

# EFFECTIVE PRACTICES FOR THE EARLY RECOGNITION IN SEPSIS CARE

March 15, 2023

## **SEPSIS WEBSITE**

#### ohiohospitals.org/sepsis















**About OHA** 

Advocacy

**Health Economics** 

Patient Safety & Quality

**Member Services** 

**News & Publications** 

Home / Patient Safety & Quality / Statewide Initiatives / Sepsis

Innovation Leadership

**Statewide Initiatives** 

**Patient Safety & Quality Services** 



#### Sepsis

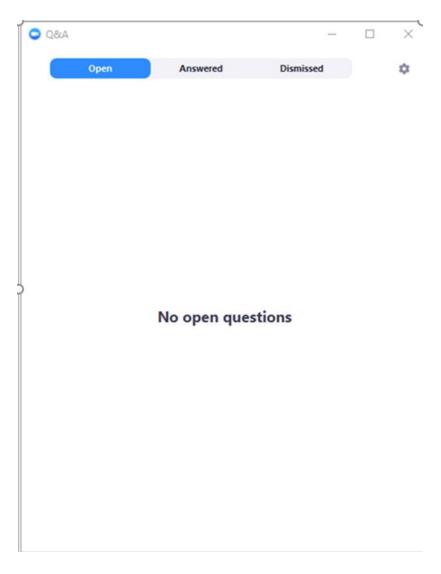
Reducing Sepsis Mortality in Ohio Through Early Recognition, Appropriate Intervention

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: <a href="https://www.surveymonkey.com/r/Sepsis-March2023">https://www.surveymonkey.com/r/Sepsis-March2023</a>
- Please be sure to access the link, complete the evaluation form, and request your certificate. The evaluation process will remain open <u>two</u> <u>weeks</u> 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)

## **SUBMITTING QUESTIONS**



#### **OHA ANNUAL MEETING**

#### Uniting our Voices

#### OHA 2023 Annual Meeting: June 12-14

- Theme: Uniting Our Voices
- Location Hilton Easton
- June 12-13, 2023
  - Tracks including nursing leadership, with CE
  - Health Care Worker of the Year Award
  - Corporate Partner Exhibits
- June 14: Sepsis Summit
- Call for poster presenters
- Registration will open in mid-March
- No charge for member hospitals



#### PRESENTER(S)

#### MARIA HUCK, BSN, RN

Clinical Outcomes Manager, Quality and Patient Safety

OhioHealth

Columbus, OH

# **OHA Sepsis Program 2023**

OhioHealth Early Recognition of the Sepsis Patient – March 15, 2023

Maria A. Huck, BSN, RN & Carrie L. Mummert MSN, BSN, RN, CPHQ

### **OBJECTIVES:**

- Introduce OhioHealth's System work r/t Sepsis Outcomes
  - System Sepsis Peer Group
  - Provider Clinical Guidance Council (CGC)
- Discuss CGC involvement in the Adult Sepsis Clinical Program
- Describe the Implementation Process and Use of:
  - Predictive Model and Tools
  - Sepsis Navigator
  - Sepsis Focused Order Sets
- Summarize Outcomes pre and post Go Live of Predictive Tool
- Present Case Studies of Sepsis Patients Identified with our Predictive Tool





#### Who We Are

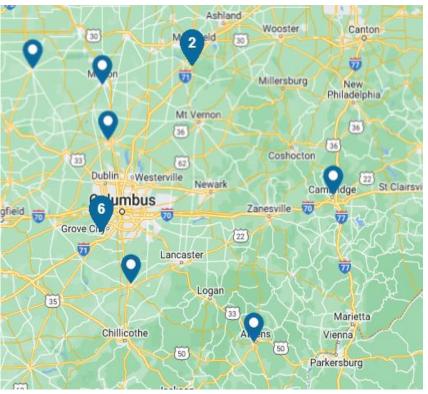
OhioHealth is a nationally recognized, not-for-profit, charitable, healthcare outreach of the United Methodist Church.

OhioHealth has been recognized as one of the top five large health systems in America by IBM Watson Health™, an honor we have received six times.

We are a family of 35,000 associates, physicians and volunteers, and a network of 14 hospitals, 200+ ambulatory sites, hospice, home health, medical equipment and other health services spanning 47 Ohio counties.

We believe your best health is always within reach.





#### **SEP-1 Timeline**



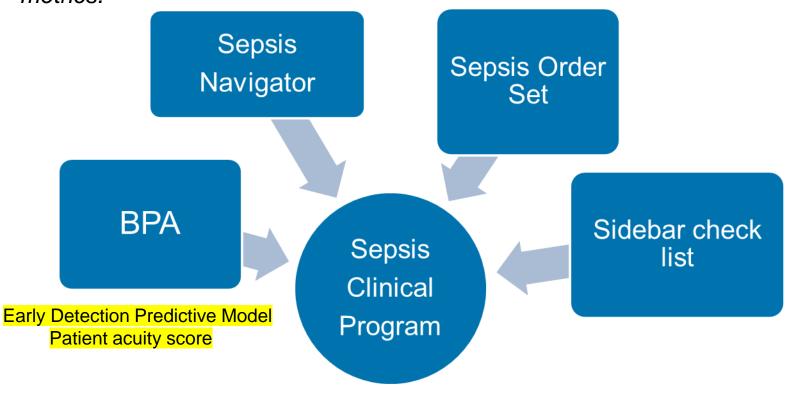
- On **October 1, 2015**, the Centers for Medicare and Medicaid Services (CMS) and The Joint Commission (TJC) launched a Sepsis Core Measure for all 4000 Joint Commission-accredited U.S. hospitals.
- Each OhioHealth Hospital selected a staff member in their respective Quality & Patient Safety Department to abstract sepsis cases.
- Each of our Hospitals was independently managing sepsis cases and the understanding the Specifications Manual abstraction rules.
- Public reporting of hospital performance on SEP-1 began in 2018.
- System Sepsis Abstractors Small Group initiated 2018.

## System Sepsis Abstractors Group

- > Small Group
- > 9 Hospitals Represented
- Guidelines Interpretation with Specifications Manual Updates
- > Shared data abstraction tips
- Validated one another's cases
- Consistent Education to Units
- Report Out Ideas
- Developed Time Zero Report

# Adult Sepsis Clinical Program Clinical Guidance Council

Implementation of a comprehensive program, including a predictive analytic model to improve sensitivity and specificity of patient identification. A multitiered BPA model to encompass both ED patients and existing inpatients, leading providers to early identification and treatment, meeting CMS bundle metrics.



#### **Sepsis Predictive Model**

Identification



Notification



Evaluation

Clinical Action

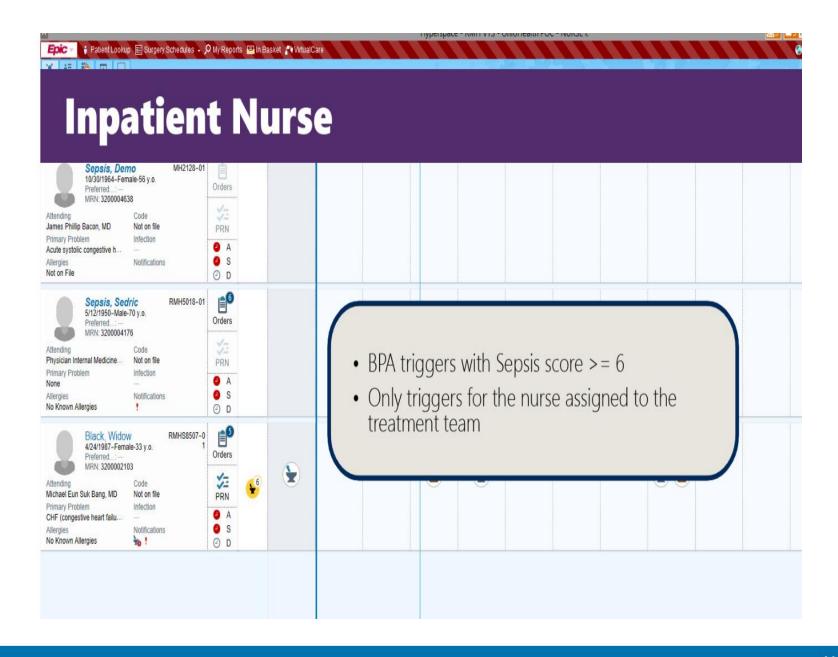


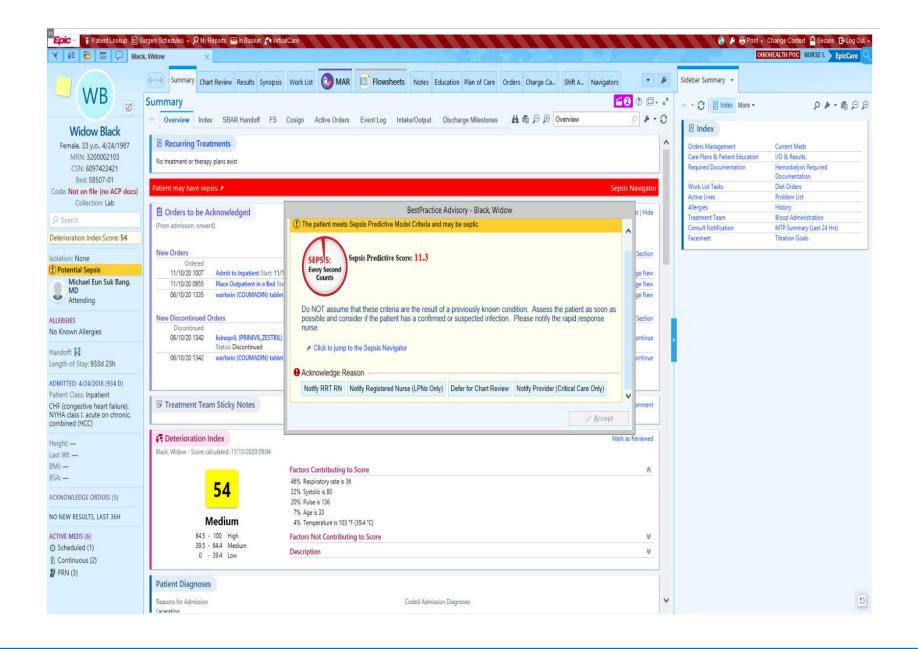
- BPA
- Order Set
- Navigator
- Patient List Columns

- Assist in early detection
- Allows for early intervention
- Population:
  - At least 18 years of age
  - Admitted in the ED, Inpatient, or Observation
- Variables, such as:
  - Demographics
  - Diagnoses
  - SIRS criteria
  - Recent lab results

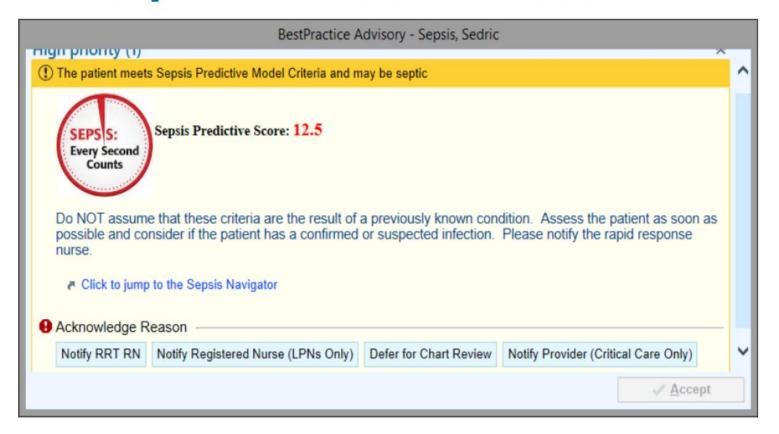
## Variables evaluated by the model

- Patient demographics
- Diagnoses in chart
- SIRS (Systemic Inflammatory Response syndrome) criteria
  - Heart rate > 90/min
  - Respiratory rate > 20/min
  - Temperature > 38 C or < 36 C
  - Leukocytosis or leukopenia
- Recent labs
- Medication orders
- Lines/ Drains/ Airways

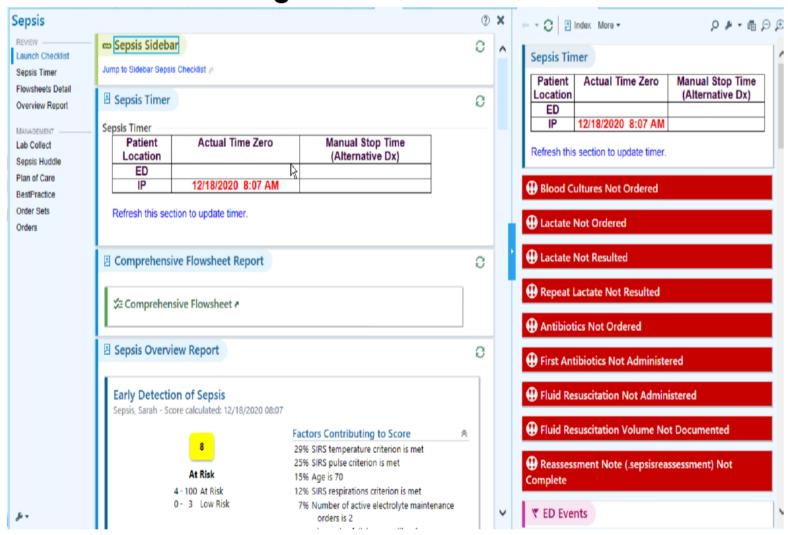




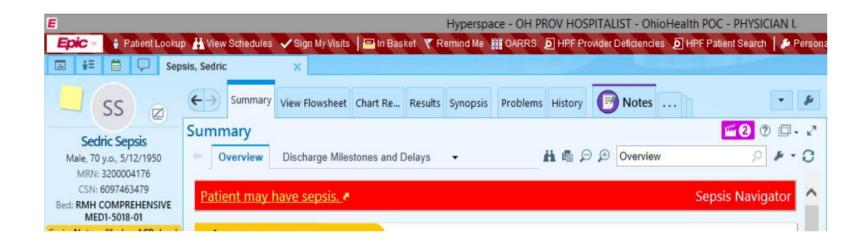
## **Inpatient Nurse BPA**

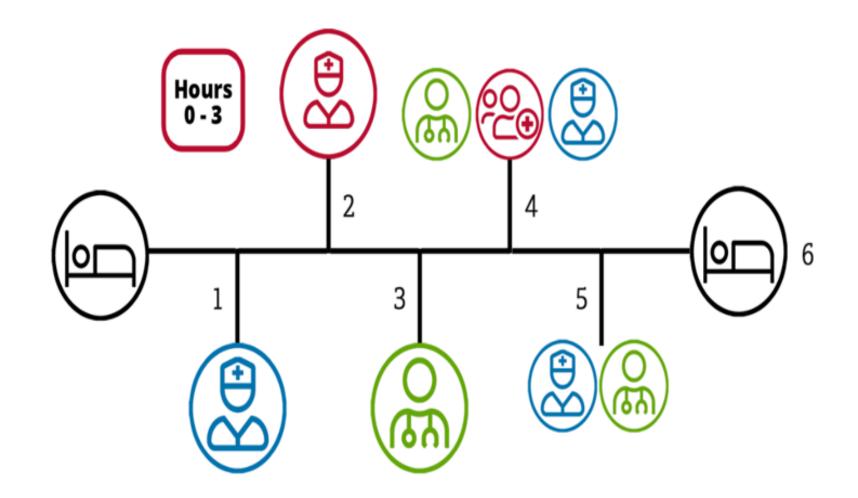


#### Navigator & Sidebar checklist

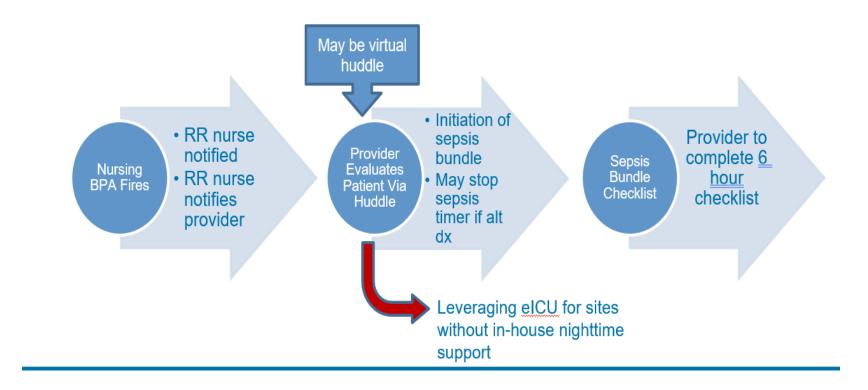


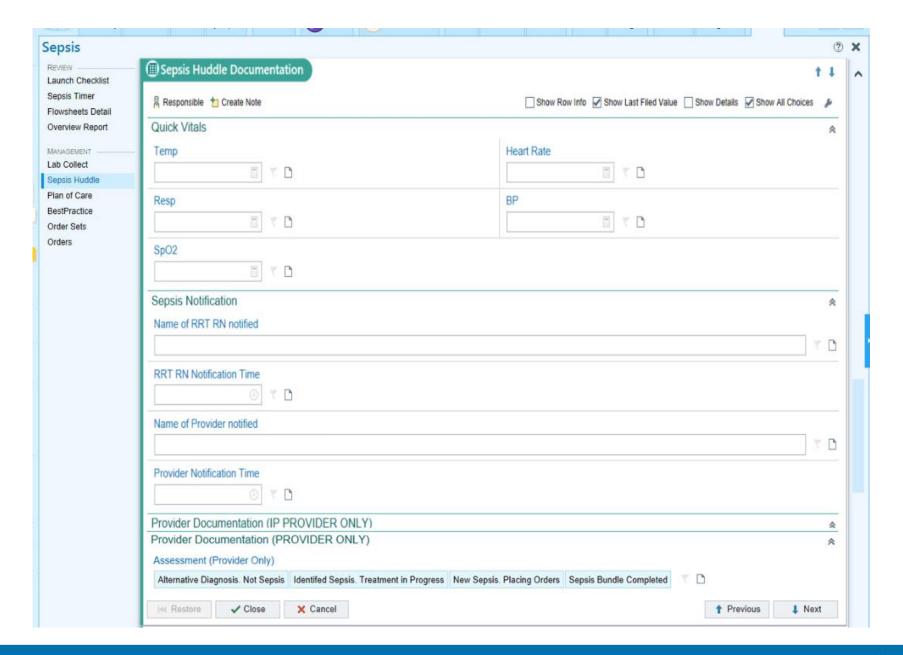
#### **Sepsis Banner**



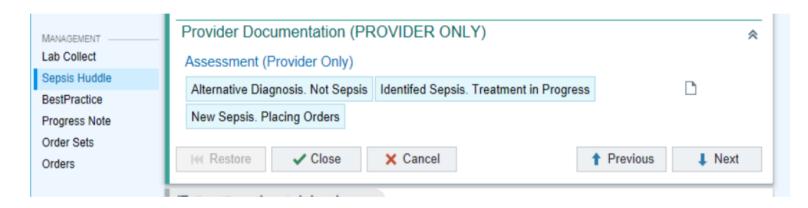


#### **Inpatient Sepsis BPA Workflow**





#### **Sepsis Huddle- stop timer**

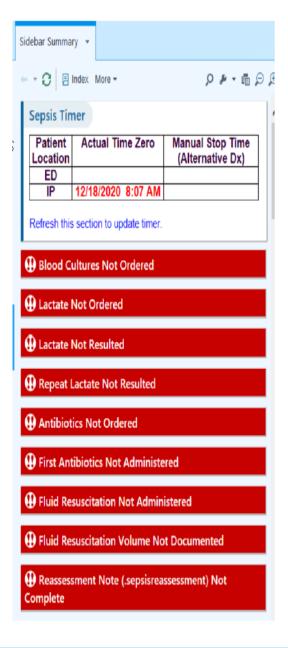


- Provider documentation in Navigator includes a manual 'stop timer' mechanism if 'Alternate Diagnosis. Not Sepsis' selected
- Automatic 'stop timer' when all components of the checklist are completed

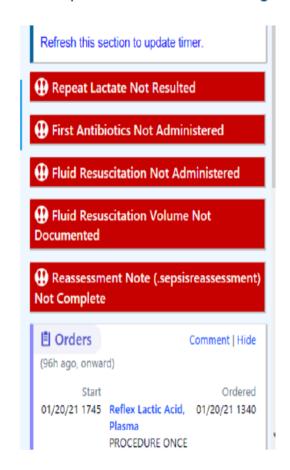
## Sepsis Checklist

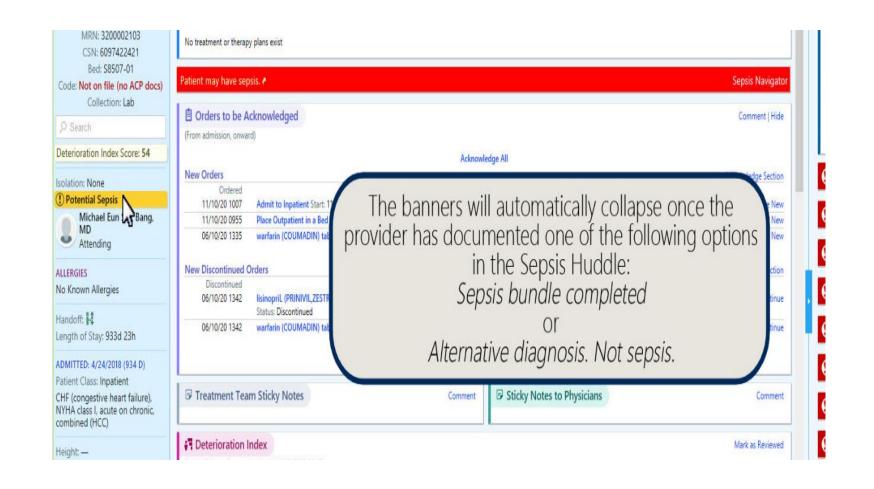
-Sidebar report-

Timer corresponds to initial BPA firing



# Items on list will drop off when completed or status changes



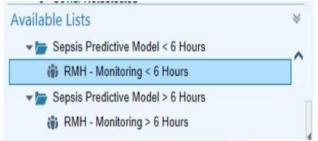


## **Patient List, Predictive Score**



**☆ 23** ②

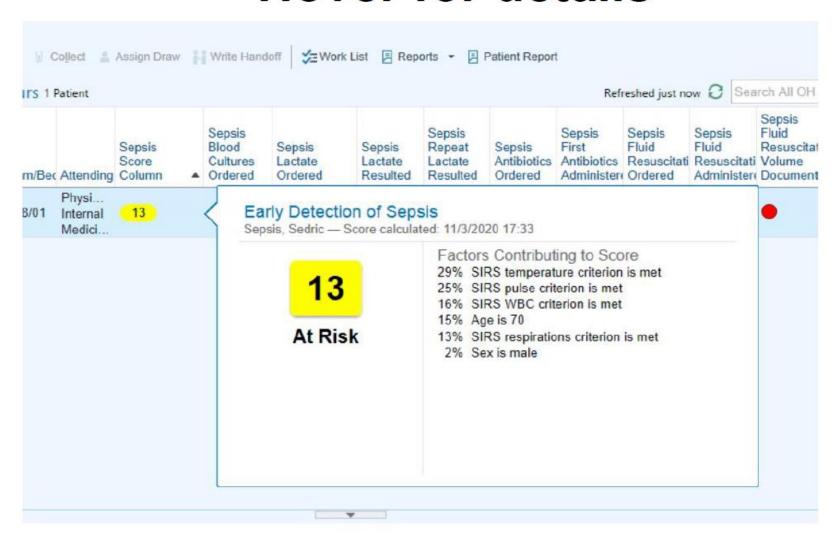
## **Patient List, Predictive Score**





☆ RMH - Monitoring > 6 Hours	Patient		Refreshed just now C Search All OH	Admitt
MRN 🔺	Pat Name/Age/Sex	Unit	Room/Bed	Sepsis Score Column
3200000255	Medsurgfifteen, Alaris (67 y.o. F)	RMH MEDICAL UNIT 2	2015/01	9

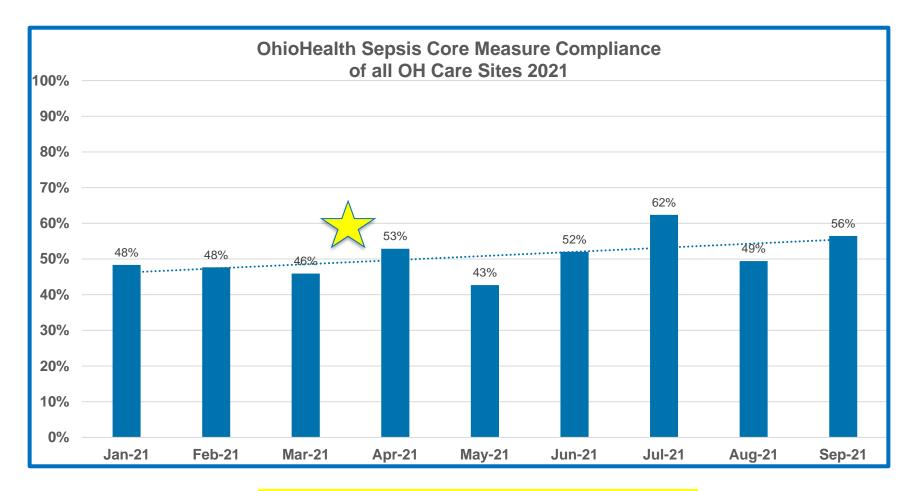
#### Hover for details



## **Outcomes**



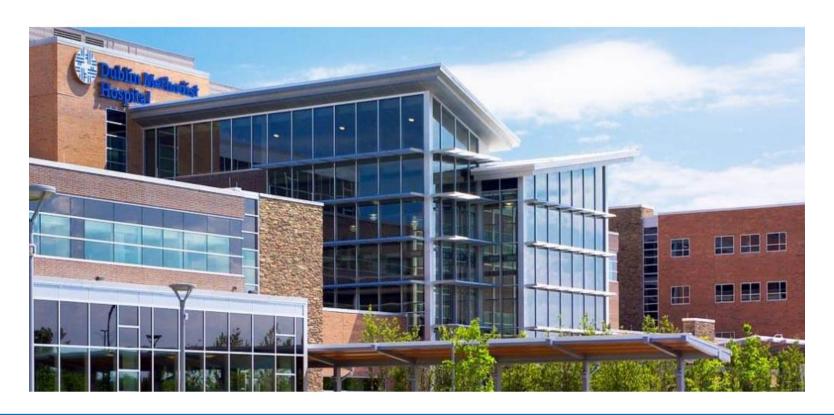
# Bundle Compliance Comparison Pre and Post Go Live

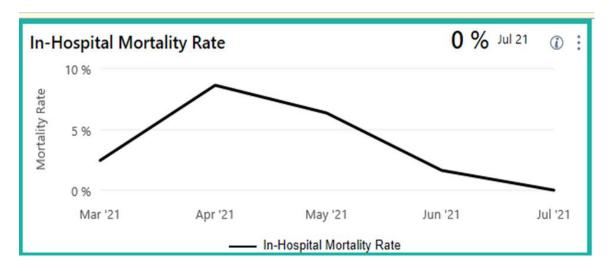


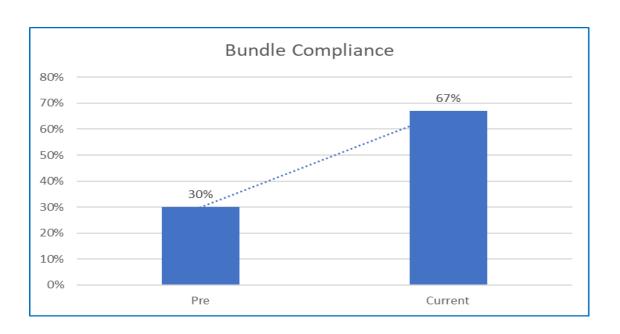
Predictive Model Go Live March 21, 2021



#### A snapshot of Dublin Methodist Hospital's Sepsis Outcomes

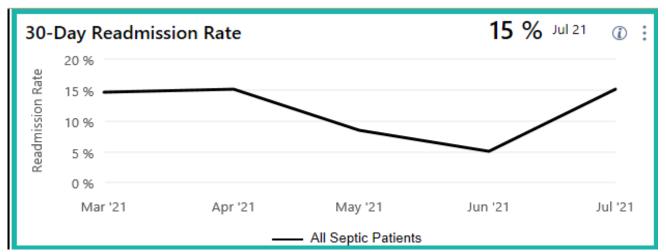


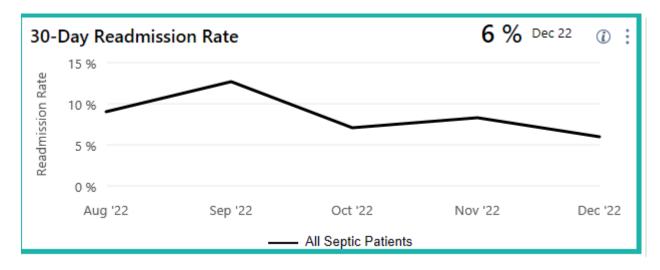






Predictive Model







## **Case Studies**

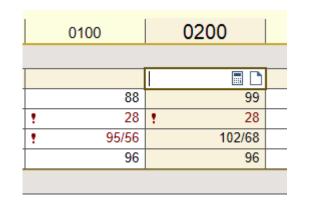


45 y.o. female with history of CHF, GERD, HLD, HTN, OSA and prior history of anoxic brain injury and a PEG tube presented to Hospital with j tube malfunction. Admitted for obstruction of feeding tube on 10/24/2022.

C	
Sepsis Screning - 10/24/22 1735	
Potential for Infection	
Suspected or documented infection	No
Antibiotic Therapy (not prophylaxis)	No
Indwelling Catheter	No
Is Patient Resident of LTC / Rehab Facility?	Yes
Is Patient Immunocompromised?	No
Infection Calculated Score	1
Signs of SIRs	
Temperature >= 100.4F OR <= 96.8F	No
Heart Rate > 90 BPM	Yes
Is Resp Rate > 20 per Min?	No
Altered Mental Status	No
SIRS Calculated Score	0
Organ Dysfunction	
SpO2 < 90% or Increasing O2 Need	No
Systolic BP < 90 mmHg	No
Organ Dysfunction Calculated Score	0
Sepsis Action / Intervention	
Sepsis Score	1
Sepsis Risk and Action Plan	Risk for sepsis. Contine routine care



Early Detection Sepsis Score = 3.56 at 10/26 2332 increased to 11.1 at 10/27 0106

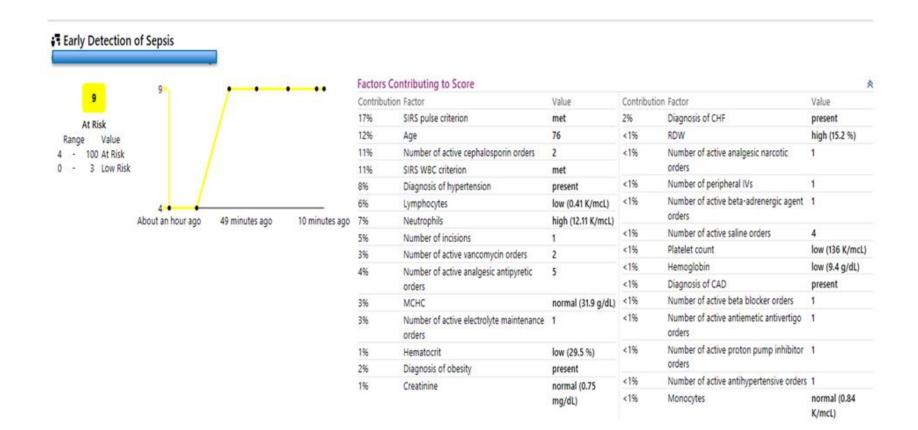




Provider notified at 0158, Provider note and orders 0311 -0313

# 76 y.o. female - History of AF, HTN, CAD, GERD, HLD, presented to Hospital with facial swelling

Sepsis Screning - 03/05/23 1437	
Potential for Infection	
Suspected or documented infection	No
Antibiotic Therapy (not prophylaxis)	No
Indwelling Catheter	No
Is Patient Resident of LTC / Rehab Facility?	No
Is Patient Immunocompromised?	No
Infection Calculated Score	0
Signs of SIRs	
Temperature >= 100.4F OR <= 96.8F	No
Heart Rate > 90 BPM	No
Is Resp Rate > 20 per Min?	No
Altered Mental Status	No
WBC >=12000 OR <= 4000 OR > 0.5 K/ul Bands	No
SIRS Calculated Score	0
Organ Dysfunction	
SpO2 < 90% or Increasing O2 Need	No
Systolic BP < 90 mmHg	No
Lactic Acid >= 2 mmol/L	No
Organ Dysfunction Calculated Score	0
Sepsis Action / Intervention	
Sepsis Score	0
Sepsis Risk and Action Plan	No risk for sepsis



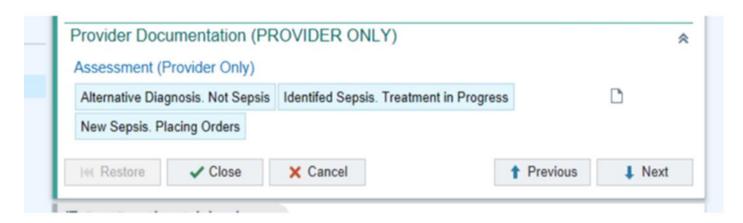
<b>IP Sepsis Events</b>	Triggered -			
Date/Time	Event			
03/07/23 1516	IP Sepsis Act	ual Time Zero		

## **Patient List, Predictive Score**

Attending	Seps Sepsis Start Scor Time	Sepsis Blood Cultures Ordered	Sepsis Lactate Ordered	Sepsis Lactate Resulted	Sepsis Repeat Lactate Resulted	Sepsis Antibiotics Ordered	Sepsis First Antibiotics Administered	Sepsis Fluid Resuscitation Ordered	Sepsis Fluid Resuscitation Administered	Sepsis Fluid Resuscitation Volume Documented	Sepsis Provider 6 Hour Note Complete
Generic Hms Hospitalists	9 03/07/23 1510 (IP)	6 •	•	•	•	0	•	•	•	•	•

40

#### Sepsis Huddle- stop timer



■ Sepsis Huddle Documentation Review (all recorded)				
Sepsis Huddle Documentati	on Review - Fri March 03, 2023			
Row Name	0749			
Provider Documentation (IP	PROVIDER ONLY)			
Assessment (IP Provider Only)	Alternative Diagnosis. Not Sepsis -AP at 03/03/23 0749			
Sepsis Huddle Documentati	on Review - Tue February 28, 2023			
Row Name	0719			
Provider Documentation (IP	PROVIDER ONLY)			
Assessment (IP Provider Only)	Alternative Diagnosis. Not Sepsis -AP at 02/28/23 0719			

## **Questions?**



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

James Guliano, MSN, RN, NPD-BC, NEA-BC, FACHE Vice President, Operations & Chief Clinical Officer James.Guliano@ohiohospitals.org

Dorothy Frabott, BA, MBA

Manager, Administrative and Clinical Programs

Dorothy.Aldridge@ohiohospitals.org

Kelsey Brown, BSN, RN
Director, Clinical Support Services
Kelsey.Brown@ohiohospitals.org

**Ohio Hospital Association** 

155 E. Broad St., Suite 301 Columbus, OH 43215-3640

T 614-221-7614 ohiohospitals.org







www.youtube.com/user/OHA1915