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Recognition and Management of Sepsis in the Long-term Care Setting: An Interactive Work Group

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Objectives

- Describe the purpose of Quality Assurance and Performance Improvement (QAPI).
- Describe how to implement a sepsis performance improvement project (PIP) using QAPI principles.

QAPI

- Quality Assurance (QA)
  - Process of meeting quality standards and assuring that care reaches an acceptable level. It is a reactive, retrospective effort to examine why a facility failed to meet certain standards.
- Process Improvement (PI)
  - Pro-active and continuous study of processes with the intent to prevent/decrease the likelihood of problems by identifying areas of opportunity and testing new approaches to fix underlying causes systemic problems.

Feedback, Data Systems and Monitoring

- Identify what you need to monitor.
- Collect, track and monitor measures/indicators.
- Set goals, benchmarks, thresholds.
- Identify gaps and opportunities.
- Prioritize what you will work to improve.
- Use data to drive decisions.

Collect, Track and Monitor Measures/Indicators

- What data will you use to track sepsis?
  - Sepsis hospitalization rate per resident day per month.
  - Sepsis diagnosis rate per resident day per month.
  - Urinary tract infections (UTIs) that resulted in sepsis per resident day per month.

Measure/Development Worksheet

What are we measuring (measure/indicator)?	When are we measuring this (frequency)?	How do we measure this (where do we get our data)?	Who is responsible for tracking on this measure?	What is our performance goal or aim?	How will data findings be tracked and displayed?
Percent of sepsis hospitalizations per 1000 resident days per month **Numerator**=Number of residents hospitalized with diagnosis of sepsis each month X1000 **Denominator**=Total number of residents days each month	Monthly	EHR	Infection Preventionist	(Determine based on baseline and/or available benchmarking data)	Infection Preventionist uses Excel run chart template to document monthly rates over time. Results are provided to QAPI committee and reviewed in monthly QAPI meetings

Collect, Track and Monitor Measures/Indicators

Decrease in hospitalizations related to facility acquired infections in nursing homes (long stay):

Decrease in hospitalizations related to facility acquired infections in nursing homes (Long-Stay Residents---Sepsis)					
State	**Time Period**	**Denominator**	**Numerator**	**Rate**	**Relative Improvement Rate**
Michigan	10/1/2018 - 9/30/2020 (Baseline)	24,233	2,316	9.56	
	10/1/2020 - 9/30/2021	8,113	743	9.16	4.18
Minnesota	10/1/2018 - 9/30/2020 (Baseline)	8,363	550	6.58	
	10/1/2020 - 9/30/2021	3,503	228	6.51	1.03
Wisconsin	10/1/2018 - 9/30/2020 (Baseline)	13,060	940	7.20	
	10/1/2020 - 9/30/2021	5,402	449	8.31	-15.48
Superior Health Quality Alliance	10/1/2018 - 9/30/2020 (Baseline)	45,656	3,806	8.34	
	10/1/2020 - 9/30/2021	17,018	1,420	8.34	-0.09

Collect, Track and Monitor Measures/Indicators

Decrease in hospitalizations related to facility acquired infections in nursing homes (short stay):

Decrease in hospitalizations related to facility acquired infections in nursing homes (Short-Stay Residents---Sepsis)					
State	**Time Period**	**Denominator**	**Numerator**	**Rate**	**Relative Improvement Rate**
Michigan	10/1/2018 - 9/30/2020 (Baseline)	94039	1655	1.76	
	10/1/2020 - 9/30/2021	32442	718	2.21	-25.76
Minnesota	10/1/2018 - 9/30/2020 (Baseline)	32173	302	0.94	
	10/1/2020 - 9/30/2021	13385	188	1.40	-49.63
Wisconsin	10/1/2018 - 9/30/2020 (Baseline)	51058	671	1.31	
	10/1/2020 - 9/30/2021	19632	298	1.52	-15.50
Superior Health Quality Alliance	10/1/2018 - 9/30/2020 (Baseline)	177270	2628	1.48	
	10/1/2020 - 9/30/2021	65459	1204	1.84	-24.07

Set Goals, Benchmarks, Thresholds

Describe the business problem to be solved:

- Have noted that there has been an increase in hospitalizations due to sepsis over the past six months.

Specific:

Describe the goal in terms of 3 ‘W’ questions:

- What do we want to accomplish?
  - Decrease hospitalizations due to sepsis
- Who will be involved/affected?
  - Licensed and non-licensed nursing staff
- Where will it take place?
  - Short-term rehabilitation unit

Set Goals, Benchmarks, Thresholds

Measurable

Describe how you will know if the goal is reached:

- What is the measure you will use?
  - Sepsis hospitalization rate per resident day per month
- What is the current data figure (i.e., count, percent, rate) for that measure?
- What do you want to increase/decrease that number to?

Set Goals, Benchmarks, Thresholds

Attainable

- Defend the rationale for setting the goal measure:
  - Did you base the measure of figure you want to attain on a particular best practice/average score/benchmark?
  - Is the goal measure set too low that it is not challengeing enough?
  - Does the goal measure require a stretch without being too unreasonable?

Relevant

- Briefly describe how the goal will address the business problem.

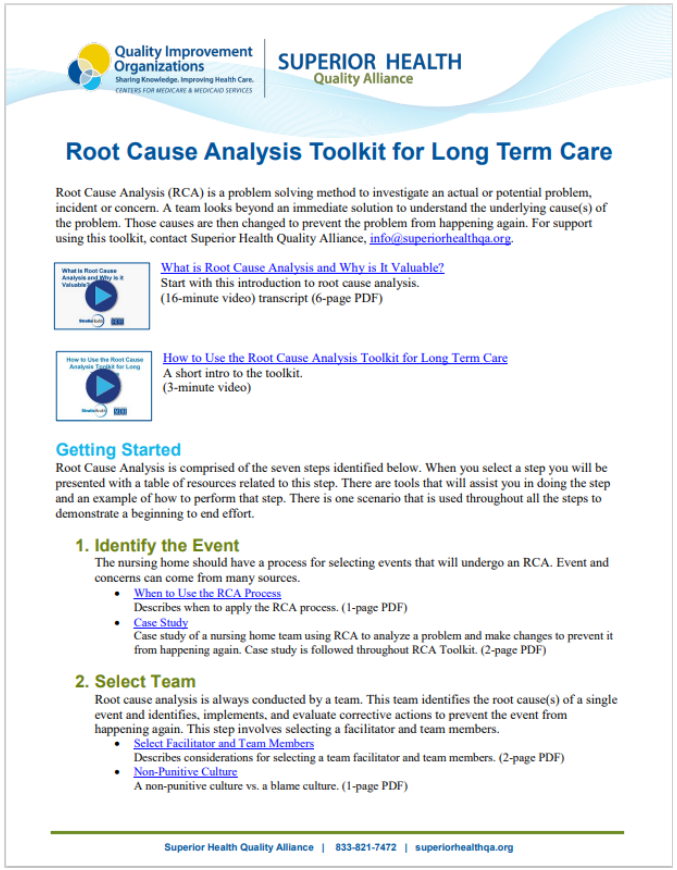
Time-bound

- Define the timeline for achieving the goal.

Systematic Analysis and Systemic Action

- Model and promote systems thinking.
- Practice root cause analysis (RCA) – get to the root of problems.
- Take action at the systems level.

Root Cause Analysis for Long Term Care



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Root Cause Analysis Toolkit for Long Term Care

Root Cause Analysis (RCA) is a problem solving method to investigate an actual or potential problem, incident or concern. A team looks beyond an immediate solution to understand the underlying cause(s) of the problem. Those causes are then changed to prevent the problem from happening again. For support using this toolkit, contact Superior Health Quality Alliance, info@superiorhealthqa.org.

What is Root Cause Analysis and Why is It Valuable?
Start with this introduction to root cause analysis.
(16-minute video) transcript (6-page PDF)

How to Use the Root Cause Analysis Toolkit for Long Term Care
A short intro to the toolkit.
(3-minute video)

Getting Started

Root Cause Analysis is comprised of the seven steps identified below. When you select a step you will be presented with a table of resources related to this step. There are tools that will assist you in doing the step and an example of how to perform that step. There is one scenario that is used throughout all the steps to demonstrate a beginning to end effort.

1. Identify the Event

The nursing home should have a process for selecting events that will undergo an RCA. Event and concerns can come from many sources.

- When to Use the RCA Process
  Describes when to apply the RCA process. (1-page PDF)
- Case Study
  Case study of a nursing home team using RCA to analyze a problem and make changes to prevent it from happening again. Case study is followed throughout RCA Toolkit. (2-page PDF)

2. Select Team

Root cause analysis is always conducted by a team. This team identifies the root cause(s) of a single event and identifies, implements, and evaluate corrective actions to prevent the event from happening again. This step involves selecting a facilitator and team members.

- Select Facilitator and Team Members
  Describes considerations for selecting a team facilitator and team members. (2-page PDF)
- Non-Punitive Culture
  A non-punitive culture vs. a blame culture. (1-page PDF)

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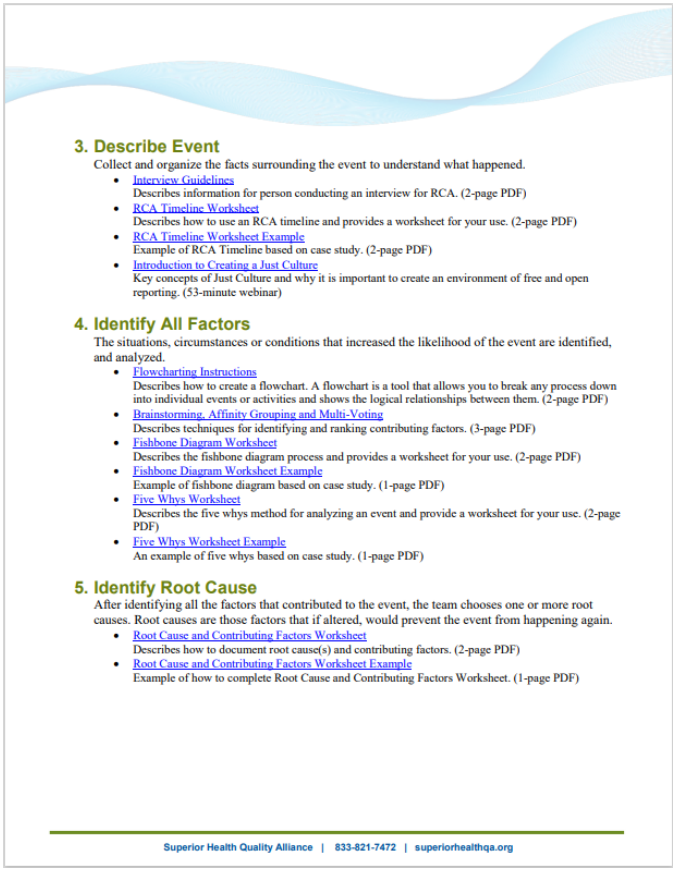

3. Describe Event

Collect and organize the facts surrounding the event to understand what happened.

- Interview Guidelines
  Describes information for person conducting an interview for RCA. (2-page PDF)
- RCA Timeline Worksheet
  Describes how to use an RCA timeline and provides a worksheet for your use. (2-page PDF)
- RCA Timeline Worksheet Example
  Example of RCA Timeline based on case study. (2-page PDF)
- Introduction to Creating a Just Culture
  Key concepts of Just Culture and why it is important to create an environment of free and open reporting. (53-minute webinar)

4. Identify All Factors

The situations, circumstances or conditions that increased the likelihood of the event are identified, and analyzed.

- Flowcharting Instructions
  Describes how to create a flowchart. A flowchart is a tool that allows you to break any process down into individual events or activities and shows the logical relationships between them. (2-page PDF)
- Brainstorming, Affinity Grouping and Multi-Voting
  Describes techniques for identifying and ranking contributing factors. (3-page PDF)
- Fishbone Diagram Worksheet
  Describes the fishbone diagram process and provides a worksheet for your use. (2-page PDF)
- Fishbone Diagram Worksheet Example
  Example of fishbone diagram based on case study. (1-page PDF)
- Five Whys Worksheet
  Describes the five whys method for analyzing an event and provide a worksheet for your use. (2-page PDF)
- Five Whys Worksheet Example
  An example of five whys based on case study. (1-page PDF)

5. Identify Root Cause

After identifying all the factors that contributed to the event, the team chooses one or more root causes. Root causes are those factors that if altered, would prevent the event from happening again.

- Root Cause and Contributing Factors Worksheet
  Describes how to document root cause(s) and contributing factors. (2-page PDF)
- Root Cause and Contributing Factors Worksheet Example
  Example of how to complete Root Cause and Contributing Factors Worksheet. (1-page PDF)

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Source: Superior Health, Root Cause Analysis Toolkit for Long Term Care

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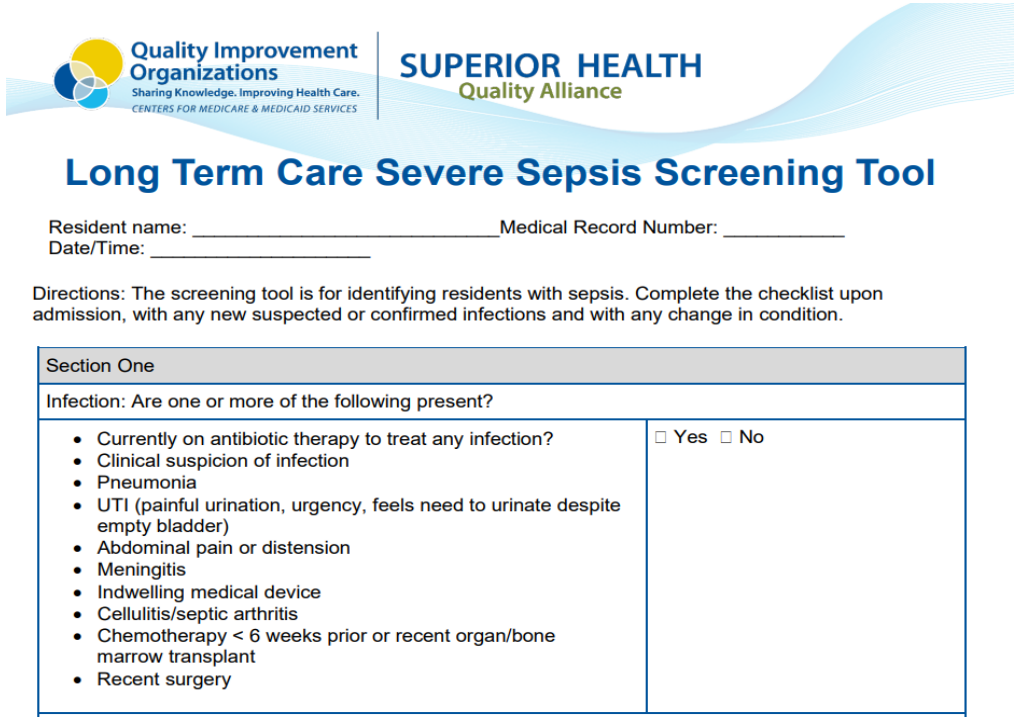
Identify Gaps and Opportunities

- Long Term Care Severe Sepsis Screening Tool



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Long Term Care Severe Sepsis Screening Tool

Resident name: _____Medical Record Number: _____
Date/Time: _____

Directions: The screening tool is for identifying residents with sepsis. Complete the checklist upon admission, with any new suspected or confirmed infections and with any change in condition.

Section One	
Infection: Are one or more of the following present?	
• Currently on antibiotic therapy to treat any infection? • Clinical suspicion of infection • Pneumonia • UTI (painful urination, urgency, feels need to urinate despite empty bladder) • Abdominal pain or distension • Meningitis • Indwelling medical device • Cellulitis/septic arthritis • Chemotherapy < 6 weeks prior or recent organ/bone marrow transplant • Recent surgery	☐ Yes ☐ No

Source: Superior Health, Long Term Care Severe Sepsis Screening Tool

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Performance Improvement Projects

- Focus on topics that are meaningful and address the needs of residents and staff.
- Charter PIP teams.
- Support staff in being effective PIP team members.
- Plan, implement, measure, monitor and document changes, using a structured PI approach.

Performance Improvement Projects

Action Plan

Goal: What are we trying to accomplish?	What specific actions can we make to reach our goal?	Who is responsible?	When will the work be completed?	Measure: What can we measure to show the actions led to an improvement?
Decrease hospitalizations due to sepsis	Train licensed and unlicensed staff on early warning signs of sepsis	Infection Preventionist	July 31, 2022	Sepsis hospitalization rate per resident day per month
Decrease hospitalizations due to sepsis	Complete competencies for licensed and unlicensed staff-foley catheter care	Infection Preventionist or designee	August 31, 2022	CAUTI rates per month

Plan, Implement, Measure, Monitor and Document Changes

Plan, Implement, Measure, Monitor and Document Changes

Study	Study and analyze the data. Determine if the change resulted in the expected outcome. Were there implementation lessons? Summarize what was learned. Look for: unintended consequences, surprises, successes, failures.	Describe the measured results and how they compare to the predictions.
Act	Based on what was learned from the test: Adapt – modify the changes and repeat PDSA cycle. Adopt – consider expanding the changes in your organization to additional residents, staff and units. Abandon – change your approach and repeat PDSA cycle	Describe what modifications to the plan will be made for the next cycle from what you learned.

Questions?

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Resources

Resources

- Quality Assurance and Assessment (QAA)/ Quality Assessment and Performance Improvement (QAPI) Meeting Agenda Guide (PDF)
- QAP Meeting Agenda (Word Doc)
- QAPI Plan How To Guide (Word Doc)
- Root Cause Analysis Toolkit for Long Term Care (PDF)
- CMS Process Tool Framework (PDF)

Continue the Conversation in

Superior Health Connect

Connect is a shared learning environment for Superior Health participants to come together to foster and promote an all-teach-all-learn climate that provides the framework to improve and sustain mutual health care quality improvement initiatives locally, regionally, and nationally.

Nursing Home Sepsis Affinity Group - Connect

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