

# HQIC Community of Practice Call

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A Nationally Pace-Setting Initiative in Sepsis Prevention, Screening and Intervention at the Community Level

October 13, 2022

# Introduction

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Welcome!

**Shelly Coyle**

Nurse Consultant - Division of Quality  
Improvement Innovation Models Testing  
iQuality Improvement and Innovations Group  
Center for Clinical Standards and Quality  
CMS

# Agenda

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- Introduction
- Today's topic
  - A Nationally Pace-Setting Initiative in Sepsis Prevention, Screening and Intervention at the Community Level

*Presenters:*

- Al Cardillo  
President and CEO of the Home Care Association of New York State (HCA)
  - Dr. Thomas Caprio  
Professor of Medicine, Psychiatry, Dentistry, Clinical Nursing and Public Health Sciences at the University of Rochester
  - Chris Chimenti  
Senior Director Clinical Innovation at HCR Home Care
- Open discussion
  - Closing remarks

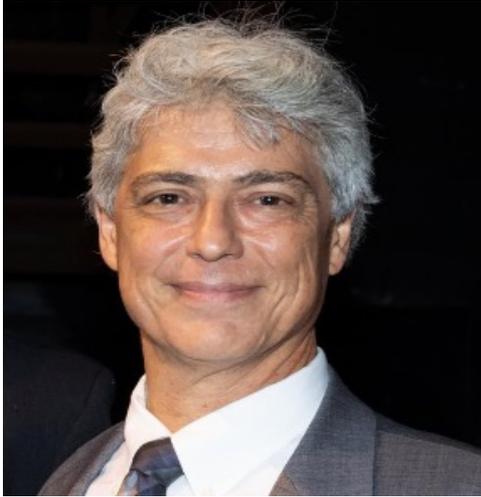
## As You Listen, Ponder...

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- What impactful actions can you take as a result of the information shared today?
- How are you able to increase engagement within your facilities to ensure a true change in patient safety?
- Based on what you heard today, what activities do you currently have underway that can leverage immediate action over the next 30, 60 or 90 days?

# Meet Your Speakers

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**Al Cardillo**

President and CEO of the Home Care Association of New York State (HCA)



**Thomas Caprio**

Professor of Medicine, Psychiatry, Dentistry, Clinical Nursing and Public Health Sciences at the University of Rochester



**Chris Chimenti**

Senior Director of Clinical Innovation at HCR Home Care



## Improving Sepsis Prevention, Screening and Intervention in the Community and Across the Continuum



HCA's Sepsis Screening and  
Intervention Tool and Protocol

Home Care Association of New York State  
October 13, 2022

# Session Faculty

Al Cardillo, LMSW

President & CEO

Home Care Association of New York State

& HCA Education and Research ( <https://hca-nys.org/about/about-home-care/>)

Project Director, HCA Sepsis Initiative

Sepsis Alliance Advisory Board Member

END SEPSIS – Legacy of Rory Staunton, Advisory Board Member

Thomas V. Caprio, MD, MPH, MS, CMD, HMDC, FACP, AGSF, FAAHPM

Professor of Medicine/Geriatrics, Psychiatry, Dentistry, Clinical Nursing, & Public Health Sciences

Director, Finger Lakes Geriatric Education Center

Chief Medical Officer, UR Medicine Home Care

Medical Director, UR Medicine Hospice

Chris Chimenti, MSPT, ACHH

Senior Director of Clinical Innovation

HCR Home Care

# Dedication of Purpose

This initiative is inspired by the many lives fundamentally affected by sepsis in New York State and across the country

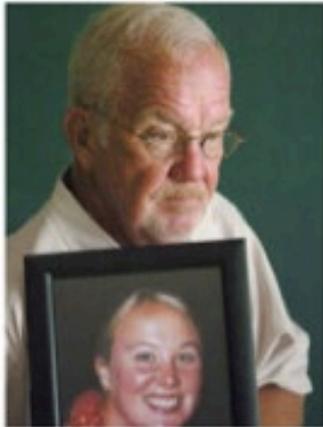


Photo Courtesy of Sepsis Alliance



Photo Courtesy of ENDSEPSIS – Rory Staunton Legacy



Photo Courtesy of Sepsis Alliance



Photo Courtesy of Sepsis Alliance



Photo Courtesy of Sepsis Alliance



Photo Courtesy of ENDSEPSIS – Rory Staunton Legacy

# Session Overview

This presentation will cover:

- i. Introduction of a multi-tiered collaborative initiative targeting sepsis in community and across continuum partners.
- ii. Sepsis as a medical emergency and critical sepsis facts relevant to sepsis and risk factors, including older persons.
- iii. Relevance of sepsis in the community, home health specifically, and critical potential of home health in sepsis prevention, screening and pre- and post-acute.
- iv. Development of the HCA home care sepsis screening tool and initiative – *a first-of-a-kind* through home and community health systems.
- vi. Results to date.
- vii. Next steps in the effort.
- viii. Contacts and resources.

# A Collaborative Initiative Targeting Sepsis in Community and Across Continuum

## IMPROVING SEPSIS PREVENTION, SCREENING AND INTERVENTION IN THE COMMUNITY AND ACROSS THE CONTINUUM

An initiative supported by the Home Care Association of New York State's Education and Research, Inc. and the Mother Cabrini Health Foundation

2021-22 grant generously provided HCA E&R from the Mother Cabrini Health Foundation (MCHF) has supported a multi-tiered collaborative effort to target sepsis in community and across health sectors, (A special thanks to MCHF!)



All-sector/all-partner sepsis steering committee comprised of the state and regional hospital associations, state medical society, LTC association, state health plan association, national Sepsis Alliance, END SEPSIS-Legacy of Rory Staunton, IPRO/QIO, state EMS association, state behavioral health association, state association of agencies on aging, statewide consumers, state office for aging, state office of mental health, state department of health (non-Member participants), US CDC, national home care and hospice association, state and national sepsis clinical experts, Columbia University researchers, individual hospital, LTC, home health providers, area agencies on aging and individual sepsis survivors, and other.

# A Collaborative Initiative Targeting Sepsis in Community and Across Continuum

I.



## REACHING UNSERVED COMMUNITIES

Targeted outreach, education and training for home care agencies and clinical partners in sepsis screening and intervention to communities in currently unserved and underserved areas.

II.



## SPECIAL NEEDS POPULATION

Targeted outreach, education and training for home care and community providers on sepsis and **special needs populations** (maternal, pediatric, mental health, developmental disabilities, veteran, etc.) and expanded community settings (assisted living, group homes, local aging networks).

III.



## PEDIATRIC SEPSIS SCREENING TOOL

Drafting, beta testing, piloting and launching of a pediatric-specific home health screening and intervention tool for sepsis.

IV.



## RESPONSE ACROSS THE CONTINUUM

Drafting guidance to assist and promote coordinated sepsis response across all sectors (home/community, EMS, physician, hospital, etc.). Continue building on the cross-continuum work begun in 2017-18 by the HCA all-sector steering committee and statewide summit.

V.



## SEPSIS COLLABORATIVE CARE MODELS

Exploring potential for development of multilevel sepsis collaboratives (hospitals, home care, EMS, physician, et al) addressing a community's array of sepsis response needs. Facilitate consideration through NYS Hospital-Home Care Collaboration Law.

# HCA Home Care Sepsis Screening Tool

The foundation and catalyst for this ensuing cross-sector collaborative initiative is the HCA Home Care Sepsis Screening and Intervention Tool.

This tool, corresponding algorithm, patient education zone tool and protocol (portrayed in the next slide), and related clinical application and results, will be the major focus of this presentation.





# Critical Sepsis Facts

**And the Imperative of Collaborative Response**

# Critical Sepsis Facts

(Courtesy of Sepsis Alliance: Sepsis Fact Sheet )



- Sepsis is the leading cause of death in U.S. hospitals.<sup>1</sup>
- An estimated 350,000 people die from sepsis every year in the U.S.<sup>2</sup>
- As many as 87% of sepsis cases originate in the community and not in the hospital.<sup>2</sup>
- Sepsis is the #1 cost of hospitalization in the U.S.<sup>3</sup> Medicare costs alone for acute sepsis hospitalization and skilled nursing are estimated to be \$62 billion annually.<sup>4</sup>
- Sepsis causes at least 261,000 maternal deaths every year worldwide and is driving increases in pregnancy-related deaths in the U.S.<sup>5,6</sup>

1. Liu V, et al. JAMA. 2014;312(1):90-92. <http://jama.jamanetwork.com/article.aspx?articleid=1873131&resultClick=3>
2. Rhee C, et al. JAMA. 2017;318(13):1241-1249. <http://jamanetwork.com/journals/jama/fullarticle/2654187>
3. Torio C, Moore B. HCUP Statistical Brief #204. May 2016. Agency for Healthcare Research and Quality, Rockville, MD. <https://www.hcup-us.ahrq.gov/reports/statbriefs/sb204-Most-Expensive-Hospital-Conditions.pdf>
4. Buchman TG, Simpson SQ, Sciarretta KL, et al. Sepsis Among Medicare Beneficiaries: 3. The Methods, Models, and Forecasts of Sepsis, 2012-2018. Crit Care Med. 2020;48(3):302-318. [https://journals.lww.com/ccmjournal/FullText/2020/03000/Sepsis\\_Among\\_Medicare\\_Beneficiaries\\_3\\_The.4.aspx](https://journals.lww.com/ccmjournal/FullText/2020/03000/Sepsis_Among_Medicare_Beneficiaries_3_The.4.aspx)
5. Say L, et al. Lancet Glob Health 2014;2(6):e323-333. <http://www.sciencedirect.com/science/article/pii/S2214109X1470227X>
6. Pregnancy Mortality Surveillance System, CDC, February 4, 2020. <http://www.cdc.gov/reproductivehealth/maternalinfanthealth/pmss.htm>

# Critical Sepsis Facts

(Courtesy of Sepsis Alliance: Sepsis Fact Sheet )



- The risk of mortality from sepsis increases by 4-9% for every hour treatment is delayed.<sup>3,4,5</sup>
- As many as 80% of septic shock patients can be saved with rapid diagnosis and treatment.<sup>5</sup>
- The higher risk of infection following sepsis results from suppression or weakening of the immune system in the first few weeks and months following the initial bout of sepsis.<sup>1,2</sup>
- In 2012, there were more than 13,700 sepsis-related amputations in the U.S. This works out to an average of 38 amputations per day.<sup>6</sup>

1. Prescott HC and Angus DC. Enhancing Recovery From Sepsis: A Review. JAMA 2018;319(1):62-75. <https://jamanetwork.com/journals/jama/article-abstract/2667727?redirect=true>
2. Prescott HC and Costa DK. Improving Long-Term Outcomes After Sepsis. Critical Care Clinics 2018;34(1):175-188. [http://www.criticalcare.theclinics.com/article/S0749-0704\(17\)30078-7/abstract](http://www.criticalcare.theclinics.com/article/S0749-0704(17)30078-7/abstract)
3. Kumar A, et al. Crit Care Med. 2006;34(6):1589-1596. <https://pubmed.ncbi.nlm.nih.gov/16625125/>
4. Seymour CW, et al. N Engl J Med. 2017;376(23):2235-2244. <https://www.nejm.org/doi/full/10.1056/NEJMoa1703058>
5. Liu VX, et al. Am J Respir Crit Care Med. 2017;196(7):856-863. <https://www.atsjournals.org/doi/full/10.1164/rccm.201609-1848OC>
6. Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2012. Accessed April 6, 2016

# Critical Sepsis Facts

(Courtesy of Sepsis Alliance)



- Every 2 minutes someone in the US dies of sepsis.
- Takes more children than cancer – 18 kids each day.
- Every 20 seconds someone is hospitalized with sepsis.
- #1 driver of readmission to a hospital (30 days).
- 1 in 4 hospital patients treated for sepsis is readmitted in the first 30 days after discharge.

# Critical Sepsis Facts

(NYS Department of Health/KPMG VBP project, Sepsis Alliance, JAMA, AHRQ)

- #1 Medicaid expense for potentially avoidable hospitalizations for general MA population in NYS hospitals (excluding schizophrenia in the MH population).
- Sepsis is nearly double the readmission rate of top CMS-clocked readmission cause (i.e., heart failure) subject to hospital penalty
  - Study reported in January 2017 JAMA showed that 12.2% of readmissions were caused by sepsis, compared to heart failure, pneumonia, COPD and heart attack, at 6.7%, 5%, 4.6% and 1.3%, respectively).

Florian B. Mayr, MD, MPH1; Victor B. Talisa, MS2; Vikram Balakumar, MD3; et alChung-Chou H. Chang, PhD2; Michael Fine, MD, MS1; Sachin Yende, MD  
*MS1JAMA. 2017;317(5):530-531. doi:10.1001/jama.2016.20468*

# Especially Significant to Home Health Care

- Among highest risk populations are:
  - The elderly
  - The chronically ill
  - Persons with disabilities
  - The very young; esp medically fragile children
  - Individuals with compromised immune systems
  - Individuals with recurrent UTI and pneumonia
  - Others routinely within home care's service scope and reach (e.g., post surgical, maternal and neonatal care).
- These high-risk groups comprise the home care population; home care treats populations most vulnerable to sepsis.

# Home Health – A Critical Sepsis Partner

- In screening for sepsis criteria, home health agencies' use of the HCA sepsis tool and protocol (to be presented in these slides) simultaneously targets criteria also associated with other high-risks for hospitalizations.
- NYS's Medicaid value based payment (VBP) metrics rate performance in preventing these “potentially avoidable hospitalizations,” targeting these top 6 conditions inclusive of sepsis and conditions substantially aligned with sepsis criteria.
  - Sepsis
  - Respiratory Infections
  - Urinary Tract Infections (UTI)
  - Heart failure
  - Electrolyte imbalance
  - Anemia

# MAKING THE CASE

SEPSIS SCREENING

## \$196M in Medicare

Evidence of sepsis prevalence in NYS home care population

*Prior to the HCA Screening Tool\**

*I PRO Data Analysis 2017*

SPAN OF HOME CARE (in days)	NO. OF MEDICARE HOSPITAL ADMISSIONS COINCIDING WITH HOME CARE	
1-7 Days of Home Care	1,635	19.2%
8-30 Days of Home Care	3,014	35.4%
30+ Days of Home Care	3,870	45.4%
TOTALS	8,519	100%



$$8,519 \times \$23,050 = \$196M$$

*Avg. Medicare Hospital FFS expenditure per sepsis case*



# **Development of the HCA Adult Sepsis Screening Tool and Initiative**

# Development of HCA Sepsis Tool & Initiative

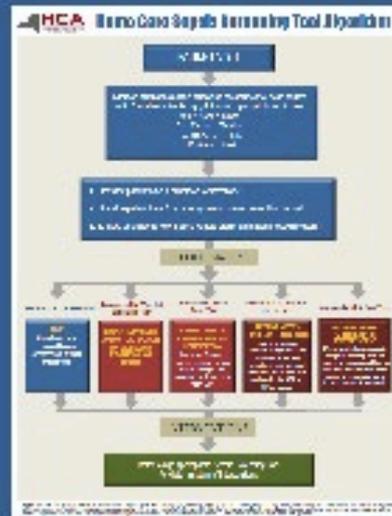
- Starting in 2014, HCA initiated efforts to determine potential role for home care in sepsis intervention.
- Researched across country; no models, no activity related specifically to sepsis and home health.
- HCA engaged sepsis clinical experts and state and national leaders to develop strategic plan.
- HCA sepsis clinical workgroup was established (clinical leader Amy Bowerman) to research and draft a screening tool, algorithm and protocol for sepsis in home health.
- The tool was vetted, beta tested, refined with further clinical input, and formally launched in 2017 with extensive education and outreach sessions that included the HCA, CDC, NYS Gov's Office, NYS Dept of Health, Sepsis Alliance, Rory Staunton Foundation, IPRO/QIO, survivors, and other.

# HCA Adult Sepsis Screening Tool

## Screening Tool

The screenshot shows the top portion of the 'Adult Sepsis Screening Tool' form. It includes a header with the HCA logo and the title. Below the header, there are three numbered sections: 1. 'What is your patient's chief complaint or other major signs or symptoms?' with a list of options like 'Fever', 'Chills', 'Confusion', etc. 2. 'How does your patient's condition affect their ability to perform activities of daily living?' with options like 'No effect', 'Mild', 'Moderate', 'Severe'. 3. 'How does your patient's condition affect their ability to perform activities of daily living?' with options like 'No effect', 'Mild', 'Moderate', 'Severe'. There are also sections for 'Follow-up' and 'Interventions'.

## Algorithm



## Zone Tool

The screenshot shows the 'Zone Tool' section of the screening tool. It is titled 'EARLY SIGNS AND SYMPTOMS OF SEPSIS'. It includes a section 'What is Sepsis?' and 'Signs and Symptoms of Sepsis'. Below this, there are two main zones: 'GREEN Zone: ALL CLEAR - Feeling well' and 'RED Zone: Call your doctor or nurse immediately if you experience INFECTION and...'. The Green Zone lists signs like 'No fever or feeling chilled', 'No fast heart rate', 'No increase in pain'. The Red Zone lists signs like 'Fever or feeling chilled', 'Fast breathing or shortness of breath', 'Pain or discomfort with...'. There is also a section for 'What to do' and 'When to call'.

## Protocol

The screenshot shows the 'Protocol' section of the screening tool. It is titled 'HCA Sepsis Protocol'. It includes a section 'What to do' and 'When to call'. Below this, there are five numbered sections: 1. 'What to do', 2. 'When to call', 3. 'What to do', 4. 'When to call', 5. 'What to do'. Each section includes a list of actions and instructions.

## Authorized Use

To control for quality and use standards, the authorized access to or use of the HCA sepsis tool is permitted only via use agreement with HCA. Please note that it is illegal to use, copy and/or distribute the tool for clinical or business use without the express written permission of the Home Care Association, Inc.

# Development of HCA Sepsis Tool & Initiative

- Substantially contributing to the tool's development was the state/federal Quality Improvement Organization "IPRO," which partnered in all facets.
- In addition, in the beta phase, IPRO incorporated the tool in training over 10,000 clinicians under a CMS Special Innovations Project for sepsis early recognition and response, adding further input and the patient education "zone" tool to the screening tool-algorithm-protocol suite.
- The sepsis tool was designed to also specifically sync with the sepsis criteria used in NYS hospital sepsis protocol requirements adopted in 2013 as "Rory's Regulations."
- The HCA home care sepsis tool as a sector-wide and systemic initiative is the **first of its kind nationally**, and being replicated in other states and other service lines.



# HCA Home Care Sepsis Initiative

## Initial 2017 HCA Sepsis Steering Committee:

- ❖ The Home Care Association of New York State
- ❖ IPRO Quality Improvement Organization/Atlantic Quality Improvement Network
- ❖ Sepsis Alliance
- ❖ Rory Staunton Foundation for Sepsis Prevention
- ❖ US Centers for Disease Control and Prevention
- ❖ NYS Department of Health (collaborator)
- ❖ NYS Office for Aging
- ❖ Medical Society of the State of New York
- ❖ Healthcare Association of New York State
- ❖ Iroquois Healthcare Alliance
- ❖ Nassau/Suffolk Hospital Council
- ❖ Northern Metropolitan Hospital Association
- ❖ NYS Conference of Blue Cross/Blue Shield Plans
- ❖ NY Health Plan Association
- ❖ United New York Ambulance Network
- ❖ NYS Volunteer Ambulance and Rescue Association
- ❖ Statewide Senior Action Council
- ❖ National Association for Home Care and Hospice
- ❖ Visiting Nurse Association of America
- ❖ Leading State and National Physicians and Nurse Clinicians
- ❖ Individual Hospitals, Home Care Agencies, Health Plans



# In-Depth Review of the HCA Sepsis Screening Tool

## Authorized Use

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SEPSIS SCREENING TOOL LICENSE AGREEMENT

THIS LICENSE AGREEMENT is dated \_\_\_\_\_, 2017, and is by and between \_\_\_\_\_, with a principal office located at \_\_\_\_\_, (“Licensee”) and Home Care Association of New York State, Inc., having an office located at 388 Broadway, Albany, New York 12207 (“Licensor” or “HCA”).

WITNESSETH

WHEREAS, Licensor has developed and owns certain intellectual property relating to the “Home Care Sepsis Screening Tool” (the “HCA Licensed Material,” as further defined below); and,

WHEREAS, Licensee wishes to use the HCA Licensed Material in connection with its internal operations and activities, and the Licensor is willing to grant a non-exclusive license to Licensee for the HCA Licensed Material, upon the terms and conditions set forth herein; and,

NOW, THEREFORE, in consideration of the mutual covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

- The representations of the tool, methodologies, processes, courseware, images and other material contained in this webinar and the Sepsis Tool that is included therein are being provided solely in connection with this webinar to explain the use of the Sepsis Tool and for no other purpose, and no license is provided to use the tool except for the limited purpose of participating in this webinar.

# Sepsis Tool Prerequisites

- Orientation and training on the tool and on sepsis substantively are prerequisites for provider use of the tool.
- Authorized use of the tool is granted to providers via user agreement ([sepsistool@hcanys.org](mailto:sepsistool@hcanys.org)) that confirms the prerequisites and strict adherence to use standards.

Prerequisites in user agreement include:

- Completion of HCA Training.
- Agreement to use the tool and protocol as provided, included in embedded EHR format.
- Agreement not to distribute the tool to unauthorized users.
- Participation in data/experience sharing.

# Home Care Services Adult Sepsis Screening Tool

For use in conjunction with Sepsis Protocol.

Patient's Name: \_\_\_\_\_  
Medical Record #: \_\_\_\_\_  
Date Completed: \_\_\_\_\_

**1** Does the patient's history, physical examination, or other findings suggest an infection or potential source of infection?  Yes  No

If Yes, specify source or potential source of infection and select one or more below:

- |   |  |
|---|--|
| <input type="checkbox"/> Pneumonia                      | <input type="checkbox"/> Active treatment                      |
| <input type="checkbox"/> Urinary tract infection        | <input type="checkbox"/> Implanted device infection            |
| <input type="checkbox"/> Acute abdominal infection      | <input type="checkbox"/> Endocarditis                          |
| <input type="checkbox"/> Meningitis                     | <input type="checkbox"/> Recent Chemotherapy/Immunocompromised |
| <input type="checkbox"/> Bone or joint infection        | <input type="checkbox"/> Wound infection or skin infection     |
| <input type="checkbox"/> Bloodstream catheter infection | <input type="checkbox"/> Other source of _____                 |

**2** Are any 2 (or more) of the following systemic criteria present?  Yes  No If Yes, check all that apply:

- |   |   |
|---|---|
| <input type="checkbox"/> Fever (oral temperature >38.3° C [100.9° F] or hypothermia (core temperature <36.0° C [96.8° F]) | <input type="checkbox"/> Tachycardia (heart rate or pulse >90 beats/minute) |
|   | <input type="checkbox"/> Tachypnea (respirations >20 breaths/minute)        |

**3** Is at least one new (since the last screen) Sepsis-related organ dysfunction criteria present from the following list?  Yes  No  
If Yes, check all that apply:

- |  |  |
|--|--|
| <b>Neurological</b>  | <b>Cardiovascular</b>  |
| <input type="checkbox"/> New onset acutely altered mental status/difficult to arouse   | <input type="checkbox"/> New onset hypotension (systolic blood pressure <90 or decreases by >40 mm Hg) |
| <b>Lung</b>  | <input type="checkbox"/> New onset pale/discolor   |
| <input type="checkbox"/> New onset saturation <90% by pulse oximetry, on supplemental oxygen SPO2 other than baseline                  | <b>Pain</b>  |
| <b>Kidney</b>  | <input type="checkbox"/> New onset pain/general discomfort   |
| <input type="checkbox"/> New onset urine output decreased from the patient's baseline with adequate fluid intake (and not due to ESRD) |  |

If the answers to questions 1, 2, and 3 above are all "NO," then STOP. Screening is complete for this visit.

## The Patient Meets Criteria for Infection

If the answer to #1 is "Yes" and the answer to #2 and #3 are "No," then educate the patient on signs and symptoms of Sepsis and provide patient with information sheet "Early Signs and Symptoms of Sepsis" (Attachment C).

## The Patient Meets Criteria for MD Notification

If the answer to question #2 and/or #3 are "Yes," then educate the patient on signs and symptoms of Sepsis and notify MD of your findings and document.

## The Patient Meets Criteria for Sepsis

If the answer to questions #1 and #2 are "Yes," but the answer to question #3 is "No," then the patient meets criteria for Sepsis. Document your findings, educate the patient on signs and symptoms of Sepsis and treatment, and notify the provider and obtain MD order to draw CBC.

## The Patient Meets Criteria for SEVERE Sepsis

If the answer to questions #1, #2, and #3 are all "Yes," then the patient meets screening criteria for severe Sepsis. Document your findings, educate the patient on signs and symptoms of Sepsis and treatment, and notify the provider and have patient transported to emergency department for evaluation.

Note:

## Check all that apply:

- The interventions in the Sepsis Protocol are clinically contraindicated (provider determination). The patient has been educated on the signs and symptoms of Sepsis and provided with the patient information sheet "Early Signs and Symptoms of Sepsis" (Attachment C).
- The patient has advanced directives in place at this time which precludes any of the protocol interventions (e.g., an order in place for "comfort measures only"). Education has been completed with the patient and/or caregiver on symptom management of Sepsis.
- The patient or surrogate declined or is unwilling to consent to protocol interventions. Provider has been notified of the decision not to receive acute intervention. Education has been completed with the patient and/or the caregiver as to the risks and benefits of declining intervention.
- The patient has met all criteria for severe Sepsis and requires immediate intervention, MD notified, patient educated and to be transported to emergency department, and report called to the receiving emergency department.
- The patient meets Sepsis criteria, patient education, MD notified, antibiotics initiated, and next skilled nursing visit to be completed within 24 hours.

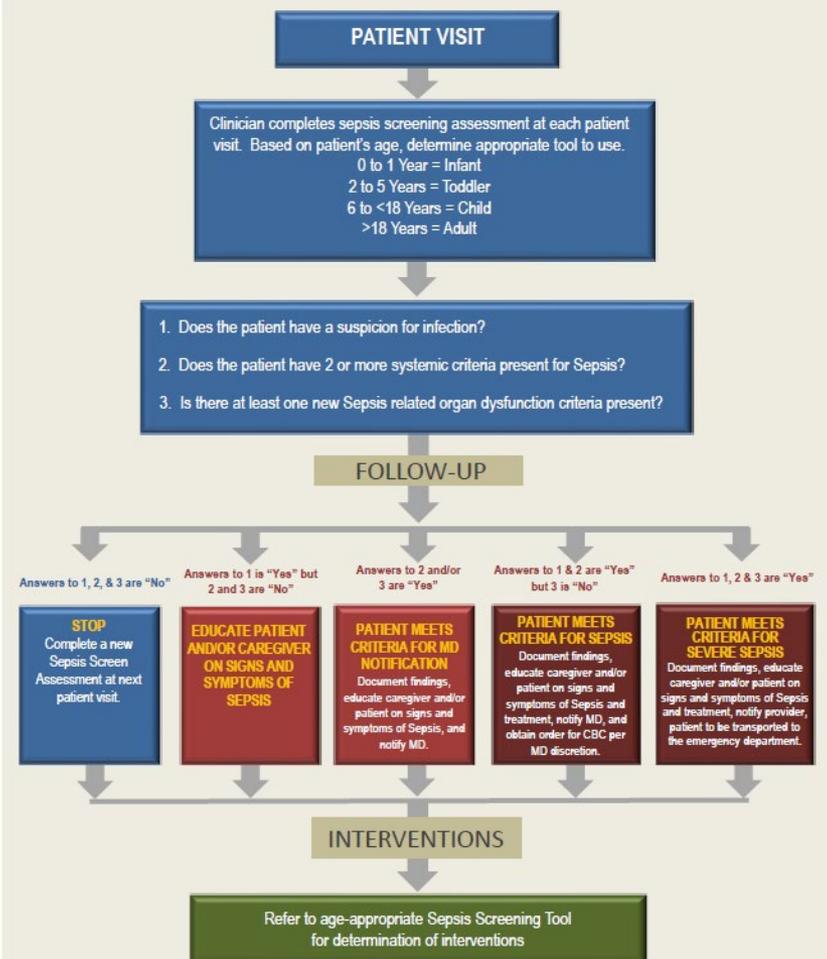
Note:

FOLLOW-UP

INTERVENTIONS



# Home Care Sepsis Screening Tool Algorithm



Please note that this Sepsis Screen is the proprietary tool of the Home Care Association of New York State, Inc. (HCA). It is illegal to use, copy and/or distribute this tool in whole or in part without the express written permission of HCA. HCA makes no warranty associated with the use of this tool with respect to detection of sepsis risk, sepsis at any stage, clinical procedure or outcome, nor any implied warranty on behalf of any entity using this tool. Any use of the tool is subject to the terms of the license agreement between HCA and the authorized licensee under that agreement.

# Sepsis Screen Tool – Question Section

## Home Care Services Adult Sepsis Screening Tool

For use in conjunction with Sepsis Protocol.

Patient's Name: \_\_\_\_\_

Medical Record #: \_\_\_\_\_

Date Completed: \_\_\_\_\_

**1** Does the patient's history, physical examination, or other findings suggest an infection or potential source of infection?  Yes  No

If Yes, specify source or potential source of infection and select one or more below:

- |   |  |
|---|--|
| <input type="checkbox"/> Pneumonia                      | <input type="checkbox"/> Active treatment                      |
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| <input type="checkbox"/> Acute abdominal infection      | <input type="checkbox"/> Endocarditis                          |
| <input type="checkbox"/> Meningitis                     | <input type="checkbox"/> Recent Chemotherapy/Immunocompromised |
| <input type="checkbox"/> Bone or joint infection        | <input type="checkbox"/> Wound infection or skin infection     |
| <input type="checkbox"/> Bloodstream catheter infection | <input type="checkbox"/> Other source of infection (describe): |

**2** Are any **2 (or more)** of the following systemic criteria present?  Yes  No If Yes, check all that apply:

- |   |   |
|---|---|
| <input type="checkbox"/> Fever (oral temperature >38.3° C [100.9° F] or hypothermia (core temperature <36.0° C [96.8° F]) | <input type="checkbox"/> Tachycardia (heart rate or pulse >90 beats/minute) |
|   | <input type="checkbox"/> Tachypnea (respirations >20 breaths/minute)        |

**3** Is at least one new (since the last screen) Sepsis-related organ dysfunction criteria present from the following list?  Yes  No  
If yes, check all that apply:

### Neurological

- New onset* acutely altered mental status/difficult to arouse

### Lung

- New onset* saturation <90% by pulse oximetry, on supplemental oxygen SPO2 other than baseline

### Kidney

- New onset* urine output decreased from the patient's baseline with adequate fluid intake (and not due to ESRD)

### Cardiovascular

- New onset* hypotension (systolic blood pressure <90 or decreases by >40 mm Hg)

- New onset* pale/dicolor

### Pain

- New onset* pain/general discomfort

If the answers to questions 1, 2, and 3 above are all "NO," then STOP. Screening is complete for this visit.

# Sepsis Screen Tool – Follow-up Section

## FOLLOW-UP

### The Patient Meets Criteria for Infection

If the answer to #1 is “Yes” and the answer to #2 and #3 are “No,” then educate the patient on signs and symptoms of Sepsis and provide patient with information sheet “Early Signs and Symptoms of Sepsis” (Attachment C).

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If the answers to question #2 and/or #3 are “Yes,” then educate the patient on signs and symptoms of Sepsis and notify MD of your findings and document.

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### The Patient Meets Criteria for SEVERE Sepsis

If the answer to questions #1, #2, and #3 are all “Yes,” then the patient meets screening criteria for severe Sepsis. Document your findings, educate the patient on signs and symptoms of Sepsis and treatment, and notify the provider and have patient transported to emergency department for evaluation.

Note:

# Sepsis Screen Tool – Intervention Section

## INTERVENTIONS

### Check all that apply:

- The interventions in the Sepsis Protocol are clinically contraindicated (provider determination). The patient has been educated on the signs and symptoms of Sepsis and provided with the patient information sheet “Early Signs and Symptoms of Sepsis” (Attachment C).
- The patient has advanced directives in place at this time which precludes any of the protocol interventions (e.g., an order in place for “comfort measures only”). Education has been completed with the patient and/or caregiver on symptom management of Sepsis.
- The patient or surrogate declined or is unwilling to consent to protocol interventions. Provider has been notified of the decision not to receive acute intervention. Education has been completed with the patient and/or the caregiver as to the risks and benefits of declining intervention.
- The patient has met all criteria for severe Sepsis and requires immediate intervention, MD notified, patient educated and to be transported to emergency department, and report called to the receiving emergency department.
- The patient meets Sepsis criteria, patient education, MD notified, antibiotics initiated, and next skilled nursing visit to be completed within 24 hours.

Note:

Time criteria met and provider notified: \_\_\_\_\_ Date/Time      Provider Notified: \_\_\_\_\_ Provider's Name      Signature: \_\_\_\_\_, RN

## PATIENT VISIT

Clinician completes sepsis screening assessment at each patient visit. Based on patient's age, determine appropriate tool to use.

0 to 1 Year = Infant

2 to 5 Years = Toddler

6 to <18 Years = Child

>18 Years = Adult

1. Does the patient have a suspicion for infection?
2. Does the patient have 2 or more systemic criteria present for Sepsis?
3. Is there at least one new Sepsis related organ dysfunction criteria present?

## FOLLOW-UP

## FOLLOW-UP

Answers to 1, 2, & 3 are "No"

**STOP**  
Complete a new Sepsis Screen Assessment at next patient visit.

Answers to 1 is "Yes" but 2 and 3 are "No"

**EDUCATE PATIENT AND/OR CAREGIVER ON SIGNS AND SYMPTOMS OF SEPSIS**

Answers to 2 and/or 3 are "Yes"

**PATIENT MEETS CRITERIA FOR MD NOTIFICATION**  
Document findings, educate caregiver and/or patient on signs and symptoms of Sepsis, and notify MD.

Answers to 1 & 2 are "Yes" but 3 is "No"

**PATIENT MEETS CRITERIA FOR SEPSIS**  
Document findings, educate caregiver and/or patient on signs and symptoms of Sepsis and treatment, notify MD, and obtain order for CBC per MD discretion.

Answers to 1, 2 & 3 are "Yes"

**PATIENT MEETS CRITERIA FOR SEVERE SEPSIS**  
Document findings, educate caregiver and/or patient on signs and symptoms of Sepsis and treatment, notify provider, patient to be transported to the emergency department.

## INTERVENTIONS

Refer to age-appropriate Sepsis Screening Tool for determination of interventions

# Patient Education “Zone Tool”

Developed by IPRO

## EARLY SIGNS AND SYMPTOMS OF SEPSIS



Has your healthcare provider diagnosed you with an **INFECTION**?  
You could be at risk for **SEPSIS**. Know the signs!

**What is Sepsis?** Sepsis is your body’s life-threatening response to an **INFECTION** anywhere in your body. Anyone can get sepsis!



### Signs and Symptoms of Sepsis

Watch for a combination of **INFECTION** + fever or feeling chilled, confusion/sleepiness, fast heart rate, fast breathing or shortness of breath, extreme pain and pale/discolored skin.



### SEPSIS IS A MEDICAL EMERGENCY

#### GREEN Zone: ALL CLEAR - Feeling well

- No fever or feeling chilled
- No fast heart rate
- No increase in pain
- No confusion or sleepiness
- Easy breathing

#### RED Zone: Call your doctor or nurse immediately if you experience INFECTION and...

- Fever or feeling chilled
- Confusion/sleepiness (recognized by others)
- Fast heart rate
- Fast breathing or shortness of breath
- Extreme pain
- Pale or discolored skin

*If you are unable to reach your doctor or nurse,*

**CALL 911 OR HAVE SOMEONE TAKE YOU TO THE EMERGENCY DEPARTMENT.**

Key Contacts:



Number, Revision:	Effective Date:
Replaces Number, Revision:	Replaces Date:
	Page 1 of 2

(Organization's Name)

## 1 PURPOSE

This protocol provides guidance for utilizing The Home Care Association (HCA) Sepsis Screening Tool. The Sepsis screen tool is designed to assist streamlining a clinician's assessment to identify and recognize the early, critical signs and symptoms of sepsis in a post-acute care setting. The Sepsis screening tool aligns with the guidelines issued by the New York State Department of Health for hospitals under part 405.4 of Title 10, NYSOCR Health, and provides a crosswalk between the community setting assessment and the assessment that is completed during an Emergency Department triage assessment. Prompt recognition of the early signs of Sepsis is the key to improving patient outcomes and decreasing Sepsis related morbidity and mortality. *This protocol provides standardized guidance, for home care clinicians' completion of the screening tool and follow-up, but is not intended to replace a clinician's judgment based on their patient-specific observations, assessment, or determination of intervention.*

## 2 SCOPE

The Home Care Association Sepsis Screening Tool is to be completed by a licensed clinician at every homecare visit.

## 3 REFERENCES

New York State Department of Health 2013 Sepsis Mandate Guidelines for Hospitals  
New York State's Regulations part 405.4 of Title 10, NYSOCR Health

## 4 DEFINITIONS / ABBREVIATIONS:

**SEPSIS:** The body's dysregulated response to an infection which can result in life threatening organ dysfunctions.

**SEVERE SEPSIS:** Sepsis plus organ dysfunction.

**NEW ONSET ORGAN DYSFUNCTION:** This must be differentiated from any baseline or previously existing organ dysfunction or pain.

## 5 INSTRUCTION ELEMENTS:

The Adult Sepsis Screen Tool will guide a clinician through a Sepsis assessment screening. A clinician should follow the Sepsis Algorithm (Attachment B) when completing the Sepsis Screen Tool (Attachment A). There are three elements of the Screening Tool: The Screening Questions, Follow-Up and Interventions. All elements must be completed each time an Adult Sepsis Screen Tool is completed.

### SCREENING QUESTIONS

The following three question areas on the tool will provide the clinician with clinical information to determine if the patient meets sepsis criteria or if the patient is at risk for sepsis.

#### 1 Determine Infection:

- Does the patient's history, physical examination or other findings suggest an infection or potential source of infection?
- Document confirmed or potential source of infection if applicable.
  - a. If "YES," specify and select one or more suspected sources from the list.
  - b. If "YES," and the source or potential source of the infection is not listed, use the text box to describe.
  - c. Examples of source or potential source of infections are:
    - Foley catheters
    - Vascular catheters
    - Open wounds
    - Implanted devices (ex. Pacemaker)
  - d. If the patient does not have any existing, suspected or potential source of infection answer "NO."

#### 2 Identify Systemic Criteria:

- Responses are based on objective data obtained from physical examination of the patient.
- Refer to the list of systemic criteria on Sepsis Screen Tool for parameters (Fever, Tachycardia, Tachypnea). Are 2 or more present?
  - a. If "YES," mark all that apply.
  - b. Answer "NO" if 1 or no systemic criteria are present.

#### 3 Identify New Onset Organ Dysfunction:

- Answer "YES" if ANY new onset sepsis-related organ dysfunction or pain is present.
  - a. Neurological
  - b. Lung
  - c. Kidney
  - d. Cardiovascular
  - e. New onset of pain

**\*\*IF RESPONSES TO QUESTIONS 1, 2 and 3 ARE "NO" THEN SCREENING IS COMPLETE FOR THE VISIT\*\*  
REPEAT SEPSIS SCREEN TOOL AT NEXT VISIT.**

The sepsis screening tool to which this protocol applies is the proprietary tool of the Home Care Association of New York State, Inc. (HCA). It is illegal to use, copy and/or distribute this tool in whole or in part without the express written permission of HCA. HCA makes no warranty associated with the use of this tool with respect to detection of sepsis risk, sepsis at any stage, clinical procedure or outcome, nor any implied warranty on behalf of any entity using this tool. Any use of the tool is subject to the terms of the license agreement between HCA and the authorized licensee under that agreement.

Number, Revision:	Effective Date:
Replaces Number, Revision:	Replaces Date:
	Page 2 of 2

(Organization's Name)

### FOLLOW-UP

**Positive findings for ANY of the 3 Screening Questions requires follow-up**

Each Follow-Up item provides direction for the clinician's follow up.

#### The Patient Meets Criteria for Infection:

If the answer to #1 is "YES" AND the answers to #2 and #3 are "NO:"

- Educate the patient on the signs and symptoms of sepsis and provide the patient with "Early Signs and Symptoms of Sepsis" education sheet (Attachment C).

#### The Patient Meets Criteria for MD Notification:

If the answers to question #2 and/or #3 are "YES:"

- Educate the patient on the signs and symptoms of Sepsis and notify MD of your findings and document.

#### The Patient Meets Criteria for Sepsis:

If the answers to questions #1 and #2 are "YES," and answer to #3 is "NO," the patient meets criteria for Sepsis.

- Notify provider
- Educate the patient on the signs and symptoms of Sepsis and treatment
- Obtain MD order to draw CBC
- Document

#### The Patient Meets Criteria for SEVERE Sepsis:

Answers to questions #1, #2 and #3 are "YES." Patient has met criteria for infection, systemic involvement and sepsis-related organ dysfunction.

- Notify provider
- Educate patient on signs and symptoms of Sepsis and treatment
- Have patient transported to emergency department for evaluation
- Contact receiving emergency department to provide report
- Document

### INTERVENTIONS

Complete this section for all patients that received "Follow-Up" actions.

Document all that apply:

- The patient and/or caregiver has been educated on the signs and symptoms of Sepsis and provided with patient information sheet: "Early Signs and Symptoms of Sepsis" (Attachment C).
- The interventions in the Sepsis Protocol are clinically contraindicated (provider determined). Education has been completed with the patient and/or caregiver on symptom recognition and management of sepsis.
- The patient has advanced directives in place which precludes any of the protocol interventions (e.g., an order in place for "comfort measures only"). Education has been completed with the patient and/or caregiver on symptom recognition and management of sepsis.
- The patient or surrogate declined or is unwilling to consent to protocol interventions. Provider has been notified of the decision not to receive acute intervention. Education has been completed with the patient and/or caregiver as to the risks and benefits of declining intervention.
- The patient has met all criteria for severe Sepsis and requires immediate intervention. Patient educated, MD notified, patient transported to emergency department, and report called to the receiving emergency department.
- The patient meets Sepsis criteria. Patient educated, MD notified, antibiotics initiated and next skilled nursing visit to be completed within 24 hours.
- Document any follow-up actions completed that is not listed.

**"The Adult Sepsis Screen Tool will not be used as standing MD orders"**

**"If completing the Adult Sepsis Screen Tool electronically, there may be variations in how the questions are purposed; however, the content and sequence of responses should not be altered from the original paper form. (Attachments A & B)"**

### USER EDUCATION

All trainers and users of the Adult Sepsis Screen Tool will complete the required education to ensure proper utilization, refer to Adult Sepsis Screen Tool user agreement.

The sepsis screening tool to which this protocol applies is the proprietary tool of the Home Care Association of New York State, Inc. (HCA). It is illegal to use, copy and/or distribute this tool in whole or in part without the express written permission of HCA. HCA makes no warranty associated with the use of this tool with respect to detection of sepsis risk, sepsis at any stage, clinical procedure or outcome, nor any implied warranty on behalf of any entity using this tool. Any use of the tool is subject to the terms of the license agreement between HCA and the authorized licensee under that agreement.



# Case Studies and FAQ

See Appendix



# Collaboration Across the Continuum

# Collaboration Across the Continuum

- Collaboration across clinical and continuum partners is critical to effective sepsis response.
- The standardization of sepsis screening and intervention in home and community health through the HCA tool is significant to the collaborative response, especially with hospital, EMS and physician partners.
- The tool is aligned with criteria for sepsis utilized in hospitals and EMS. Follow-up and interventions indicated on the tool are also aligned.
- Regional sepsis training and cross-sector collaboration sessions conducted by HCA and IPRO across the state revealed important challenges and opportunities to address critical gaps.

# Collaboration Across the Continuum

## Mohawk Valley Health System

- Hospital staff was invited and attended Home Care Sepsis Screen Tool Training.
- MVHS VP of the Medical Group and Physician Practices attended the Home Care Sepsis Screen Tool Training.
- Home Care Services is represented at the Hospital's Sepsis Committee Meeting. This meeting is an opportunity to communicate and learn about all the work within MVHS regarding Sepsis.
- Home Care Services and the Hospital case management team have collaborated to use the same educational materials, such as the Sepsis Zone Tool.

# Collaboration Across the Continuum

The University of Rochester Medical Center  
and UR Medicine Home Care's  
“Critical Illness Recovery Program”



# Post-Intensive Care Syndrome (PICS)

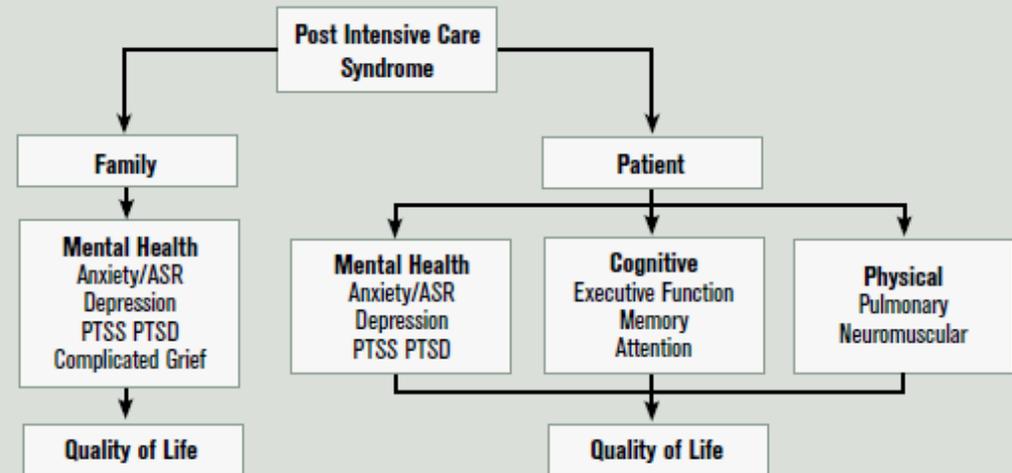
Side by University of Rochester Medical Center

***“New or worsening impairments in physical, cognitive, or mental health status arising after critical illness and persisting beyond acute care hospitalization.”***

Davidson, J, et al. Critical Care Med. 2013; 41(9)S

Figure 1.

## POST-INTENSIVE CARE SYNDROME MODEL<sup>4</sup>

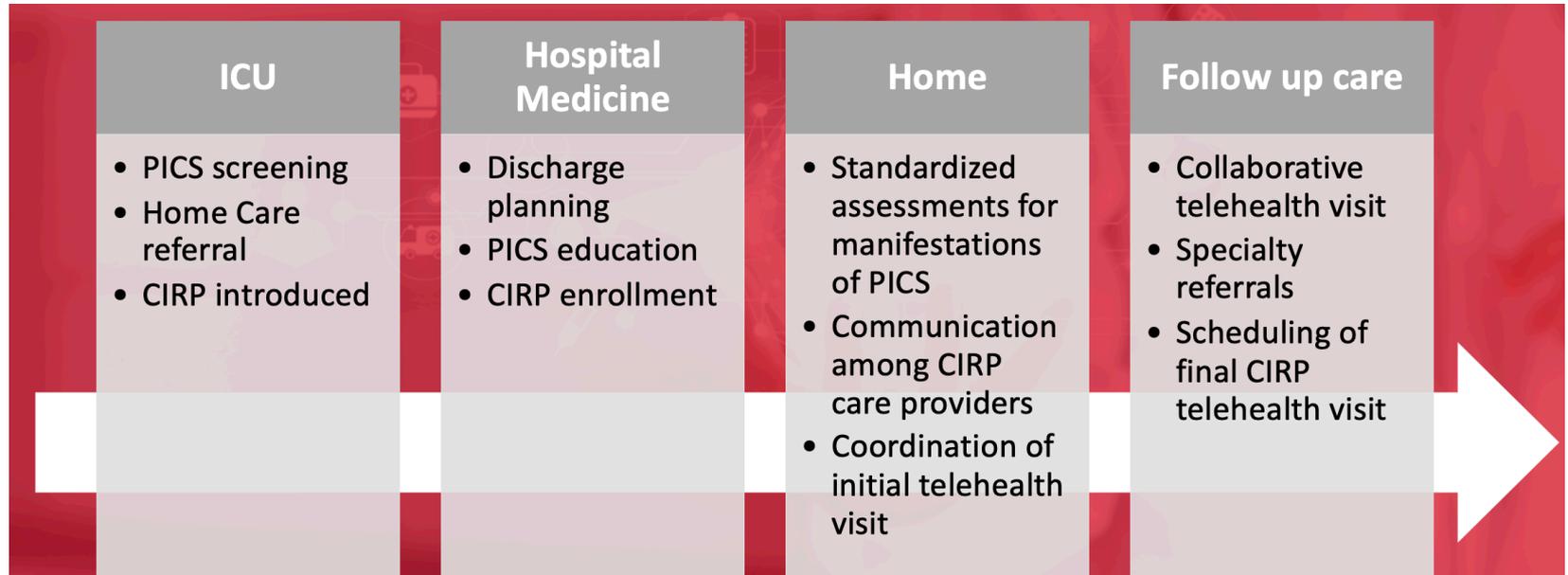


ASR = acute stress reaction; PTSS = posttraumatic stress symptoms; PTSD = posttraumatic stress disorder

Reproduced with permission from Davidson JE, Harvey MA, Bemis-Dougherty A, Smith JM, Hopkins RD. Implementation of the Pain, Agitation, and Delirium Clinical Practice Guidelines and promoting patient mobility to prevent post-intensive care syndrome. *Crit Care Med.* 2013 Sep; 41(9 Suppl 1):S136-S145. Copyright © 2013 by the Society of Critical Care Medicine and Lippincott Williams & Wilkins.

# Critical Illness Recovery Program (CIRP)

Side by University of Rochester Medical Center



# Critical Illness Recovery Program

## Key Takeaways (University of Rochester Medical Center)

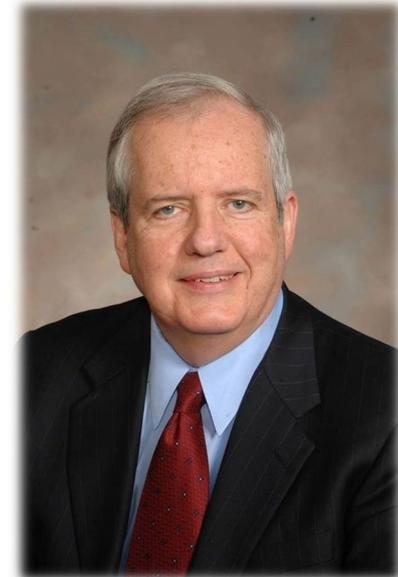
- Emphasizes the rehabilitative and restorative efforts toward functional recovery, beyond the sepsis bundles
- This unique home-based and virtual-visit program has overcome access barriers seen in our traditional outpatient program
- The program was catalyzed by the COVID-19 pandemic, with the need for social distancing and temporary lack of in-person services, but has provided new opportunities for patient engagement and connections with a multidisciplinary care team
- Institutional support and the close collaboration of leaders across the continuum of care were essential
- Open communication about successes and missteps promoted rapid PDSA cycling for program improvement
- Use of the electronic medical record to screen and track patients was key to success

# Collaboration Across the Continuum

## Physician Collaboration

Side by HCR Home Care

- HCR Medical Director
- In-person meetings with local physicians
  - Build awareness
  - Learn from providers
  - Discuss challenges



**HCR**  
Home Care

# Collaboration Across the Continuum

## EMS & ED Collaboration

Side by HCR Home Care

- 4 critical alerts
  - ❖ Major trauma
  - ❖ Cardiac
  - ❖ Stroke
  - ❖ **Sepsis**
- ED & response team prepared in advance
- Average treatment care time for sepsis= 14:04
- 911 call vs. transport via family member
  - ❖ Treatment initiated during transport
  - ❖ Transportation expenses
- *"I'm concerned about sepsis"*



**Tim Czapranski**  
Administrator  
Monroe County EMS



# Program Results to Date

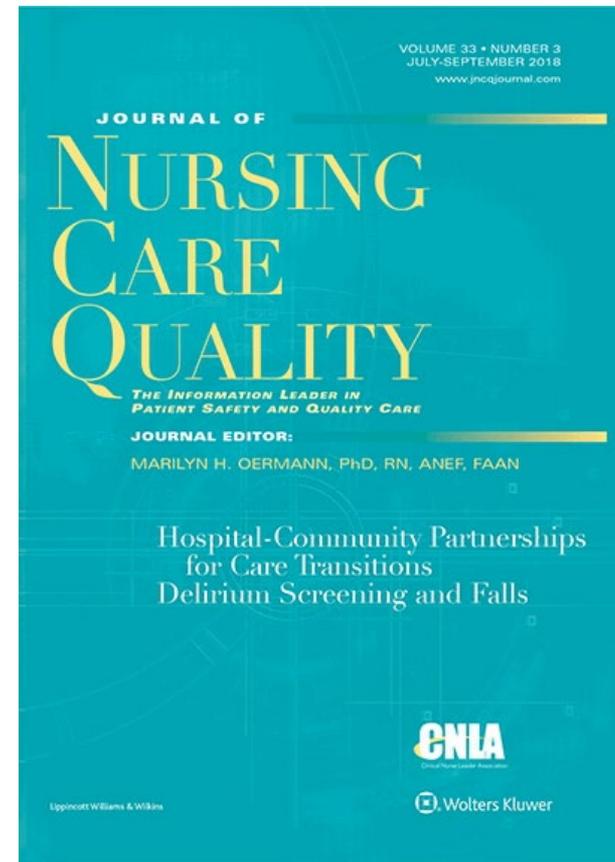
## Home Care Sepsis Initiative Results to Date

Examples of agencies achieving earlier sepsis identification and timely treatment.

# HCR Study of HCA Sepsis Tool Use & Impact

Side by HCR Home Care

Chimenti C, Sears G, McIntyre J. Sepsis in Home Health Care: Screening, Education and Rapid Triage. *J Nurs Care Qual.* 2021 July-Sep; 36(3):210-216.



# HCR Study of HCA Sepsis Tool Use & Impact

## Systematic Data Analysis

Side by HCR Home Care

- Retrospective chart review May 2018-December 2019
  - ❖ 33,264 sepsis screens
  - ❖ 7,242 patients
- Focus on + sepsis/severe sepsis screens
- Data analysis
  - ❖ Demographics
  - ❖ Primary diagnosis & comorbidity
  - ❖ Time frame for + sepsis screens
  - ❖ Screening accuracy
  - ❖ False positives
  - ❖ Hospitalization & ED events
    - Mode of transfer
    - Admission diagnosis
  - ❖ Physician contact & barriers encountered during triage process



# HCR Study of HCA Sepsis Tool Use & Impact

## Systematic Data Analysis

Side by Side by HCR Home Care

Outcome	n (%)
Remained at Home	146 (69.2%)
Hospitalized and Returned Home	50 (23.7%)*
Transferred to a Higher Level of Care	4 (1.9%)
Transferred to Hospice	1 (0.5%)
Expired	2 (0.9%)
Unknown	8 (3.8%)

# Home Care Sepsis Initiative Results to Date

- A study by the Visiting Nurse Service of New York showed similar patterns in avoidance of rehospitalizations: **Sepsis survivors** who received a first nursing visit within two days of hospital discharge plus at least one additional home visit in their first post-hospital week, and who also saw a doctor in that first week, **reduced their probability of 30-day all-cause readmissions by seven percentage points.**
- [https://www-vnsny-org.cdn.ampproject.org/c/s/www.vnsny.org/pro\\_article/vnsny-study-shows-early-home-visits-reduce-sepsis-readmissions/amp/](https://www-vnsny-org.cdn.ampproject.org/c/s/www.vnsny.org/pro_article/vnsny-study-shows-early-home-visits-reduce-sepsis-readmissions/amp/)

Creation of primary pre-hospital layer for sepsis screening, prevention, early intervention.

- Near statewide geographic implementation accomplished; Hundreds of thousands of screens being conducted for risk, prevention, early treatment, and ongoing as part of system.
- Significant new sepsis trained health workforce statewide.
  - ❖ Goal is for every home care agency and for other community health settings in the continuum to adopt the screening and intervention tool.

# CASE EXAMPLE

ILLUSTRATION OF POTENTIAL COST SAVINGS

One Home Care Agency. Millions (\$) in Potential Cost Savings Through Hospital Avoidance/Early Detection

TYPE OF SEPSIS CASE & ASSUMPTIONS <i>(for purposes of illustration)</i>	NO. OF CASES	100% of AVG. MEDIAN COST SEPSIS CARE IN NYS HOSPITAL	50% of AVG. MEDIAN COST SEPSIS CARE IN NYS HOSPITAL	Potential COST SAVINGS
ASSUMPTION 1 If hospitalization were to be averted for 50% of sepsis cases where in-home screening indicated sepsis-risk but NOT 'severe-sepsis' (218 cases).	109 <small>(218/2)</small>	X \$40,330		\$4.39M
ASSUMPTION 2 If hospitalization were to have occurred, but LOS* reduced by half (due to early detection) for 50% of cases where in-home screening indicated sepsis-risk (218 cases).	109 <small>(218/2)</small>		X \$20,165	\$2.2M
ASSUMPTION 3 Hospitalization unavoidable for 'severe-sepsis,' but if LOS* costs could be cut by 50% for half of these cases due to early detection (258 cases).	129 <small>(258/2)</small>		X \$20,165	\$2.6M



\*Length of Stay

All information based on a home care agency in upstate New York that has identified 218 cases meeting the criteria for sepsis and an additional 258 cases meeting the criteria for 'severe-sepsis' using the HCA screening tool.

**\$9,193,240**

# Home Care Sepsis Initiative Results to Date

- Agencies report additional cost avoidance and improved outcome potential through overall **greater awareness and screening for infection risk via tool**, increased preventive education with patients/families, **increased identification of associated high-risk conditions** (e.g., UTI, fever), **focus on sepsis readmission avoidance**, LTC avoidance/mitigation.
- **Model being applied to other settings and populations** (e.g., group homes for intellectually and developmentally disabled adults, hospice, assisted living, etc.)
- **Model being replicated in other states** by associations, health systems, agencies, organizations (incl. EMRs).
- Incorporated in Sepsis Alliance national education and level-I training video.
- Further recognized with: **Statewide QIO quality awards (2017, 2018); National “Sepsis Heroes” distinction (2019) by Sepsis Alliance; Statewide grant awards (2017-19, 2021-22)**

# Additional Key Findings from Field

- Collaboration across clinical and continuum partners is critical to effective sepsis response.
- Identification of important challenges, gaps and goals between partners that should be addressed, include:

Consultation/engagement of PCP (timely, informed)	Hospital discharge home post-sepsis
Report to/response by ED (timely, informed, effective)	Interdisciplinary care and coverage for sepsis survivors
EMS engagement	Sector and cross-partner training and synchronization
EHR integration and key information exchange across partners	Data sharing

- I-TRANSFER study (U-Penn) of sepsis intervention effectiveness in home health and gaps and opportunities in hospital DCP.
- <https://www.dropbox.com/sh/2n9pq3v5jjizaz9/AAClYGa2Lc9ElfLh9EsedJN1a?dl=0+!&preview=4+Sepsis+Developments+Data+Innovations+Directions+M+OConnor+Slides.pdf>



# Building as progress continues

# All Sector Statewide Sepsis Summit – Catalyst for New Cross Sector Collaborative Action

## SEPSIS SUMMIT

IMPROVING SEPSIS PREVENTION,  
SCREENING AND INTERVENTION  
IN THE COMMUNITY AND ACROSS  
THE CONTINUUM

All sectors are encouraged to participate – home care, hospitals, EMS, physicians, nurse practitioners and all health disciplines, health coverage plans and programs, nursing homes, hospice, adult care/assisted living, behavioral health, mental health, community health centers and other ambulatory providers, researchers, state and federal officials, consumer education and advocacy organizations, and more.

**JUNE 15, 2022**

9AM TO 3:15PM | ALBANY HILTON



**ENDSEPSIS**  
The Legacy of Rory Staunton



An initiative supported by the Home Care Association of New York State, Statix Education and Research, Inc. and the Mother Cabrini Health Foundation

[https://www.dropbox.com/sh/2n9pq3v5jjizaz9/AAClYGa2Lc9ElfLh9Ese\\_dJN1a?dl=0](https://www.dropbox.com/sh/2n9pq3v5jjizaz9/AAClYGa2Lc9ElfLh9Ese_dJN1a?dl=0) !



# Adding Imminently: HCA Pediatric Sepsis Screening Tool

## Screening Tools – Infant, Toddler, Child

**Home Care Services Pediatric Sepsis Screening Tool**  
For use in conjunction with Sepsis Protocol

Page 1 of 2

**Home Care Services Pediatric Sepsis Screening Tool – Continued**  
Page 2 of 2

**INFANT (0 to 1 year)**  
If the infant is premature, use adjusted age.

**1** Does the patient's history, physical examination, or other findings as follows, selected below. Circle "Y" for "Yes" and below. Circle "N" for "No".

**2** Are any **two** of the following systemic criteria present based on:

Age Category	Heart Rate (Beats per minute)	Temp (Fahrenheit)
0 days - 1 week	<100 or >100	>100.4
1 week - 1 month	<100 or >100	>100.4
1 month - 1 year	<98 or >100	>100.4

**3** For **1** and **2** (and **3** when the last screen) Sepsis-related organ dysfunction or **WBC**:

**4** If the answers to questions 1, 2, and 3 above are all "No" or "Obscure," if any answers were "Yes," continue to Follow-Up.

### Zone Tool

**Pediatric Sepsis Zone Tool: Early Signs and Symptoms**

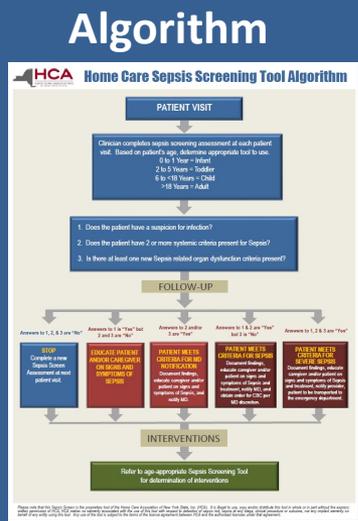
If your child has an infection or potential infection, they could be at risk for sepsis. Know the signs.

**What is Sepsis?**  
Sepsis is the body's life-threatening response to an infection anywhere in the body.

**GREEN ZONE**  
Happy & playful child  
No immediate action needed.

**YELLOW ZONE**  
Fever, Chills, Low temperature, Decreased appetite, Flawed wet diapers, Less urine output.  
Talk to your doctor or nurse and watch for new or worsening symptoms.

**RED ZONE**  
Warming/Rewetting Feet, Fast heart rate, Shot of breath, No urine output, Not easily consolable, Inconsolable crying, Unusual or bluish/gray discoloration/blebs on pale skin.  
CALL YOUR DOCTOR OR NURSE IMMEDIATELY. If unable to reach them, call 8-1-1 or take your child to the Emergency Department.



### Protocol

**HOME CARE PEDIATRIC SEPSIS SCREENING TOOL PROTOCOL**

**HOME CARE PEDIATRIC SEPSIS SCREENING TOOL PROTOCOL**

**1. PURPOSE:**  
The purpose of this protocol is to provide a standardized process for screening patients for sepsis and to ensure that patients who are at risk for sepsis receive appropriate care.

**2. SCOPE:**  
This protocol applies to all patients who are screened for sepsis in the Home Care setting.

**3. DEFINITIONS:**  
Sepsis: The body's response to an infection which can result in life-threatening organ dysfunction caused by a dysregulated host response.

**4. SCREENING QUESTIONS:**  
1. Does the patient's history, physical examination, or other findings suggest a suspicion for infection?  
2. Are any two of the following systemic criteria present based on the patient's age?  
3. For 1 and 2 (and 3 when the last screen) Sepsis-related organ dysfunction or WBC?

**5. INTERVENTIONS:**  
Complete the section for all patients that received "Follow-Up" actions.

**6. MONITORING:**  
The patient under suspicion has been educated on the signs and symptoms of Sepsis and provided with education sheet: "Early Signs and Symptoms of Sepsis Zone Tool".

**7. DOCUMENTATION:**  
The clinician will document the results of the screening tool and any interventions provided in the patient's medical record.

**8. EVALUATION:**  
The effectiveness of this protocol will be evaluated on an annual basis.

# Next Steps

- Progression on all areas of HCA Initiative *Improving Sepsis Prevention, Screening and Intervention in the Community and Across the Continuum*:
  - Engaging health care venues in current unserved areas to adopt the sepsis tool and protocol.
  - Engaging health care venues in all areas who have not yet adopted the sepsis tool and protocol to do so.
  - Supporting sepsis screening and intervention in special needs populations and settings
  - Launching the new sepsis pediatric tool, making it available statewide.
  - Coordinating sepsis response across sectors.



**QUESTIONS?**  
**COMMENTS?**

# Contacts & Resources

- Al Cardillo, President & CEO, HCA and HCA E&R  
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<https://ipro.org/>
  - Thomas Heyman, President & CEO, Sepsis Alliance  
[theymann@sepsis.org](mailto:theymann@sepsis.org)  
[www.sepsis.org](http://www.sepsis.org)
  - Ciaran and Orlaith Staunton, Co-Founders, ENDSEPSIS-The Legacy of Rory Staunton  
[ostaunton@endsepsis.org](mailto:ostaunton@endsepsis.org)  
<https://www.endsepsis.org/>



**(Appendix)**

## **Case Studies/ FAQ**

**Application of the  
HCA Sepsis Screening Tool**

# Home Care Sepsis Screen Tool Patient Scenarios

## Scenario #1

- A 49-year-old female admitted to home care for nursing care for a diabetic foot infection. She is receiving IV antibiotics via PICC line. She is seen 3 times a week for dressing changes to her foot wound, assessment of her wound and assessment and maintenance of her PICC line. The patient's wound has been progressively healing with improvement in appearance, and decrease in the size of the wound. Her vital signs are: Temp 98.4 , Pulse 72, Respirations 18 and BP 116/70. The patient is alert and oriented x3, breathing is easy, denies any pain. Her skin is warm, pink and dry. Denies any complaints with bowel or bladder function.

## Sepsis screen indicates:

- Question 1 - YES Patient has an active infection (wound infection). Patient also has a source site for a potential infection (PICC line).
- Question 2 – NO Patient has no systemic criteria.
- Question 3 – NO Patient has no signs and symptoms of new onset organ dysfunction.

## Follow – up:

- Question #1 was YES but #2, #3 are NO. Patient educated on the signs and symptoms of sepsis and provided Early Signs and Symptoms of Sepsis patient education tool.

# Home Care Sepsis Screen Tool Patient Scenarios

## Scenario #2

- A 91-year-old female admitted to home care with COPD, a history of frequent pneumonia with possible aspiration and confusion related to dementia. The Patient has a history of urinary incontinence. The patient has a supportive daughter in the home who is her primary caregiver. Upon assessment the nurse determines that the patient has a Temp 96.6, Pulse 110, Resp 26 and BP 101/60. The patient is holding her stomach and stating her stomach hurts. The daughter reports that her mother has been more confused over the last day and that her urine seems to have a strong odor to it when she is caring for her.

### Sepsis screen indicates:

- Question 1 - YES Patient has a potential source site of infection with incontinence and history of potential aspiration pneumonia.
- Question 2 – YES Patient has 2 systemic criteria.
- Question 3 – YES Patient has signs and symptoms of new onset organ dysfunction.

### Follow-up:

- Question #1, #2 and #3 are YES. The patient meets criteria for severe sepsis. Patient educated on the signs and symptoms of sepsis and provided Early Signs and Symptoms of Sepsis patient education tool.

### Intervention:

- The patient requires immediate treatment, the MD is notified, the patient is transported to the emergency department (ED) and report is called to the receiving ED.

# Home Care Sepsis Screen Tool Patient Scenarios

## Scenario #3

- A 65-year-old male admitted to home care for diabetic teaching due to being new on insulin. Has a history of pneumonia and coronary heart disease. The patient has a wife in the home who supports the care. Upon assessment the nurse finds a reddened area to the lower right leg. The patient has a Temp 99.6, Pulse 100, Resp 22, SPO2 98% and BP 120/68. The patient has no complaints of pain, GI or GU issue

## Sepsis screen indicates:

- Question 1 - YES Patient has a potential source site of infection with a reddened area to his lower right leg.
- Question 2 – YES Patient has 2 systemic criteria.
- Question 3 – NO Patient has no signs and symptoms of new onset organ dysfunction.

## Follow – up:

- Question #1, #2 are YES and #3 is NO. The patient meets criteria for sepsis. Patient educated on the signs and symptoms of sepsis and provided Early Signs and Symptoms of Sepsis patient education tool.

## Intervention:

- The patient meets Sepsis criteria, MD notified, antibiotics initiated, and the next skilled nursing visit will be completed within 24 hours.

# Home Care Sepsis Screen Tool Patient Scenarios

## Scenario #4

- An 88-year-old female admitted to home care with new onset of CHF. The patient has a baseline mentation of being alert and oriented. The nurse has been completing CHF teaching with the patient over the last few visits and the patient has been completing all the follow up the nurse has instructed her to do such as monitoring her daily weights. At today's visit the nurse's assessment is as follows: Temp 98.6, pulse 76, resp 18, SPO2 98% and BP 134/78. Bilateral lungs sounds clear, does not appear to be in any type of discomfort. When the nurse asks the patient if she has any pain she appears to be confused and is unable to answer the question. As the nurse continues with her assessment the nurse notes that the patient has a new onset of confusion with no facial droop or unilateral weakness.

### Sepsis screen indicates:

- Question 1 - NO Patient has no noted infection or potential source site of infection.
- Question 2 – NO Patient has no systemic criteria.
- Question 3 – YES Patient has signs and symptoms of new onset organ dysfunction.

### Follow – up:

- Question #1, #2 are NO and #3 is YES. The patient meets criteria for MD notification. Patient educated on the signs and symptoms of sepsis and provided Early Signs and Symptoms of Sepsis patient education tool.

### Intervention:

- The MD was notified and requested to see patient in his office. Transportation arrangements made with a family member.

# Frequently Asked Questions

**Q: How often must the tool be completed?**

**A:** Screening is to be completed at start of care, resumption of care, and every clinical visit.

**Q: Is The HCA Sepsis Screening Tool considered a diagnostic tool?**

**A: No.** The Sepsis screen tool is designed to assist in streamlining a home care clinician's assessment to identify and recognize the early, critical signs and symptoms of sepsis in a post-acute care setting. **It is not intended to replace a clinician's judgment based on their patient- specific observations, assessment, or determination of intervention.**

**Q: Is the clinician bound by the particular intervention indicated on the tool in the case of every patient, or does the clinician's judgement ultimately prevail?**

**A:** The interventions are recommended interventions and not a substitute for treatment, consultation or direction from a physician or authorizing practitioner.

**Q: How are tests/interventions not listed on the tool to be handled?**

**A:** If clinicians choose to order tests/interventions not listed on the tool, they need to document at bottom of the screen tool (or "refer to nurse note" and document on nurse note the intervention that was ordered).

# Frequently Asked Questions

**Q: What role may Home Health Aides (HHA) and Personal Care Aides (PCA) play?**

**A:** The tool may be completed only by licensed clinicians where assessment of the indicated criteria on the tool is within their lawful scope of practice.

However, HHAs and PCAs may be trained in signs and symptoms of sepsis based on the Patient Education Zone Tool, and report to the patient's home care agency RN their observations consistent with the Zone Tool.

Agencies are encouraged to training and involve their HHAs and PCAs in these roles.

## Discussion

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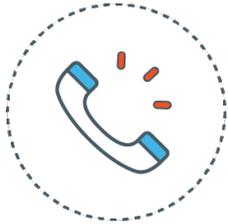
- What impactful actions can you take as a result of the information shared today?
- How are you able to increase engagement within your facilities to ensure a true change in patient safety?
- Based on what you heard today, what activities do you currently have underway that can leverage immediate action over the next 30, 60 or 90 days?

# Final Thoughts

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# Join Us for the Next Community of Practice Call!

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Join us for the next  
Community of Practice Call on November 10, 2022  
from 1:00 – 2:00 p.m. ET

We invite you to register at the following link:

[https://zoom.us/webinar/register/WN\\_ASI\\_I3p\\_TEyX\\_VY\\_YYFFeA](https://zoom.us/webinar/register/WN_ASI_I3p_TEyX_VY_YYFFeA)

*You will receive a confirmation email with login details.*

# Thank You!

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*Your opinion is valuable to us. Please take 4 minutes to complete the [post assessment](#).*

*We will use the information you provide to improve future events.*