

UPMC

2025 HAP Achievement Award Excellence in Care Award—Large Division

Enhancing Standardized Protocols for Early Onset Sepsis in Well Appearing Neonates Across Fifteen Birthing Centers

The Goal

Early-onset sepsis (EOS) is rare but serious; broad screening often results in unnecessary treatment and NICU stays for healthy infants, disrupting bonding and microbiome development. A 2023 review of 15 sites revealed inconsistent practices and overuse due to lack of protocols, prompting a clear need for a more standardized and safer approach.

The Intervention

Using the Breakthrough Series Collaborative (BTS) Model for Improvement, the project took a structured approach to enhancing EOS screening. A multidisciplinary leadership team—clinicians, quality specialists, data analysts, and administrators—led a four-month planning phase to identify gaps, engage stakeholders, train staff, and establish baseline data. An



eight-month action phase followed, during which teams implemented strategies, shared lessons learned, and received individualized support to address site-specific needs. In collaboration with the Health Analytics team, a centralized data platform was developed to streamline collection, enhance site autonomy, and enable ongoing feedback. The BTS model fostered continuous learning, collaboration, and quality improvement throughout the process.



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Results

The initiative standardized EOS care across birthing sites through evidence-based protocols and provider education, reducing unnecessary antibiotics by 55%, blood tests by 60%, and maternal-infant separation by 16.5%, with no disparities by race or insurance. Tailored support and ongoing data monitoring addressed resistance and workflow challenges, ensuring sustained, system-wide improvement.