# Sepsis in the ED

Horton, D [L]; Graves, K [M]; Hopkins, C [M]; Johnson, E [M]; Niehus, K [M]; Sanford, M [C]; Troyer, J [M]

PROJECT VISION

The sepsis care has not met goal in the ED since the implementation of sepsis hospital wide. We are going to study sepsis in the ED to determine a better process that fits the ED culture. Meeting sepsis care guidelines has shown that there is a reduction in cost and LOS per patient visit.

GOALS & MONITORING

1. Improve quality process by increasing sepsis perfect care in Uhosp ED from 37 percent to 60 percent by 7/1/2017
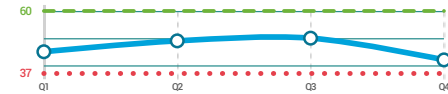
BASELINE ANALYSIS & INVESTIGATION

To examine & document the baseline state we used:
- Process map which showed a failure to identify sepsis in a timely manner at triage. See attached process map.
- Gemba walk which showed ED nurses follow checklist when it comes to more complicated conditions. They use checklists for many of their other major processes to ensure they are followed correctly.

To analyze the baseline state data we used:
- Descriptive statistics which showed mean perfect care percentage of 37%. See BOE report.

Summary
We found that there also isn't a visible standard work that all nurses and providers follow in diagnosing and treating sepsis. The orderset is not use when sepsis diagnosis is known due to new residents rotating in and out every month of the ED and the inexperience with the system.

IMPROVEMENT DESIGN & IMPLEMENTATION

Design
Nursing leadership has designed a checklist that will start at triage and follow the patient through the ED. It has all the treatment stages for meeting sepsis CMS criteria to ensure perfect care and help in looking for signs of sepsis (see attached checklist).

To see additional metrics, the Main Sepsis value summary

To communicate the improved design we used:
- Education, internal: Nursing education will train the nurses. Dr. Hopkins will educate providers.

To support the improved process we designed the following forcing functions into the workflow:
- Nursing checklist (Manual Tool): walks through the sepsis guidelines and treatment.
- BPA (Computer/Automated Tool): that fires upon a mEWS score >5 and when certain abx are being ordered. The BPA lead the provider to the sepsis order set.

To track progress and reflect on effectiveness of the improvement the team used:
- Monthly Scorecard - VDO: sepsis core team will review it monthly in monthly meeting