Launch of NYSHealth Foundation Grant for Sepsis Screening and Intervention:

The Home Care Association of New York State’s Screening & Intervention Tool for Sepsis

Workplan for statewide clinical and agency training, continuum partner collaboration, public education and outreach, patient and population data, and more

November 9, 2017
Presented by
The Home Care Association of New York State (HCA)
IPRO Quality Improvement Organization/Network
National Sepsis Alliance
Rory Staunton Foundation for Sepsis Prevention
NYSHealth Acknowledgement

Support for this work is provided by the New York State Health Foundation ("NYSHealth"). The mission of NYSHealth is to expand health insurance coverage, increase access 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.

HCA gratefully acknowledges NYSHealth for its support of this important initiative!
Today’s Launch Agenda

I. Introduction and purpose.

II. Background: HCA home care sepsis initiative, and connected CMS/IPRO special innovations sepsis initiative.

III. Sepsis Leaders and Core Resource Partners to the Grant Component: Sepsis Alliance and Rory Staunton Foundation

IV. Overview of grant, grant purpose, components and goals.

V. Regional Training and Cross-Sector Collaboration/Coordination Sessions.

VI. Compelling sepsis facts, developments and import within health care reforms and new models - Why this initiative and your participation matters!
I. Introduction and Purpose

• Welcome to this statewide teleconference on the NYSHealth Foundation grant to support statewide implementation and clinical use of the HCA Home care Sepsis Screening and Intervention initiative (“tool”).

• The purpose of today’s teleconference is to formally introduce and provide key background on this major grant, its components, and its statewide assistance and goals for providers, all system stakeholders, and the public.

• This grant is designed to specifically:
  - Encourage and assist statewide adoption and use of the HCA-innovated sepsis tool in all clinical visits by all home care agencies, and by other applicable providers.
I. Introduction and Purpose

- Assist current, potential and new users of the tool in agency clinical use and integration.

- Educate and facilitate coordination with continuum of care partners in the use of the tool and in overall coordination of sepsis response.

- Promote community public awareness and education.
I. Introduction and Purpose

This grant supports overarching goals for:

• Sepsis prevention, early identification and treatment, and mitigation - saving life and health, averting catastrophic cost, and fostering sepsis collaboration by partners across the continuum.

• The individuals at risk - which essentially means *any individual at any given time* - and particularly the high risk, who are especially prevalent in the population reached by home care.

• The care and support of survivors.
I. Introduction and Purpose

In NYS and across the country, the many lives lost to or fundamentally affected by sepsis, inspire the preventive efforts sought through this initiative and NYHealth’s supportive grant.
I. Introduction and Purpose

• This *NYSHealth* grant has been awarded to HCA for the period beginning October 1, 2017 through October 31, 2018.

• To date, our start-up activities have included:

  ➢ Preliminary announcements to providers, state officials and stakeholders of approval.

  ➢ Formation of curriculum content; Convening of a multi-sector, multidisciplinary and top level expert steering committee.

  ➢ Planning of statewide training and cross-sector collaboration sessions.

  ➢ Development of data portal to support the initiative and the individual users.

  ➢ Development of a dedicated “Stop Sepsis At Home” website.

  ➢ And more.
II. Background on the HCA Initiative and Parallel IPRO/CMS Special Innovations Initiative

The HCA Sepsis Initiative

• Responding to outreach from sepsis advocacy, engagement from sepsis clinical leaders, and from the compelling data on sepsis prevalence, health and life impacts, risk factors, costs, and other factors, HCA undertook efforts to determine whether and how home care could collaborate in the prevention/intervention effort.

• HCA researched the country for models, tools, protocols or any roles being taken in home and community care settings for sepsis intervention; none were found. However, HCA was encouraged everywhere to continue to pursue.
II. Background on the HCA Initiative and Parallel IPRO/CMS Special Innovations Initiative

- Engagement with sepsis clinical experts, Dr. Martin Doerfler, Associate Chief Medical Officer for the Northwell Health System and member of NYS’s Sepsis Advisory Committee, and Dr. Steven Simpson, Chief Medical Officer for Sepsis Alliance and Medical Director for Pulmonary and Critical Care at University of Kansas, compelled us forward, encouraged further by CDC, the NYS Department of Health, Sepsis Alliance and Rory Staunton Foundation.

- HCA devoted the next two - three years to the design, refinement, testing, vetting, and finalization of a first-in-the-nation sepsis tool for use by home care clinicians.

- HCA sepsis workgroup and clinical leader Amy Bowerman, RN, Executive Director, Patient Care Director and Quality Director for Senior Health Network, led the development of the tool, corresponding algorithm and protocol; workgroup partner IPRO, developed and added a patient education “zone” tool.
II. Background on the HCA Initiative and Parallel IPRO/CMS Special Innovations Initiative

• The comprising instruments (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 tool.

• The instruments and protocol are for adoption and integration into agencies' clinical policies, practices, and electronic health records. They have been designed to sync with hospital sepsis requirements.
SNAPSHOT OF THE HCA SEPSIS TOOL

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:
   □ Pneumonia
   □ Active gastrointestinal infection
   □ Urinary tract infection
   □ Active decubitus ulcer
   □ Bone/marrow infection
   □ Venereas
   □ Recent Chemotherapy immunocompromised
   □ Other source of infection (describe)

2. Are any (2 or more) of the following systemic criteria present? □ Yes □ No

   □ Fever (oral temperature >38.3°C [101.0°F] or)
   □ Hypothermia (oral temperature <35.0°C [95.0°F])
   □ Tachypnea (respirations >30 breaths/minute)
   □ Tachycardia (heart rate >110 beats/minute)
   □ Hypotension (systolic blood pressure <90 or decreases by >15 mmHg)
   □ New onset pulmonary edema
   □ New onset pedal edema
   □ New onset peripheral oxygen saturation (SpO2) below baseline
   □ New onset acute altered mental status difficult to arouse
   □ New onset acute altered mental status (Glasgow Coma Scale score <10)
   □ New onset oliguria
   □ New onset poor perfusion
   □ New onset respiratory
difficulty
   □ New onset heart rate >140 beats/minute

   If Yes, check all that apply:
   □ Neurological
   □ Cardiovascular
   □ Respiratory
   □ Gastrointestinal
   □ Renal
   □ Other

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
   □ Cardiovascular
   □ Respiratory
   □ Gastrointestinal
   □ Renal
   □ Other

   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 question 1 is "Yes" and the answer to questions 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 questions 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 answers to questions 1, 2, and 3 are all "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 answers to questions 1, 2, and 3 are all "Yes," 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 commensurate (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 (i.e., 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 proposed interventions. Provider has been notified of the decision not to receive acute intervention. Education has been completed with the patient and 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:
Snapshot of the 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 Screen Tool – Question Section

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 □ Active treatment
   □ Urinary tract infection □ Implanted device infection
   □ Acute abdominal infection □ Endocarditis
   □ Meningitis □ Recent Chemotherapy/Immunocompromised
   □ Bone or joint infection □ Wound infection or skin infection
   □ Bloodstream catheter 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/disticholor
   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.
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?
**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**
Document findings, educate patient on signs and symptoms of Sepsis, and notify MD.

**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.

**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.
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 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 455.4 of Title 10, NYSCRR Health, and provides a tool between the community setting and 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 it is not intended to replace a clinician’s judgment based on their patient-specific observations, assessment, or determination of intervention.

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

REFERENCES
New York State Department of Health 2013 Sepsis Mandate Guidelines for Hospitals
New York State’s Regulations part 455.4 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 A) 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 six 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?
     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 last box to describe.
     c. Examples of source or potential source of infections are:
        - Foul odors
        - Vascular catheters
        - Open wounds
        - Implanted devices (e.g., Pacemaker)
   - 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. Cardiopulmonary
     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 screening tool is to be used by the Home Care Association (HCA) Sepsis screening tool. The tool is designed to assist in the identification and management of patients with sepsis. It is not intended to replace a clinician’s judgment based on their patient-specific observations, assessment, or determination of intervention.

FOLLOW-UP
Positive findings for ANY of the 3 Screening Questions requires follow-up.

Each Follow-Up Plan provides direction for the clinician’s follow-up.

- The Patient Needs Criteria for Infection:
  - If the answer to question #1 and/or #3 is “YES”:
    - Document 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 Needs Criteria for MD Notification:
  - If the answer to question #2 and/or #3 are “YES”:
    - Evaluate the patient on the signs and symptoms of sepsis and notify MD of your findings and documentation.

- The Patient Needs Criteria for Sepsis:
  - If the answer to questions #1 and #2 are “YES,” and answer to #3 is “NO,” the patient meets criteria for Sepsis.
    - Notify provider
    - Evaluate the patient on the signs and symptoms of sepsis and treatment
    - Obtain MD order to draw CBC
    - Document

- The Patient Needs 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
    - Evaluate patient on signs and symptoms of sepsis and treatment
    - Have patient transported to emergency department for evaluation
    - Contact 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 symptoms 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 has not yet made any plans for Sepsis and requires immediate intervention. Patient education, MD notified, patient transported to emergency department, and report called to the receiving emergency department.
- The patient has a new or existing Sepsis criteria. Patient education, MD notified, antibiotics initiated and most 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 presented; however, the content and sequence of responses should not be altered from the original paper form. (Attachments A & B)

USER EDUCATION
All clinicians and users of the Adult Sepsis Screen Tool will complete the required education to ensure proper utilization. Refer to Adult Sepsis Screen Tool user guide.

The screening tool is to be used by the Home Care Association (HCA) Sepsis screening tool. The tool is designed to assist in the identification and management of patients with sepsis. It is not intended to replace a clinician’s judgment based on their patient-specific observations, assessment, or determination of intervention.

**If completing the Adult Sepsis Screen Tool electronically, there may be variations 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)**

The screening tool is to be used by the Home Care Association (HCA) Sepsis screening tool. The tool is designed to assist in the identification and management of patients with sepsis. It is not intended to replace a clinician’s judgment based on their patient-specific observations, assessment, or determination of intervention.
II. Background on the HCA Initiative and Parallel IPRO/CMS Special Innovations Initiative

• Authorization for use is implemented via an HCA use-agreement.

• The agreement 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 development.

• Educational webinars that were conducted to help prepare providers, are recorded and available at HCA, IPRO and US CDC websites, and include training, train-the-trainer, and integration into agency electronic health records.
II. Background on the HCA Initiative and Parallel IPRO/CMS Special Innovations Initiative

• 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.
II. Background on the HCA Initiative and Parallel IPRO/CMS Special Innovations Initiative

**IPRO/CMS Special Innovations Initiative**

- 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 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).
II. Background on the HCA Initiative and Parallel IPRO/CMS Special Innovations Initiative

• Over 9,600 home and community health providers and non-clinical staff have been trained on sepsis awareness.

• The program runs through September 2018.

• The program has offered advance experience and input into the HCA sepsis tools and training, and further basis for consideration as a national model.
II. Background on the HCA Initiative and Parallel IPRO/CMS Special Innovations Initiative

• Albany & Syracuse Hospital Referral Regions (HRRs)
  
  **Albany HRR**
  • In-hospital sepsis mortality rate of 14.6%
  • Ranks 8th in NYS Hospital Referral Regions for sepsis admissions

  **Syracuse HRR**
  • In-hospital mortality rate of 15.6%
  • Ranks 7th in NYS Hospital Referral Regions for sepsis admissions

**National**
• In-hospital All Cause Mortality Rate - 4.2%

*Source: CMS Medicare FFS Paid Claims Data*
NYS Medicare FFS Admissions with a Diagnosis of Sepsis While Receiving Home Health Care - CY 2015

<table>
<thead>
<tr>
<th>Days Of Home Health Care Prior to Admission*</th>
<th>1,635</th>
<th>19.2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than Seven Days</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eight To Thirty Days</td>
<td>3,014</td>
<td>35.4%</td>
</tr>
<tr>
<td>More Than Thirty Days</td>
<td>3,870</td>
<td>45.4%</td>
</tr>
</tbody>
</table>

Opportunity to positively impact Home Health population through earlier recognition of sepsis

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: 11.7 days
- Total Days of Care: 99,027

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

Source: CMS Medicare FFS Paid Claims Data
II. Background on the HCA Initiative and Parallel IPRO/CMS Special Innovations Initiative

IPRO Community Based Train-the-Trainer Sessions

• Home Health Agencies
  • Clinical and non-clinical staff

• Skilled Nursing Facilities
  • Clinical and non-clinical staff

• Physician Practices
  • Clinical and non-clinical staff

• Dialysis Centers
  • Clinical and non-clinical staff

• **28** Regional Train-The-Trainer sessions held to date

  • **9,633** pre-hospital providers and caregivers have been trained on Sepsis Awareness utilizing AQIN-developed training tools
Assessment of Learning Measured by Pre and Post Assessment Tool

50% Increase in knowledge post training across all individuals trained
II. Background on the HCA Initiative and Parallel IPRO/CMS Special Innovations Initiative

- **Community Based Sepsis Initiative Measures**
  - Number of inpatient admissions of Medicare FFS patients by stage of sepsis: 1) Sepsis; 2) Severe sepsis; 3) Septic shock.
  - Inpatient mortality for Medicare FFS patients by stage of sepsis: 1) Sepsis; 2) Severe sepsis; 3) Septic shock.
  - Acute Length of Stay with mortality by stage of sepsis: 1) Sepsis; 2) Severe sepsis; 3) Septic shock.
  - Acute Length of Stay without mortality by stage of sepsis: 1) Sepsis; 2) Severe sepsis; 3) Septic shock.
  - Reduction in 30, 60 and 180 day readmissions for Medicare FFS patients with a principal diagnosis of sepsis
III. Sepsis Leaders and Core Resource Partners to the Grant Component: Sepsis Alliance and Rory Staunton Foundation

**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
Sepsis Alliance Mission

Save Lives And Reduce Suffering By Raising Awareness of Sepsis As a Medical Emergency

Awareness, Education, Prevention, Early Recognition, Treatment and Support

1. Public
2. Providers
3. Policy-makers
4. Survivors

SYMPTOMS OF SEPSIS

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

Watch for a combination of these symptoms. If you suspect sepsis, see a doctor urgently, CALL 911 or go to a hospital and say, "I AM CONCERNED ABOUT SEPSIS."

SEPSIS.ORG

Sepsis.org
III. Sepsis Leaders and Core Resource Partners to the Grant Component: Sepsis Alliance and Rory Staunton Foundation

• 1.6 million cases each year in the U.S.
• 258,000 deaths each year – more than breast cancer, prostate cancer and AIDS – *combined*.
• Takes more children than cancer – 18 kids each day.
• #1 cause of death in U.S. hospitals.
• #1 driver of readmission to a hospital (30 days).
• #1 cost of hospitalization - $27B/yr.
• Up to 50% of sepsis survivors suffer from post-sepsis syndrome (PSS).
Commonly misunderstood as a hospital problem, over 80% of sepsis cases originate in home and community.

Home care and long term care treat our population most vulnerable to sepsis.

Among highest risk populations are the elderly, the chronically ill, persons with disabilities, medically fragile children, individuals with compromised immune systems, individuals with recurrent UTI and pneumonia, and others routinely within home care’s patient population.
III. Sepsis Leaders and Core Resource Partners to the Grant Component: Sepsis Alliance and Rory Staunton Foundation

• 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.

• Home care and long term care treat our population most vulnerable to sepsis.
COMMITTED TO PARTNERSHIP*

If you want to go fast, go alone.
If you want to go far, go together.

AFRICAN PROVERB

* Partial list

Sepsis Alliance | Sepsis.org

Sepsis.org
The tragic loss of Rory Staunton to sepsis in 2012 spirited the establishment of the Rory Staunton Foundation for Sepsis Prevention, as well as the first in the nation (NYS) hospital protocols for sepsis in 2013, and just this 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.

RoryStauntonFoundationForSepsis.org
III. Sepsis Leaders and Core Resource Partners to the Grant Component: Sepsis Alliance and Rory Staunton Foundation

About Our Foundation

We established The Rory Staunton Foundation after our son’s death from sepsis in April 2012. Our overriding goal is to ensure that no other child or young adult dies of sepsis resulting from the lack of a speedy diagnosis and immediate medical treatment.

Our Mission

To reduce the number of sepsis-caused deaths through:

- Raising public awareness of sepsis through education and awareness programs to promote faster diagnosis and effective treatment for children and young adults
- Improving medical diagnosis of sepsis, particularly pediatric sepsis, through the implementation of rapid treatment protocols and improved communication between parents and medical staff in hospitals and medical clinics
- Supporting those affected by sepsis and providing a platform for their voices to be heard.

RoryStauntonFoundationForSepsis.org
• The Rory Staunton Foundation website contains assistive background on sepsis developments and educational resources. Below are drop down menus and other examples from the site.
Sepsis Protocol

Sepsis is the number one cause of death in hospitals across the United States. However, sepsis protocols in hospitals have been proven to reduce death from sepsis and lower healthcare costs.

In 2013, New York State became the first in the nation to establish a statewide mandate requiring all hospitals to adopt sepsis protocols. Known as Rory’s Regulations, the protocols were designed to improve rapid identification and treatment of sepsis, providing for:

- The screening and early recognition of patients with sepsis, severe sepsis and septic shock;
- A process to identify and document individuals appropriate for treatment through severe sepsis protocols; and
- Guidelines for treatment including for early delivery of antibiotics.

The protocols must be submitted to the Department of Health for approval and periodically updated, and hospitals are required to train all relevant staff in the protocols. Hospitals are also required to collect data and quality measures to make internal quality improvements, and to report data to the Department of Health for use in monitoring compliance and updating best practices.

The Rory Staunton Foundation was central to the development and adoption of the new standards, known as Rory’s Regulations. As of May, 2017, Rory’s Regulations have saved more than 5,000 New York lives and resulted in a 20 percent increase in the accurate diagnosis of sepsis patients.

The Regulations also include Parents Bill of Rights, designed to improve quality and oversight of care provided to pediatric patients, including provisions to strengthen the ability of parents to play a meaningful and informed role in a child’s healthcare decisions. The regulations require hospitals to implement procedures to ensure that parents and primary care providers receive vital information about children’s care, particularly by facilitating the communication of critical tests and lab results.

Illinois adopted the mandatory protocols in 2016 and other states have pledged to follow. A central mission of the Rory Staunton Foundation is to see sepsis protocols adopted in every state by 2020.

Download the full text of Rory’s Regulations here

Download the Parents Bill of Rights here
“Rory’s Law”
Passed by NYS Legislature June 2017 and Signed October 23 as Chapter 347 of 2017

Sepsis Education Programming

• S.4971-A by Senator Marcellino and A.6053-A by Assemblymember Nolan (passed Senate /Assembly in June; awaits deliver to Governor)

• Establishes a sepsis awareness, prevention and education program within the State Education Department.

• Requires the Commissioner of Education to collaborate with the Commissioner of Health, organizations that promote sepsis awareness, as well as other interested parties, to develop a sepsis awareness, prevention and education program.

• Requires that sepsis be included in school educational programming, in information to parents on sepsis, and included as part of the existing infection control education/training required of health clinicians under the State Education Law.
IV. Grant, Grant Purpose, Components and Goals

• Promote and support statewide adoption and use of this screening and intervention initiative within the home care sector (by all home care providers and for all home care patients) and by other applicable providers.

• Conduct training for home care and key clinical collaborators in the tool, and broadly in sepsis education.

• Provide technical support for providers and practitioners.

• Coordinate with cross-sector clinical partners (e.g., hospitals, physicians, EMS, health plans).

• Conduct community/public outreach.

• Collect and research data for provider feedback, improvement, research, evaluation and policy.
IV. Grant, Grant Purpose, Components and Goals

- Core partners in the Grant:

  - HCA
  - IPRO
  - Sepsis Alliance
  - Rory Staunton Foundation

Funded by NYSHealth
Steering Committee - includes representation from:

- The Home Care Association of New York State
- The 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)
- Medical Society of the State of New York
- Healthcare Association of New York State and Iroquois Healthcare Alliance (state and regional hospital associations)

(continued)
IV. Grant, Grant Purpose, Components and Goals

• 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
IV. Grant, Grant Purpose, Components and Goals

Grant Components

• **In-depth training** (in-person and adjunctive) for home care clinicians, direct care workers and agency leaders in the adoption and use of the HCA sepsis tool, and broadly in sepsis; this will include *both* current and new agency users of the tool.

  ➢ The training will include **in-person sessions** conducted in eight regions of the state complete with technical and case review presentations, and adjunctive webinars, conferencing. statewide user-calls for technical assistance and information exchange sessions, data sharing, in-service education, and access to additional sepsis resources.
IV. Grant, Grant Purpose, Components and Goals

• **Collaborative Cross-Sector Sessions** with home care, hospital, physician, EMS, health plans and other key clinical partners to coordinate sepsis response across the continuum. These sessions will be conducted in eight regions of the state, and held immediately following each of the eight training sessions.

• **Media and other public outreach** to increase awareness and education.

• **Data compilation, analysis, data sharing** w/providers and officials for evaluation and improvement, reporting, and recommendations for policy and system-wide sepsis support. Data compilation will be through an IPRO-sponsored HIPAA compliant portal which will enable tracking of every screen, every screen entry, follow-up and intervention recorded.
IV. Grant, Grant Purpose, Components and Goals

• **Creation of a dedicated website:** “Stop Sepsis at Home.” The website will house all of the project materials, resources, schedules and related. Will also host links to state and national sepsis leader organizations (e.g., Sepsis Alliance, Rory Staunton Foundation, CDC, State Department of Health, etc.).

• **Steering committee** to advise on and support training and implementation, including sepsis leaders and organizational and professional clinical experts, key health sectors, government officials, consumers and other strategic partners.

• Other.
V. Regional Training and Cross-Sector Sessions

• Regional in-person training and cross sector sessions are planned for home care agencies and clinicians, and for continuum partners, for the following dates and locations. Announcements and registration, with host sites, will follow:

  ➢ Central NY Region - 12/15 (Syracuse)
  ➢ Western NY Region - 12/18 (Buffalo)
  ➢ Hudson Valley Region - 1/11 (Newbergh)
  ➢ Capital Region - 1/24 (Albany)
  ➢ NYC Region - 2/8 (Bronx) 2/9 (Manhattan)
  ➢ Long Island Region - 3/8 (Nassau) 3/9 (Suffolk)
Training Session Curricula will include:

• Key project background.
• Sepsis as a Medical Emergency, Imperative of Early Identification and Intervention, Identification of High-Risks, System Impact, Relationship to Federal/State Health Reform Priorities and Models of Care and Coverage. This will include multimedia material and presentations.
• Significance of Home/Community Role, Response
• Development, Design and Clinical Application of HCA Sepsis Tool (Comprehensive training on tool and Q&As)
• Case Studies
  ➢ Large Group
  ➢ Breakout session – Small group case study review

(continued next slide)
V. Regional Training and Cross-Sector Sessions

- Agency Adoption of the Sepsis Tool
  - Adoption into Agency and Clinical Practice
  - EHR Integration (supplement with webinar, w/EHR company joining as faculty)
- Data Collection and Sharing Presentation and Instruction
- Next Steps and Supports in Project Vision
V. Regional Training and Cross-Sector Sessions

Cross Sector Collaboration Sessions

• This session will be coordinated with the training sessions; conducted same day, same location. Will be interwoven with, or prefaced by, an orientation to the tool as provided in the agency/clinician session to ensure that collaborating partners are informed about the tool, how it works, and home care’s use of it.

• The focus of these sessions will be the opportunity for multi sector (home care, hospital, physician, EMS, health plans) discussion to exchange key information, perspectives, challenges, needs and best practices for effective coordination on sepsis.

• These sessions will also include recommendations for further planning among continuum partners.
VI. Major Sepsis Facts and Developments: Why this initiative and *your* participation matters!

- In addition to the compelling discussion of the prior slides, these next slides provide further sepsis facts and developments, and ultimately, further underscore why this initiative and *your* participation matters.
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.
VI. Major Sepsis Facts and Developments: Why this initiative and your participation matters!

- New York State’s and CMS’s DSRIP and VBP Roadmap goals and milestones center on improved quality and reduced costs, and particularly on significant reductions in potentially avoidable hospitalizations (PAH).

- The targeting of sepsis addresses one of the major factors affecting quality, PAH and cost, and the HCA Sepsis Tool provides a concrete, innovative, concrete means of sepsis targeting as well as targeting of other PAHs against which plan performance is to be gauged under VBP.
VI. Major Sepsis Facts and Developments: Why this initiative and your participation matters!

• Sepsis is:
  
  ➢ Among the leading costs of hospitalization.
  
  ➢ The #1 cause of 30 day Medicare hospital readmissions.
  
  ➢ The #1 Medicaid expense for potentially avoidable hospitalizations (excluding the HARP population where it is #2), for NYS hospitals.
VI. Major Sepsis Facts and Developments: Why this initiative and your participation matters!

- Sepsis is nearly double the readmission rate of the top CMS-clocked readmission cause (i.e., heart failure) that is subject to hospital penalty (study published in January 2017 Journal of the American Medical Association 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).

- The populations with highest sepsis prevalence are served by mainstream MCO and MLTCs.
VI. Major Sepsis Facts and Developments: Why this initiative and your participation matters!

• The HCA Sepsis tool directly screens for conditions targeted for potentially avoidable hospitalizations under the state’s VBP metrics and requirements:
  ➢ 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
VI. Major Sepsis Facts and Developments: Why this initiative and your participation matters!

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

• Also, the tool’s overall intensified focus on infection and infection prevention and control adds to its potential in PAH, cost-reduction, and quality.
More reasons credentialing home health specifically in sepsis 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.
Questions??

• Al Cardillo, LMSW, HCANYS (acardillo@hcanys.org)

• Amy Bowerman, RN, Mohawk Valley Health System (abowerma@mvhealthsystem.org)

• Sara Butterfield, RN, IPRO (Sara.Butterfield@area-I.hcqis.org)

• Eve Bankert, MT, IPRO (Eve.Bankert@area-I.hcqis.org)

• Thomas Heymann, MBA, National Sepsis Alliance (theymann@sepsis.org)

• Orlaith Staunton, Rory Staunton Foundation for Sepsis Prevention (orlaithstaunton@rorystauntonfoundation.org)