HCA Home Care Sepsis Screening & Intervention Tool

Presentation to the New England Home Care & Hospice Conference
April 27, 2018
Cape Neddick, Maine
Dedication of Purpose

In New York State and across the country, the many lives lost to or fundamentally affected by sepsis inspire this preventive initiative.
Session Overview

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Session Overview

We are pleased to present this sepsis initiative to the New England Home Care Associations and members.

We believe this to be a major opportunity for home care agencies to contribute to what is a top public health imperative and medical emergency for individuals and the health care system. This is groundbreaking initiative in sepsis intervention.

We offer to further assist you and/or your partners in implementation.

We further believe that the collaboration of continuum partners – hospitals, physicians, home care, EMS, health plans and others – and a continuum response to sepsis is key to prevention, mitigation and outcome.
Session Overview

Session Abstract

• Introduction to HCA home care sepsis initiative
• Critical sepsis facts and relevance to home health role and health reform
• Development of HCA sepsis tool and parallel CMS/QIO Special Innovation Project in Sepsis
• In-depth review of sepsis tool
• Guidance on adoption
• Collaboration across the continuum
• Next steps
Overview of HCA Sepsis Initiative
Overview of HCA Home Care Sepsis Initiative

• Working with sepsis leaders, clinical experts, home care clinicians and other key contributors, HCA and partners developed a screening tool and protocol for sepsis to be used at the home and community level.

• The tool is synchronized to sepsis criteria and protocols applied in NYS hospitals through “Rory’s Regulations,” inspired by Rory Staunton (and detailed in subsequent slides).

• This tool is specifically designed for use by home care clinicians, but is also applicable to and being sought for use in broader settings, including joint models with hospitals, ambulatory care and home care partners.

• This home care sepsis tool and initiative are the first of a kind nationally, and being widely supported state and nationally.
Overview of HCA Home Care Sepsis Initiative

• A major goal is *statewide adoption* and *integration of the tool and companion instruments* (algorithm, protocol, patient education tool) by all home care and applicable settings, in a collaborative role with hospitals, physicians, EMS, health plans and other partners to combat sepsis and its catastrophic effects on health, life and costs.

• In support of this goal, the NYS Health Foundation has awarded HCA a major grant to promote statewide adoption through training, technical assistance, cross-continuum coordination, public education, and other components. We have branded this: “*Stop Sepsis At Home New York.*”

• 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 the use standards, as will be further discussed in this webinar.
Overview of HCA Home Care Sepsis Initiative

HCA has also created the dedicated “Stop Sepsis At Home NY” website

http://stopsepsisathomeny.org/

The website, which is currently progressing in a buildup phase, will house all of the project materials, resources, schedules and related resources. Will also host links to state and national sepsis leader organizations (e.g., Sepsis Alliance, Rory Staunton Foundation, CDC, State Department of Health, etc.) and their invaluable resources on sepsis.
NYS Initiative Partners

HCA gratefully acknowledges the New York State Health Foundation (NYSHealth) for its support of this work.

The mission of NYSHealth is to expand health insurance coverage, increase access to high-quality health care services, and improve public and community health.

The views presented here are those of the authors and not necessarily those of the New York State Health Foundation or its directors, officers, and staff.

Special acknowledgement to the HCA Quality Committee, Sepsis Workgroup, and workgroup clinical leader – Amy Bowerman, RN, Mohawk Valley Health System, HCA Member.
HCA Home Care Sepsis Initiative

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 (invited)
- 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
Key Sepsis Leaders & Resources Partnering with HCA

Sepsis Alliance

- Founded 2007, Dr. Carl Flatley – Father AND Doctor
- Leading national sepsis advocacy organization in North America
- 1.5 million+ visits each year to Sepsis.org
- Awareness 19%, now 58%. Sepsis Alliance Awareness Survey
- Founded *Sepsis Awareness Month* in 2011
The tragic loss of Rory Staunton to sepsis in 2012 spirited the establishment of the Rory Staunton Foundation for Sepsis Prevention by Rory’s parents, Ciaran and Orlaith Staunton, as well as the first in the nation (NYS) hospital protocols for sepsis in 2013 “Rory’s Regulations”, and this past October, the signing of “Rory’s Law” in NYS, a landmark law that will provide for sepsis education in the schools and in state law requirements for health provider education/training in infection control, as well as other proactive sepsis initiatives in others states.
Critical Sepsis Facts and Relevance to Home Health and Health Reform
1.7 million cases each year in the U.S.

270,000 deaths each year – more than breast cancer, prostate cancer and AIDS – combined.

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 cause of death in U.S. hospitals.

#1 driver of readmission to a hospital (30 days).

#1 cost of hospitalization - $27B/yr.
The #1 Medicaid expense for potentially avoidable hospitalizations for NYS hospitals (excluding the severe mental/substance abuse population where it is #2).

1 in 4 hospital patients treated for sepsis is readmitted in the first 30 days after discharge.

Sepsis is nearly double the readmission rate of the top CMS-clocked readmission cause (i.e., heart failure) subject to hospital penalty (study 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).

Up to 50% of sepsis survivors suffer from post-sepsis syndrome (PSS).
Significance of Home/Community Role and Response
Significance of Home/Community Role & Response
(Sepsis Alliance)

- Commonly misunderstood as a hospital problem, over 80% of sepsis cases originate in home and community.
- Time to treatment is critical – mortality increases 8% every hour that treatment is delayed.
- Early identification and treatment are the key to improved outcomes and reduced costs.
- Biggest next opportunity lies in public awareness and primary care education and training.
Significance of Home/Community Role & Response
(Sepsis Alliance)

• Home care and long term care treat populations most vulnerable to sepsis.

• 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.
Significance of Home/Community Role & Response

• The HCA Sepsis tool directly screens for conditions targeted for potentially avoidable hospitalizations (PAH) under NYS’s quality metrics and requirements for managed care and value based payment (VBP):
  - Sepsis
  - Respiratory Infections
  - Urinary Tract Infections (UTI)

• Additionally, the screen tool can help identify (through its screening for symptoms such as Tachycardia, change in mental status, etc.):
  - Electrolyte imbalance
  - Anemia
  - Heart failure
Significance of Home/Community Role & Response

• This provides potential benefits of the tool in screening for and addressing multiple high risk conditions associated with PAHs, in addition to sepsis specifically.

• CMS’s Delivery System Reform Incentive Payment program (DSRIP), VBP, managed care and other accountable/integrated care models’ goals and milestones center on improved quality, reduced costs, population health, and significant reductions in PAH, ER episodes and readmissions.

• The HCA Sepsis Tool provides a concrete and innovative means of sepsis targeting as well as targeting of other high-risk conditions associated with quality, cost and PAHs.

• Also, the tool’s overall intensified focus on infection and infection prevention and control adds to its potential benefits in PAH, cost-reduction, and quality.
VBP – PAH & PAC measures and Sepsis Care

• The PAH measure directly addresses one of the leading causes of in-patient admissions and high hospitalization costs: Sepsis.

• The PAC measure also includes sepsis as a potentially avoidable complication in many VBP arrangement care episodes.

• Providers and MCOs should work together on exploring innovative ways to help decrease sepsis and sepsis hospitalization.

• Sepsis/sepsis hospitalization reduction is a Win, Win, Win situation for everyone involved.
  – Providers win by meeting or exceed their VBP quality measure and performance targets.
  – MCOs win by saving on the high costs of sepsis hospitalization.
  – Most importantly, patients win by receiving higher quality proactive care.
More reasons for engaging home health specifically in sepsis education and intervention:

• Home care’s unique position and credentials make it an all the more compelling role player in the sepsis effort. These include:
  
  ➢ Home care clinicians are in homes and in communities.
  
  ➢ Home care clinicians are expert educators, screeners, evaluators, interveners, and system navigators.
  
  ➢ Home care is a patient- and culturally-centered, and cost-effective vehicle.
  
  ➢ Home and community is the growing and future milieu of care.
Development of the HCA Sepsis Screening Tool and Initiative
Development of the HCA Sepsis Screening Tool and Initiative

• Starting 4-5 years ago, HCA undertook efforts to determine whether and how home care could collaborate in the prevention/intervention effort for sepsis.

• HCA engaged sepsis clinical experts and leaders, state and national, who further informed and compelled us forward.

• HCA sepsis workgroup and clinical leader Amy Bowerman led the drafting of the tool, corresponding algorithm and protocol. The tool was vetted, beta tested, and refined with sepsis clinical expert input.

• Workgroup partner IPRO simultaneously piloted the tool under a CMS Special Innovations Project in sepsis, and through this effort, developed and added a patient education “zone” tool as part of our overall home care sepsis initiative.
Development of the HCA Sepsis Screening Tool and Initiative

• The comprising instruments of the tool (shown in the ensuing slides) include:

  ➢ A patient screen to be completed by home health clinicians;

  ➢ An algorithm for clinical follow-up to the screen findings;

  ➢ A protocol for standardized clinical use of the screen and algorithm; and

  ➢ A patient education “zone” tool.

• The sepsis tool has been designed to sync with hospital sepsis requirements.
Use of the HCA Sepsis Screening Tool

• The instruments and protocol are for adoption and integration into agencies' clinical policies, practices, and electronic health records.

• Authorization for use is implemented via an HCA use-agreement accessible at: sepsistool@hcanys.org

  ➢ Purpose is to abide the use of the instruments and protocol w/o alteration (for standardization and quality control), participation in prerequisite sepsis and tool training, and agreement to participate in data sharing to assist with support, quality, program development, evaluation and potential policy.
Use of the HCA Sepsis Screening Tool

- The tool was formally launched at the end of March 2017, following notice to the State Health Commissioner and Department.

- Providers across NYS have begun using the tool, with many reporting extremely positive experience, and with additional agencies adopting the tool on an ongoing basis.

- Providers in other states are also adopting, including multi-tier health systems (hospital, home care, ambulatory care, nursing home).

- Providers can contact sepsistool@hcanys.org to request instructions for adoption and use of the tool.
Use of the HCA Sepsis Screening Tool

Data Collection Portal

• Data collection and analysis is a major component of this initiative.

• IPRO IT has established a HIPAA-compliant data collection portal for this sepsis initiative which will enable the HCA sepsis screening tool users to capture and export all sepsis screen clinical findings and follow-up through this common site.

• It will allow sepsis and population health data to be shared and analyzed both by individual provider users and statewide by HCA, IPRO and the project team.

• It will equip users and our overall project team with critical data of value to home care users, continuum partners and potentially policy and public health officials.
Parallel to HCA’s work on the tool, IPRO was selected to sponsor a CMS Special Innovation Project in NY regions focusing on early recognition and screening/intervention at community level.

HCA sepsis screening tool was selected for and incorporated in the CMS/IPRO Special Innovation Project.

The project is operating in two major regions of NYS with high incidence (Central NY and Broader Capital Region and Albany HRRs).
CMS-IPRO Community Based Sepsis Special Project
Use of the HCA Sepsis Screening Tool

• Over 10,000 home and community health providers and non-clinical staff have been trained on sepsis awareness.

• The Special Innovation Project runs through September 2018.

• The program has offered advance experience and input into the HCA sepsis tool and training, and further basis for consideration as a national model.
NYS Medicare FFS Admissions with a Diagnosis of Sepsis While Receiving Home Health Care – July 2016- June 2017

<table>
<thead>
<tr>
<th>Days Of Home Health Care Prior to Admission*</th>
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<tbody>
<tr>
<td>Less Than Seven Days</td>
<td>1,635</td>
</tr>
<tr>
<td>Eight To Thirty Days</td>
<td>3,014</td>
</tr>
<tr>
<td>More Than Thirty Days</td>
<td>3,870</td>
</tr>
</tbody>
</table>

Highest Mortality Rate Occurs within first 5 days of hospital Stay

Hospital Admissions:
- Patients with one or more admissions: 7,353
- Total number of admissions: 8,519

Hospital Utilization:
- Average Length of Stay: 11.4 days
- Total Days of Care: 97,027

Hospital Medicare FFS Expenditure:
- Average Expenditure Per Case: $23,050
- Estimated Total Expenditure: $196 Million

Source: CMS Medicare FFS Paid Claims Data
IPRO Community Based Train-the-Trainer

Sessions for Clinical and Non-Clinical Staff

- Home Health Agencies
- Skilled Nursing Facilities
- Physician Practices
- Dialysis Centers
- School Nurses

- 10,277 trained
- 907 training sessions
- Learning Measured with Pre/Post Assessment Tool
- 50% increase in knowledge
In-depth Review of the HCA Sepsis Screening Tool
Authorized Use

- To control for quality and use standards, the authorized access to or use of the HCA sepsis tool is to be provided 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.

- 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.
Home Care Services
Adult Sepsis Screening Tool
For use in conjunction with Sepsis Protocol.

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:
     - Pneumonia
     - Urinary tract infection
     - Acute abdominal infection
     - Meningitis
     - Wound infection or skin infection
     - Other source of infection__________

2. Are any (or more) of the following systemic criteria present? □ Yes □ No
   - If yes, check all that apply:
     - Fever (oral temperature >38.3°C (100.9°F) or hypothermia (oral temperature <36.0°C (96.8°F))
     - Tachycardia (heart rate or pulse >100 beats/minute)
     - 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 altered mental status/difficult to arouse
     - Cardiovascular
       - New onset hypotension (systolic blood pressure <90 or decreases by >40 mm Hg)
     - Lung
       - New onset hypoxemia on supplemental oxygen >2 or greater than baseline
     - New onset pain/discomfort
     - Kidney
       - New onset urine output decreased from patient’s baseline with adequate fluid intake (and not due to SBP)

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
The Patient Meets Criteria for MD Notification
The Patient Meets Criteria for Sepsis
The Patient Meets Criteria for SEVERE Sepsis

Follow-Up:
STOP Complete a new Adult Sepsis Screen Assessment at next home visit.
EDUCATE THE PATIENT ON SIGNS AND SYMPTOMS OF SEPSIS
PATIENT MEETS CRITERIA FOR MD NOTIFICATION
PATIENT MEETS CRITERIA FOR SEVERE SEPSIS

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 preclude 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 surrogates 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.
Home Care Services
Adult Sepsis Screening Tool
For use in conjunction with Sepsis Protocol.

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:
   - Pneumonia
   - Urinary tract infection
   - Acute abdominal infection
   - Meningitis
   - Bone or joint infection
   - Bloodstream catheter infection
   - Active treatment
   - Implanted device infection
   - Endocarditis
   - Recent Chemotherapy/Immunocompromised
   - Wound infection or skin infection
   - 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:
   - Fever (oral temperature >38.3°C [100.9°F] or hypothermia (core temperature <36.0°C [96.8°F])
   - Tachycardia (heart rate or pulse >90 beats/minute)
   - 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/diolor
   - 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

**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 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.

**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:**
Sepsis Screen Tool – Intervention Section

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: ________________ PROVIDER NOTIFIED: ________________ SIGNATURE: ____________________________, RN

Date/Time Provider’s Name
Home Care Sepsis Tool Algorithm

Home Visit

Nurse completes an Adult Sepsis Screening Assessment for each home visit.

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

Answers to 1, 2, & 3 are “No”
STOP
Complete a new Adult Sepsis Screen Assessment at next home visit.

Answers to 1 is “Yes” but 2 and 3 are “No”
EDUCATE THE PATIENT ON SIGNS AND SYMPTOMS OF SEPSIS

Answers to 2 and/or 3 are “Yes”
PATIENT MEETS CRITERIA FOR MD NOTIFICATION
Document findings, educate 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 patient on signs and symptoms of Sepsis, and treatment, notify MD, and obtain order to draw CBC.

Answers to 1, 2 & 3 are “Yes”
PATIENT MEETS CRITERIA FOR SEVERE SEPSIS
Document findings, educate patient on signs and symptoms of Sepsis and treatment, notify provider, patient to be transported to the emergency department.

INTERVENTIONS

Refer to Sepsis Screening – SBAR Form for determination of interventions.
**Patient Education “Zone Tool”**

**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 confusion or sleepiness
- No fast heart rate
- Easy breathing
- No increase in pain

**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:
Sepsis Protocol

1. PURPOSE
   This protocol provides guidance for utilizing The Home Care Association (HCA) Sepsis Screening Tool. The Sepsis screening 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 458A of Title 10, NYSOCR Health, and provides a bridge between the community setting assessment and the assessment that is completed during an Emergency Department (ED) assessment. Prompt recognition of the early signs of Sepsis is 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 Mandates Guidelines for Hospitals
   New York State’s Regulations part 458A 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.

6. SCREENING QUESTIONS
   The following three questions 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.

6.1 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 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 last box to describe.
     • c. Examples of source or potential source of infections are:
       - Foul catheter
       - Vascular catheters
       - Open wounds
       - Implanted devices (e.g., Pacemaker)
     • d. If the patient does not have any existing, suspected or potential source of infection answer "NO."

6.2 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 Screening Tool for parameters (Fever, Tachycardia, Tachypnea). Are 2 or more present?
   • a. If "YES," mark all that apply.
   • b. Answer "NO" if no systemic criteria are present.

6.3 Identify New Onset Organ Dysfunction:
   • Answer "YES" if ANY new onset sepsis-related organ dysfunction or pain is present:
     - Neurological
     - Lungs
     - Kidney
     - Cardiovascular
     - New onset of pain

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

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 More 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 (Attachment C).

The Patient More 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 More Criteria for Sepsis:
   If the answer to questions #1 and/or #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

The Patient More Criteria for SEVERE Sepsis:
   Answers to questions #1, #2 or #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

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 with patient information sheet. “Early Signs and Symptoms of Sepsis” (Attachment C).

• The interventions in the Sepsis Protocol are clinically reasonable, provider determined, education has been completed with the patient and/or caregiver on symptom recognition and management of sepsis.

• The patient has received adequate 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 has refused interventions 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 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, antitoxins 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 variances in how the questions are presented; 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, which this protocol applies to the proprietary tool by the Home Care Association of New York State, Inc. (HCA), is HCA’s sole copy and/or distribution in whole or in part without the written permission of HCA. HCA retains no warranty associated with the use of either the protocol or the screening tool, express or implied, written or oral, or any implied warranty or representation of any kind, written or oral, to any user or entity using this tool.

All rights of the title are subject to the terms of the license agreement between HCA and the author/s of the underlying materials.
SEPSIS PROTOCOL

PURPOSE
This protocol provides guidance for utilizing The Home Care Association (HCA) Sepsis Screening Tool. The Sepsis screening tool is designed to assist in identifying and recognizing 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 400.4 of Title 10, NYSCRR 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 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.

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

REFERENCES
New York State Department of Health 2013 Sepsis Mandate Guidelines for Hospitals
New York State’s Regulations part 400.4 of Title 10, NYSCRR Health

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.

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). These three elements of the Sepsis 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 questions 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 and potential source of infection if applicable:
  a. If "YES," specify and select one or more suspected sources from the list.
  b. If "NO," 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
     - Implantable 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 which this protocol uses is the property of the Home Care Association of New York State Inc. (HCA). To ensure the confidentiality and safekeeping of the tool, any use of the tool is subject to the terms of the license agreement between HCA and the authorized licensee and that agreement.
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 posed; 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.
Key Points About the Sepsis Screening Tool

• Screening is to be completed at start of care, resumption of care, and every visit.

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

• 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).

• Patient/public education component is significant.
Case Studies:
Application of the HCA Sepsis Screening Tool
Scenario #1

- A 49 year old female admitted 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 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 for diabetic teaching due to being new on insulin. Has a history of pneumonia and coronary heart disease. The patient has a supportive wife in the home who is supportive. 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
- A 88 year old female admitted 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.
Agency Adoption of the Sepsis Screening Tool
Guidance for Agency Adoption and Use

HCA implementation guidance to agencies advises:

• Adoption of sepsis tool and protocol within agency policies and procedures, including procedures to ensure completion of screen on every RN assessment and clinical visit, unless contraindicated by MD; incorporation in agency quality assurance/improvement committee review process.

• Integration into agency electronic health records.

• Training of all clinicians on sepsis and use of tools (including review of webinar series, case scenarios, additional educational material); training and education of aide staff, families, community.

• Follow the timeline guide for training and implementation - see next slide.

• Outreach/training/education of strategic clinical/community partners (e.g., physicians, hospital, EMS, managed care orgs).

• Other
Training Timeline

**INITIAL TRAINING**
- Sign and return HCA’s Users Agreement
- Review contents of DVD
- Designate staff to facilitate training
- Share training materials with your senior leadership, medical director/medical staff
- Meet with EHR Vendor about embedding tool

**WITHIN 1 WEEK OF TRAINING**
- Begin using HCA Sepsis Screening Tool
- Attend REDCap Data Collection Webinar (Date TBD)
- Begin Data Collection

**WITHIN 2 WEEKS OF TRAINING**
- Have all staff trained

**WITHIN 1 MONTH OF TRAINING**
- Participate in technical assistance “Office Hours” calls
- Quarterly submission of data: March, June, September and December

**WITHIN 2 MONTHS OF TRAINING**
- Ongoing Activities
Guidance for Agency Adoption and Use

- A toolkit has been developed to assist all agencies in staff training and education on sepsis and the sepsis tool.
- The toolkit is being made available to users in electronic format.
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 have revealed important challenges and opportunities to address critical gaps.
Collaboration Across the Continuum

- Report to ER, consultation with MD
- Health information exchange upon ER referral
- Discharge information from hospital to home health
- Clinical pathways and interdisciplinary care plans for post-sepsis discharges
- Mutual education/awareness of tools/criteria across sectors
- Cross-sector clinician training
- Data sharing
- Sepsis Collaborative Care Model
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.
Next Steps
Next Steps

- Continued in-depth training in home care and cross-sector coordination of clinical partners. Goal = coordinated *continuum-response to sepsis*.

- Statewide data collection and sharing by all users, and project analysis. Explore collaborative contribution with system partners.

- Continued work state and national officials to promote, including work w/Legislature and Administration on proposals to support.

- Support and align with implementation of new Sepsis Education Law in NYS: “Rory’s Law.”

- Application of tool to other sectors/provider types, as well as to pediatrics and other populations.

- Continued assistance to other states (including other state hospital and home care systems) looking to adopt the tool.

- Tailoring Care for Sepsis Survivors - development of patient-centered post-treatment transition (e.g., hospital to home) clinical pathways and home/community care plans for sepsis survivors.
Resources

• Home Care Association of NYS, Inc.  http://stopsepsisathomeny.org/

• Centers for Disease Control & Prevention  http://www.cdc.gov/sepsis/

• Sepsis Alliance -  http://www.sepsisalliance.org/

• The Rory Staunton Foundation for Sepsis Prevention  https://rorystauntonfoundationforsepsis.org/

• NYS Department of Health -  https://www.health.ny.gov/

• AQIN / IPRO -  http://www.stopsepsisnow.org

• Centers for Medicare & Medicaid Services  http://www.medicare.gov
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