

Root Cause Analysis: A Deeper Dive



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KENTUCKY STATE QUALITY MANAGER

Katie is the state quality manager for Alliant Health Solutions. She oversees Kentucky. As a seasoned healthcare professional with over a decade of experience working in the long-term care industry, she is a certified occupational therapy assistant and rehab manager.

Most recently, Katie oversaw two pediatric specialty clinics in the ambulatory care setting. Her profound dedication to patient access to care has consistently set her apart, fostering positive change within healthcare ecosystems. She has a bachelors degree in healthcare leadership.

Beyond her professional life, Katie is an avid traveler, finding inspiration and diverse perspectives in every corner of the world. She also cherishes time spent with her family and has a deep love for music and attending concerts.



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Nursing Home and Partnership for Community Health: CMS 12TH SOW GOALS

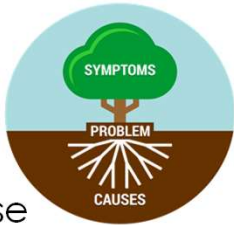
						
<p>OPIOID UTILIZATION AND MISUSE</p> <p>Promote opioid best practices</p> <ul style="list-style-type: none"> Reduce opioid adverse drug events in all settings 	<p>PATIENT SAFETY</p> <ul style="list-style-type: none"> Reduce hospitalizations due to c. diff Reduce adverse drug events Reduce facility acquired infections 	<p>CHRONIC DISEASE SELF-MANAGEMENT</p> <ul style="list-style-type: none"> Increase instances of adequately diagnosed and controlled hypertension Increase use of cardiac rehabilitation programs Reduce instances of uncontrolled diabetes Identify patients at high-risk for kidney disease and improve outcomes 	<p>CARE COORDINATION</p> <ul style="list-style-type: none"> Convene community coalitions Reduce avoidable readmissions, admissions to hospitals and preventable emergency department visits Identify and promote optimal care for super utilizers 	<p>COVID-19</p> <ul style="list-style-type: none"> Support nursing homes by establishing a safe visitor policy and cohort plan Provide virtual events to support infection control and prevention Support nursing homes and community coalitions with emergency preparedness plans 	<p>IMMUNIZATION</p> <ul style="list-style-type: none"> Increase influenza, pneumococcal, and COVID-19 vaccination rates 	<p>TRAINING</p> <ul style="list-style-type: none"> Encourage completion of infection control and prevention trainings by front line clinical and management staff






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Learning Objectives

- Define how/when to select a project
- Understand the steps for a good root cause analysis
- Review root cause analysis (RCA) tools
- Learn how to use RCA for improvement activities
- Explore effective goal writing
- Implement and track solutions



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What does a good quality program NOT do?



Ignore the problem.



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What does a good quality program include?

Defines Quality

- Objectively monitors and evaluates to improve care and resolve problems
- Uses Standards or Best Practices

Measures Quality

- Identifies variation in standards or practices
- Uses data, quality measures, observations, assessments
- Pilot tests, Plan, Do, Study Act, Continuous Improvement

Improves Quality

- Analyzes best practices and adopts changes for improvement
- Use of an Interdisciplinary Team includes all voices in the improvement process
- **Sustainability**

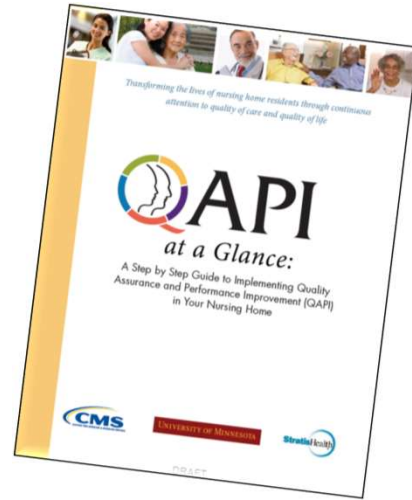
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QAPI: This is a must read!

QAPI: A process to *continuously* identify opportunities for improvement and address gaps in systems through planned interventions to improve the overall quality of care and services

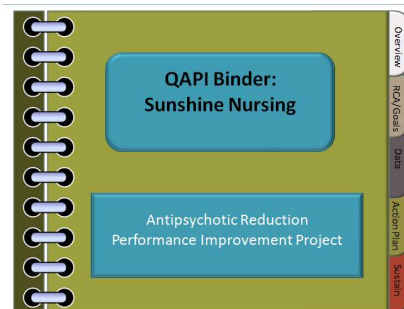
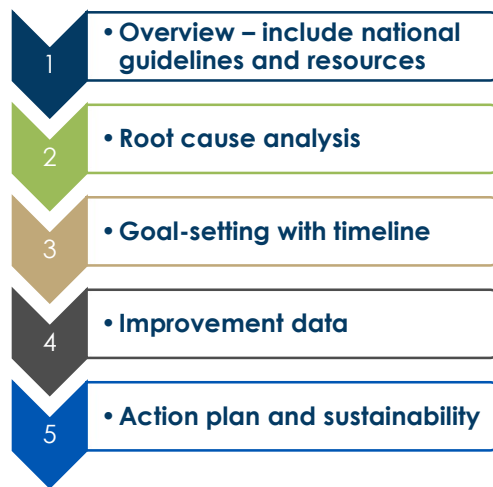
Be proactive!

QAPI at a Glance is available online:
<http://cms.gov/Medicare/Provider-Enrollment-and-Certification/QAPI/Downloads/QAPIAtaGlance.pdf>



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Performance Improvement Project



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Start with a good root cause analysis

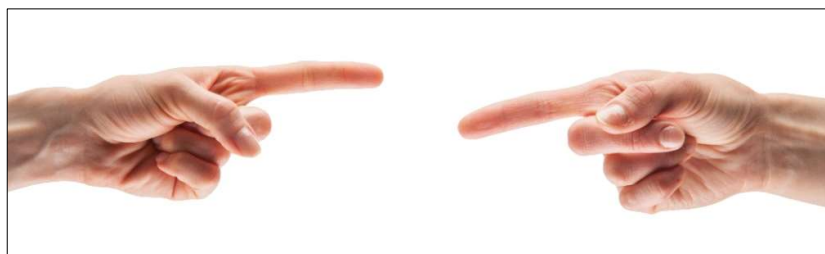
Performing a root cause analysis to get to the heart of the reason for the concern.

Undertaking systemic change to eliminate problems at the source.



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What is a bad root cause analysis?



It's finger-pointing time, and everyone is invited.

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What causes errors?

The bad apple theory:

- Complex systems would be fine if it weren't for some unreliable people.
- Human errors cause accidents.
- Failures are surprises.



What is wrong with this approach?

- Focusing on individuals does not solve underlying problems.
- Human error is not the conclusion of an investigation, it is the beginning.

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Human factors in a root cause analysis

Human factors are about how the *design* of things impact how well we do any task:

- Design of our workplace
- Design of the tools we use
- Design of processes (how we do our work)



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Root Cause Analysis

- Keep asking “why” until you have identified the real causes to the problem
- An essential piece of any PIP because:
 - Reviews all details of the problem
 - All staff members provide input – empowerment
 - Focuses on the process, not people



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Step One: Root Cause Analysis

Select the event to be investigated – gather preliminary information

- **Start with the problem** – Not the possible solutions(s)
- **Define the problem**
 - Be objective – be transparent
 - The problem statement includes the need for something
- **Focus on systems** rather than an individual person
- **Leadership commitment**

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Step Two: Charter and Select a Team Facilitator and Team Members

- Use a project charter to launch the team with leadership approval
- Choose a facilitator – consider an untraditional role like a CNA
- While it is good to include team members who are subject matter experts, team members who can bring fresh eyes to the problem should not be excluded



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Step Two: The Team Members

Select the team members for the project

- Designate a facilitator for the team
 - Not necessarily the topic expert
 - Consider front line staff
- Keep it neutral
- Choose multi-disciplinary team members
- The RCA process is confidential
 - Permission to speak freely
 - No repercussions

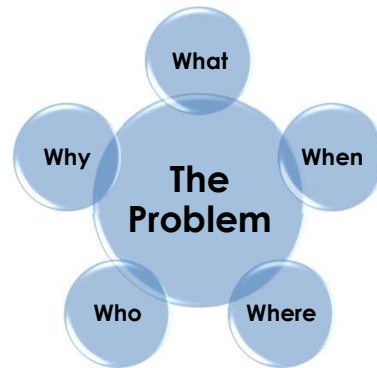
*What happens
in Vegas, stays
in Vegas!*

NOTE: Process owners are the main skeleton for proper RCA

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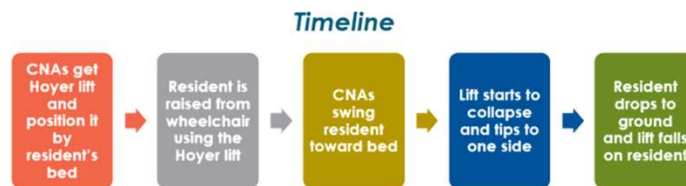
Step Three: Describe What Happened

- Collect and organize the facts surrounding the problem or event to understand what really happened.
- No rose – colored glasses allowed.



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RCA: Gather The Facts

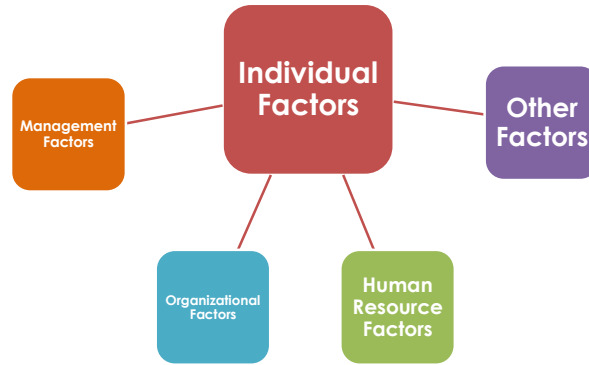


- Use a flipchart or sticky notes to draw a preliminary timeline
- Keep a hard copy of your work
- Try to gather factual events and steps
 - Is the “story” told correctly
 - Is the timeline in the correct sequence
- Resist the temptation to start identifying root causes

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Step Four: Identify the Contributing Factors

- The situations, circumstances or conditions that increased the likelihood of the event are identified.
- Transparency and open forum setting



Step Four: Root Cause Analysis

The team should dig deeper into what happened and why

- Contributing factors or conditions that increased the likelihood

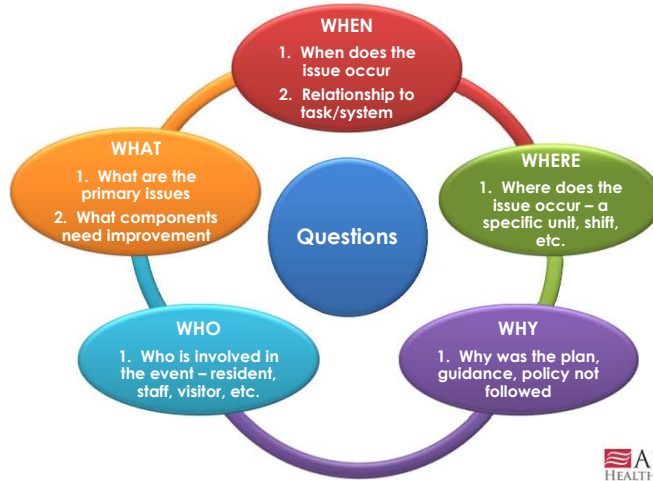


Contributing Factors



Step Five: Final Analysis of the Root Causes

A thorough analysis of contributing factors leads to identification of the underlying process and system issues – root causes – of the event.

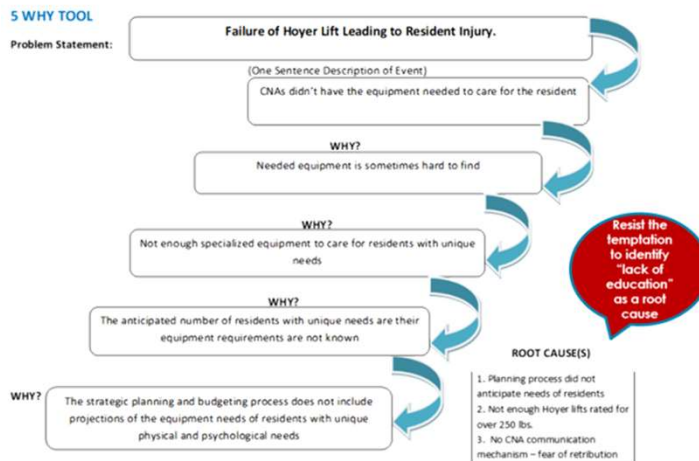


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Step Five: Final Analysis of the Root Causes

Now is the time to start the questioning process to identify the root causes that led to the event

- Remember – contributing factors are not the root cause
- Avoid drilling down to a single staff member – this is a system root cause

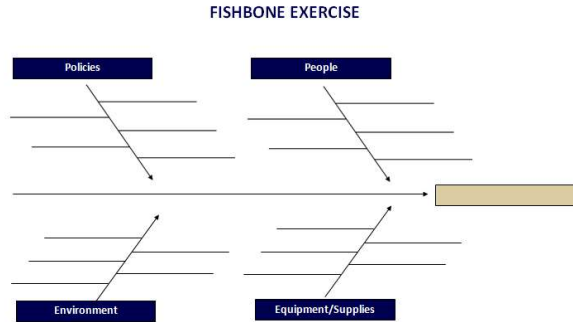


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Root Cause Analysis Tool: The Fishbone Diagram

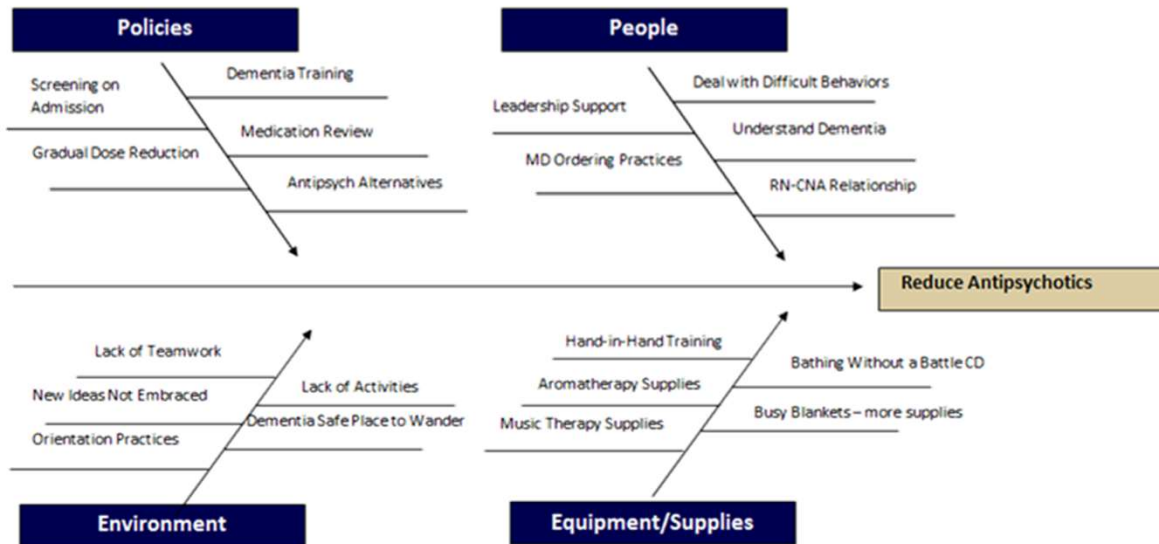
This cause and effect diagram (fishbone) starts with a problem at the head of the fish, and for each category, answer the question, "Why?"

Review all causes identified to drive the focus for the improvement plan
 There may be several causes of the problem
 Prioritize which item(s), if solved, would have the most positive impact



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Fishbone Exercise



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QAPI Tools: RCA and PDSA

Force Field Analysis
PATIENT SAFETY

This force field analysis is an effective, structured decision-making tool that can improve the quality of your decisions and move you towards success. This tool can be used to help you make a plan or identify factors. The analysis is based on the assumption that a situation is the result of forces for and against the current situation. Once these opposing driving forces and restraining forces are identified, this information can be used to develop action items that lead to change and improvement.

Problem Statement

Driving Forces - Internal Motivators (The benefits to the facility for improvement)

Restraining Forces - Internal Barriers (The barriers to the facility preventing improvement)

Driving Forces - External Motivators

Restraining Forces - External Barriers

ACTION to Reduce the Restraining Forces
(What action changes can lead to improvement?)

https://quality.allianthealth.org/wp-content/uploads/2021/05/AQ_Force-Field-Analysis-R4_508.pdf

QAPI Performance Improvement Planning Worksheet

Facility Name: _____ Date: _____
Team Leader and Members: _____

1. What are you trying to accomplish?
Look back at your team's aim statement. Provide steps for the overall performance improvement plan and list what has to happen and in order or priority.

2. How will you know that a change, or action, is an improvement?
Define single measures that can be compared before and after you have implemented your action steps.
Identify your measure: _____ Date: _____
Measure 1: _____
Measure 2: _____
Measure 3: _____

3. What changes can you make that will result in improvement?
What action steps can your team take to remove a barrier or improve despite the existence of a barrier?

Action Step	Personal Responsibility	Completion Date	Outcome
1.			
2.			
3.			
4.			
5.			

https://quality.allianthealth.org/wp-content/uploads/2020/07/AQ_QAPI_PerformanceImprovementPlanning_Worksheet-508-1.pdf

Quality Improvement Initiative (QII) PDSA Worksheet

QII ID: _____ CCN: _____
Facility Name: _____

Goal Setting: Describe the problem to be solved

Plan: Describe the change (intervention) to be implemented

Do: Implement the change

Check: Evaluate the results

https://quality.allianthealth.org/wp-content/uploads/2022/09/QIN-QIO-PDSA-QII-Template-FINAL_508.pdf



Let's Review Some Helpful Tips



- **Create an Event Timeline**
 - Consider what was happening at each step
 - Whenever possible, use a timeline as the basis for identifying contributing factors
- **Brainstorming**
 - Explore if anything happened that increased the likelihood of the event occurring
 - Were any best practices/policies not followed
 - RCA might uncover a staff "work-around" that lend itself to errors
- **Avoid Hindsight Bias**
 - Creating a timeline can more accurately capture the activities leading up to the event
 - Capture not only those factors that were present, but those realized only after the event



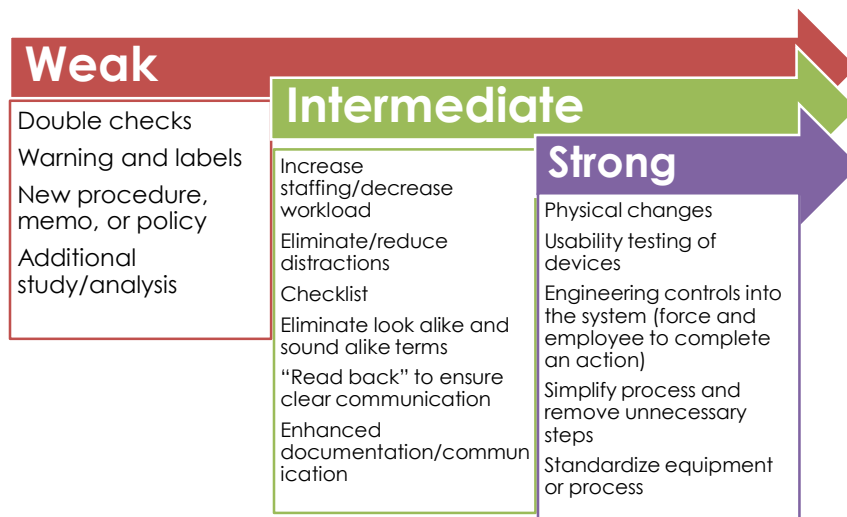
Goal Setting for a QAPI Project

- Goal setting is important because you can quantify a measurable improvement result without guessing if you improved
- Goals should be a stretch, yet attainable - they should be clearly stated and describe what you intend to accomplish
- Performance Improvement Project (PIP) goals should follow the SMART formula: Specific, Measurable, Attainable, Relevant and Time-Bound



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Corrective Actions that Change the System and Do Not Allow the Errors to Occur Again are the Strongest



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QAPI Goal Setting Worksheet

Directions: Goal setting is important for any measurement related to performance improvement. This worksheet is intended to help QAPI teams establish appropriate goals for individual measures and also for performance improvement projects. Goals should be clearly stated and describe what the organization or team intends to accomplish. Use this worksheet to establish a goal by following the SMART formula outlined below. Note that setting a goal does **not** involve describing what steps will be taken to achieve the goal.

Describe the business problem to be solved:

Use the SMART formula to develop a goal

Specific
Describe the goal in terms of 3 "W" questions:

What do we want to accomplish?

Who will be involved/affected?

Where will it take place?

Measurable
Describe how you will know if the goal is reached:

What is the measure you will use?

What is the current data figure (i.e., count, percent, rate) for that measure?

What do you want to increase/decrease that number to?

Attainable
Defend the rationale for setting the goal measure above:

Did you base the measure or figure you want to attain on a particular best practice/average score/benchmark?

Is the goal measure set too low that it is not challenging enough?

Does the goal measure require a stretch without being too unreasonable?

Relevant
Briefly describe how the goal will address the business problem stated above.

Time-Bound
Define the timeline for achieving the goal:

What is the target date for achieving this goal?

Write a goal statement, based on the SMART elements above. The goal should be descriptive, yet concise enough that it can be easily communicated and remembered.

Example: Increase the number of long-term residents with a vaccination against both influenza and pneumococcal disease documented in their medical record from 61 percent to 90 percent by December 31, 2011.

Tip: It's a good idea to post the written goal somewhere visible and regularly communicate the goal during meetings in order to stay focused and remind caregivers that everyone is working toward the same aim.

https://quality.allianthealth.org/wp-content/uploads/2020/07/AQ_QAPI_GoalSetting_Worksheet.pdf

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Alliant Health's Virtual Education and Resources

- Library of Resources**
 - Resource page
 - <https://quality.allianthealth.org/>
 - Essential Communication Elements Tool Kit
 - <https://bit.ly/EssentialCommsToolkit>
- Alliant Health's Virtual Educational Events**
 - <https://quality.allianthealth.org/virtual-educational-events/>
- Give the Boost a Shot Program**
 - <https://quality.allianthealth.org/topic/give-the-boost-a-shot/>
- NHSN Shop Talk and Quickinars**
 - <https://quality.allianthealth.org/topic/shop-talks/>

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Questions?



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