Preterm Premature Rupture of Membranes

Symptoms of leaking vaginal fluid (24 0/7 – 33 6/7 weeks of gestation)* may be variable, but typically include one or more of the following:

- Watery vaginal discharge
- Persistent positional watery discharge

**Initial evaluation** upon presentation to office, triage, or labor and delivery should include the following, generally in this order.

1. **Evaluation of fetal well-being:**
   - Continuous external fetal monitoring and tocometry (if available, and if ≥23 weeks of gestation)
   - Perform basic ultrasound for fetal size, presentation, AFI, placental location

2. **Perform Vaginal Exam:**
   - Sterile speculum exam:
     
     Membrane rupture as defined by the occurrence of any two of the following:
     - pooling of fluid in the vaginal vault
     - positive Nitrazine test
     - ferning of vaginal fluid

     or any one of the following:
     - visible leakage of amniotic fluid from the cervix
     - dye pooling in the vagina after amnioinfusion
     - detection of components of amniotic fluid: Placental Alpha Microglobulin-1 [PAMG-1] (AmniSure) in cervico-vaginal secretions or Placental Protein-12 and/or AFP (ROM test)

   - Initial Equivocal Evaluation - Options if available include:
     1. Indigo carmine pooling in the vaginal vault after amnioinfusion
     2. Detection of PAMG-1 in cervico-vaginal secretions

   - Consider obtaining the following:
     - Group B strep culture
     - Wet prep evaluation for yeast, bacterial vaginosis, trichomonas
     - Gonorrhea and chlamydia swabs
(3) Assess for evidence of pertinent co-existing conditions as appropriate
- Chorioamnionitis (assessment should always occur):
  - Abdominal exam/fundal assessment
  - Complete blood count with differential
  - Physical exam (maternal tachycardia, fetal tachycardia, fever >38°C, purulent vaginal discharge)
- Abruption (if bleeding noted as part of history/physical exam):
  - Coagulation panel, in addition to assessment for chorioamnionitis
- Urinary tract infection:
  - Urinalysis
  - Urine culture

**Confirmed PPROM**
(1) Admit patient: Initiate transfer to facility with higher-level NICU care if applicable
(2) Corticosteroids for fetal lung maturity:
  - Betamethasone 12mg IM q24 hours x 2 doses, OR
  - Dexamethasone 6mg IM q12 hours x 4 doses
  - Refer to Antenatal Corticosteroids protocol for additional information
(3) Antibiotics for latency/GBS prophylaxis
  - See below
(4) Tocolysis
  - Tocolysis is generally not recommended, as it has not been shown to be associated with maternal or neonatal benefits.
(5) Magnesium sulfate for neuroprotection
  - If <32 wks: 4-6g IV bolus, then 1-2g IV per hour
  - Refer to PTL for additional information
(6) NICU consult
  - review anticipated outcomes, short term and long term
(7) Treat urinary tract infection, gonorrhea, chlamydia, trichomonas if applicable when results available

**Special Considerations**
- PCN Allergy
  Protocol in PCN Allergic:

  Goal for antibiotic prophylaxis in PPROM is two-fold: acutely for GBS if in labor and for latency if remote from term

  1. Acute: narrow-spectrum intrapartum prophylaxis with IV PCN or amp to prevent vertical transmission and early onset GBS sepsis during labor

  2. Latency: treat/prevent ascending infection to prolong pregnancy using broad-spectrum abx with IV amp and erythromycin x 2 days, then amox and erythro x 5 days.

  **Non-anaphylactic allergy** (no hives, urticaria, etc.), IV Kefzol (1 gm Q 8 hours)/Erythro x 2 days, then Keflex (500 mg QID)/Erythro x 5 days
PCN anaphylactic allergy and GBS is unknown, do NOT use clindamycin: Vancomycin (for GBS), Gentamycín (for e coli and other gram negatives), and Erythromycin (for mycoplasmas and CT).

This algorithm and key driver material was written by a group of experts in the field of Preterm Birth. It was then reviewed by the Society for Maternal-Fetal Medicine’s (SMFM’s) Publications Committee, Executive Committee and Risk Management.

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