Variation in Current Management of Term and Late-Preterm Neonates at Risk for Early-Onset Sepsis "An International Survey and Review of Guidelines".

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Abstract

BACKGROUND: Uncertainty about the presence of infection results in unnecessary and prolonged empiric antibiotic treatment of newborns at risk for early-onset sepsis (EOS). This study evaluates the impact of this uncertainty on the diversity in management.

METHODS: A web-based survey with questions addressing management of infection risk-adjusted scenarios was performed in Europe, North America, and Australia. Published national guidelines (n=5) were reviewed and compared to the results of the survey.

RESULTS: 439 Clinicians (68% were neonatologists) from 16 countries completed the survey. In the low-risk scenario, 29% would start antibiotic therapy and 26% would not, both groups without laboratory investigations; 45% would start if laboratory markers were abnormal. In the high-risk scenario, 99% would start antibiotic therapy. In the low-risk scenario, 89% would discontinue antibiotic therapy before 72 hours. In the high-risk scenario, 35% would discontinue therapy before 72 hours, 56% would continue therapy for five to seven days, and 9% for more than 7 days. Laboratory investigations were used in 31% of scenarios for the decision to start, and in 72% for the decision to discontinue antibiotic treatment. National guidelines differ considerably regarding the decision to start in low-risk and regarding the decision to continue therapy in higher risk situations.

CONCLUSIONS: There is a broad diversity of clinical practice in management of EOS and a lack of agreement between current guidelines. The results of the survey reflect the diversity of national guidelines. Prospective studies regarding management of neonates at risk of EOS with safety endpoints are needed.

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