Improving Time to Antibiotics in Possible Septic Neonates in the Pediatric Emergency Room

PURPOSE
The purpose of this quality improvement project was to improve the time to first dose of antibiotics (TTFDA) to neonates that presents to the pediatric emergency room with sepsis criteria. By implementing a Neonatal Sepsis Practice Guideline (NSPG), providing education to the staff, and modifying the workflow, preventable delays can be eliminated, making the 60 minutes TTFDA goal attainable.

BACKGROUND
The project was implemented in a newly established pediatric emergency service at a reputable hospital in Katy, Texas. The lack of adequate education and practice guideline led to a significant delay in administering the first dose of antibiotics to neonates that presents to the emergency room with sepsis criteria.

METHODOLOGY
This project utilized the Plan-Do-Study-Act method to evaluate the TTFDA among neonates that present to the emergency room with sepsis criteria. A retrospective chart review was conducted, the data was analyzed using the Statistical Package for the Social Sciences (SPSS).

RESULTS
Of all the eligible patients, only 50% received appropriate treatment. None of the eligible patients received the first dose of antibiotics within 60 minutes of arrival. Time to antibiotics ranged from 125 to 267 minutes. The NSPG remains in place in the Pediatric ER for implementation when the patient census increases.

IMPLICATIONS
As a newly developed pediatric line of service, it is essential to have a standardized practice. Practice guideline provides standardized care and help to streamline workflow which can in-turn eliminates preventable delay.