Shortening the Course of IV Antibiotic Treatment for Late-Onset Group B Strep Infections
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If you had an infant diagnosed with uncomplicated late-onset Group B Streptococcal (GBS) bacteremia, it is likely you would prescribe a ten-day course of antibiotics. But why ten days? Could you treat successfully in less time? To answer that questions, Coon et al. (10.1542/peds.2018-0345) turned to a multicenter data base comprised of 40+ freestanding children's hospitals (the Pediatric Health information System) and described the outcomes over 15 years of 775 infants in the database from 7 days to 4 months treated for GBS bacteremia. The authors divided the group into treatment periods of 8 days or > 8 days, with primary outcome being a readmission for GBS bacteremia, meningitis, or osteomyelitis. To no surprise, most infants (79%) got the traditional prolonged course of antibiotics but 21% got 8 days. It may surprise you, however, to learn that only three patients (1.8%) had a recurrence in the shorter course group and 14 patients (2.3%) in the prolonged group. The difference between groups was not statistically significant. How long were the short treatment courses? More than half the infants treated with a short course of IV antibiotics got them for 5 days or less! Thus, a shortened course might be as effective as a prolonged course. Is this study proof enough to warrant shortening the GBS bacteremia treatment course for your patients with this illness?

We asked Dr. Charles Woods, specialist in pediatric infectious diseases at the University of Tennessee to comment on this last question in an accompanying commentary (10.1542/peds.2018-2623). Dr. Woods traces how we got to ten days of treatment in the first place and shows us that there is a great deal of empiricism in that decision, and then helps us weigh the benefits versus the risk of short treatment. For example, Dr. Woods points out that the Coon study cannot tell us how many infants were subsequently treated at home on oral antibiotics and for how long, or even if 5 days of IV treatment is as effective as 8 days. While we cannot subject babies to a randomized controlled trial to prove that a shorter course is safe and effective -at least not yet based on just the results of this study- it is a retrospective comparative study like this one from a large multi-institutional database that may be the next best thing. Given the evidence being weak for treating for ten days, maybe you will try a shorter course as a result of what you read in this study and commentary.