OSF Little Company of Mary Medical Center: Implementation of Early Onset Sepsis (EOS) Calculator and Reduction of Neonatal Antibiotic Exposure
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Problem
• Antibiotic use in newborns is known to adversely affect the microbiome resulting in dysbiosis.
• Knowing that antibiotic use in newborns has negative consequences, we began gathering baseline data on antibiotic use in newborns.
• Our patient population is a mix ranging from those with primary care providers to those with little or no care; many of whom are living in underserved communities.
• We strive to continuously improve quality of care delivered to our neonatal population and improve outcomes.

Results

Our Goals (Data collected through July, 2021)
Decrease by 20% (or absolute rate of 4%) the number of newborns, born at greater than or equal to 35 weeks who receive antibiotics.
• Baseline = 9.8%  Current= 7.08% (This is approximately a 30% decrease.)

Decrease by 20% the number of newborns with negative blood culture who receive antibiotics for longer than 36 hours.
• Baseline =25%  Current= 16.67% (This is approximately a 33% decrease)

Conclusions
• Implementation of the EOS Calculator can reduce clinical practice variation amongst Neonatal Care Providers, and results in safe reduction of neonatal exposure to antibiotics.
• Education on antibiotic stewardship and the EOS calculator has been of paramount importance in reaching our goals.

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