

VENTURA COUNTY MEDICAL CENTER CLINICAL PRACTICE GUIDELINES / PROTOCOLS

GROUP B STREPTOCOCCUS IN NEONATES – Screening for Infection of

The contents of this clinical practice guideline are to be used as a guide. Healthcare professionals should use sound clinical judgment and individualize patient care. This CPG is not meant to be a replacement for training, experience, CME or studying the latest literature and drug information.

Based on: Revised Guidelines for Prevention of Early-onset Group B Streptococcal (GBS) Infection. American Academy of Pediatrics Committee on Infectious Diseases and Committee on Fetus and Newborn. 1997 & CDC guideline Aug 2002, Nov 2010.

A: Gestational Age >37 0/7 wks and asymptomatic infant.

I: The mother received IAP *:

- Continue routine normal newborn care and observe for >= 48 hrs**

II: The mother did not receive at least 4 hours of antibiotic prior to delivery.

- Consider initial CBC, CRP and again at 6 to 12 hours, followed by CBC, CRP at 12 to 24 hour interval as indicated.
- If labs are abnormal consult neonatologist for start of IV Antibiotics.
- Do not discharge home before 48 hrs of age.

B: Gestational Age <37 0/7 wks or ROM>18 hrs and mother received > 4hrs of intrapartum antibiotics

- Observe for >= 48 hrs. **

C: Gestational Age <37 0/7 wks or ROM>18 hrs and mother did not receive > 4hrs of intrapartum antibiotics

- Blood culture at birth, Serial CBCd and CRP at first 6 hours and 12 hours.
- Consult neonatologist immediately for NICU admission and start of IV antibiotics if labs are abnormal or the infant is symptomatic.

D: Baby is symptomatic regardless of IAP or gestational age:

- CBC, diff; Blood Culture, CRP. Chest X-Ray if respiratory signs and symptoms.
- Consult neonatologist immediately for NICU admission and start on antibiotics.
- A lumbar puncture to be done if the newborn is stable enough to tolerate the procedure and sepsis is suspected.

E: If a woman receives intrapartum antibiotics for treatment of suspected chorioamnionitis, her newborn should have a full diagnostic evaluation and empiric therapy pending culture results, regardless of clinical condition at birth, duration of maternal antibiotic therapy before delivery, or gestational age at delivery. Empiric therapy for the infant should include antimicrobial agents active against GBS as well as other organisms that might cause neonatal sepsis (e.g., ampicillin and gentamicin).

- ◆ If Blood Culture is positive, repeat Blood Culture and do Lumbar Puncture.
- ◆ In the presence of signs of sepsis lumbar puncture to be done when the infant is stable and can tolerate the procedure.
- ◆ Length of therapy is based on clinical and other lab evidences.
- ◆ If Cerebral Spinal Fluid is positive Ampicillin or Penicillin G for 14-21 days.
- ◆ If Antibiotic therapy is needed, the baby needs to be transferred immediately to NICU.

* Intrapartum Antimicrobial Prophylaxis (IAP):

>= 4 hours of antibiotic therapy based on recommended dose. Intravenous penicillin G (5 million units initially and then 2.5-3 million units every 4 hours) should be given until delivery. Intravenous ampicillin (2g initially and then 1g every 4 hours until delivery). Intravenous Cefazolin 2Gm initial IV, then 1 Gm Q 8 hrs until delivery

Ampicillin is more likely to cause antibiotic-resistant organisms than Penicillin G.

In case of high risk for anaphylactic reaction*** to Penicillin, intravenous Clindamycin may be used after proper sensitivity test (see CDC GBS prophylaxis guideline, Nov 2010, page 19).

Erythromycin is no longer an acceptable alternative for intrapartum GBS prophylaxis for penicillin-allergic women at high risk for anaphylaxis

† CBC interpretation: WBC >30,000 or <7,000

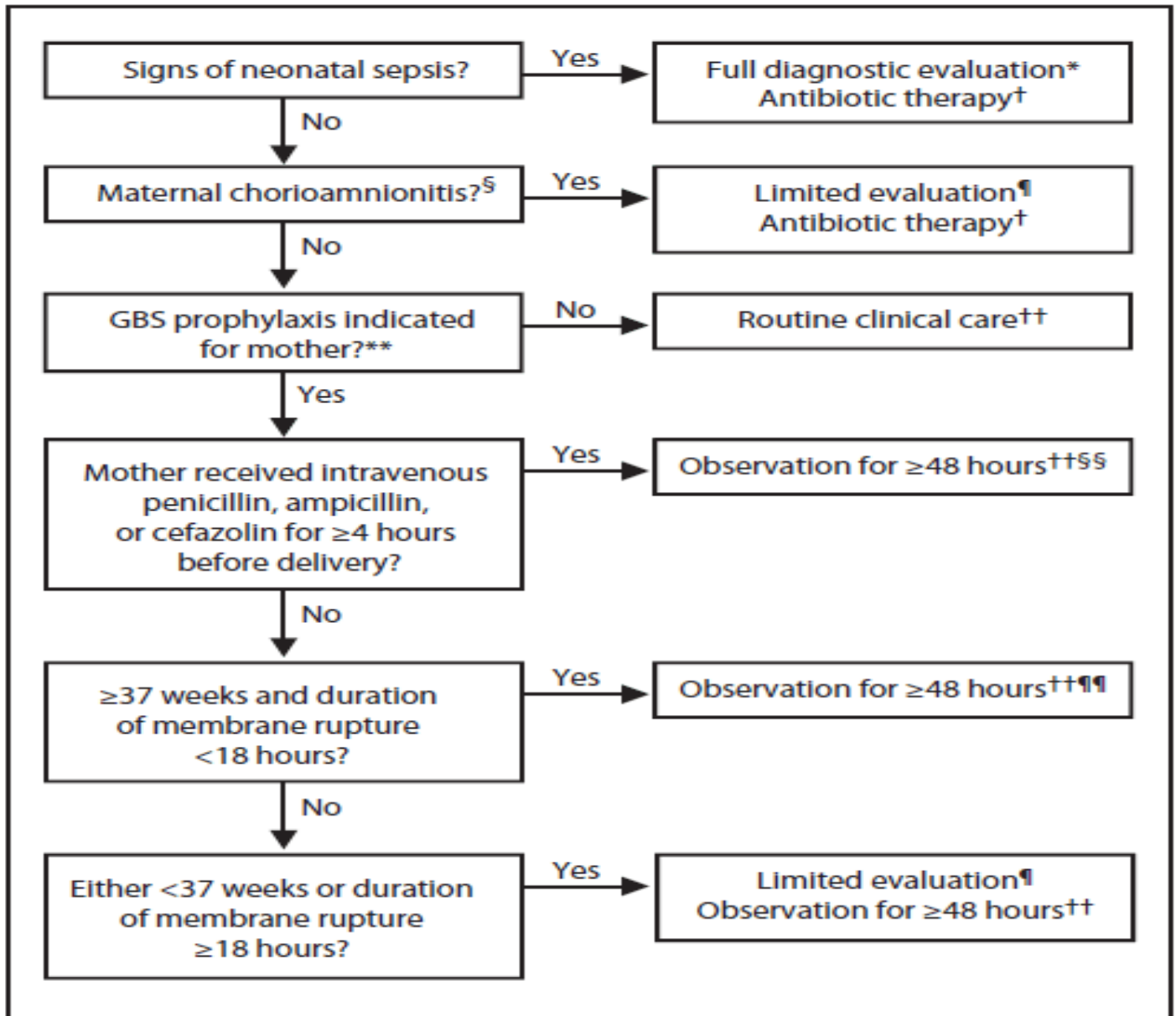
ANC <1500 or Immature to total (I/T) neutrophil ratio >0.2 are considered abnormal and need more investigation or intervention.

C- Reactive Protein (CRP): May be used to screen for inflammation including infectious process. It is nonspecific and the trend has more value than one measurement.

** Such infants can be discharged home as early as 24 hours after delivery, assuming that other discharge criteria have been met, ready access to medical care exists, and that a person able to comply fully with instructions for home observation will be present.

***The definition of high risk for anaphylaxis is clarified as a history of anaphylaxis, angioedema, respiratory distress or urticaria following administration of a penicillin or a cephalosporin.

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* Full diagnostic evaluation includes a blood culture, a complete blood count (CBC) including white blood cell differential and platelet counts, chest radiograph (if respiratory abnormalities are present), and lumbar puncture (if patient is stable enough to tolerate procedure and sepsis is suspected).

† Antibiotic therapy should be directed toward the most common causes of neonatal sepsis, including intravenous ampicillin for GBS and coverage for other organisms (including *Escherichia coli* and other gram-negative pathogens) and should take into account local antibiotic resistance patterns.

§ Consultation with obstetric providers is important to determine the level of clinical suspicion for chorioamnionitis. Chorioamnionitis is diagnosed clinically and some of the signs are nonspecific.

¶ Limited evaluation includes blood culture (at birth) and CBC with differential and platelets (at birth and/or at 6–12 hours of life).

*** See table 3 for indications for intrapartum GBS prophylaxis.

†† If signs of sepsis develop, a full diagnostic evaluation should be conducted and antibiotic therapy initiated.

§§ If ≥37 weeks' gestation, observation may occur at home after 24 hours if other discharge criteria have been met, access to medical care is readily available, and a person who is able to comply fully with instructions for home observation will be present. If any of these conditions is not met, the infant should be observed in the hospital for at least 48 hours and until discharge criteria are achieved.

¶¶ Some experts recommend a CBC with differential and platelets at age 6–12 hours.

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