

Neonatal Antibiotic Stewardship

Objectives

- Recognize the practice variation in antibiotic use among NICUs and relate the impact of these variations to concerns regarding microbial exposure and the potential for subsequent short- and long-term clinical outcomes
- Explain the current rationale for empiric antibiotic use in newborns and relate to the suggested approaches supporting antibiotic stewardship efforts
- Identify the organisms most associated with early- and late-onset sepsis in the United States and United Kingdom and identify the antibiotics used for empiric broad spectrum coverage and for prolonged use
- Describe specific national campaigns and large organizational efforts that have developed initiatives focused on aspects of care to improve risk assessment and the promotion of safe and effective antibiotic prescribing practices

Content Outline

1. Rationale for Use of Empiric Antibiotic Therapy in Infants
 - 1.1 Empiric broad spectrum & prolonged antibiotic use in NICUs
2. Variations in Antimicrobial Practice
 - 2.1 Emerging problem for neonates caused by antibiotic resistance
3. Overview of Antibiotic Practice & Stewardship Efforts in NICUs
 - 3.1 Dilemmas surrounding which infants to treat
 - 3.2 Use of biomarkers
 - 3.3 Initial therapy for suspected early- and late-onset sepsis
 - 3.4 Reevaluating antibiotic therapy & duration of therapy
4. Foundations of Antibiotic Stewardship
 - 4.1 Methods to reduce the risk of infection
 - 4.2 National initiatives & campaigns promoting antibiotic stewardship efforts

Reading Material Resources

Module WB2124: Neonatal Antibiotic Stewardship is based on the resource listed below. A copy of the resource is included with the module.

Chapter 5 Antibiotic Stewardship, Herrera TI and Cotton CM, in *Infectious Disease and Pharmacology: Neonatal Questions and Controversies*, (2019), Elsevier, 45-51