

Sepsis Where You Least Expect It

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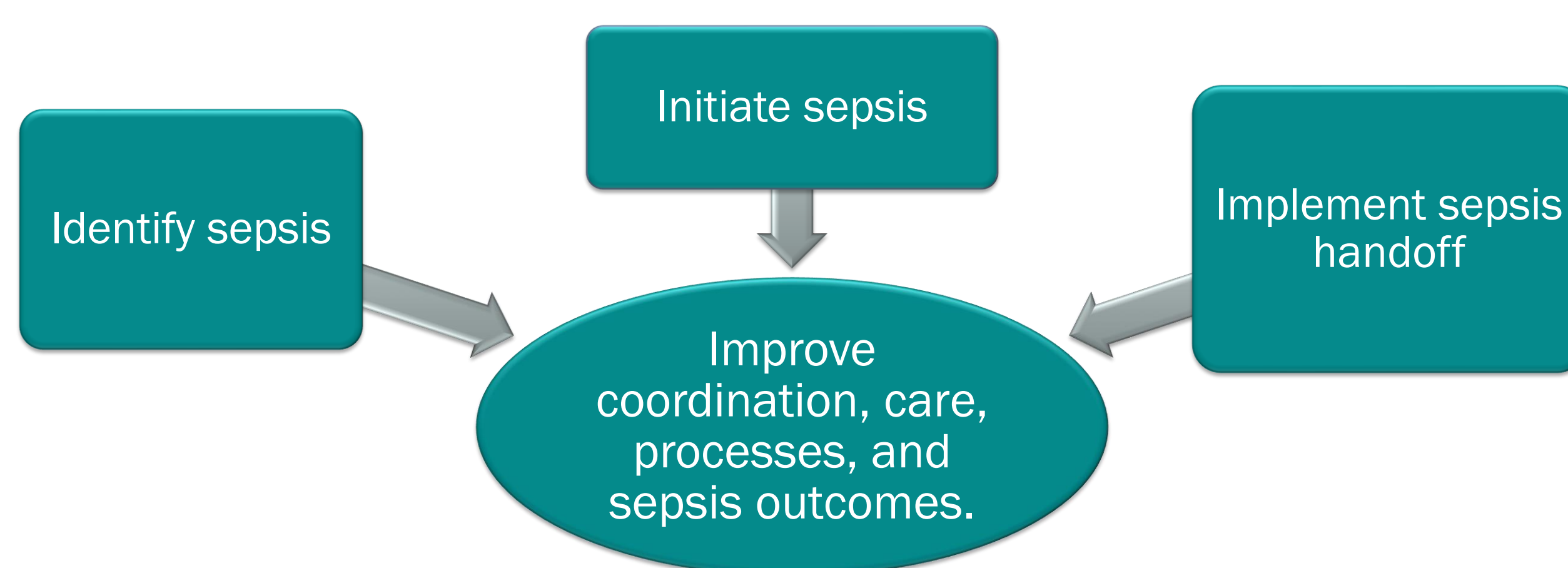
Background/Introduction

- About 85% of sepsis cases at Houston Methodist West Hospital are diagnosed and treated in the emergency department.
- The perioperative services do not see a high volume of sepsis cases.
- Sepsis is often not recognized within the perioperative because pain, anxiety, and other conditions mimic sepsis and staff nurses' lack of awareness of its symptoms.
- Several cases that failed the CMS SEP-1 measure happened during the perioperative period of the patient's visit.

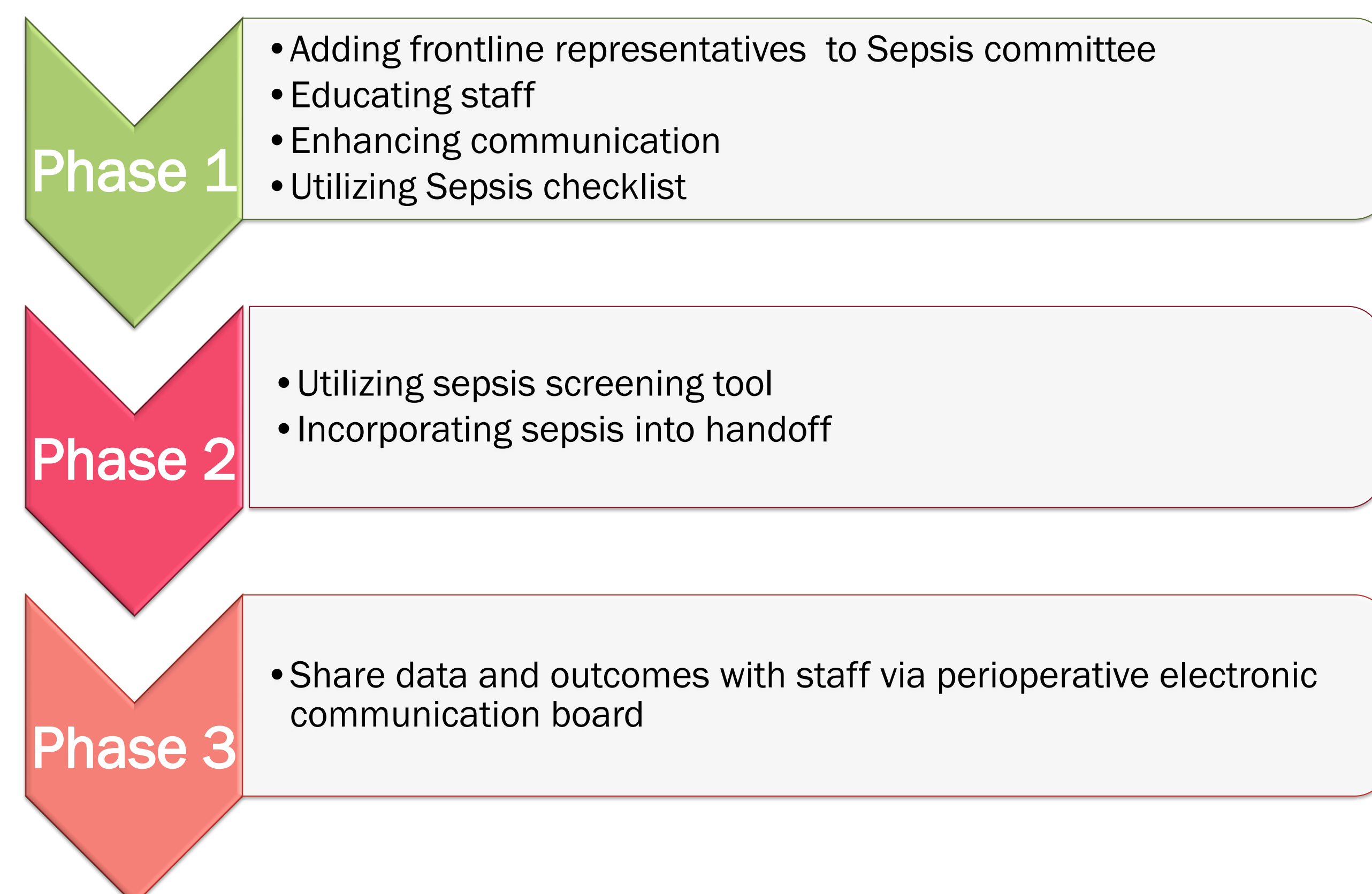
Given the variable presentation and multiorgan involvement of sepsis, the syndrome often goes unrecognized until late in its course (Bronshiteyn, Lemm, Malinzak, Ghadimi, & Udani, 2017).

These delays in diagnosis and treatment have negative consequences for patients (Bronshiteyn, Lemm, Malinzak, Ghadimi, & Udani, 2017).

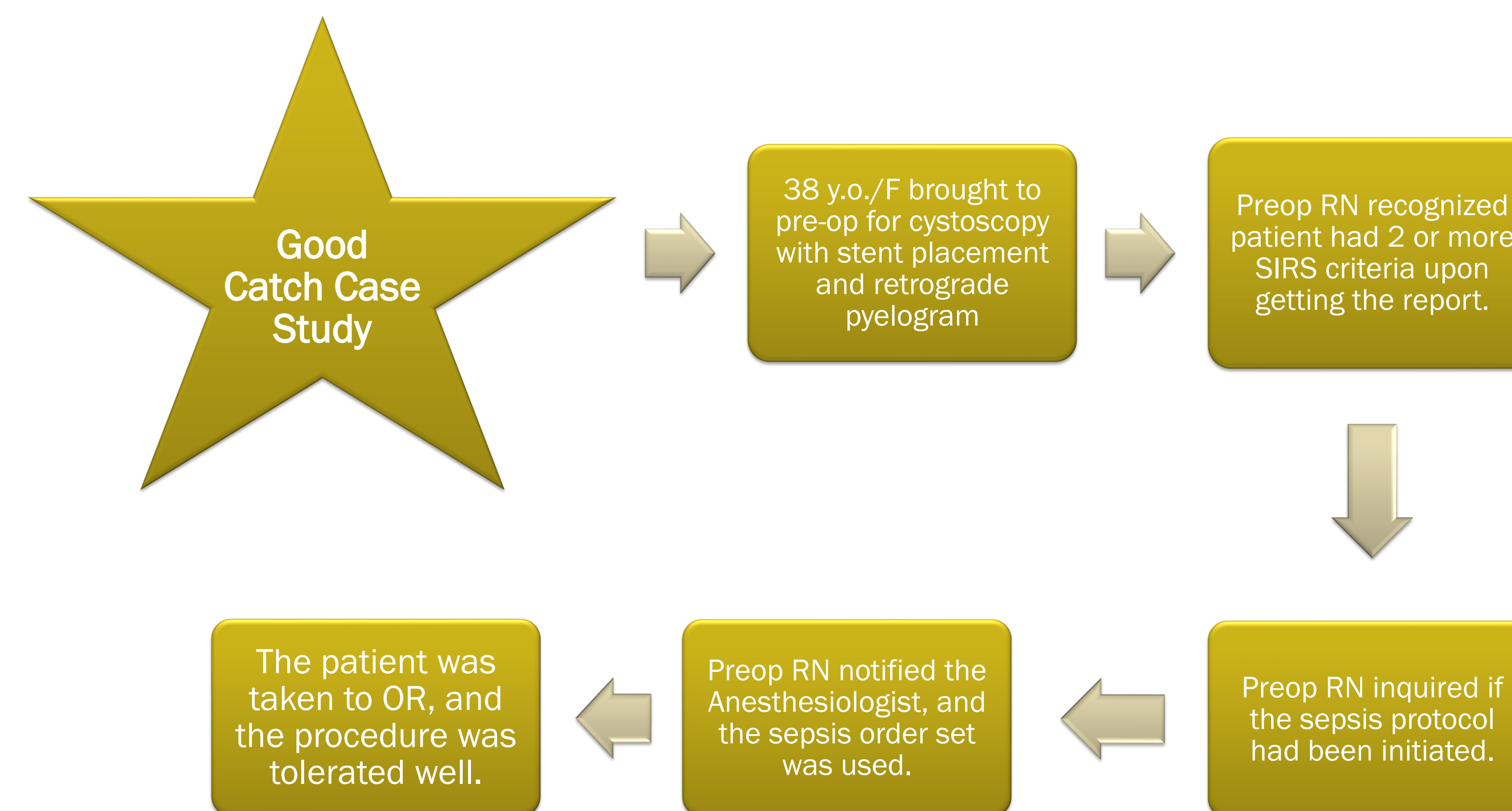
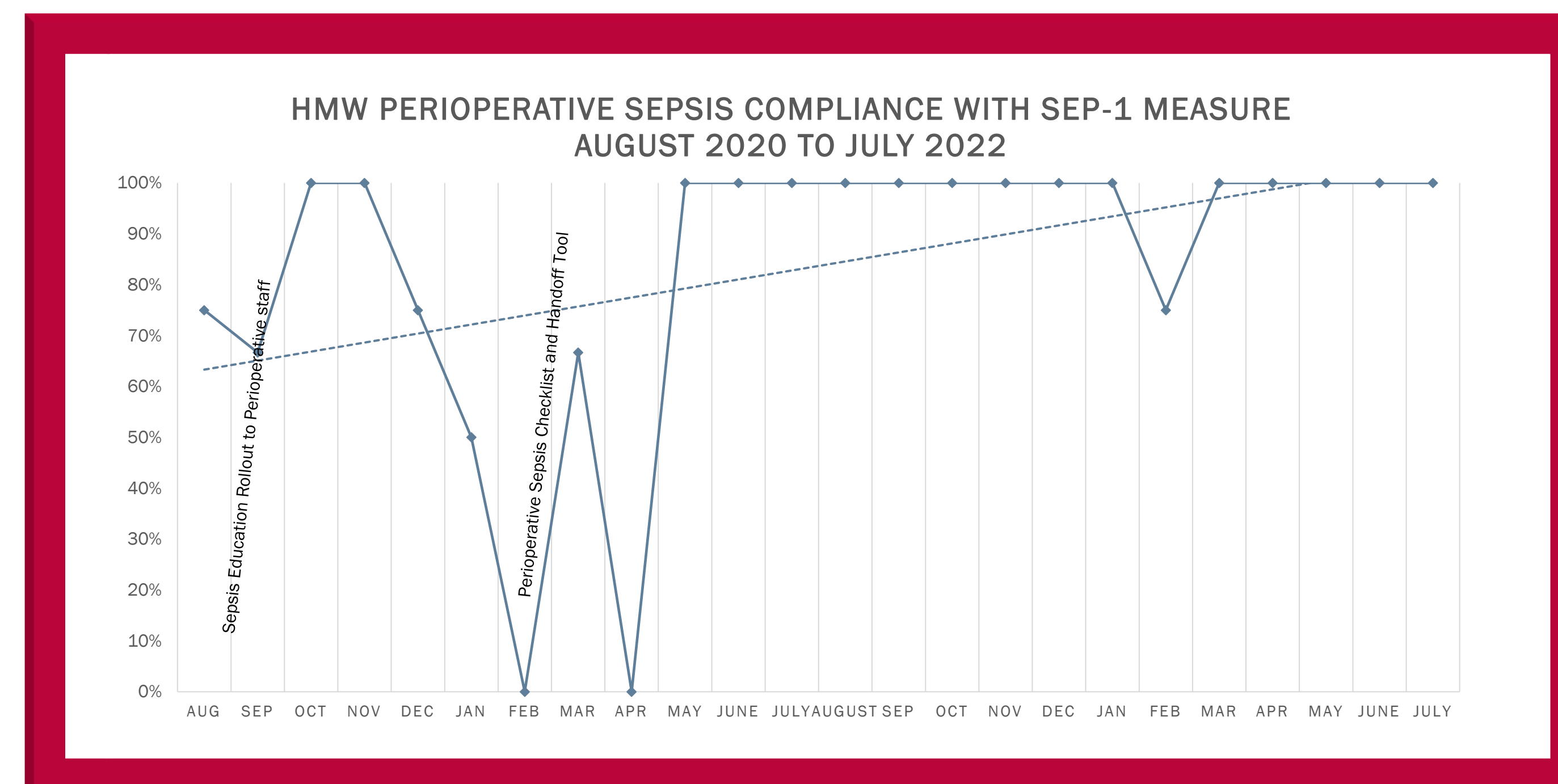
Purpose/Objectives/Hypothesis



Methods



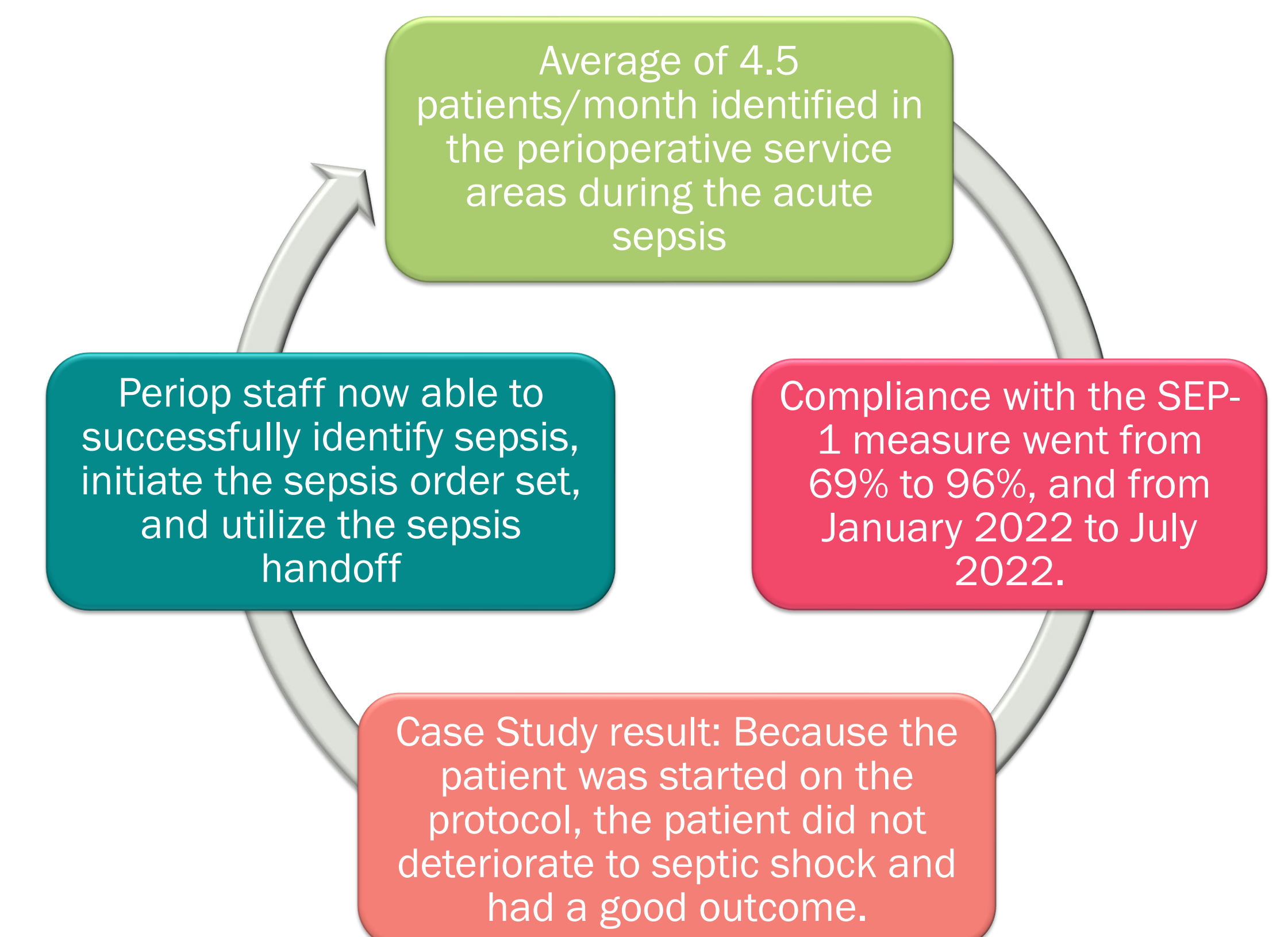
Result



CMS SEPSIS DEFINITIONS/ CRITERIA	
<ul style="list-style-type: none"> SIRS Criteria: must have 2 or more of the following: <ul style="list-style-type: none"> Temp >38.3 (100.9) or < 36.0 (96.8) HR >90 RR >20 WBC >12,000 or < 4,000 Sepsis: 2 or more SIRS + suspected or confirmed infection Severe Sepsis: Sepsis + Organ dysfunction <i>or</i> a Lactate >2.0 <ul style="list-style-type: none"> SBP <90 or MAP <65, or a decrease > 40 points in SBP from normal Creatinine >2.0 or UO < 0.5ml/kg/hr x2 hrs Bilirubin >2.0 Platelet <100,000 INR >1.5 or aPTT >40 New/ Acute need for mechanical respiratory support (Ventilator/ BiPAP/ Cpap) Septic Shock: severe sepsis + persistent hypotension despite 30ml/kg bolus <i>OR</i> a Lactate >4.0 	<p>Required interventions:</p> <p>All Sepsis Patients</p> <ul style="list-style-type: none"> Blood Cultures x 2 prior to antibiotic Broad-spectrum antibiotic within 1 hr of order, but also must be started prior to end of 3 hr window (see chart on back) Lactate #1 within 3 hr window Lactate #2 within 6 hr window Lactate #3 within 9 hr window *If lactate is due within 1 hr prior to transfer, draw it before transferring the patient <p>Severe Sepsis & Septic Shock: all of above plus</p> <ul style="list-style-type: none"> 30ml/kg bolus within 3hr window Must document START time Must document STOP time Q 15 minute vitals during bolus and 2 Sets of vitals signs within 1 hr of bolus completion time Vasopressor within 6 hr window if SBP <90 or MAP <65 (Levophed – first choice) Reperfusion Assessment: notify provider time of bolus completion and remind need reperfusion note done <p>Time of Presentation (this is the start time of the window):</p> <ul style="list-style-type: none"> Patient from ED: 1st set of vital signs Direct Admit for sepsis/ infection with 2 SIRS: first set of vital signs RR/Code time of code Sepsis BPA if S/S of infection present: time of BPA

Badge buddy sepsis cards for RNs and MDs

Results/Implications



9 Good Catches have been made in the AOD, OR, and PACU.

Future Actions

- Continue to educate staff
- Regularly present data and outcomes
- Increase utilization of sepsis order set and interventions

Acknowledgments

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Noemi Tzul
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Reference

Bronshiteyn, Y. S., Lemm, J., Malinzak, E., Ghadimi, N., & Udani, A. D. (2017). Sepsis in the Operating Room: A Simulation Case for Perioperative Providers. *MedEdPORTAL: the journal of teaching and learning resources*, 13, 10563. https://doi.org/10.15766/mep_2374-8265.10563