Neonatal Infectious Disease

TORCH Infections

When to be concerned

- IUGR/SGA (<10th% for age)
- Failed Hearing Screen
- Blueberry muffin rash
- Hepatosplenomegaly
- Unexplained direct hyperbilirubinemia

Infection	Lab
Toxoplasmosis	Newborn Screen
Other (Syphilis)	Maternal Screen
Rubella	Maternal Screen
Cytomegalovirus	Urine Shell Vial for CMV/ buccal CMV PCR
HSV	Maternal history Surface cultures on the baby HSV PCR from Blood and CSF
HIV	Maternal history/screen HIV PCR in infant available

HepB

See Newborn Nursery section

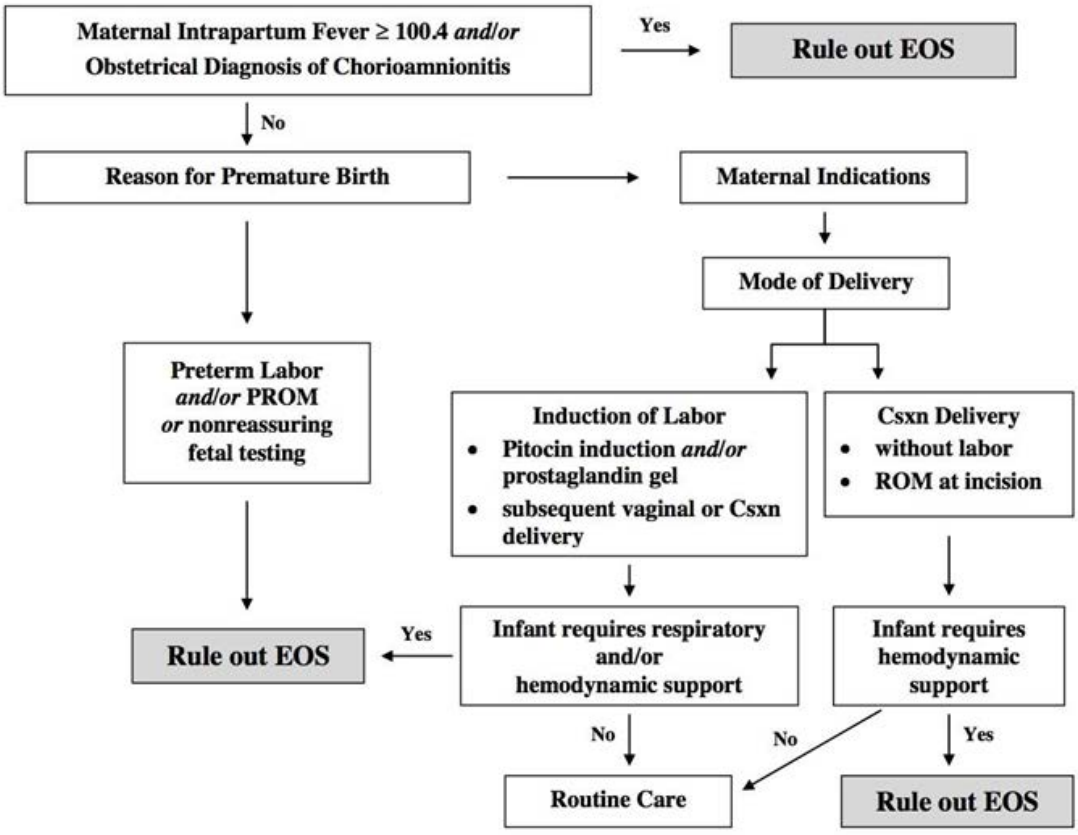
Human Immunodeficiency Virus (HIV)

- Get Mom's history, lab reports and call ID consult anytime night or day.
- **TREATMENT SHOULD BE INITIATED AS SOON AS POSSIBLE!**

Sepsis Evaluation in the Neonate

- BMC Tool: Kaiser Permanente Sepsis Calculator (for infants >34 weeks)
  https://neonatalsepsiscalculator.kaiserpermanente.org/
- Use CDC National Incidence for Incidence of Early Onset Sepsis

Guideline for Evaluation of Infants Born ≤ 34 Weeks Gestation for Risk of Early-Onset Sepsis



- *Maternal indications for preterm delivery*: pregnancy-induced hypertension; pre-eclampsia; other maternal medical condition (i.e., cancer, renal disease). Also include longstanding *in utero* fetal growth restriction, particularly in multiple gestations
- *Respiratory support*: supplemental oxygen for > 1 hour after birth; CPAP support; mechanical ventilation
- *Hemodynamic support*: volume administration or pressor support given for poor perfusion and/or low blood pressure for gestational age
- *Non-reassuring fetal testing*: testing prompted by concerns such as decreased fetal movement. This does not refer to fetal testing for indications such as maternal PET, mono-mono twins, etc.
- *Rule out EOS*: obtain blood culture and CBC/diff and antibiotics as below. *Routine Care* = no blood culture; CBC only if needed to address non-infectious concern (ie, anemia, or PET-induced neutropenia/thrombocytopenia, etc.)
- *Standard antibiotics to rule out EOS are ampicillin and gentamicin:* Consider the addition of *cefotaxime* pending blood culture results, if infant is hemodynamically unstable and any of the following are present:
  - PROM
  - Maternal treatment with any antibiotic for > 4 hrs PTD
  - Abnormal WBC indices (WBC < 5.0, ANC < 2000, and/or I/T > 0.3)) not attributable to maternal pre-eclampsia or *in utero* growth restriction (birth weight <10th percentile for gestational age)
  - Prolonged (>48 hrs) use of cephalosporins for culture-negative, presumed EOS is *strongly discouraged*

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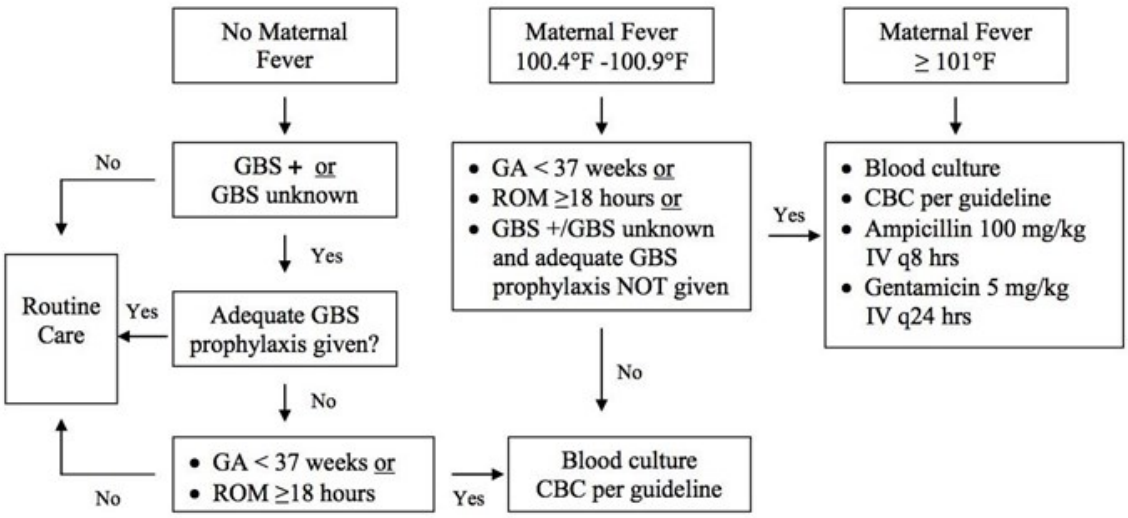
Revised June 3, 2013

Guidelines for the Management of Asymptomatic Infants Born at ≥ 35 weeks Gestation at Risk for Early-Onset Sepsis



Adequate GBS prophylaxis =
penicillin G, ampicillin or cefazolin given ≥ 4 hours prior to delivery

Inadequate GBS prophylaxis =
any antibiotic given < 4 hours prior to delivery or any other antibiotic for any duration

CBC Recommendations by Postnatal Age:

- **< 1 hour**: do not obtain CBC
- **1-4 hours**: CBC not recommended. If obtained, repeat at 6-12 hours to guide treatment decisions.
- **> 4 hours**: obtain CBC with blood culture

Following values should raise concern for infection:
- WBC < 5000
- ANC < 2000
- I/T ratio ≥ 0.3

ADDITIONAL NOTES

1. Chorioamnionitis is an obstetrical clinical diagnosis made on the basis of clinical findings, laboratory data and fever. If obstetrical staff diagnose chorioamnionitis, the infant should be evaluated for sepsis and receive empiric antibiotic treatment.
2. Maternal fever that occurs within one hour of delivery should be treated like intrapartum fever, and the infant should be evaluated as outlined above.
3. Women with a previous infant with GBS disease should receive intrapartum GBS prophylaxis.
4. Blood cultures should consist of aerobic and anaerobic bottles with minimum 1 cc blood in each bottle.
5. To facilitate family bonding and initiation of breastfeeding, the sepsis evaluation can be delayed for up to one hour after birth, at the discretion of the obstetrical and neonatal caregivers.

These are guidelines only and should not substitute for clinical judgment.

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Updated 7/30/2014