



# Hospital Insights

## OHA SEPSIS INITIATIVE

# OHA Identifies Hospital Best Practices with Sustained Non-Present on Admission Sepsis Mortality Reduction Strategies

OHA's Quality Programs team conducted a five-month in-depth review of non-present on admission, or n-POA, sepsis mortality at member hospitals.

Hospitals interviewed demonstrated a significant reduction in n-POA sepsis mortality and sustained the reduction for the three-year period of 2014 through 2016.

The OHA Board of Trustees' Clinical Advisory Committee in October 2017 reviewed and approved a deep dive template for interviewing hospitals that demonstrated

and sustained a significant reduction in n-POA sepsis mortality for the three-year period.

The template was comprised of six content areas including:

- Leadership commitment
- Accountability
- Expertise
- Action
- Monitoring
- Education

### STATEWIDE RESULTS

As of third quarter 2017, 124 Ohio hospitals participating in OHA's sepsis program achieved a 15.5 percent reduction in overall sepsis mortality, projecting at least 2,133 lives saved since the inception of the initiative in 2015.

### OHA SEPSIS EDUCATION RESOURCES AVAILABLE ONLINE

OHA's quality program education materials and resources are available for hospitals and community partners to access at [www.ohiohospitals.org/sepsis](http://www.ohiohospitals.org/sepsis). These online resources feature

national publication articles, reports, research studies and OHA monthly webinar recordings of professional and national sepsis experts and clinicians sharing their best practices.

### BACKGROUND

The OHA Statewide Sepsis Initiative began in June 2015 with a board-directed goal of reducing statewide sepsis mortality by 30 percent from its 2014 statewide baseline rate of 21.3 percent. To achieve this goal, the OHA Statewide Sepsis Initiative was designed focusing upon two strategies: early recognition and early, appropriate intervention.

The initiative activities include quarterly data analysis/monitoring/reporting, monthly interactive, evidence-based, continuing education webcasts featuring state and national experts, dissemination of effective practices, compilation of toolkits/resources and hosting a webpage.

## UNIQUE FINDINGS

# OHA Conducts Deep-Dive Review of 6 Focus Areas

In the beginning of the review hospitals were asked to identify their perceived greatest challenges and these included:

- Emergency department to inpatient handoff
- Re-perfusion documentation by physicians
- Emergency department central line placement while having emphasis placed upon door-to-bed turnaround times
- Confusion as to what area(s) of sepsis to focus upon since there seem to be numerous priorities requiring attention
- Shortages (staff turnover, medications, IV fluids)
- Appropriate fluid amount (based upon actual body weight versus ideal body weight)
- IV site infiltration causing delays in antibiotic and/or fluid administration

## LEADERSHIP COMMITMENT

- **Dedicated sepsis FTE**—There were no dedicated staff allocated specifically to sepsis efforts, such as a sepsis coordinator except in one hospital that holds sepsis certification who cited a system-wide shared sepsis coordinator position as a requisite of sepsis certification.
- **Designated house-wide "Code Sepsis Team"**—None of the hospitals had dedicated Code Sepsis response teams. Rather, all hospitals had established modified early warning systems, or MEWS, that triggered a Rapid Response Team, or RRT, when the patient assessment indicated a pre-determined threshold score.
- **Dedicated sepsis budget**—None of the hospitals had a dedicated budget specific to sepsis initiatives, however, all hospitals cited leadership support for expenditures related to sepsis mortality reduction efforts.
- **Established performance metrics of contracted providers for use of sepsis order sets**—Some hospitals have language included in the contracts of employed and contracted providers that reflects expectations for use and adherence to established sepsis order sets. When these existed, the hospitals relayed that the employed or

contracted providers managed 85-90 percent of the inpatient population.

One hospital described how the contracted hospitalist provider group developed their own sepsis order set and held each other accountable for its utilization. In one hospital, hospitalists are evaluated every 6 months for coding compliance/issues.

- **Standing meeting of clinical documentation specialists, coders and Quality teams**—One hospital described a monthly forum of team members focused strictly upon documentation including clinical documentation specialists, coders, and quality staff members. Issues such as coding appeals and related educational needs were addressed in the forum.
- **Multidisciplinary forum**—All hospitals had a multidisciplinary sepsis forum such as a committee, workgroup, or team in place that met routinely on a scheduled basis and as needed. All hospitals described the composition of their forum attendees as including emergency department medical staff, nursing staff, pharmacy staff, laboratory staff, quality staff, and members of the executive team.
- **Frequent sepsis assessments**—Although most hospitals described the inpatient workflow of sepsis assessment as being daily at a minimum, one hospital described the identified need to increase sepsis assessment to three times daily within the electronic medical record workflow.
- **Acquisition of equipment**—Twenty-five percent of hospitals interviewed relayed that the executive leadership approved the purchase of capital equipment to acquire the latest generation of point-of-care testing equipment.  
While 50 percent of the hospitals obtain initial lactate levels utilizing point-of-care testing, the other 50 percent of the hospitals utilize phlebotomy for the collection of the initial lactate level. All hospitals cited a reflex process implemented to ensure collection of a repeat lactate level.

## ACCOUNTABILITY

- **Personal interactions with outlier providers**—All hospitals described their process of addressing outlier physician and nursing providers (those who deviated from the sepsis core measure or those who did not utilize intended sepsis order sets) as live, personal interactions with peers, such as department chairs and clinical managers, supplemented with access to supporting evidence-based literature.  
Other methods of addressing outlier issues included standard memorandum or letters requesting a response.
- **Designated clinical champions**—All hospitals cited the presence, visibility, and accessibility to designated clinical champions, to whom sepsis-related clinical questions were referred. These most often were identified as the emergency department medical director, sepsis committee co-chairs, infectious disease providers, chief hospitalists, and intensivists.
- **Emergency department-based pharmacists**—The majority of hospitals indicated a clinical pharmacist was staffed in the emergency department area during high patient volume hours, most often cited as 9 a.m.-10 p.m. The role related to sepsis was noted to be ensuring timely and appropriate broad spectrum antibiotic administration as well as other clinical pharmacist services.
- **Transparency of Data** - All hospitals described sepsis data (such as mortality rates) were shared transparently within the hospital as well as with providers along the continuum of care (such as pre-hospital providers and nursing home council meetings) to identify collaborative opportunities for improvement and resultant effective action plans.

## EXPERTISE

- **Unit-based sepsis champions**—One hospital allocated unit-based sepsis champions equipped with binders of resources. These registered nurses possess pathophysiology knowledge and competency to best escalate concerns to medical staff providers.

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## UNIQUE FINDINGS

# OHA Conducts Deep-Dive Review of 6 Focus Areas

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Their role involves peer consultation to accomplish early recognition of sepsis and appropriate intervention.

- **Palliative care rounding**—Two hospitals explained that critical care rounding routinely included a palliative care consideration when assessing patient needs/directives. A consultative palliative care provider was readily available upon identification of need.

## ACTIONS

- **Enhanced communication with pre-hospital providers**—Hospitals described the ability to provide pre-hospital providers with feedback after having initiated a sepsis alert from the field. Feedback related to accuracy of diagnostic clinical impression, timeliness of interventions, and handoff were valued interactions at these hospitals.

Pre-hospital providers were also provided with the same educational opportunities as those provided to emergency department staff. Overall dialogue between pre-hospital providers and acute care providers was facilitated in one hospital by hosting and recording a sepsis seminar.

- **Antibiotic surveillance**—One hospital relayed a process in which clinical pharmacists review positive culture reports as part of a surveillance team and suggest de-escalation to appropriate antibiotics accordingly and in a timely manner. One hundred percent of hospitals interviewed have integrated antibiotic stewardship efforts with sepsis mortality reduction efforts.
- **Assessment of unique needs**—One hospital implemented a plan for the day/stay rounding mechanism whereby identified sepsis patients (or those at high risk for developing sepsis) are proactively assessed for placement appropriateness, timely intervention and follow-up actions every four hours. This is done by leveraging data within the electronic medical record and results in communication with the rapid response provider team.

Hospitals cited their respective electronic medical records may offer functionality for predicting sepsis

occurrence and are considering utilization of such functionality by collaboratively working with their vendors.

One hospital recently opened a geriatric emergency department and identified the unique challenges in being able to identify sepsis in the geriatric population. This hospital performs follow-up calls on Day #2 post discharge and Day #14 post discharge of any geriatric patient discharged to assess post-discharge status and refer the patient accordingly.

- **Ensuring consistency**—Some hospitals have migrated to a single sepsis order set for the entire hospital rather than individual level of care order sets. One hospital initiated “smart phrases” to ensure adequate documentation of appropriate care as provided.

- **Ensuring seamless sepsis patient handoff**—Several hospitals described the use of a paper tool, referred to as a checklist or roadmap, that travels with the patient containing a brief background, timing information for interventions, and other information deemed pertinent between levels of care.

Some hospitals have required the baseline weighing of every patient at every visit and is included in the handoff tool for reference when body weight is required to determine recommended fluid volume for hypovolemia. Twenty-five percent of hospitals interviewed have converted to a “pull” rather than “push” handoff between the emergency department and the inpatient unit. In this method, the receiving inpatient unit staff arrives in the emergency department to receive a bedside handoff report and transports the patient to the admitting inpatient unit.

During this handoff, patient assessment and the elements of the 3-hour bundle are reviewed for timing and to ensure no gaps in appropriate care. A relationship with the patient and family is immediately established with the inpatient staff.

- **Post-acute care outreach**—The majority of hospitals have an existing post-acute care forum that convenes routinely. All hospitals have incorporated sepsis into their dialogue,

including the sharing of sepsis outcomes, length of stay, and readmissions data. One hospital visits one nursing home weekly and includes sepsis as an agenda item.

## MONITORING

The most commonly monitored sepsis quality indicators included:

- Incidence
- Mortality
- Readmissions
- Length of stay
- Core measure compliance
- Order set utilization

One hospital initiated the monitoring of SIRS criteria identification-to-antibiotic turnaround times with a goal of less than 60 minutes.

Sepsis case reviews were conducted at all hospitals, leveraging peer review and all hospitals had the ability to drill down to the patient level for analyses of cases. The frequency of sepsis case reviews ranged from outliers of the sepsis core measure to review of every sepsis death.

## EDUCATION

Strategies for delivering effective sepsis education included:

- Emergency department and unit-based educators
- Health system sepsis newsletters
- Education being provided by a member of the same health care discipline (ex. Physician to physician, nurse to nurse)
- Conducting skills labs twice annually
- Module developed for unlicensed assistive personnel pertaining to need to escalate concerns, vital sign measurements
- Use of visual cues (posters, pins, table tents)
- Results-based simulation training
- Back-to-Basics Sepsis Boot Camp Series
- Use of Septris – interactive web-based learning (<http://med.stanford.edu/septris/>)
- Training on intra-osseous access (including contraindications) as an urgent alternative when intravenous line placement is unavailable

# Hospital Best Practices Shared Through Online Toolkits

The following toolkit include resources graciously shared by some of the Ohio hospitals interviewed during this deep dive process. Click here (<https://www.ohiohospitals.org/Patient-Safety-Quality/Sepsis-nPOA-Toolkit>) to access toolkit.

[CLINICAL DECISION MAKING](#)

[COMMUNICATIONS](#)

[EDUCATION](#)

[HANDOFF](#)

[MONITORING/AUDITS](#)

[ORDER SETS](#)

## A Race Against Time: Sepsis Declared a Medical Emergency

According to the latest survey conducted annually by Sepsis Alliance, the nation's leading sepsis non-profit organization, only 58 percent of American adults have ever heard the word sepsis. And many who have heard the word, don't really know what it means.

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.

Additionally, sepsis is the most expensive condition to treat in the entire U.S. health care system accounting for \$24 billion in

annual costs. Sepsis impacts an estimated 38,000 Ohioans every year. Many of these patients continue to require additional health care services after surviving sepsis due to the complications of the disease. Early recognition and treatment can reduce the morbidity and mortality of sepsis.

### COMMUNITY AWARENESS CAMPAIGN PROMOTES SIGNS OF SEPSIS



Increasing sepsis awareness among first responders and pre-hospital providers and building a coalition of clinical professional partners is critical to achieving our goal. More than 80

percent of sepsis cases begin outside of the hospital. These cases represent opportunities for people in the community and non-hospital providers to recognize the signs of sepsis before it can cause life-threatening illness or death. Visit OHA's webpage ([www.ohiohospitals.org/sepsis](http://www.ohiohospitals.org/sepsis)) to learn more.

### SEPSIS IS A RACE AGAINST TIME

Symptoms of sepsis include:

- S – Shivering, fever or very cold
- E – Extreme pain or general discomfort (“worst ever”)
- P – Pale or discolored skin
- S – Sleepy, difficult to rouse, confused
- I – “I feel like I might die”
- S – Short of breath



Source:  **SEPSIS ALLIANCE**  
*Suspect Sepsis. Save Lives.*

**If you suspect sepsis (observe a combination of these symptoms) see your medical professional immediately, CALL 911, or go to a hospital with an advocate and say, “I AM CONCERNED ABOUT SEPSIS.”**

### CONTACT

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### SOURCES

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