

Algorithm, Protocol and Order Set



In This Section

Algorithm for Preterm Labor Triage Assessment	13
Protocol for Care/Disposition of Women Presenting with Symptoms of Preterm Labor.	14
Preterm Labor Assessment Order Set	17

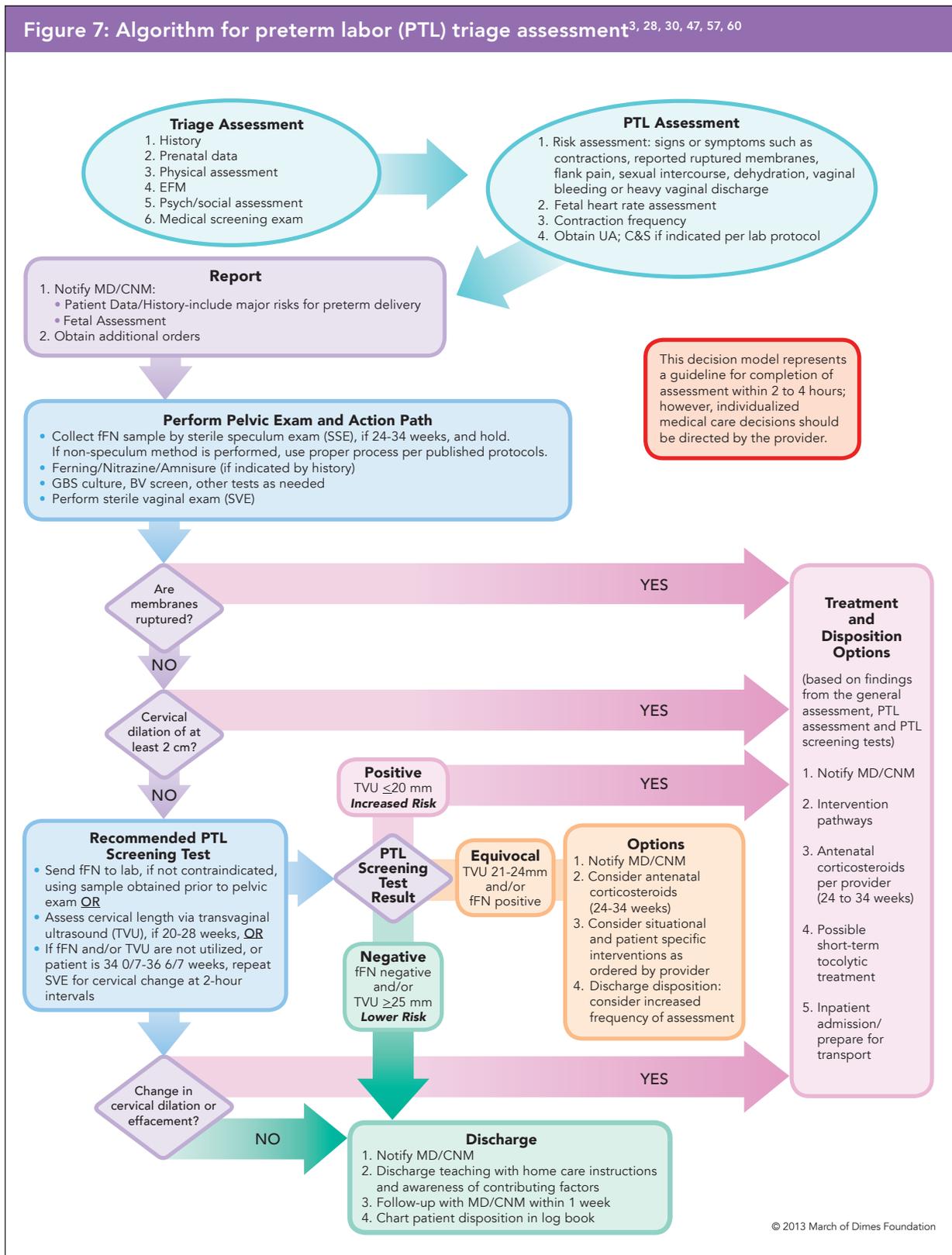
Figure 7: Algorithm for preterm labor triage assessment 13

Form 1: Preterm Labor Assessment Order Set 17

The *Preterm Labor Assessment Toolkit (PLAT)* specifically addresses the population of patients with suspected symptomatic preterm labor $\leq 36\ 6/7$ weeks of completed gestation. The algorithm and protocol presented in this section combine clinical factors (e.g. gestational age, medical screening exam, and electronic fetal monitoring) with screening tests to assess risk for preterm birth. Knowing when a woman is in preterm labor allows for timely decision making about possible transport to a higher level of care, administration of corticosteroids and/or tocolytics, and assembly of the high-risk team.

Algorithm, Protocol and Order Set

Figure 7: Algorithm for preterm labor (PTL) triage assessment^{3, 28, 30, 47, 57, 60}



Protocol For Care/Disposition of Women Presenting with Symptoms of Preterm Labor^{3,28,30,47,57,60}

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 within 2 to 4 hours.

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:

- Labor occurring between 20 and 36 6/7 weeks of pregnancy
- Regular uterine contractions, with or without ruptured membranes
- Evidence of cervical change (dilation and effacement) OR cervical dilation of at least 2 cm.

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 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 preterm labor (contractions) will be cared for according to the following procedure/algorithm.

Equipment

- Fetal monitor
- Blood pressure cuff
- Stethoscope
- Thermometer
- Sterile speculum
- Lab materials for fetal fibronectin (fFN) test, fern test, nitrazine test, Amnisure[®] and Group B Beta Strep (GBS) culture

Procedure

When patient presents to Labor and Delivery:

1. Place the patient in the triage or labor room for evaluation and reassure her and family by careful explanation of all procedures.
2. The registered nurse will ask the patient about the following issues and review the prenatal record to determine:
 - Best gestational age of fetus by assessing dating criteria
 - Previous preterm labor/delivery (weeks gestation/birthweight)
 - Recent history of urinary tract or any other genito-urinary infections
 - Multiple pregnancy or hydramnios
 - Uterine bleeding
 - Uterine abnormalities
 - Incompetent cervix
 - PPROM
 - Low socioeconomic status
 - Nutritional status/weight gain
 - <18 years or >40 years of age
 - Use of any form of tobacco
 - Alcohol or substance abuse
 - Domestic violence
 - Current employment/work activity
 - Any current stressor (economic, physical or emotional)

Assessment/Supportive Care

3. Identify patient in preterm labor expediently:
 - 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 PPROM or vaginal bleeding.
 - d. Identify if sexual intercourse occurred within past 24 hours.
 - e. Obtain and 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. Order urine C&S, if indicated by laboratory parameters.
5. Place patient in lateral recumbent position.
6. Notify provider to provide report after obtaining baseline data. Ask if fFN test, fern test, GBS culture, wet mount and/or BV screen are to be obtained prior to sterile vaginal exam (SVE).
DO NOT perform an SVE exam prior to fFN testing. An SVE can cause a false positive fFN test.
7. Obtain specimen or samples by sterile speculum exam (SSE)

OR

If non-speculum collection method is performed for the fFN test,

- a. Without using a lubricant, carefully separate the labia and insert the sterile polyester swab directed toward the posterior fornix.
- b. Lightly rotate the swab in place for approximately 30 seconds to absorb cervicovaginal secretions.

NOTE: This is the only method prescribed by the manufacturer pending FDA approval.

8. Do SVE if ordered unless contraindicated (i.e., vaginal bleeding, PPROM, vulvar herpes lesions). If unable to assess for cervical change by fFN or TVU, do SVE to assess cervix digitally. (A 2-hour interval is recommended.) The same individual should perform SVEs, if possible, for the most accurate assessment of cervical change. Serial SVEs may

- be performed more than once at 2-hour intervals if a symptomatic patient is clinically stable and has major risks for preterm delivery, e.g., prior preterm delivery before 34 weeks or current estimated gestational age (EGA) of less than or equal to 32 weeks.
9. May 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 or high-order multiple gestation.
10. Monitor uterine activity and fetal heart rate continuously or as ordered by provider.
11. Notify provider to discuss patient disposition (admit or transfer) if patient has PPROM.
12. Refer to and follow the Preterm Labor Triage Algorithm to guide patient care during triage and patient disposition decision (admit, discharge or transfer).

Disposition Options (based on findings from the general assessment, PTL assessment and PTL screening tests; for patients with intact membranes)

13. Cervical dilation of at least 2 cm by SVE

AND/OR

Cervix ≤ 20 mm long by TVU between 20 and 28 weeks gestation:

- a. Notify provider.
- b. Administer antenatal corticosteroids, if between 24 and 34 weeks gestation.
- c. Initiate short-term tocolytic therapy, if ordered by provider.
- d. Admit as inpatient/prepare for transport.
- e. Activate intervention pathways (e.g., cerclage, vaginal progesterone), if appropriate.

14. Cervix 21-24 mm long by TVU between 20 and 28 weeks gestation

AND/OR

Positive fFN between 22 and 34 weeks gestation

- a. Notify provider.
- b. Consider antenatal corticosteroids, if between 24 and 34 weeks.
- c. Consider situational and patient specific interventions as ordered by provider.
- d. Discharge disposition after adequate assessment for cervical change: Consider increased frequency of assessment.

15. Results of ALL factors assessed are negative (cervical dilation of less than 2 cm by SVE, cervix ≥ 25 mm long by TVU, negative fFN):
 - a. Notify provider.
 - b. Teach patient home care instructions; make aware of risk factors, if any. (See take-home education/instructional materials.)
 - c. Make follow-up medical appointment in one week.
 - d. Discharge if ordered by provider.
16. Cervical dilation of less than 2 cm by SVE only (neither fFN **nor** TVU available):
 - a. Wait 2 hours and repeat SVE. (Serial SVEs may be performed more than once at 2-hour intervals if a symptomatic patient is clinically stable and has major risks for preterm delivery, e.g., prior preterm delivery before 34 weeks or current EGA of less than or equal to 32 weeks.)
 - b. Cervical change:
 - i. Notify provider.
 - ii. Begin antenatal corticosteroids if between 24 and 34 weeks gestation.
 - iii. Initiate short-term tocolytic therapy if ordered by provider.
 - iv. Consider admission as inpatient/preparation for transport.
 - c. No cervical change:
 - i. Notify provider.
 - ii. Teach patient home care instructions; make aware of risk factors, if any. (See take-home education/instructional materials.)
 - iii. Make follow-up medical appointment in 1 week.
 - iv. Discharge if ordered by provider.

Reportable Conditions

17. Report promptly to provider:
 - 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
 - g. Transvaginal cervical length measurement

Documentation

18. Document the following in the medical record:
 - a. Assessments and interventions
 - b. Uterine contraction and FHR every 30 minutes while contracting
 - c. Provider orders
 - d. Medications given
 - e. Lab results
 - f. Patient disposition (admit, discharge, transfer) as dictated by hospital policies and procedures
 - g. Patient education on preterm labor
 - h. Patient Home Care Instructions, if discharged

Form 1: Preterm Labor Assessment Order Set

**Preterm Labor Assessment
Order Set**



Date: _____ Time: _____

Preterm labor assessment orders as follows:

1. Admit patient to OB for observation.
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), Fern test specimen and cultures, if indicated.

fFN test for patients:
 - 24 through 34 weeks GA
 - Without ROM
 - Not actively bleeding
 - No sexual intercourse during past 24 hours
5. Obtain a transvaginal ultrasound for cervical length if between 20 and 28 weeks gestation (if TVU available).
6. Perform a sterile vaginal exam to determine cervical status.
7. Send fFN specimen to lab if patient <3 cm dilated and no evidence of PPRM.
8. Monitor continuously using EFM.
9. Other: _____

Provider Signature: _____