Our objective was to determine the frequency with which shorter IV antibiotic courses are used and to compare rates of GBS disease recurrence between prolonged and shortened IV antibiotic courses” Coon et al (2018).

Abstract

BACKGROUND: Guidelines recommend a prolonged course (10 days) of intravenous (IV) antibiotic therapy for infants with uncomplicated, late-onset group B Streptococcus (GBS) bacteremia. Our objective was to determine the frequency with which shorter IV antibiotic courses are used and to compare rates of GBS disease recurrence between prolonged and shortened IV antibiotic courses.

METHODS: We performed a multicenter retrospective cohort study of infants aged 7 days to 4 months who were admitted to children’s hospitals in the Pediatric Health Information System database from 2000 to 2015 with GBS bacteremia. The exposure was shortened IV antibiotic therapy, defined as discharge from the index GBS visit after a length of stay of ≤8 days without a peripherally inserted central catheter charge. The primary outcome was readmission for GBS bacteremia, meningitis, or osteomyelitis in the first year of life. Outcomes were analyzed by using propensity-adjusted, inverse probability-weighted regression models.

RESULTS: Of 775 infants who were diagnosed with uncomplicated, late-onset GBS
bacteremia, 612 (79%) received a prolonged IV course of antibiotic therapy, and 163 (21%) received a shortened course. Rates of treatment with shortened IV courses varied by hospital (range: 0%-67%; SD: 20%). Three patients (1.8%) in the shortened IV duration group experienced GBS recurrence, compared with 14 patients (2.3%) in the prolonged IV duration group (adjusted absolute risk difference: -0.2%; 95% confidence interval: -3.0% to 2.5%).

CONCLUSIONS: Shortened IV antibiotic courses are prescribed among infants with uncomplicated, late-onset GBS bacteremia, with low rates of disease recurrence and treatment failure.

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