September 2019 E-Newsletter: Group B Streptococcal Disease

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Group B Streptococcal Disease - Updated Recommendations for Women and Infants

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The American College of Obstetricians and Gynecologists (ACOG) and the American Academy of Pediatrics (AAP) recently released revised recommendations for the management of Group B Streptococcal Disease for women and infants. Both distinguished perinatal organizations have coordinated their respective publications to support one another in the prevention and management of early onset disease.

MATERNAL

ACOG released ACOG Committee Opinion Number 782 in July 2019 to replace ACOG Committee Opinion Number 485 dated April 2011. Group B Streptococcal infection is one of the leading causes of infection in newborns with 20-30% of pregnant women as carriers with maternal colonization. With identification of colonized women and the administration of intrapartum antibiotics the rate of transmission from mother to newborn is measurably reduced to a 1-2% infection rate. Universal prenatal screening for gastrointestinal and genitourinary infection plays a significant role in prevention for newborns. Historically, screening would occur in the obstetrician's office between 35 and 0/7 – 37 and 6/7 weeks gestation to allow adequate time to incorporate in a patient's prenatal records in the event labor begins during the late preterm period.

Highlights from the ACOG Committee Opinion Number 782 are as follows:

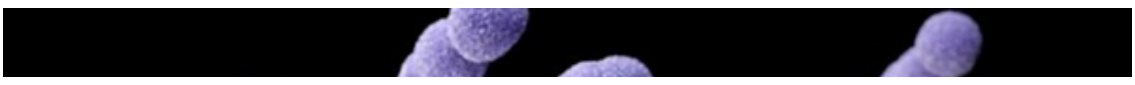
- Recommendations are made for the use of prophylactic intravenous antibiotics during the intrapartum period to protect the newborn from early onset disease, resulting from mothers with a positive GBS culture.
- All gravid women should receive universal screening between 36 and 0/7 to 37 and 6/7 weeks gestation and up to 41 and 0/7 weeks gestation. This covers the 5 week window for result specificity.
- Women with a positive culture during the recommended gestational age are to receive prophylactic antibiotic treatment.
- Patients with a positive culture that deliver via cesarean birth with intact membranes do not need antibiotic administration prior to birth.
- If, at the time labor begins, the GBS status is unknown, the woman should receive precautionary antibiotics as if her cultures were positive.
- If a woman was colonized with Group B Streptococcal Disease in previous pregnancies and her current status is unknown, the

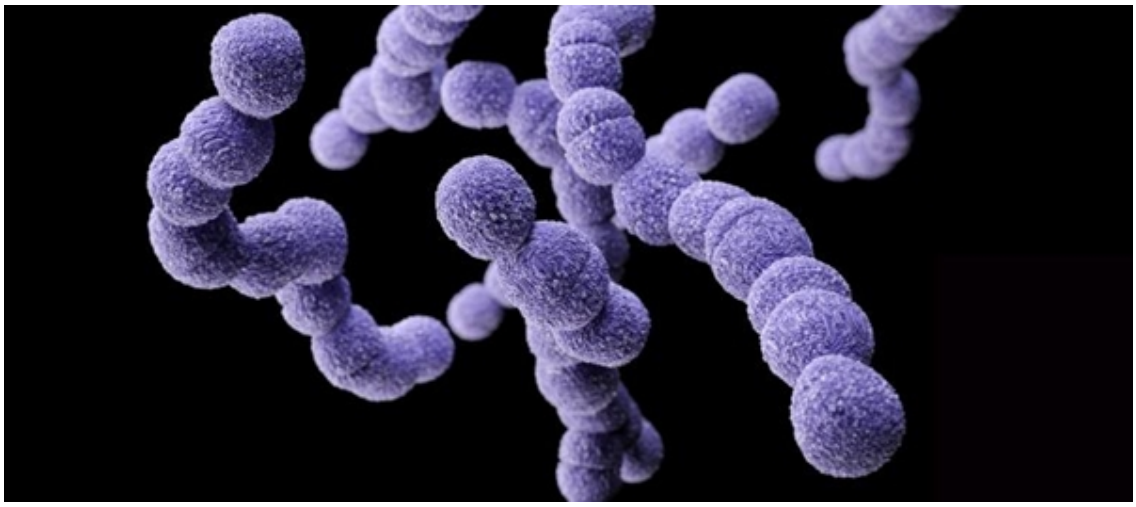
recommendation is to administer intrapartum antibiotics.

- Intravenous penicillin remains the referred antibiotic with ampicillin as the alternative. For women with a suspected allergy and low risk for anaphylaxis to penicillin, cefazolin can be safely given as a first generation cephalosporin or clindamycin if the anaphylaxis risk is high.
- When the penicillin risk is high and the GBS isolate is clindamycin resistant, intravenous vancomycin should be given as a weight-based dosage of 20 mg/kg every 8 hours, with a maximum dosage of 2 grams per single dose.
- With an unknown or low severity risk to penicillin an allergy skin test is available to determine reaction severity and the possibility of safe penicillin administration.
- Keep in mind, necessary interventions should not be delayed (i.e. delivery) only to ensure antibiotic coverage of 4 hours occurs.

SAME	**CHANGE**
Use of antenatal screening cultures	Timing of antenatal screening
Indication for intrapartum antibiotic prophylaxis	Management of GBS unknown status at term gestation
Antibiotics recommended for intrapartum antibiotic prophylaxis	Vancomycin dosing guidelines
Management of rupture of membranes and preterm labor	Management of obstetric interventions
	Penicillin allergy testing recommended for pregnant women

(K. Puopolo MD, PhD)





NEONATAL

The American Academy of Pediatrics recommendations work symbiotically with the ACOG Committee Opinion. The recommendations are as follows:

- The AAP is in agreement with ACOG's guidelines for GBS management.
- Intrapartum intravenous antibiotic administration as indicated by ACOG offers protection to newborns in the presence of maternal GBS colonization.
- AAP recommends risk assessment should follow established protocol:
    - Adjustment occur for infants at or greater than 35 and 0/7 weeks gestation and for those delivered at or less than 34 and 6/7 weeks gestation.
    - The Neonatal Early-Onset Sepsis algorithm may be used to assess risk for newborns at or greater than 35 0/7 weeks gestation at delivery while those born at or less than 34 and 6/7 weeks have the highest risk of infection from any source.
- Diagnosis should be determined by cerebrospinal fluid culture or blood culture for early-onset infection.
- Surveillance supported for those infants with presentation of late-onset infection, as intrapartum antibiotics have not proven to offer protection.
- Penicillin is the preferred antibiotic with ampicillin as the alternative for newborns, just as it is for women with positive GBS cultures.

SAME	**CHANGE**
Endorses ACOG use of • Antenatal screening • Culture indications for	

• Culture indications for intrapartum antibiotic prophylaxis • Choice of intrapartum antibiotic prophylaxis	Updates on epidemiology of early and late-onset GBS disease
Antibiotics considered to be adequate GBS intrapartum antibiotic prophylaxis for purpose of GBS risk assessment	GBS early-onset disease risk assessment strategies • Stratified by gestational age • Eliminates reliance on screening laboratory tests
	Dosing recommendations for definitive treatment GBS early and late-onset disease

(K. Puopolo MD, PhD)

Continued support and guidance from ACOG and AAP has resulted in a decline in the rate or vertical transmission of Group B Streptococcal infection from mother to neonate, however, at this time, elimination of disease transfer is not possible. Coordinated collegial management between obstetrical and pediatric practice will continue to offer the most effective treatment and prevention of colonization in the newborn.

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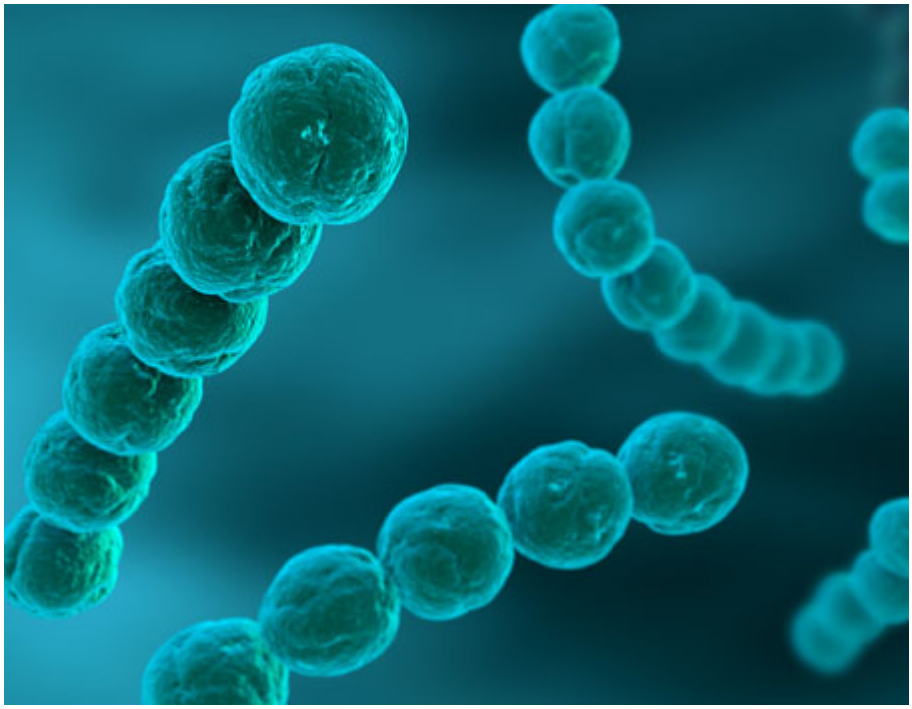

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