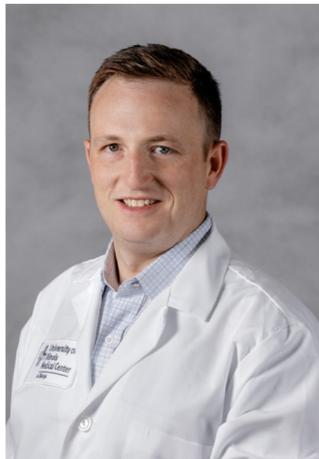




# E-QUAL to the SEP-1 Challenge

# Presenter



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# Disclosures & Disclaimer

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# Objectives

- Review the background and current national performance on CMS' SEP-1 measure
- Discuss ED-specific SEP-1 performance
- Identify high yield best practices and engagement efforts that can be used to drive SEP-1 performance improvement from the ED

# Sepsis by the Numbers

- 1.6 million hospital admissions annually
- 250,000 deaths
  - Leading cause of death among hospitalized patient
- \$20 billion annual expenditures



When it comes to sepsis, remember  
**IT'S ABOUT TIME™**. Watch for:

- T** **TEMPERATURE**  
higher or lower than normal
- I** **INFECTION**  
may have signs or symptoms of infection
- M** **MENTAL DECLINE**  
confused, sleepy, difficult to rouse
- E** **EXTREMELY ILL**  
"I feel like I might die," severe pain or discomfort

**CALL 911** OR **GO TO A HOSPITAL AND SAY "I'M CONCERNED ABOUT SEPSIS"**

Take the **TIME** to learn the signs at [sepsis.org](https://sepsis.org).

 SEPSIS ALLIANCE

# Along Comes SEP-1

- 10/2015: SEP-1 released as part of CMS' National Hospital Inpatient Quality Measures
- Scores first reported in 7/2018
- Publicly reported score on [hospitalcompare.gov](http://hospitalcompare.gov)
  - updated once each fiscal year
- Quality measure today-->Value Based Purchasing tomorrow?

# E-QUAL Sepsis Collaborative

- Coinciding with SEP-1 release, E-QUAL launched the Sepsis Collaborative
- 634 ED sites have participated since inception
- Use this data to:
  - Define SEP-1 performance related to EDs
  - Identify best practices and engagement techniques

# The Spotlight of Public Reporting

- Hospitals partner with EDs looking to (urgently) improve SEP-1 performance scores
- Limited resources
  - Time, Money, Local QI expertise, access to data, etc.
- Limited knowledge about resource deployment

## Barbash et al. CCM. 2018.

- FY2017 SEP-1 Compliance 48.9% +/- 19.4%
- Most eligible hospitals reported scores
- Best scores:
  - Smaller hospitals (<100 beds)
  - Case volumes (>50)
  - For-profit

# Venkatesh et al. Annals EM. 2017

- Prelim SEP-1 data based on local chart review
- 2016 SEP-1 Compliance 54%, IQR: 30-75%
- High compliance, less variance:
  - lactates, blood cultures, antibiotics
- Low compliance and more variance:
  - IVF, repeat lactates, vasopressors

# Kahn et al. 2019. JAMA

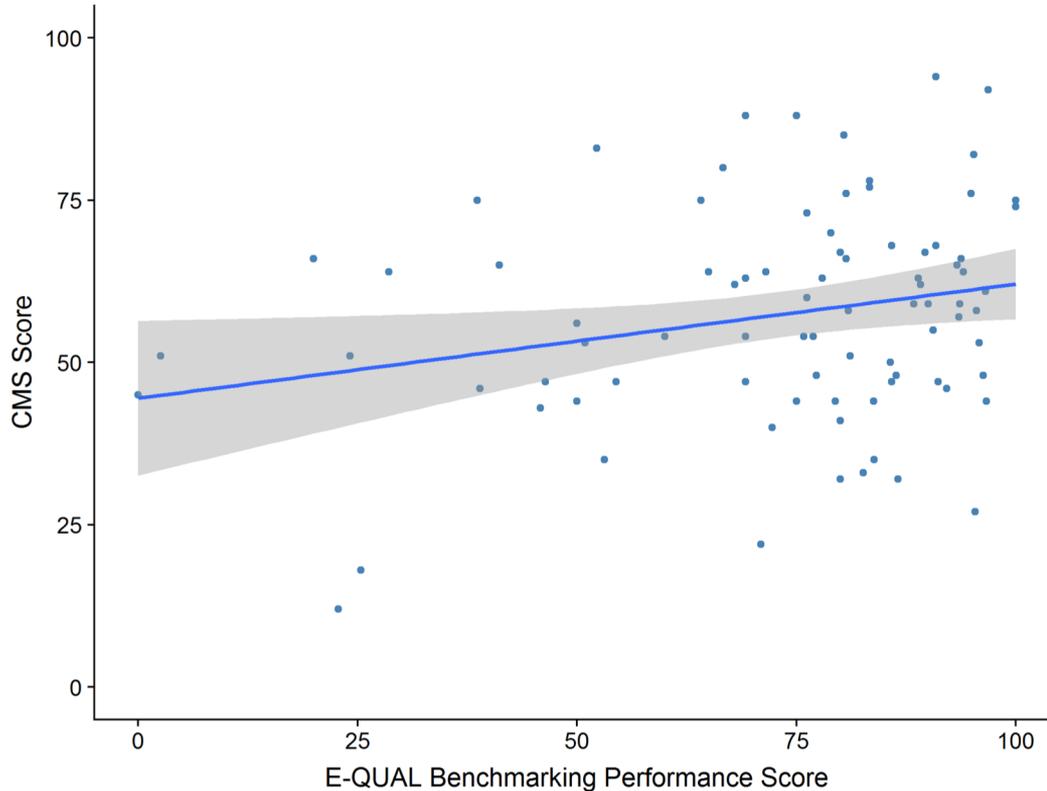
- 2013 NY state mandated protocolized sepsis care and outcome reporting
- Statistically significant mortality reduction in NY compared to demographically similar control states without sepsis mandates
  - NY: 4.3% vs 2.9% in controls (P=0.02)

Are these mandates and  
metrics working?

# So Now What???

- Room for improvement
- Preliminary state data suggests that protocolized care decreases sepsis mortality
- Switch focus to what we've learned from E-QUAL
- How to effectively partner with the hospital?

# Is there a mid-term report card?



Why does performance  
vary between these  
different bundles?

# Sepsis Improvement Activities

- Implementation of Best Practices
  - Screening
  - Treatment
  - QI Tools
- Engagement
  - C-suite, clinicians, ED staff

<b>SCREENING</b>	<b>Overall*</b>
<b>N</b>	<b>237</b>
<b>Nursing order sets or screening tools</b>	<b>231 (97.5%)</b>
<b>EHR CDS</b>	<b>234 (98.7%)</b>
<b>Standard or universal triage screening for sepsis</b>	<b>190 (80.2%)</b>
<b>Electronic health record screening tool or alert system</b>	<b>170 (71.7%)</b>

\*number of ED sites that reported using each tool

TREATMENT	Overall*
n	237
Code Sepsis protocol/alert (similar to STEMI)	229 (96.6%)
Dedicated critical care rooms or team in ED for septic shock patients	227 (95.8%)
ICU co-management for septic shock patients	7 (3%)
Protocol driven care support tool (e.g. EHR trigger, dedicated nurse checklist)	231 (97.5%)
Reflex Repeat Lactic Acid	233 (98.3%)
EHR Sepsis CDS/Mgmt Order Set	234 (98.7%)
Standardized patient self-management materials for high-risk discharges with infections	68 (28.7%)
Standardized ED handoff to inpatient and ICU services for sepsis	228 (96.2%)

\*number of ED sites that reported using each tool

<b>SEPSIS QI TOOLS</b>	<b>Overall*</b>
<b>n</b>	<b>237</b>
<b>Use sepsis metrics dashboard to track bundle compliance</b>	<b>224 (94.5%)</b>
<b>Provide individual provider feedback on sepsis care</b>	<b>230 (97%)</b>
<b>Multi-disciplinary sepsis quality improvement team</b>	<b>225 (94.9%)</b>

\*number of ED sites that reported using each tool

Which have you  
implemented? What's  
your experience?

<b>ENGAGEMENT</b>	<b>Overall*</b>
n	237
Presentation at front-line clinician meeting (e.g. faculty, nursing)	36 (15.2%)
Presentation at ED leadership or ED quality meeting	221 (93.2%)
E-mail blast to all clinicians	205 (86.5%)
<b>Presentation to hospital leadership about E-QUAL participation</b>	<b>25 (10.5%)</b>
Posted materials in break room or ED clinical setting	19 (8%)
Distributed to multi-disciplinary sepsis or quality committee	226 (95.4%)
Have not promoted E-QUAL yet	7 (3%)

\*number of ED sites that reported using each method

<b>ED Medical Director</b>	<b>229 (96.6%)</b>
<b>ED Nursing Director</b>	<b>43 (18.1%)</b>
<b>Critical Care Medical Director</b>	<b>26 (11%)</b>
<b>Hospitalist or Medical Director</b>	<b>35 (14.8%)</b>
<b>Hospital CNO or Nursing Lead</b>	<b>34 (14.3%)</b>
<b>Hospital Quality of Staff Safety Officer</b>	<b>33 (13.9%)</b>
<b>Hospital CMO or Chief of Staff</b>	<b>34 (14.3%)</b>
<b>Hospital CEO</b>	<b>25 (10.5%)</b>

# Conclusions: It's all about Sepsis

- SEP-1 performance ~50% nationally - wide variability
- Mandated bundles and public reporting decrease mortality
- Compare your sepsis fall-outs to the best practices and engagement opportunities

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## For More Information

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