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A Multidisciplinary Code Sepsis Team to Improve Sepsis Bundle Compliance in the Emergency Department

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JAMES MADISON UNIVERSITY
SCHOOL OF NURSING

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Introduction

1

Defining Sepsis

- *Sepsis:* Suspected or confirmed infection plus two or more symptoms of systemic inflammatory response syndrome (SIRS).
- *Severe sepsis:* Sepsis with organ dysfunction or hypo-perfusion
- *Septic Shock:* Severe sepsis with refractory hypotension or lactate ≥4mmol/L

2

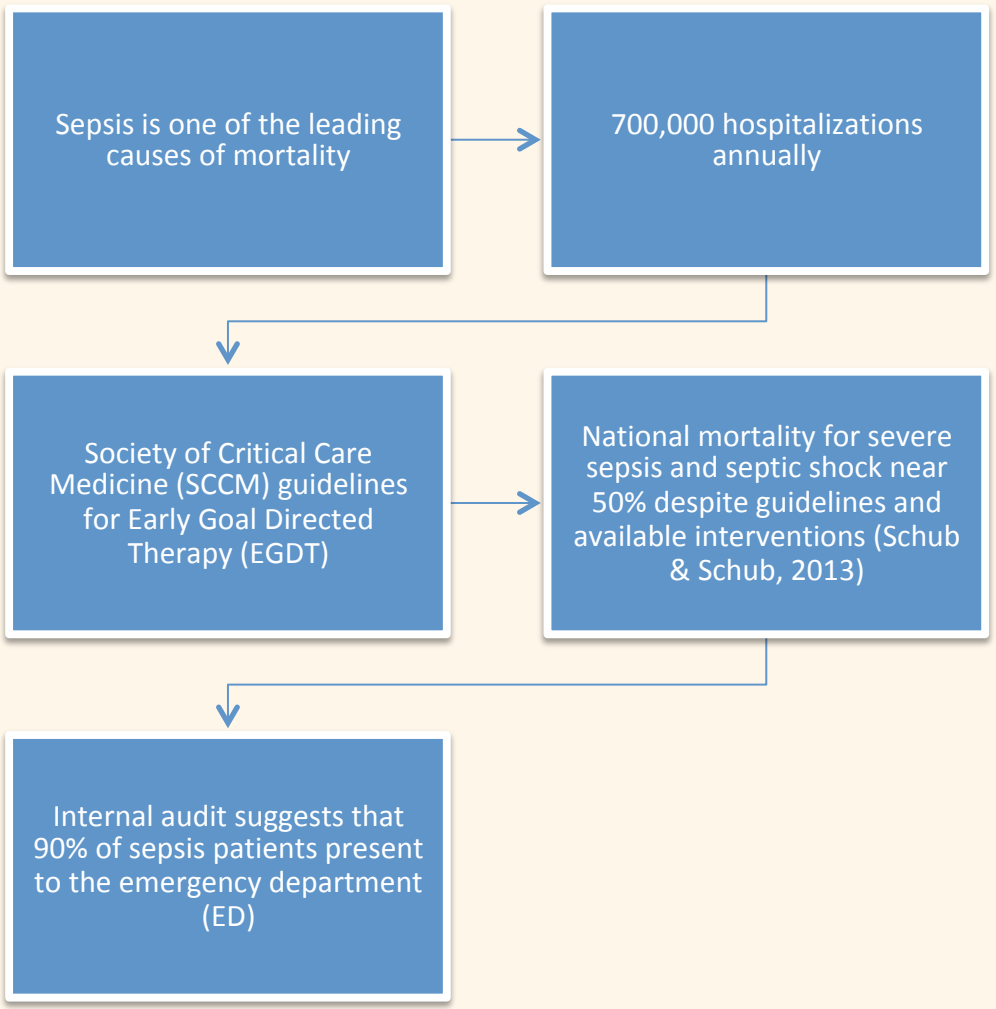
Centers for Medicare and Medicaid (CMS) link sepsis care to reimbursement

3

Current State of Science

- Tools available to aid clinicians include:
  - Electronic screening tools (including nurse screening tools (NST) and sepsis sniffer algorithms (SSA))
  - Automated sepsis alerts
  - Nurse initiated protocols (NIPs)
  - Standardized order sets
  - Specially-trained multi-disciplinary teams

Problem



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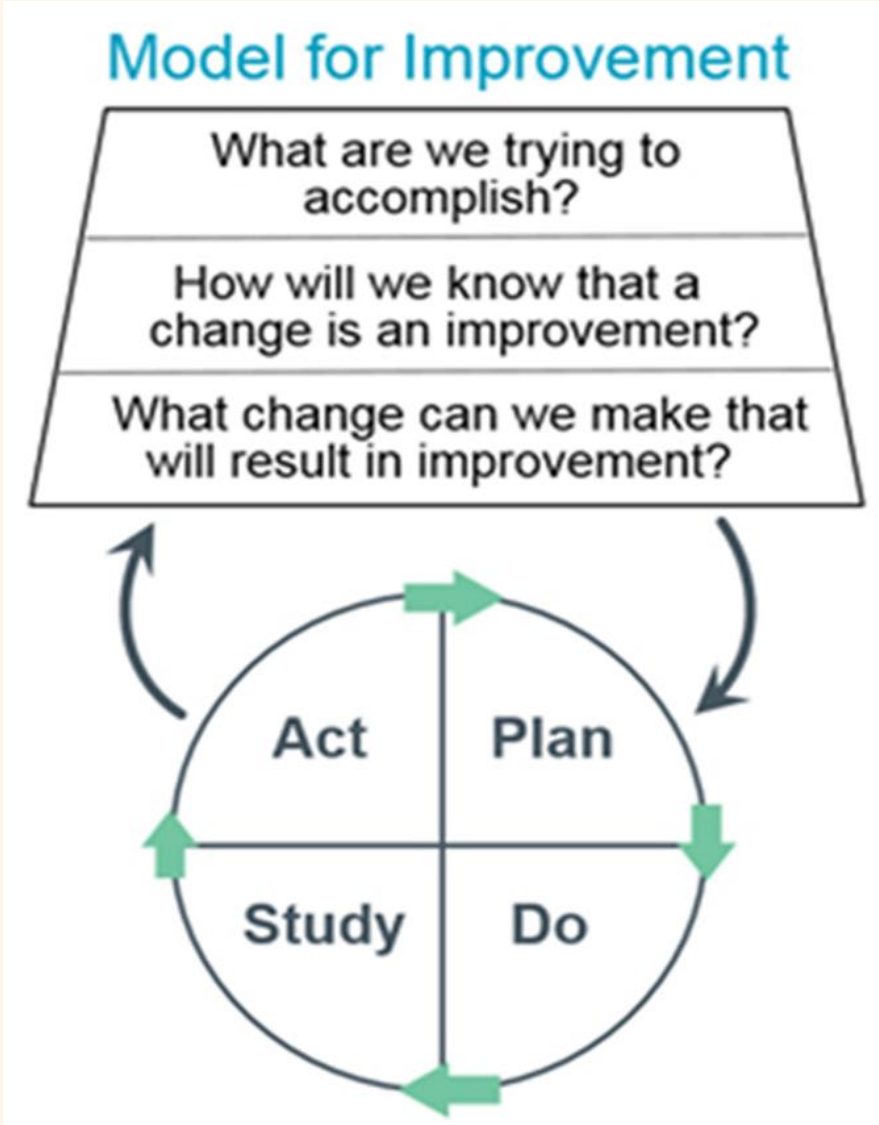
Methods

This project was conducted in a 52-bed ED at Sentara RMH Medical Center, a 238 bed not-for-profit organization

All patients over 18 years of age presenting to the emergency department with clinical indications of sepsis, severe sepsis, or septic shock were included in the study.

Hospice patients were excluded



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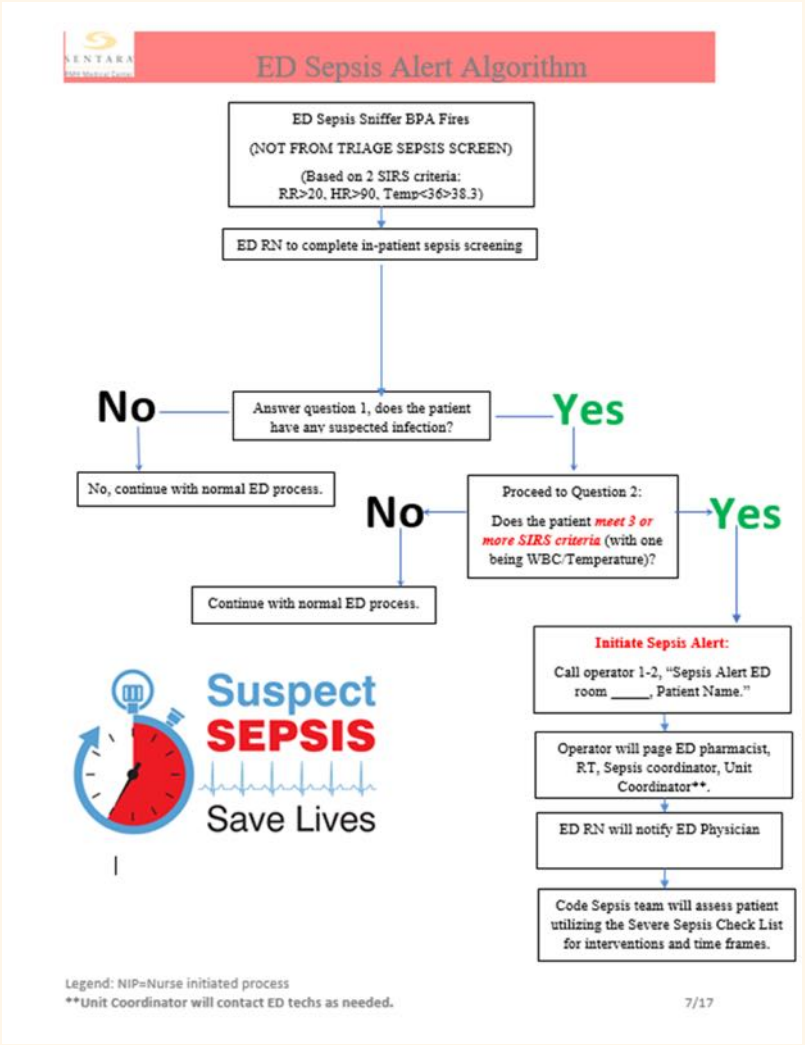
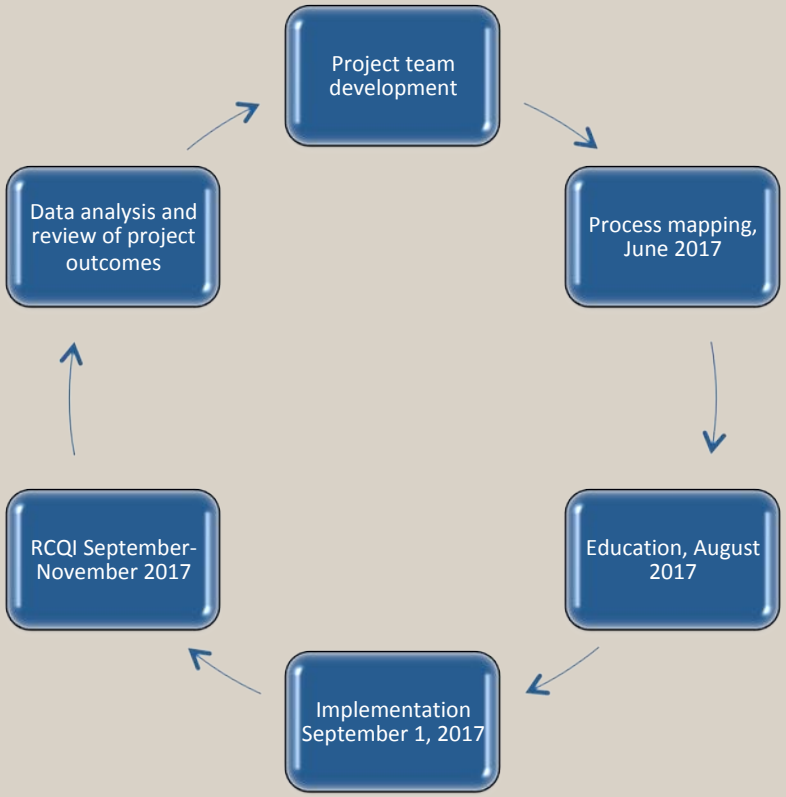


Intervention 5 Phases:



Data Analysis & Results
Independent Sample T-Tests

Variables	Group	N	Mean	Time Result	Sig (2-tailed)
Time to Antibiotics (Abx)	Pre	104	162.96		.984
	Post	106	163.31		
Time to Blood Cultures (BC)	Pre	94	88.67		.265
	Post	94	71.81		
Time to Initial Lactate	Pre	94	83.98		.313
	Post	106	70.56		
Time to Fluid Resuscitation	Pre	42	67.60		.265
	Post	26	67.08		
Time to 2nd Lactate	Pre	26	484.92		.002
	Post	42	305.86		

Data Analysis & Results
Chi Square

Variable	Group	Yes	No	Sig. (2-tailed)	Goal Results
Abx. 180 min	Pre	74	33	.881	
	Post	76	31		
Fluid Resus. 180 min	Pre	42	6 (NI 59)	.012	
	Post	27	2 (NI 78)		
Fluid Resus. Volume Met	Pre	14	31	.000	
	Post	21	5		
Initial Lactate 180 min	Pre	84	23	.001	
	Post	101	6		
BC 180 minutes	Pre	85	22	1.0	
	Post	85	22		
2nd Lactate 360 min	Pre	11	40 (NI 46)	.000	
	Post	38	14 (NI 54)		

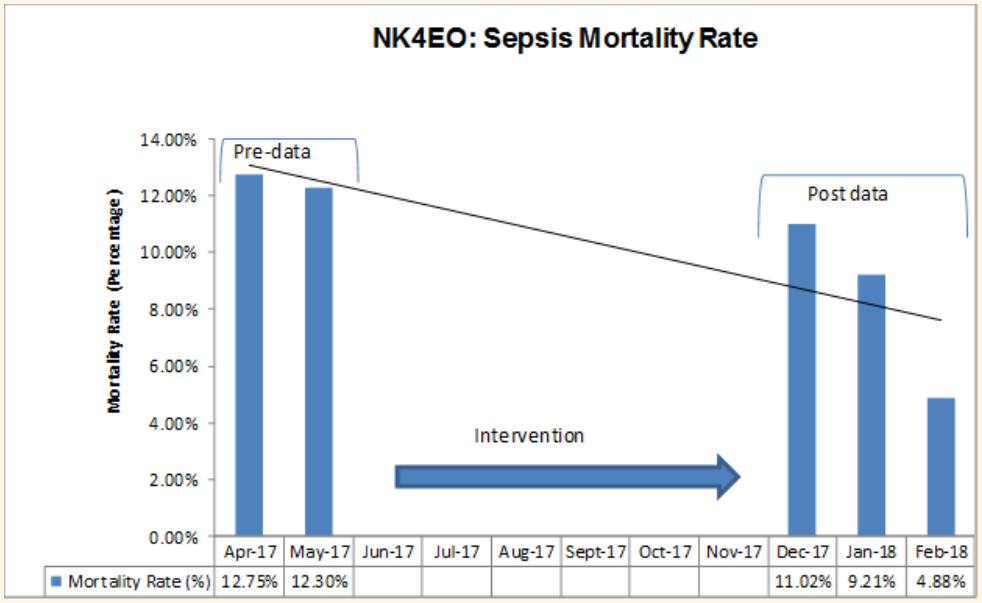
Final Results & Conclusion

Gender Bias:
Females have a 40-50 minute delay in care.

Age is a significant predictor

*SEPSIS CONTINUES TO BE A NATIONAL CRISIS

A multidisciplinary approach improves collaboration, communicate, and a mutual goal of improving patient care.



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