

## GBS Sepsis: A ‘Don’t Miss’ Diagnosis

June 21, 2017

Early-onset sepsis in a newborn is one of those challenging clinical entities—it is a critical diagnosis that you certainly don’t want to miss, but it’s also a disease process with signs and symptoms that may be subtle or nonspecific.

Heather Campbell, MD, Pediatrics in Review Early Career Physician

**Content License:** FreeView

**Article type:** [Pediatrics in Review Blog](#)



Early-onset sepsis in a newborn is one of those challenging clinical entities—it is a critical diagnosis that you certainly don’t want to miss, but it’s also a disease process with signs and symptoms that may be subtle or nonspecific.

As a pediatrician who works in a newborn nursery, I often am asked to evaluate infants who are mostly well-appearing but have some mild physiologic abnormality, such as a vigorous late preterm newborn with trouble maintaining a normal temperature or a term baby born via C-section who becomes tachypneic shortly after his delivery.

In scenarios where an infant appears critically ill, the treatment is obvious: one should initiate a workup for sepsis, start empiric antibiotics, and provide intensive supportive care. But the management of this other category of infants, the “equivocal” ones with only mild physiologic aberrations, is much more nuanced. A thorough understanding of the different risk factors for newborn sepsis is needed to help decide which infants warrant a sepsis evaluation and antibiotic therapy.

In the [June](#) issue of *Pediatrics in Review*, the article “[Group B Streptococcal Infection](#),” by Drs. Randis, Baker and Ratner, provides a useful summary of the many potential risk factors for invasive group B *Streptococcus* (GBS) disease, including: maternal colonization status; whether adequate intrapartum antibiotic prophylaxis was given; the presence of maternal fever or prolonged membrane rupture; and prematurity. The article summarizes the frequently used [2010 Centers for Disease Control and Prevention guidelines](#) for prevention of neonatal GBS disease and mentions some suggested modifications to this algorithm that have been [recommended](#) by the AAP Committee on Fetus and Newborn.

The end of the review article also touches on some interesting areas of ongoing clinical research, such as the feasibility of GBS vaccine development and concerns about whether early antibiotic exposure in newborns may promote antibiotic resistance or cause clinically meaningful perturbations in the neonatal microbiome. As our understanding of GBS sepsis and the potential risks associated with empiric antibiotic

therapy continues to evolve, other risk stratification models such as the [Kaiser Sepsis calculator](#)<sup>1</sup> have been developed to help clinicians more efficiently identify infants who have an increased risk of early onset sepsis.

Although the overall rate of GBS sepsis has declined significantly over the last couple of decades, it remains an important consideration in the management of newborns, and all pediatricians should be familiar with the epidemiology, clinical features, and risk factors for this disease.

1. Kuzniewicz MW, Walsh EM, Li S, Fischer A, Escobar GJ. Development and Implementation of an Early-Onset Sepsis Calculator to Guide Antibiotic Management in Late Preterm and Term Neonates. *Jt Comm J Qual Patient Saf.* 2016 May;42(5):232-9.

- [Neonatal Lethargy, Seizures, and Asphyxiation](#)
- [Case 3: Jaundice, Pallor, and Failure to Thrive in a 7-week-old Infant](#)
- [The Interplay between Pharmacokinetics and Pharmacodynamics](#)
- [Neonatal Hypoglycemia](#)
- [Facebook](#)

Copyright © 2017 American Academy of Pediatrics