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Acquiring Blood Pressures on High Risk Sepsis Patients in the ED

McKenna Scharlau
Children's Mercy Hospital, mlscharlau@cmh.edu

Jacob Schneider
Children's Mercy Hospital, jaschneider@cmh.edu

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Acquiring Blood Pressures on High Risk Sepsis Patients in the ED

McKenna Scharlau BSN, RN

Jacob Schneider BSN, RN

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UMKC School of Medicine

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Acknowledgements

- ED Leadership: Charleen Cunningham, Elizabeth Emerson, Morgin Dunleavy
- ED Quality Improvement Coordinator: Amy Scott
- KT Scholar: Natalie Heim
- QIC: Charity Thompson
- Nurse Resident Program Directors: Amber Hunley, Amy Straley

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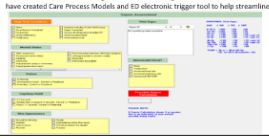
A3 Overview

Focus: Acquiring Blood Pressures on High Risk Sepsis Patients in the Adele Hall ED	**Owner:** Nurse Residency Program	**Date:** 8/8/2018	**Date Approved:**
A3 Team: Jacob Schneider & McKenna Scharlau		**Department Director Signature:**	**KT Scholar:** Natalie Heim **QIC:** Charity Thompson

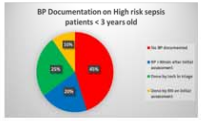
Clarify the Problem:

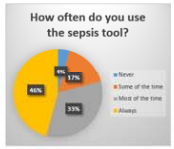
- Education via simulation, instituting a nurse driven care bundle, and sepsis education can improve time to IV fluids and antibiotics in septic patients (Bruce et al., 2015; Kumar et al., 2015; Mattison et al., 2016; Qian et al., 2016; Tromp et al., 2010). There is a lack of emergency department staff adequately identifying and treating sepsis in the pediatric population (Cruz et al., 2011).
- It is recommended that patients with sepsis receive fluids and antibiotics within one hour of diagnosis. In the Childrens Mercy Hospital (CMH) Adele Hall Emergency Department (ED) the median time for antibiotic administration from January 2017-May 2018 was 138.76 minutes, while the median time to fluids was 29.33 minutes. Adele Hall ED staff are meeting guidelines with fluid administration, but are missing the benchmark in regards to antibiotic administration. The CMH Sepsis Collaborative Workgroup, with the assistance of the Evidence-Based Practice Department, have created Care Process Models and ED electronic trigger tool to help streamline the care of septic patients.

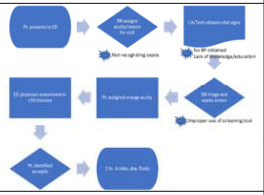


- Data collection from May 2018-August 2018 showed that using the sepsis identification tool implemented in March 2018 contributed to 81% of patients qualifying for a sepsis screen being correctly identified as a sepsis risk by Adele Hall ED RNs.
- A sepsis trigger takes in several key components including: capillary refill, mental status, skin appearance, pulses, heart rate, temperature, respirations and blood pressure.
- Currently, there is no policy in place to obtain a blood pressure on patients less than 3 years old that trigger the septic protocol.
- A chart review from the month of September showed that of 20 high risk sepsis patients less than 3 years old requiring a blood pressure due to presenting with fever and tachycardia, only 55% of patients had a blood pressure taken. The goal is that 75% of patients warranting a blood pressure check will have one appropriately taken by January

Break Down the Problem







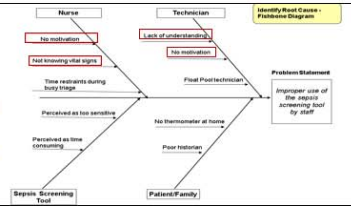
Set a Target

To encourage best practice, ED RNs and Techs will document a blood pressure on 75% of patients less than 3 years old with a positive sepsis trigger by January 2019 in the Adele Hall Emergency Department.

Identify Root Cause

5 Whys

- Not recognizing septic kids in timely manner
- Improper use of screening tool
- Techs not getting blood pressures on febrile patients
- Lack of knowledge
- Lack of education about importance of vital signs



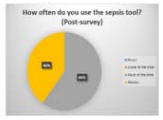
Develop and Implement Countermeasures

Kick-Out	Challenge
• Create a hard-stop in Cerner to encourage people to document blood pressures on febrile pts.	• Have Terrence speak about sepsis at an ED Unit Update.
Possible	**Implement**
• Create a job aid for the triage rooms to remind staff to get a blood pressure on febrile pts.	• Implement a reward system for staff who correctly document BPs • Educate staff about proper BP documentation during huddle.

Ease of Change: Hard / Easy
Payoff/Impact: Low / High

Objectives	Major Tasks	Root Cause Addressed	Deadline	Owner(s)	Notes
Educate staff to check blood pressures on all pts triggering sepsis.	Job Aid for CA/Techs	Lack of understanding, float pool techs	12/2018	Jacob, McKenna	Job aid created and posted 11/2018 had to be removed.
Educate staff to check blood pressures on all pts triggering sepsis.	Updated Job Aid for CA/Techs	Lack of understanding, float pool techs	12/2018	Jacob, McKenna, Natalie	New job aid created and posted 12/2018 with more neutral language approved by management. Recognition that there is no policy in place to standardize blood pressure documentation in high risk sepsis patients.
Educate staff on importance of sepsis awareness with personal story.	Terrance, parent of septic child, speak at Unit Update	No motivation, lack of understanding	11/14/2018	Jacob, McKenna	Spoke at both unit updates 11/2018, assisted in increasing staff communication about high risk sepsis patients.
Remind staff about obtaining blood pressures.	Triage Tidbit of the Week	Lack of education and understanding	11/2018	Amy Scott	Shared in huddle to techs and RNs for each shift every day x 1 week.
Encourage staff to properly document blood pressures.	Monthly reward system	No motivation	12/2018	McKenna, Natalie	Tracked staff who correctly obtained blood pressures on patients <3 y/o and recognized them on huddle board.

Check Results and Process



Standardize and Follow Up

- There is a need to continue to improve obtainment of blood pressures in the ED. Job aids will continue to be posted on the computers to serve as a visual reminder.
- ED Sepsis Collaborative group started February 25th including ED nursing management and ED Attendings to continue to monitor correct identification and treatment of sepsis.
- Policy Change: It was noticed during the project that there is no official policy regarding obtainment of blood pressures in patients under 3 when there is a concern for sepsis. This will be a long term goal of the new ED Sepsis Collaborative group. Policy meetings began the first week of February.
- There will also be a Cerner workgroup focusing on the sepsis hard stop that will be starting in the next 6 months.

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Clarify the Problem

- Lack of sepsis recognition in ED
- Goal to reduce time to fluids and abx
  - Sepsis tool implemented in ED
  - Requires vital signs, including a blood pressure
- 45% of patients triggering sepsis with no blood pressure documented

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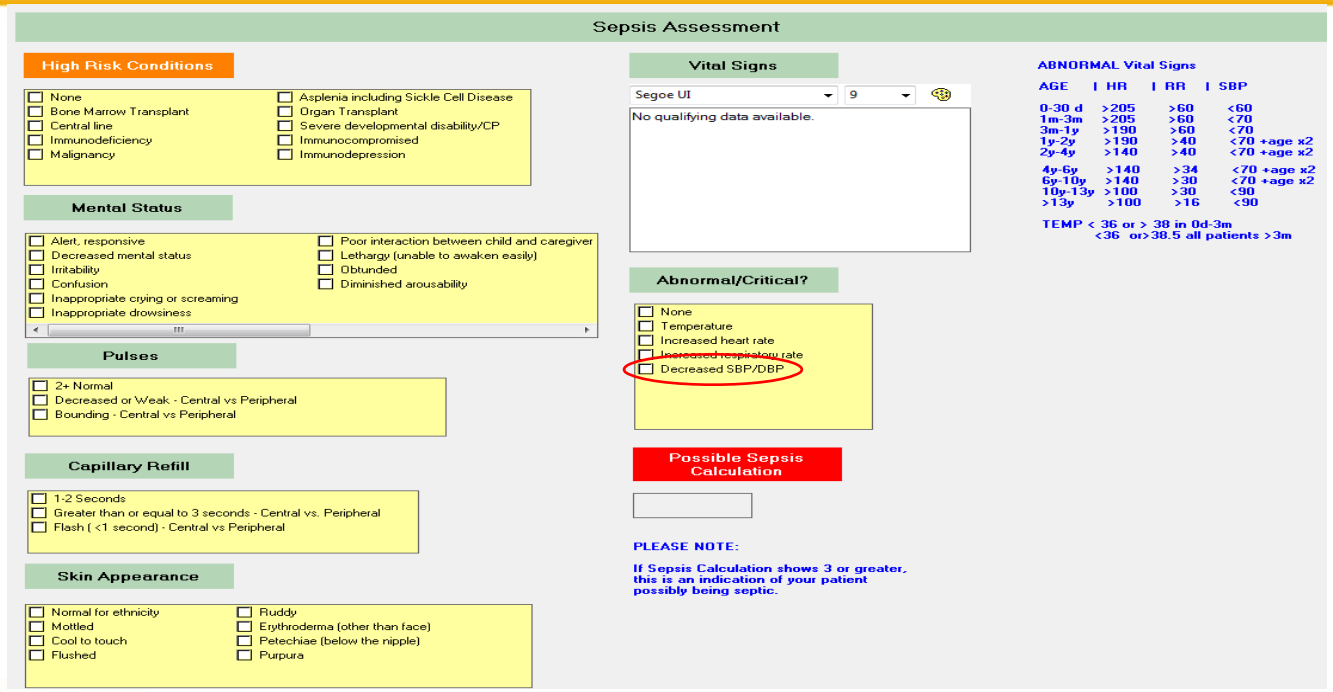
Current ED Sepsis Tool



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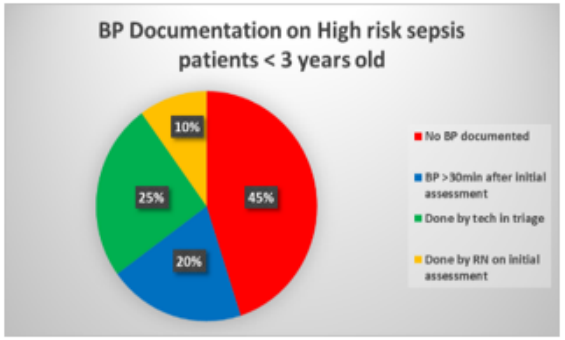
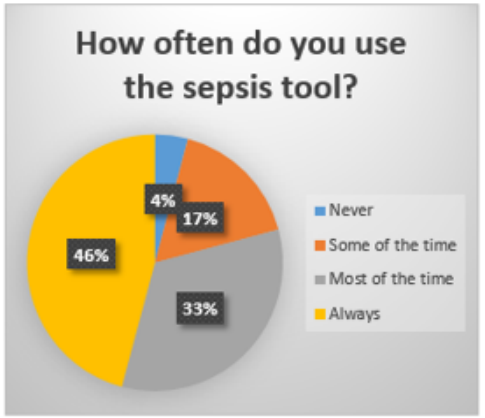
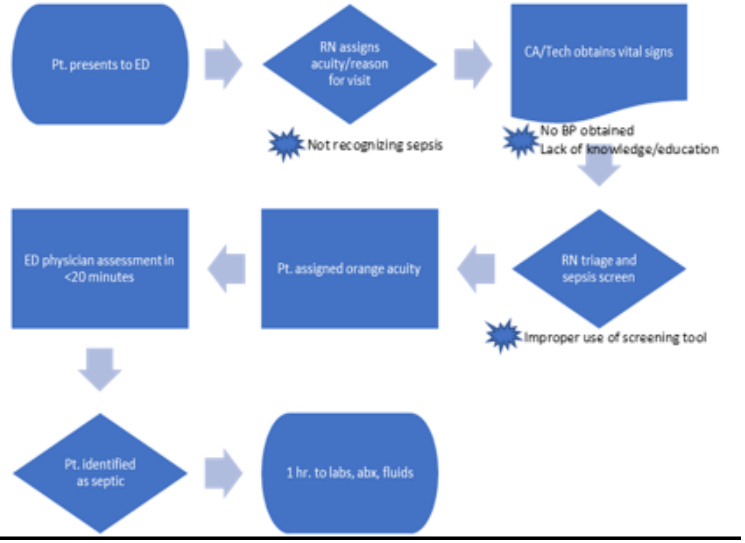
Breakdown the Problem

Break Down the Problem







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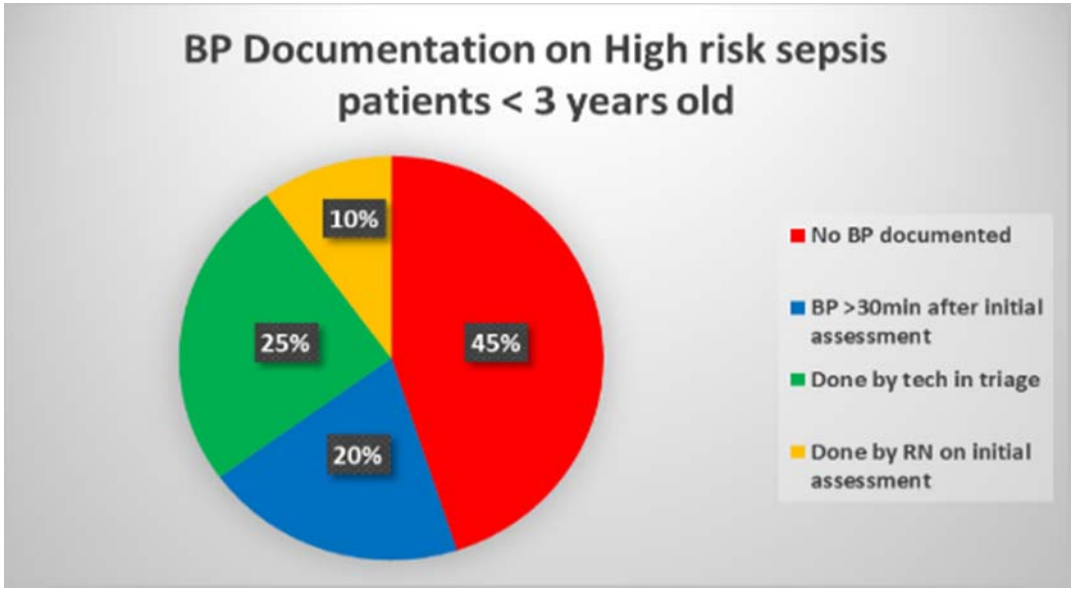
Blood Pressure Documentation



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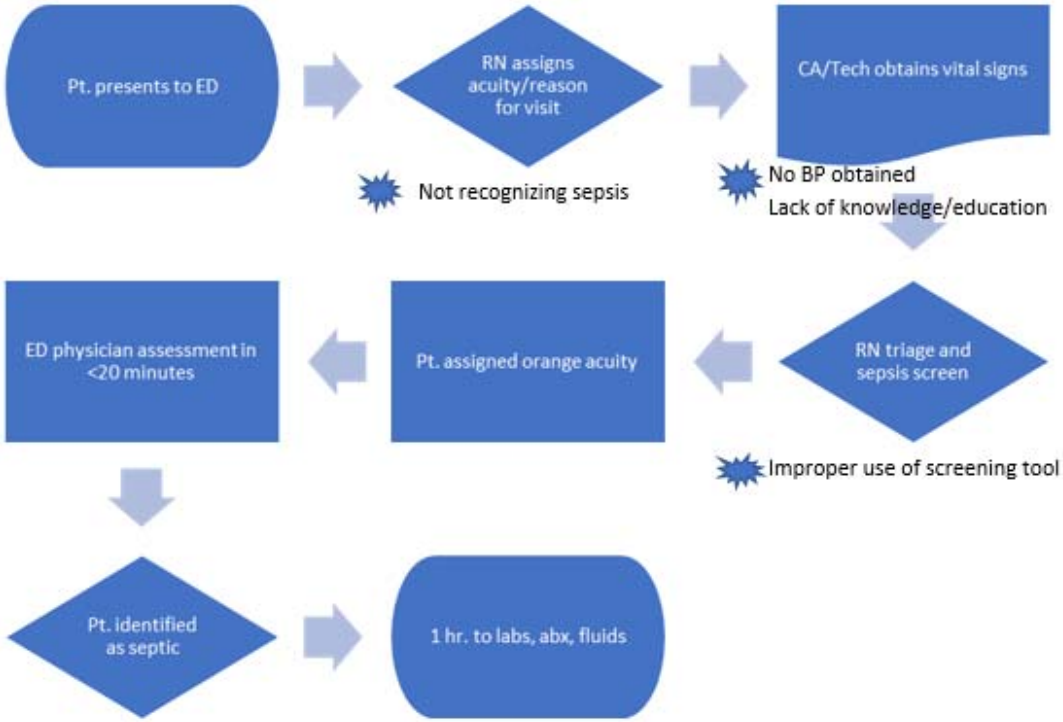
Process Map



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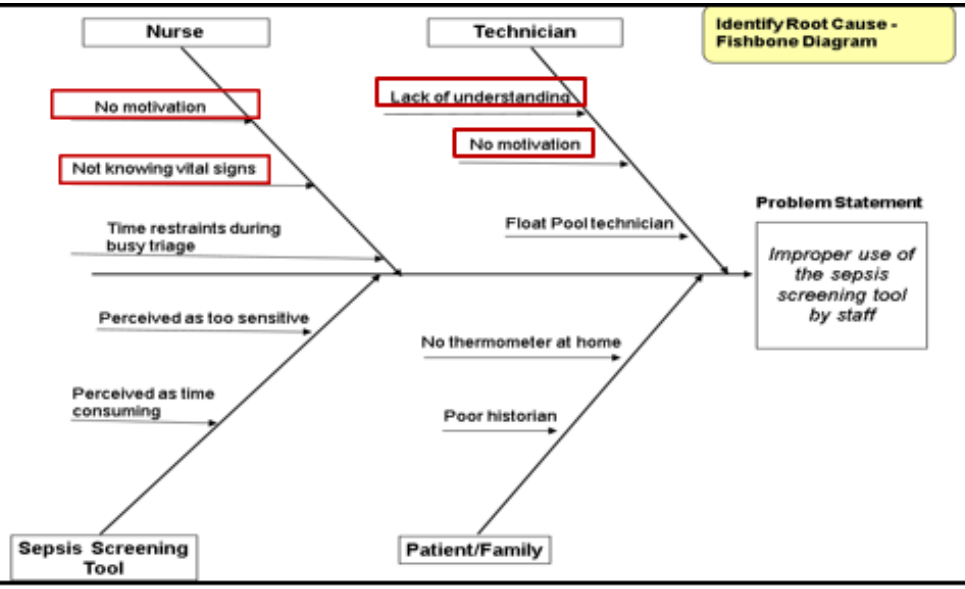

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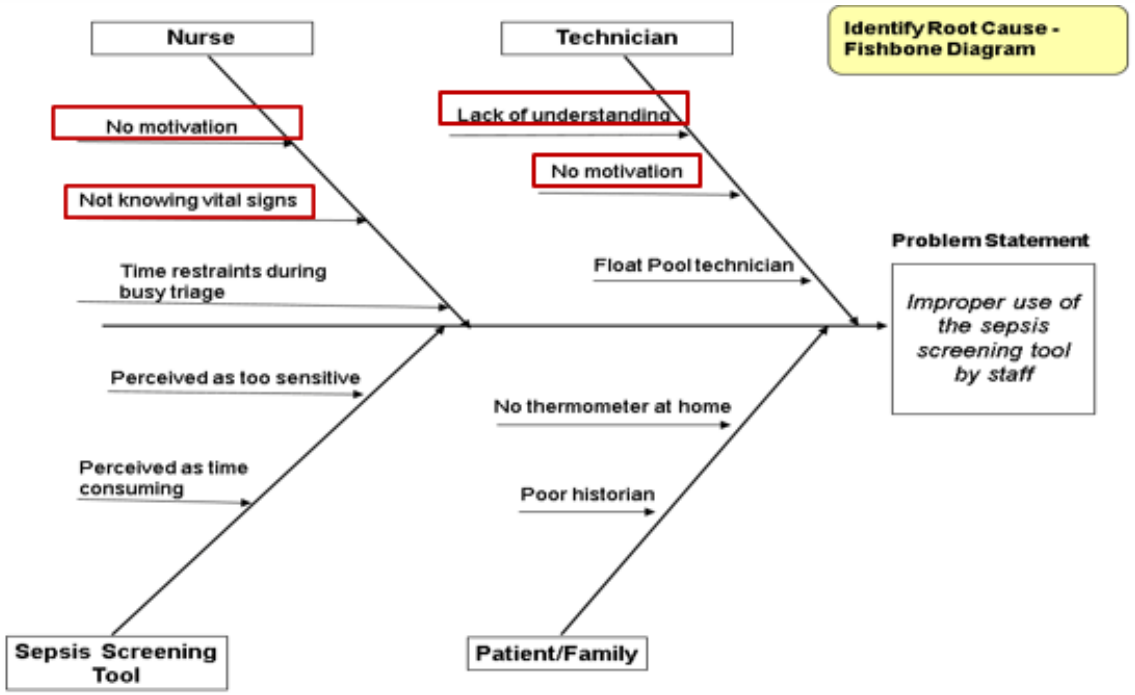
Root Cause Fish Bone



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Develop and Implement Countermeasures

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Hard

Ease of Change

Easy

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Low → High

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Countermeasures PICK Chart

Hard

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Countermeasures Implementation Chart

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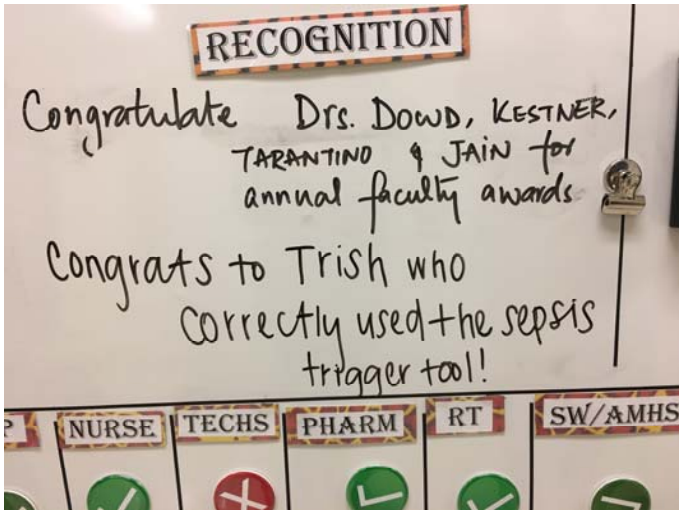
Interventions

Job aid posted on tech computers

Huddle board recognition



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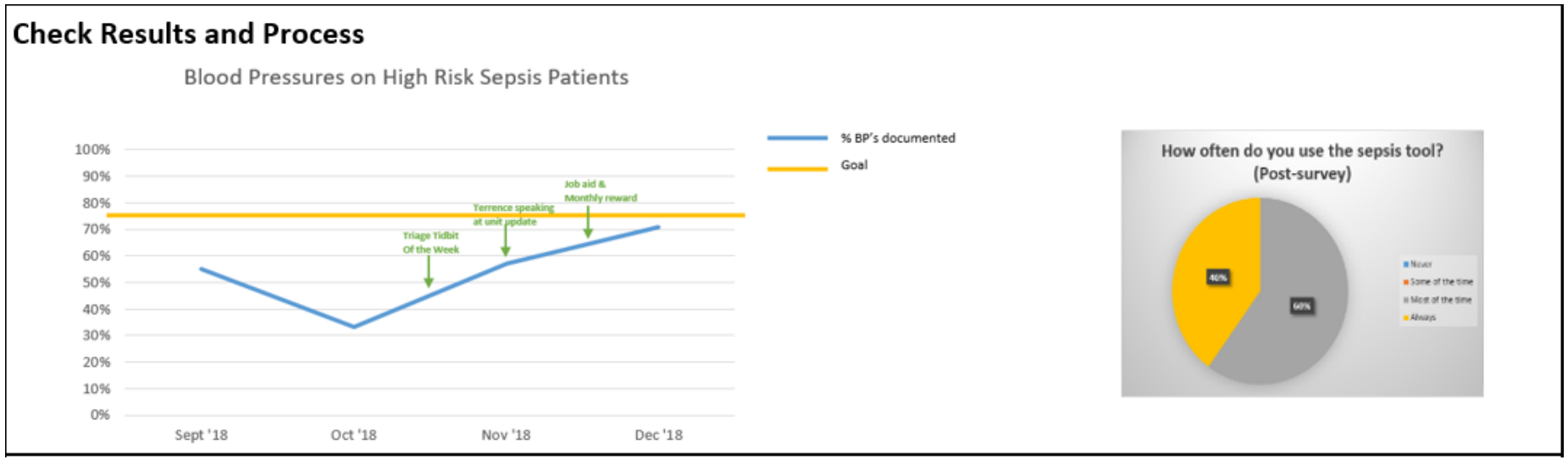
Check Results and Process



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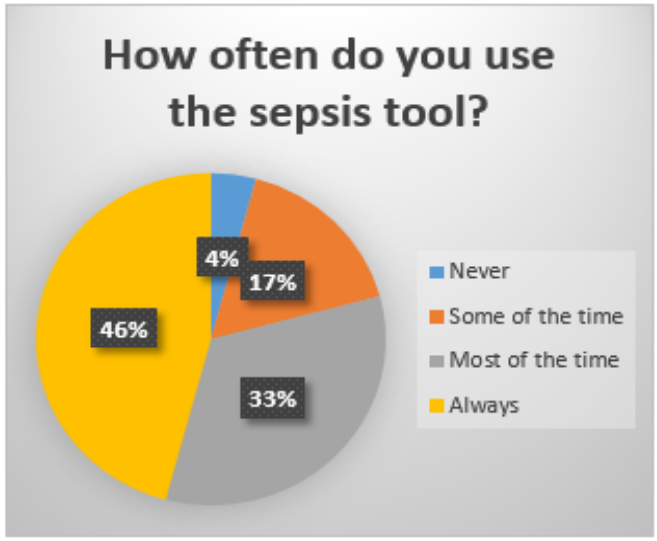

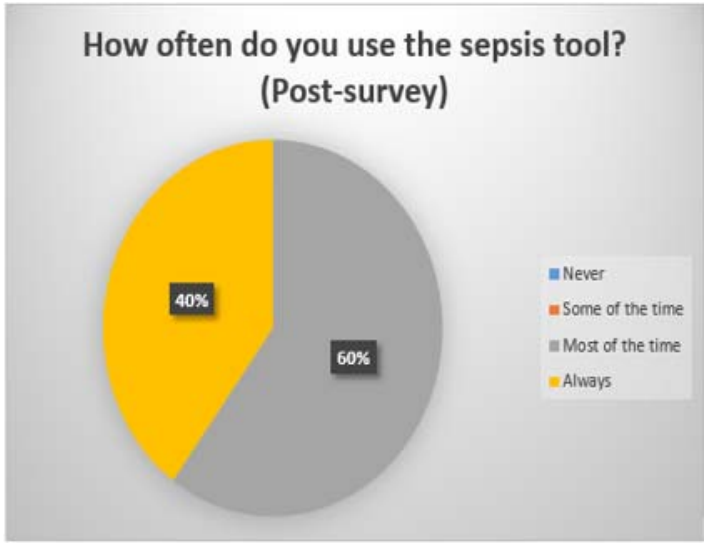

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Standardize and Follow Up

- Job Aids to ensure continued improvement
- ED Sepsis Collaborative group started February 25th
- Policy Change for patients < 3 y/o
  - Goal of the new ED Sepsis Collaborative group
- Cerner workgroup to develop a sepsis hard stop in next 6 months

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Questions

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