



# OHA STATEWIDE SEPSIS INITIATIVE: SEPSIS METRICS

March 20, 2024

# SEPSIS WEBSITE

*ohiohospitals.org/sepsis*



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## Sepsis

Reducing Sepsis Mortality in Ohio Through Early Recognition, Appropriate Intervention

The OHA Board of Trustees identified reducing sepsis mortality in Ohio as one of the key focus areas for OHA and Ohio hospitals. Sepsis is the body's overwhelming and life-threatening response to infection that can lead to tissue damage, organ failure and death. In other words, it's your body's over active and toxic response to an infection. Sepsis impacted an estimated 41,000 Ohioans in 2017. Early recognition and treatment can reduce the morbidity and mortality of sepsis.

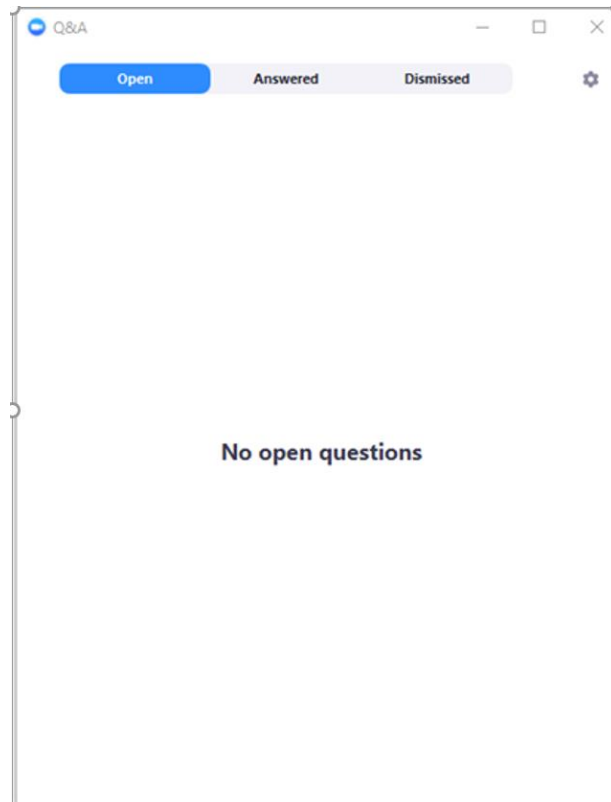
# CONTINUING EDUCATION

- The link for the evaluation of today's program is:  
<https://www.surveymonkey.com/r/Sepsis-March2024>
- Please be sure to access the link, complete the evaluation form, and request your certificate. The evaluation process will remain open **two weeks** following the webcast. Your certificate will be emailed to you when the evaluation process closes after the 2-week process.
- If you have any questions, please contact Dorothy Frabott (Dorothy.Frabott@ohiohospitals.org)

# CONFLICT OF INTEREST

*The presenter for today's program has disclosed no potential or actual conflicts of interest.*

# *SUBMITTING QUESTIONS*





Upcoming FREE webinars and events from Sepsis Alliance:

**March 18:** [Safeguarding Students Part 1: Addressing Pediatric Sepsis in School-Based Health Care](#) (RN CE credit hours)

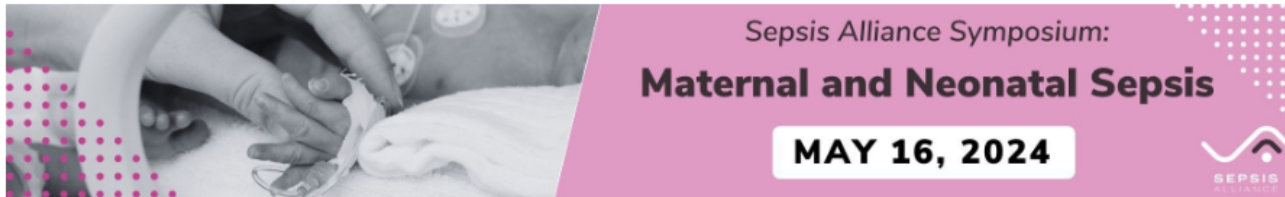
**March 21:** [Safeguarding Students Part 2: Raising Awareness of Sepsis in Schools and Integrating Post-Sepsis Support](#) (RN CE credit hours)

**March 27:** [Improving SEP-1 Fluid Resuscitation Compliance Through Nurse-Driven Protocols](#) (Baxter Sponsored Webinar)

**April 10-11:** [Sepsis Alliance AMR Conference](#) (RN CE credit hours)

**April 30:** [More Secrets of the CBC...Use the Diff to Make a Diff!](#) (Beckman Coulter Sponsored Webinar)

**May 16:** [Sepsis Alliance Symposium: Maternal and Neonatal Sepsis](#) (RN CE credit hours)



**REGISTER TODAY!**

## Sepsis Alliance Symposium: Maternal and Neonatal Sepsis

Sepsis, an indiscriminate threat that can strike anyone regardless of their health status or age, tends to disproportionately affect certain populations. Pregnant individuals and newborns are among those at higher risk of sepsis-related complications. Sepsis accounts for at least 261,000 maternal deaths each year worldwide, accounting for approximately 11% of all maternal deaths. Across the U.S. between 2017-2019, 14.3% of pregnancy-related deaths were due to infection or sepsis. Maternal sepsis ranks as the second leading cause of maternal fatalities, and globally sepsis is the number one cause of mortality in newborns and young infants.

Maternal sepsis typically occurs when an infection takes hold in the aftermath of childbirth, whether it be at the site of a C-section incision, a tear, or another postpartum wound, occurring in the days or weeks following delivery. Any infection, such as Strep B, pneumonia, or a urinary tract infection, occurring during pregnancy or in the postpartum period, can also potentially escalate into sepsis. Infections can be passed from the birthing parent to child during pregnancy, labor, and delivery, putting the infant also at risk for developing sepsis.

It is imperative that healthcare professionals understand the unique risks that maternal and neonatal patients have regarding sepsis to efficiently and accurately assess and diagnose sepsis.

To address this issue, Sepsis Alliance is hosting the 2024 Sepsis Alliance Symposium: Maternal and Neonatal Sepsis. This live, virtual event, scheduled for May 16, 2024, will cover critical topics related to sepsis in maternal and neonatal patients, offering attendees the most up-to-date clinical knowledge and treatment recommendations for these populations. The key outcome of this half-day event is to establish the burden of sepsis in maternal and neonatal patients and improve clinical outcomes for patients affected by sepsis.

# PRESENTER(S)

**ERICA LEWIS, MSN, RN, NPD-BC, CCRN-K**

Nursing Professional Development

Bon Secours Mercy Health

**KATRINA MOOG, MSN, RN, CPHQ**

Director of Reliability System

Bon Secours Mercy Health



# Reducing Sepsis Mortality: 2023 Key Performance Indicator

**Katrina Moog, MSN, RN, CPHQ - System Director of Reliability**

**Erica Lewis, MSN, RN, CCRN-K, NPD-BC - Nursing Professional Development Specialist**

# Bon Secours Mercy Health by the numbers

ONE OF THE 5 LARGEST  
Catholic health care systems in the US;  
the LARGEST not-for-profit private provider in Ireland



APPROXIMATELY **1,200** SITES OF CARE  IN THE US  
AND IRELAND

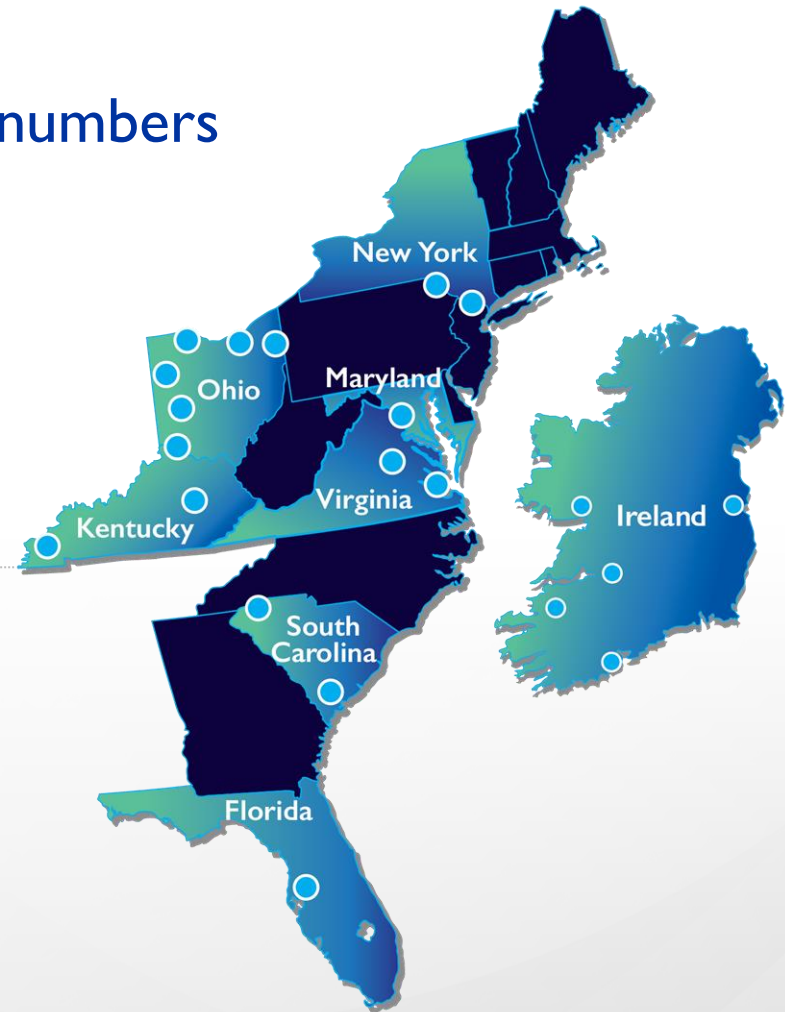


**48** HOSPITALS

**3,000\*** PROVIDERS IN THE US  
**450** CONSULTANTS IN IRELAND  
**60,000** TOTAL ASSOCIATES



*\*BSMH Medical Group physicians and APCs*





**EACH YEAR, ABOUT  
1.7 MILLION ADULTS IN  
AMERICA DEVELOP SEPSIS.  
AT LEAST 350,000  
DIE DURING THEIR  
HOSPITALIZATION OR ARE  
DISCHARGED TO HOSPICE.**

**GET AHEAD  
OF SEPSIS**

KNOW THE RISKS. SPOT THE SIGNS. ACT FAST.

Learn more at [cdc.gov/sepsis](https://cdc.gov/sepsis)



CS12714-8



The aim is to reduce risk-adjusted sepsis mortality by evaluating outcome data and implementing process strategies that impact overall sepsis care.

## AIM Statement

## Multidisciplinary Team Collaboration



A group of diverse healthcare professionals, including doctors and nurses, are gathered in a meeting. They are wearing light blue scrubs and are engaged in a discussion. The background is a bright, clinical setting.

# Strategies & Method

- Sepsis Mortality - Key Performance Indicator
- Large – scale interdisciplinary collaborative
- Sepsis Office Hours
- Advisory consultations to markets/facilities not meeting target
- Enhance education modules and EHR documentation (narrator & predictive analytics)
- Organizational sepsis intranet site
- EHR report for BPA response
- GEMBA observations to gather feedback from providers about BPA workflow

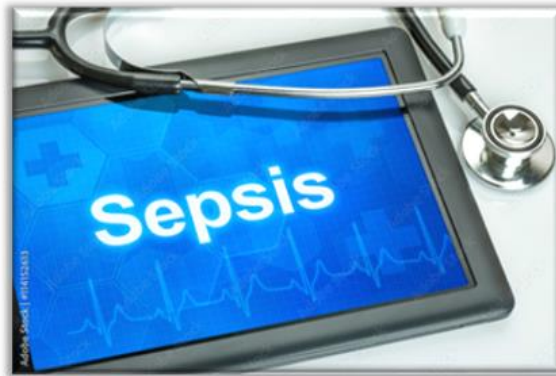


# Sepsis Quality Improvement Playbook

## Improving Sepsis:

*Establishing sepsis teams and best practices for improving and managing outcomes*

Quality Improvement Playbook



## Step – by – Step Guide

*The “Who”*

*The “Why”*

*The “What”*

*The “How”*

*The “How & When”*

*Tips for Success*

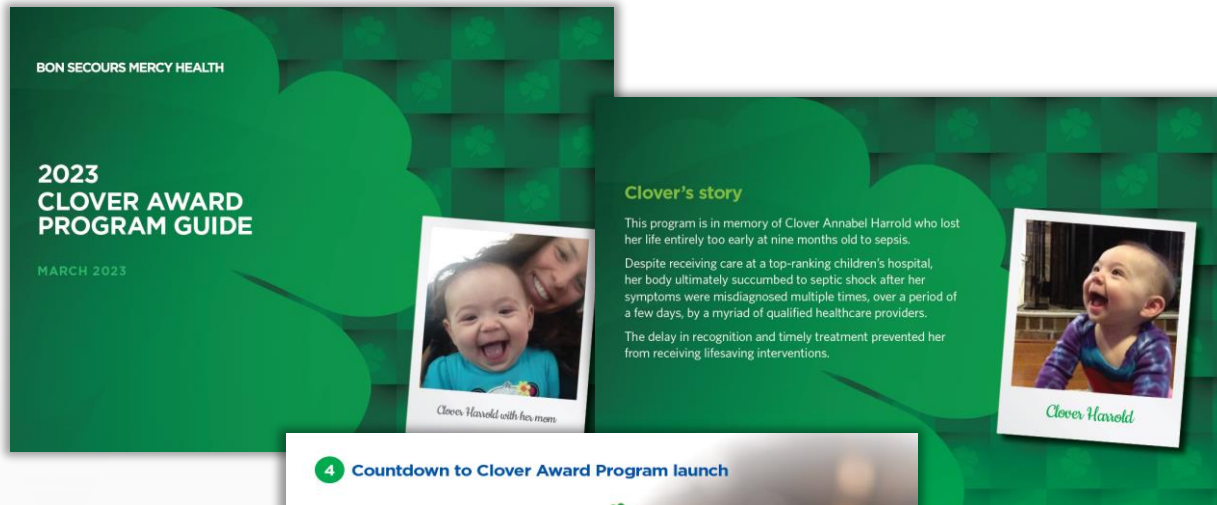
# Sepsis Toolkit - Mortality Grand Rounds

Session #	Brief Description	Tools & Resources	Guest Speakers / Point of Contact	Link to PPT
1	<ul style="list-style-type: none"> <li>• <a href="#">Clover Harrold Story</a></li> <li>• SEP-I Abstraction &amp; Data</li> <li>• “<a href="#">Bringing Sepsy Back</a>” from Kern Medical Center</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Sepsis Abstractor’s Criteria (2022)</a></li> <li>• <a href="#">The Value of SEP-I Article</a></li> <li>• <a href="#">End Sepsis Site</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Allison Harrold</a></li> <li>• <a href="#">Beth Zimmerman</a>, System Director Quality Data</li> </ul>	
2	<ul style="list-style-type: none"> <li>• Review of EPIC Sepsis Dashboard</li> <li>• Premier’s Quality Advisor Analyses</li> <li>• Case Study #1 (determining severe sepsis presentation time)</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">EPIC Sepsis Dashboard Tutorial</a></li> <li>• <a href="#">Premier’s Quality Advisor Analyses Review</a></li> <li>• <a href="#">Surviving Sepsis Campaign</a></li> <li>• <a href="#">CMS Specifications Manual</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Anna Grant Kaline</a>, System Director Integration &amp; Clinical Informatics</li> <li>• <a href="#">Dave Yost</a>, Senior Analytics Business Partner</li> </ul>	
3	<ul style="list-style-type: none"> <li>• Mary Immaculate Hospital’s (MIH) Code Sepsis</li> <li>• Clermont Hospital’s Sepsis Smart Phrase</li> <li>• Case Study #2 (criteria for target fluids with hypotension)</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Code Sepsis Gets Results</a></li> <li>• <a href="#">Sepsis Smart Phrase Drives Improvement in Sepsis Care</a></li> <li>• <a href="#">NEW! System Sepsis Smart Phrase</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Ashlee Stevens</a>, Director of Critical Care, Respiratory, and Emergency Services</li> <li>• <a href="#">Felicia Harris</a>, Director of Inpatient Surgical, Nursing Supervisors, and Rapid Response Medics</li> <li>• <a href="#">Dr. Monica Prasnal</a>, Quality Director, US Acute Care Solutions</li> <li>• <a href="#">Dr. Jan Jones</a>, Medical Director, Emergency Department</li> </ul>	
4	<ul style="list-style-type: none"> <li>• Orientation to Tableau</li> <li>• Role of an ED Manager and Sepsis (West)</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Tableau Dashboard Sepsis Encounters</a></li> <li>• <a href="#">Sepsis Self-Audit Tool</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Susan Jones</a>, System Visualization Developer</li> <li>• <a href="#">Noel Helton</a>, Nurse Leader</li> <li>• <a href="#">Austin Nilles</a>, Nurse Leader</li> </ul>	
5	<ul style="list-style-type: none"> <li>• Sepsis Predictive Analytics: Version 2</li> <li>• Best Practice Advisories (BPA) &amp; Sepsis</li> <li>• Case Study #3 (timely blood culture collection)</li> </ul>	<ul style="list-style-type: none"> <li>• See resources in PPT</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Dr. Mark Binstock</a>, VP of Medical Informatics Acute</li> <li>• <a href="#">Jeff Collins</a>, Senior Application Coordinator</li> </ul>	
6	<ul style="list-style-type: none"> <li>• Post-Sepsis Syndrome (PSS)</li> <li>• Understanding the Role of the Sepsis Coordinator</li> <li>• Review of System and Market Sepsis Nursing Education</li> <li>• Summary of System and Market Data</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">PSS from Sepsis.org</a></li> <li>• <a href="#">Long Term Effects from PSS</a></li> <li>• <a href="#">Vulnerability of Sepsis Survivors</a></li> <li>• <a href="#">Life After Sepsis Factsheet - CDC</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Eric Deans</a>, LCSW</li> <li>• <a href="#">Sarah Ware</a>, Sepsis Coordinator</li> <li>• <a href="#">Katie Smith</a>, Sepsis Coordinator</li> <li>• <a href="#">Erica Lewis</a>, Nursing Professional Development Specialist</li> </ul>	



# What's NEW!

## Bon Secours Mercy Health Sepsis Recognition Program



### BSMH Clover Award Program

Partnership with Daniel & Allison, BSMH Associates, to recognize **Sepsis Hero's** across the Ministry

Program will provide the structure & supplies to successfully launch the program by May 2023

Advisory support offered via **Sepsis Office Hours**

Status updates provided to Market Leaders monthly

**THANK YOU** to *The Foundation for your donation by providing the initial supplies to all facilities!*

[Clover Award Program 2023](#)

### Multidisciplinary virtual & in-person collaboration results in improved outcomes for patients with sepsis

#### SITUATION

A review of **evidence-supported performance** measure data at the facility-level, has prompted **virtual & on-site** support from Safety & Reliability Services

#### KEY INTERVENTIONS

As an organization, we acknowledge that a **core set** of microsystem improvements may impact overall sepsis care outcomes.

- Improving system-wide standardized physician **order set utilization**
- Improving **antibiotic administration** times by addressing access/administration barriers
- Improving **SEP-I** compliance by aligning minimum BP alerts with CMS, adopting of ministry-wide sepsis smartphrase, & RN BPA for repeat lactic acid
- **Reduction in interruptions** of workflow & increase in satisfaction for Best Practice Advisories through governance (see **Key Driver Diagram**)

#### VIRTUAL & ONSITE INITIATIVES

1. Sepsis Collaboratives (SSC/ESSC/Office Hours)
2. Onsite advisory consultation for opportunity sites
3. EHR documentation enhancements w/ education
4. Adoption of **Clover Award** recognition program

#### KPI: Sepsis Mortality TTM Target < 1.02



**108** registrants for Sepsis Office Hours  
**100%** facility participation in **Clover Award** program  
**100%** market participation in System Sepsis Collaborative

**232** mortalities avoided in 2023  
**9437** patient days saved in 2023  
**\$2,831,100** cost savings for patient days saved



#### Onsite Advisory Post-Intervention

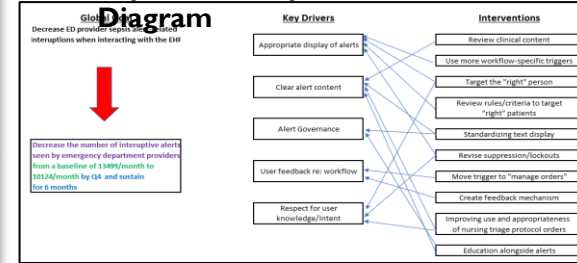
Hospital A			
TTM O/E Sepsis Mortality	Order Set/Quick List Usage	Arrival to Triage & ABX	SEP-I Bundle Compliance
TTM O/E Sepsis Mortality	Order Set/Quick List Usage	Arrival to Triage & ABX	SEP-I Bundle Compliance
Hospital C			
TTM O/E Sepsis Mortality	Order Set/Quick List Usage	Arrival to Triage & ABX	SEP-I Bundle Compliance
TTM O/E Sepsis Mortality	Order Set/Quick List Usage	Arrival to Triage & ABX	SEP-I Bundle Compliance
Hospital E			
TTM O/E Sepsis Mortality	Order Set/Quick List Usage	Arrival to Triage & ABX	SEP-I Bundle Compliance
TTM O/E Sepsis Mortality	Order Set/Quick List Usage	Arrival to Triage & ABX	SEP-I Bundle Compliance
Hospital G			
TTM O/E Sepsis Mortality	Order Set/Quick List Usage	Arrival to Triage & ABX	SEP-I Bundle Compliance
TTM O/E Sepsis Mortality	Order Set/Quick List Usage	Arrival to Triage & ABX	SEP-I Bundle Compliance
Hospital H			
TTM O/E Sepsis Mortality	Order Set/Quick List Usage	Arrival to Triage & ABX	SEP-I Bundle Compliance
TTM O/E Sepsis Mortality	Order Set/Quick List Usage	Arrival to Triage & ABX	SEP-I Bundle Compliance
Hospital I			
TTM O/E Sepsis Mortality	Order Set/Quick List Usage	Arrival to Triage & ABX	SEP-I Bundle Compliance

Meeting target

Favorable trend

Unfavorable trend

#### Sepsis BPA Key Driver



**62%** ↓ ED MD BPA = Cost avoidance \$11k  
**Provider testimonial** "Less interruptions means more time at the bedside"

McGreevey, I. J., Mallozzi, C. P., Perkins, R. M., Shelov, E., & Schreiber, R. (2020). Reducing Alert Burden in Electronic Health Records: State of the Art Recommendations from Four Health Systems. *Applied Clinical Informatics*, 11(01): pp. 001-012.

# References

CDC Sepsis Surveillance [www.cdc.gov/sepsis/clinicaltools/index.html](http://www.cdc.gov/sepsis/clinicaltools/index.html)

McGreevey, I. J., Mallozzi, C. P., Perkins, R. M., Shelov, E., & Schreiber, R. (2020). Reducing Alert Burden in Electronic Health Records: State of the Art Recommendations from Four Health Systems. *Applied Clinical Informatics*, 11(01): pp. 001-012.

Milano, P., et al. (2018). Sepsis bundle adherence is associated with improved survival in severe sepsis or septic shock. *West J of Emergency Medicine*, 19(5), 774–781.  
<https://doi.org/10.5811/westjem.2018.7.37651>

Sepsis Alliance <https://www.sepsis.org/>

# PRESENTER(S)

**CASSANDRA BUTTS, BSN, RN**  
Director ICU/PCU  
Knox Community Hospital

# Knox Community Hospital

## Inpatient Sepsis Process Improvement

Cassandra Butts, BSN, RN | Director of ICU/PCU

Carol Emery, DNP, RN, CENP | Chief Nursing Officer



March 20<sup>th</sup> 2024



OHIO ORGANIZATION  
FOR NURSING LEADERSHIP  
OHIO HOSPITAL ASSOCIATION

*Wellness, Connecting & Joy*

## Background and

### Purpose

**We noticed that inpatient sepsis mortality was significantly higher than industry targets for all of 2022.**

- Early diagnosis and treatment, along with utilization of screening tools such as SIRS (Systemic Inflammatory Response System) and Organ Failure Assessment, has shown to improve outcomes and decrease overall mortality and length of stay for patients.
- Best practices and bundles are available from the Joint Commission, Ohio Hospital Association, and commercial payer sources.

**The Goal** was identified to reduce Sepsis mortality to <15% by focusing on controllable factors.

### Planning Team

- In 2022, a performance team convened to complete an A3 (Lean Process Improvement Tool) to address the gap in the quality of care.
- Collaborative work began with other departments, including several different medical specialties, to standardize and sustain inpatient sepsis improvement processes, including: Improvement of key quality indicators incidence, mortality, readmissions, length of stay, core measures, and order set utilization.



## Analysis

- Utilized a gap analysis tool to demonstrate our greatest's opportunities for improvement from the current state to best practice and a management action plan (MAP) to complete interventions.
- Literature research conducted relevant to sepsis within the last five years identified interventions needed to achieve current best practice.

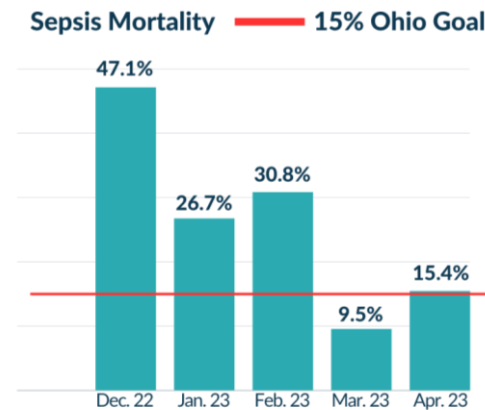
## Interventions

- Worked with Clinical Information Systems to update hospital-wide sepsis screening tool within our EMR utilizing the SIRS and Organ Failure Assessment.
- Created standardized sepsis checklist as a guideline for bundle compliance and as a handoff for oncoming frontline staff.
- Added sepsis screening tool/checklist to Rapid Response forms to improve compliance with 60-minute bundle.
- Set sepsis screening standards for documentation as daily, change in condition and transfer
- Updated order sets to reflect current best practices with cardiology collaboration for septic shock patients.
- Created an educational visual sepsis pathway for ED and all inpatient units.
- Yearly and Hospital-wide education for nurses and physicians and new staff

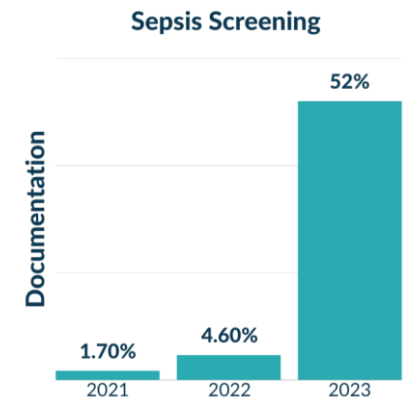


## Lessons Learned and Future Implications

- Feedback to clinical staff individually and via group settings to celebrate success and troubleshoot barriers post-implementation has demonstrated improved screening compliance and provider notification.
- Importance and need for a sepsis coordinator.
- To maintain results at a target of 15% or less of Ohio's goal for sepsis mortality.
- To achieve a target of 100% of patients admitted and screened daily for sepsis.
- Continue to monitor and collect data and adhere to best practices for all inpatient Sepsis by reporting monthly to Hospital Medicine Meeting.



## Results







## References and Acknowledgements

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3. Goulden R, Hoyle MC, Monis J, et al. qSOFA, SIRS and NEWS for predicting inhospital mortality and ICU admission in emergency admissions treated as sepsis. *Emerg Med J*. 2018;35(6):345-349. doi:10.1136/emered-2017-207120
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5. Levy MM, Evans LE, Rhodes A. The Surviving Sepsis Campaign Bundle: 2018 update. *Intensive Care Med*. 2018;44(6):925-928. doi:10.1007/s00134-018-5085-0
6. Milano PK, Desai SA, Eiting EA, Hofmann EF, Lam CN, Menchine M. Sepsis Bundle Adherence Is Associated with Improved Survival in Severe Sepsis or Septic Shock. *West J Emerg Med*. 2018;19(5):774-781. doi:10.5811/westjem.2018.7.37651
7. Reyes BJ, Chang J, Vaynberg L, Diaz S, Ouslander JG. Early Identification and Management of Sepsis in Nursing Facilities: Challenges and Opportunities. *J Am Med Dir Assoc*. 2018;19(6):465-471. doi:10.1016/j.jamda.201



# OHA collaborates with member hospitals and health systems to ensure a healthy Ohio

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HelpingOhioHospitals



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[www.youtube.com/user/OHA1915](http://www.youtube.com/user/OHA1915)