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Decreased Antibiotic Use in Well-Appearing Infants Exposed to Maternal Chorioamnionitis

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N'Ewo o lpi u³. 'E'O lpgt³. 'N'Ej wtej o cp³. 'G'Cncpi kt g³. 'LY glpgt³. 'cpf 'LLcemqp³
³Ej kf tgpai'O gte{ 'J qur kcn'McpucuEk{ 'O Q"

Background: In accordance with the CDC's 2010 *Guidelines for Prevention of Perinatal Group B Streptococcal Disease*, 100% of all well-appearing infants admitted to our Level III NICU admitted for maternal chorioamnionitis have undergone a limited early-onset sepsis (EOS) evaluation and started on IV antibiotics for a minimum of 48 hours. Studies have shown potential negative consequences of early antibiotic exposure, as well as separation of the mother-baby dyad. Subsequently, tools such as the Kaiser Permanente EOS Calculator have been developed to aid in the clinical evaluation of this patient population. As an institution involved in the Baby Friendly Initiative, it was prudent that we investigate the benefits of a modified sepsis protocol.

Objective: Decrease the routine use of antibiotics in well-appearing infants > 34 weeks gestation exposed to chorioamnionitis by 40%.

Design/Methods: The project was implemented in three PDSA cycles.

Cycle 1: Reviewed current practices, performed literature reviews, and developed a multidisciplinary chorioamnionitis taskforce. Members of the taskforce developed an updated sepsis protocol, provided formal staff education, and created a tracking form for which baseline data was collected on all infants whose mothers were diagnosed with chorioamnionitis.

Cycle 2: Implementation of the updated sepsis protocol with patient tracking.

Cycle 3: Re-education of all staff on the EOS calculator and updated protocol.

Results: Three PDSA cycles were completed over a 6-month period (Figure 1).

Cycle 1: Thirteen infants were included and 100% were started on antibiotics. 3/13 received a 7-day antibiotic course for presumed clinical sepsis.

Cycle 2: Seven infants were included in this cycle. Only 2/7 infants were started on antibiotics, a 70% reduction in antibiotic use.

Cycle 3: Following re-education, four patients were included in this cycle. There was 100% use of the EOS calculator and 50% reduction in antibiotic use (Figure 2).

Conclusions: We exceeded our goal of 40%, with a 70% reduction in antibiotic use for infants exposed to maternal chorioamnionitis. Implementation of the EOS calculator has reduced antibiotic exposure and number of laboratory evaluation at our busy, high volume delivery hospital. Our planned next steps are to include the evaluation of workflow for all involved in care of these infants and improve education for the family members.

Figure 1. Run Chart

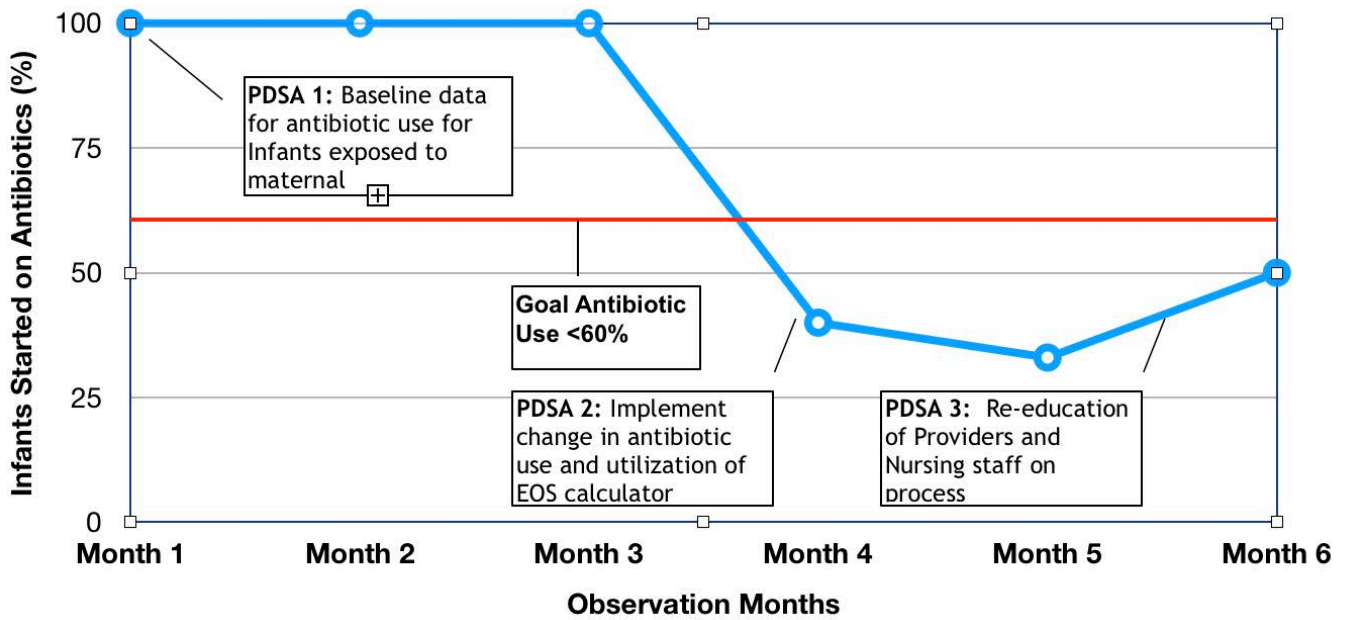


Figure 2. Process and Balancing Measures

