Initiative Title: Pediatric Sepsis Recognition and Management in the Emergency Department

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Initiative Specific Aims
1. Administer the first fluid bolus within 60” of arrival
2. Administer the fluid bolus over 20” or less
3. Administer antibiotics within 60” of arrival

Key Improvement Steps
1. Implement, study and revise the ED Pediatric Sepsis Pathway
2. Develop a sepsis bundle
3. Develop pediatric sepsis nurse and provider order sets
4. Implement a pharmacy notification system
5. Implement an electronic BPA
6. Develop sepsis box
7. 3 specific aims developed: time to first antibiotic of 60”, time to first bolus of 60” and time for bolus to be delivered of 20”
8. Awareness and retraining in May 2016
9. Lactate perceptions survey conducted
10. Epic revision of BPA to original criteria on March 15, 2018

Results

Time to First Antibiotic

Definition: Mean time in minutes from arrival to first antibiotic for patients 0-18 years with ED diagnosis of sepsis, SIRS or toxic shock monthly.
Data Source: Epic

Time to First Fluid Bolus

Definition: Mean time in minutes from arrival until intravenous fluid bolus started for patients 0-18 years with ED diagnosis of sepsis, SIRS or toxic shock monthly.
Data Source: Epic
Analysis
1. Project in progress
2. Active improvement work focused on retraining and process clarification
3. Not yet meeting goals for time to first fluid bolus and antibiotic
4. No sepsis patients in December 2017.

Insights and Future Directions
1. Next steps include assessing pediatric sepsis screen BPA, additional nursing and provider training, system for reporting results.
2. Low volume problem for ED makes it challenging to embed the process into usual care.
3. Currently working on improving lactate ordering as part of bundle; training emphasizing selection of critical blood gas, venous as order. Coaching for “failures”.
5. Will re-emphasize timeliness of fluids and antibiotics through the ABCDE slogan and report card.
6. Continuing to provide coaching to nurses and providers.