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Evidence on: Group B Strep in Pregnancy

By Rebecca Dekker, PhD, RN of EvidenceBasedBirth.com

Question: What is Group B Strep?

Answer: About 10% to 30% of pregnant people carry Group B *Streptococcus* (GBS)—a bacteria—in their digestive tract. Most people with GBS do not have symptoms. However, in some newborns, GBS can cause early onset GBS disease. This is defined as infection of the blood, brain/spinal cord, or lungs during days 0 to 6 of life.

Question: What are the chances that a newborn will have early GBS disease?

Answer: If a pregnant person who carries GBS is not treated with intravenous (IV) antibiotics during labor, the baby's risk of developing a serious GBS infection in the first week of life is 1% to 2%. If a GBS carrier is treated with antibiotics during labor (specifically with penicillin, ampicillin, or cefazolin), then the risk of their baby developing early GBS disease drops to 0.2%.

Question: What is the evidence on screening for GBS and treating those who are positive with IV antibiotics during labor?

Answer: The *universal screening approach*, used in 60 countries, involves screening all pregnant people for GBS at 35-37 weeks (36-37 weeks in the U.S.) and providing IV antibiotics to carriers of GBS during labor (unless a Cesarean is done before the water breaks). The *other risk factor approach*, used in 25 countries, does not involve screening for GBS. Instead, antibiotics are given during labor if other risk factors (fever, preterm labor, or water broken 18+ hours, among others) are present. Researchers have found that the universal screening approach prevents more cases of early GBS disease than the other risk factor approach. This makes sense, because the main risk factor for early GBS disease is when the pregnant person is a carrier of GBS, and 60% of newborns with early GBS have no other risk factors.

Question: How do antibiotics during labor affect a newborn's microbiome?

Answer: Studies have found that IV antibiotics during labor or during a Cesarean affect the infant's microbiome by decreasing beneficial bacteria and increasing potentially harmful bacteria. The effect seems to be temporary for most infants, and the negative effect is lessened when the infant is born vaginally and/or fed with human milk. Some antibiotics used when there is a penicillin allergy (i.e., vancomycin and clindamycin) have a worse impact on the microbiome and are also less effective at preventing early GBS disease.

Question: Is there anything other than IV antibiotics that works to get rid of GBS?

Answer: Taking probiotics (such as *Lactobacillus*) has not yet been proven to lessen your chances of being colonized with GBS. However, probiotics have other positive effects, such as reducing digestive symptoms of pregnancy. As far as other alternatives go, washing the vagina with chlorhexidine (or Hibiclens) during labor has not been shown to be effective in randomized trials. There is no evidence on the safety or effectiveness of inserting garlic in the vagina. Because of the difficulty of using the universal screening method in low-resource areas, researchers are developing a potential vaccine for GBS during pregnancy.

Question: What is the bottom line?

Answer: In places where preventing more cases of early GBS disease is the priority, people are typically screened for GBS at 36 to 37 weeks and, if positive, provided antibiotics during labor. In places where preventing the harms of antibiotics is the priority, people are not screened for GBS and only given antibiotics during labor if other risk factors occur. Antibiotic rates remain high (~30%) regardless of which approach is used. In low-resource areas where no policy is used to prevent GBS disease and there is no access to antibiotics or emergency care, GBS remains a leading cause of newborn illness and death.

> **"There are fewer cases of early GBS disease in newborn with the universal screening approach compared to the other risk factor approach (0.2 per 1,000 vs. 0.5 per 1,000)."**

1. American College of Obstetricians and Gynecologists (2019, Reaffirmed 2022). "ACOG Committee Opinion No 797: Prevention of Group B Streptococcal Early-Onset Disease in Newborns." Obstet Gynecol 135(2): e51-e72.
2. Azad, M. B., Konya, T., Persaud, R. R. (2016). "Impact of maternal intrapartum antibiotics, method of birth and breastfeeding on gut microbiota during the first year of life: a prospective cohort study." BJOG 123: 983-993.
3. Hanson, L., VandeVusse, L., Forgie, M., et al. (2023). "A randomized controlled trial of an oral probiotic to reduce antepartum group B streptococcus colonization and gastrointestinal symptoms." Am J Obstet Gynecol MFM 5:100748.
4. Le Doare, K., O'Driscoll, M., Turner, K., et al. (2017). "Intrapartum antibiotic chemoprophylaxis policies for prevention of Group B Streptococcal disease worldwide: Systematic Review." Clin Infect Dis 65(S2): S143-S151.
5. Van Dyke, M. K., Phares, C. R., Lynfield, R., et al. (2009). "Evaluation of universal antenatal screening for group B streptococcus." N Engl J Med 360(25): 2626-2636.

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