrazine tests

PROCEDURE:

When patient presents to Labor and Delivery:

1. Place the patient in the labor room for evaluation and reassure her and family by careful explanation of all procedures.
2. The Registered Nurse will ask the patient verbally and review the prenatal record for the following:
 - Best gestational age of patient by assessing dating criteria
 - Previous premature labor/delivery (weeks gestation/birth weight)
 - Recent history of UTI or any other GU infections
 - Multiple pregnancy or hydramnios
 - Uterine bleeding
 - Uterine abnormalities
 - Incompetent cervix
 - PROM
 - Low socioeconomic status
 - Nutritional status/weight gain
 - <18 years or >40 years of age
 - >10 cigarettes per day
 - Alcohol or substance abuse
 - Domestic violence
 - Current employment/work activity
 - Any current stressor (economic, physical, emotional)

**ASSESSMENT/
SUPPORTIVE
CARE:**

3. Identify patient in preterm labor as quickly as possible:
 - a) Document prenatal history and patient's presenting symptoms;
 - b) Assess for signs and symptoms of vaginal and urinary infection;
 - c) Assess for signs and symptoms of PROM or vaginal bleeding;
 - d) Identify if sexual intercourse occurred within past 24 hours;
 - e) Monitor vital signs;
 - f) Monitor fetal heart rate and uterine activity by EFM;
 - g) Manually palpate abdomen to ascertain strength of contractions;
 - h) Assess hydration level/nutritional status
4. Consider obtaining urine sample for evidence of dehydration and/or infection. Obtain C&S, if indicated.
5. Place patient in lateral recumbent position.
6. Notify physician after obtaining baseline data. Ask if Fetal Fibronectin (fFN), Fern, and/or Group B Beta Strep (GBBS) tests are to be obtained **prior** to sterile vaginal exam (SVE). **DO NOT** perform a SVE exam prior to fFN testing. A SVE can cause a false positive fFN test.
7. Orally hydrate per patient comfort. If evidence of dehydration, infuse ordered IV fluid for 2 hours, unless contraindicated (i.e., heart disease, severe renal failure, high order multiple gestation).
8. Monitor uterine activity and fetal heart rate continuously or per physician orders.

9. Perform sterile speculum exam (SSE) (RN or MD) and obtain ordered tests per hospital procedure (fFN, GBS, ferning, Nitrazine screening). If PROM, notify provider to discuss patient disposition (admit or transfer).
10. If unable to assess cervical status, do SVE if ordered, unless contraindicated (i.e., vaginal bleeding, preterm PROM, vulvar herpes lesions). It is important to have the same individual perform SVE's, if possible, for the most accurate assessment of cervical change.
11. Refer to and follow the Preterm Labor Triage Algorithm A (Addendum A) to guide patient care in the triage time period and to guide patient disposition (admit, discharge, or transfer) decision.

**DISPOSITION
OPTIONS (For
patients with intact
membranes):**

12. Cervix > 2 cm, $\geq 80\%$ effaced or positive fFN
 - a) Notify provider
 - b) Initiate tocolytic therapy, per provider orders
 - c) Begin antenatal steroids, if between 24-34 weeks gestation
 - d) Admit as inpatient/prepare for transport
13. Cervix ≤ 2 cm or $< 80\%$ effaced and negative fFN
 - a) Notify provider
 - b) Teach patient home care instructions; make aware of risk factors, if any
 - c) Make follow-up medical appointment in one week
 - d) Discharge per provider's orders
14. Cervix ≤ 2 cm or $< 80\%$ effaced and unknown fFN
 - a) Wait 2 hours and repeat SVE
 - b) Cervical change or positive fFN
 - 1) Notify provider
 - 2) Initiate tocolytic therapy, per provider orders
 - 3) Begin antenatal steroids, if between 24-34 weeks gestation
 - 4) Admit as inpatient/prepare for transport
 - c) No cervical change or negative fFN
 - 1) Notify provider
 - 2) Teach patient home care instructions; make aware of risk factors, if any
 - 3) Make follow-up medical appointment in one week
 - 4) Discharge per provider's orders
 - d) No cervical change and unknown fFN
 - 1) Wait 2 hours and repeat SVE
 - If with cervical change or positive fFN, repeat steps in #12
 - If no cervical change and negative fFN, repeat steps in #13
 - If no cervical change and unknown fFN, repeat steps in #13

**REPORTABLE
CONDITIONS:**

15. Report promptly to physician:
 - a) Increased frequency, duration and/or intensity of uterine contractions.
 - b) Spontaneous rupture of membranes.
 - c) Increasing amounts of vaginal discharge and/or bleeding.
 - d) Alterations in maternal vital signs or non-reassuring FHR pattern.
 - e) Signs/symptoms of UTI.
 - f) Positive fFN test results.

DOCUMENTATION:

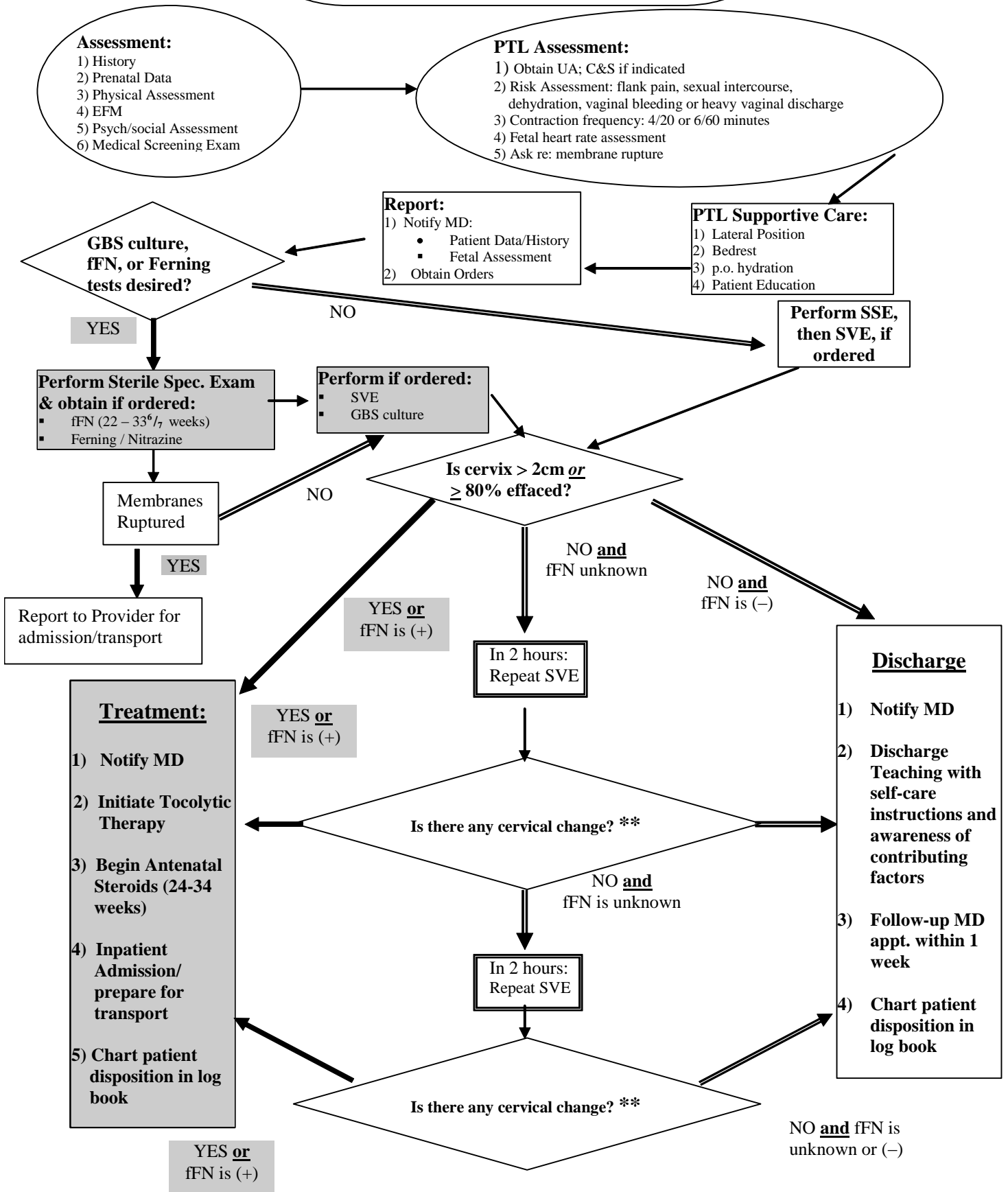
16. Document the following in the medical record:
 - a) Assessments and interventions
 - b) Uterine contraction and FHR every 30 minutes while contracting
 - c) Physician orders
 - d) Medications given
 - e) Lab results
 - f) Patient disposition (admit, discharge, transfer) in OB Central Logbook
 - g) Patient Education on Preterm Labor
 - h) Patient Home Care Instructions, if discharged

REFERENCES

- Abrahams, C, Katz M: A Perspective on the Diagnosis of Preterm Labor. Neonatal Nurs 16:1, 2002
Iams, JD, Creasy RK: Preterm Labor and Delivery: Chapter 34, Maternal-Fetal Medicine, 5th Ed., Saunders, 2004
Iams, JD: Prediction and Early Detection of Preterm Labor. Obstet Gynecol 101:402, 2003

Preterm Labor Triage Algorithm A

For patients between 20-36 weeks* with intact membranes

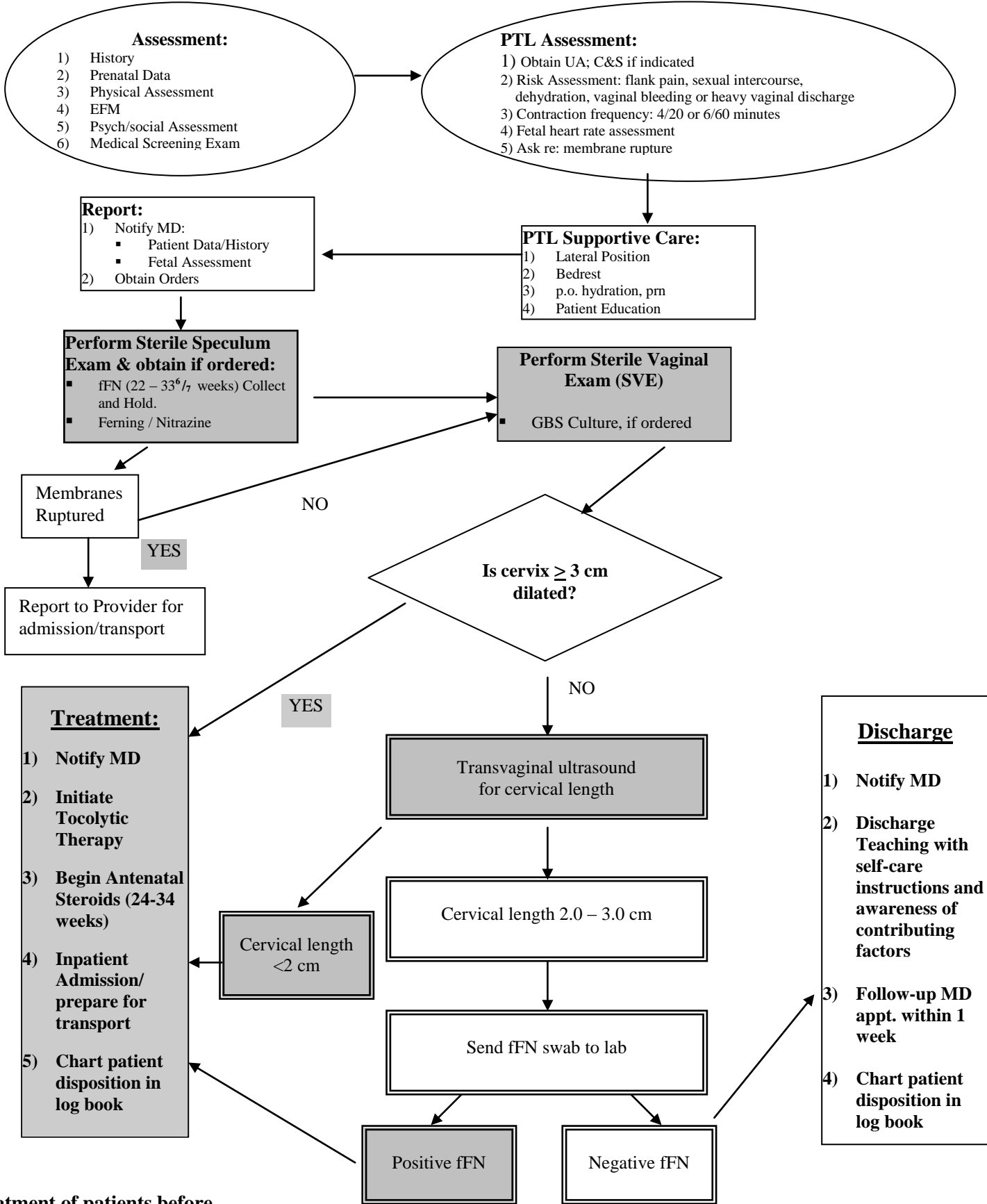


*Treatment of patients before viability or near term should be individualized.

**dilation, effacement, consistency, location

Preterm Labor Triage Algorithm B
For patients between 20-36 weeks* with intact membranes

Addendum B



*Treatment of patients before viability or near term should be individualized.

**dilation, effacement, consistency, location

Preterm Labor Assessment Preprinted Orders

Date: _____ Time: _____

Preterm Labor Assessment orders as follows:

1. Admit to OB as observation patient.
2. Implement Protocol for Care/Disposition of Women Presenting with Symptoms of Preterm Labor
3. Obtain and send clean catch urine specimen for UA and complete C&S, if indicated.
4. Perform sterile speculum exam to collect fFN specimen (before the SVE).

fFN test for patients:

- 22 through 33⁶/₇ weeks GA
- Without ROM
- Not actively bleeding
- No sexual intercourse past 24 hours

5. Perform a transvaginal ultrasound for cervical length, if using Preterm Labor Algorithm B.
6. Perform a sterile vaginal exam to determine cervical status.
7. Send fFN specimen to Lab if patient \leq 4 cm dilated and no evidence of PROM.
8. Monitor continuously using EFM.
9. Other: _____

Physician Signature: _____