Conducting Individual Root Cause Analysis in Small Rural Hospitals

Katherine Jones, PhD, PT
Amy Thimm, RN, BSN, MSHSM
Lisa Koch, RN, BSN, MSHS
Anne Skinner, RHIA
Susan Beattie, RN
Catherine Leo, BA

University of Nebraska Medical Center
NEBRASKA'S HEALTH SCIENCE CENTER

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Objectives

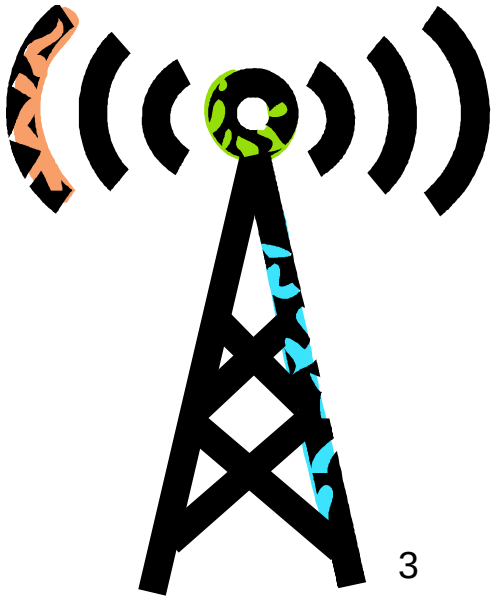
- Understand what root cause analysis (RCA) is–a structured, and process-focused framework to learn from errors
- Understand the role of individual RCA in achieving a culture of safety
- Understand the five steps in individual RCA
- Identify strategies for success in conducting RCA in small rural hospitals

Individual Root Cause Analysis: A Tool to Understand and Prevent Sentinel Events

Sentinel Event– "Unexpected occurrence involving death or serious physical or psychological injury,

OR THE RISK THEREOF…"

Signals the need for immediate investigation and response



What is Root Cause Analysis?

- A step by step questioning process to identify the basic or causal factors of an error

- Used in high risk industries such as nuclear power, airlines, the military, and increasingly….healthcare

Individual Root Cause Analysis: A Tool to Understand…

- WHAT HAPPENED
- HOW DID IT HAPPEN

ACTIVE ERROR

- WHY DID IT HAPPEN
- WHAT CAN BE DONE TO PREVENT IT FROM HAPPENING AGAIN

LATENT ERROR

Acceptable Root Cause Analysis

- Focuses on systems & processes NOT individual performance
- Progresses from special causes of specific event to common causes in organizational processes
- Repeatedly digs deeper by asking WHY, HOW…
- Identifies system changes to reduce risk
- Is thorough and credible…

JCAHO. Sentinel Event Policies and Procedures. Retrieved April 1, 2006 From http://www.jointcommission.org/SentinelEvents/PolicyandProcedures/

Thorough Root Cause Analysis

- Determines human and other factors most directly associated with the event and the processes and systems related to its occurrence
- Determines where redesign might reduce risk
- Identifies risk points and their potential contributions to the event in question
- Determines potential improvement in processes or systems that would tend to decrease the likelihood of such events in the future

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Credible Root Cause Analysis

- Include participation/support from leadership and by individuals most closely involved in the processes and systems under review
- Be internally consistent, not contradict itself or leave obvious questions unanswered
- Include consideration of any relevant literature

JCAHO. Sentinel Event Policies and Procedures. Retrieved April 1, 2006 From http://www.jointcommission.org/SentinelEvents/PolicyandProcedures/

Sources of Information for Individual RCA

- Incident Report
- Near Misses/Close Calls
- Medication Error
- Customer Complaint
- Employee Complaint

Five Basic Steps of Root Cause Analysis

1. Gather the facts using a timeline
2. Understand what happened
3. Identify root causes using causal statements
4. Determine system improvements to minimize risk of repeating the error
5. Create action plans to implement and monitor effectiveness of changes

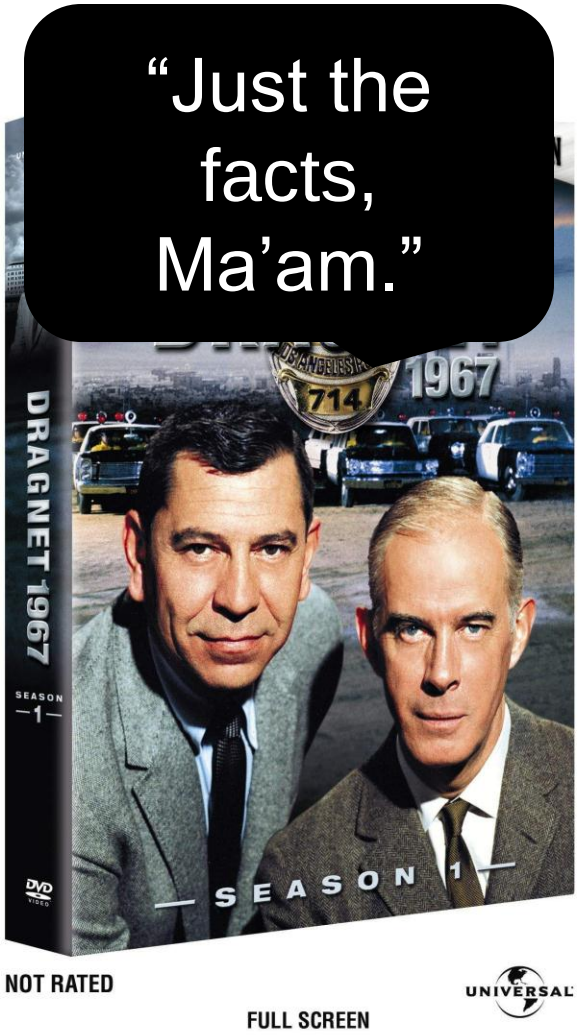
Step One:
Facilitator Gathers the Facts and Puts Together a Team

Facilitator Requirements

- NOT directly involved in the incident
- No preconceived idea of causal factors
- Understands purpose, process, outcomes of RCA
- Credibility within organization
- Skills in quality improvement

Gather the Facts

- **Facilitator determines the basic facts**
  - Review documents related to the event
    - Incident or error report
    - Medical record
  - Brief interviews of those involved
  - Observe the “typical” process

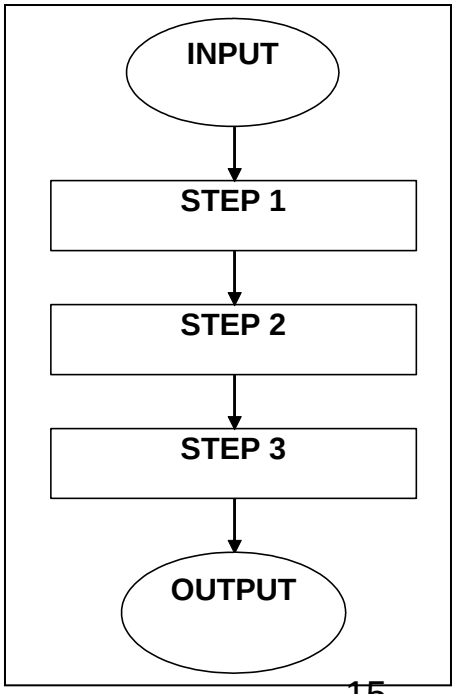


Gather the Facts

- **Facilitator interviews**
  - Creates trust with those involved in the event
  - Helps to determine those beneficial for the team
  - Defuses gossip, speculation and blame if done as soon as possible after the event

Supporting Materials

- Facilitator develops a timeline of the event
- Obtain a flowchart, policies, and procedures related to the intended process



Putting the Team Together

- The Root Cause Analysis Team
  - Inter-disciplinary
  - All staff directly involved in the event
  - Front-line staff who can champion change
  - Experts most knowledgeable about the process
  - Physician champions
  - Administrative support

Everyone on the team is equal

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"To address this mistake we must use root-cause analysis. I'll begin by saying it's not my fault."

Step Two:
Understand What Happened using Group Debriefing by Skilled Facilitator

Facilitator Skills

- Skills in group facilitation
  - Sets an agenda, keeps all on task
  - Prevents conflict from escalating
    - Non-verbal cues
    - Verbal…request for break
  - Can facilitate input from all and prevent domination by a few

Step Two: Understand What Happened

- Review Ground Rules
  - Review purpose of RCA…

    change the system to minimize risk to patients
  - Everyone is a professional, all are equal
  - Use the “parking lot” to validate concerns but stay on task
  - Direct questioning is intended for learning
  - What is said in the room about who said or did what stays in the room …

What leaves the room…

- The proposed system changes are what you should focus on when you leave the room

Step Two: Understand What Happened

- Group Debriefing
  - All those involved in the error are present to review the timeline

Step Two:
Understand What Happened

- Group Debriefing about the timeline
  - Review each particular event of the process by asking the questions…
    "Is this the usual way we do it?" and
    "If not why…why…why?"
  - As questions are answered and discussion proceeds, participants record one idea about system and human factors related to the error per post-it

Step Three:
Identify Root Causes

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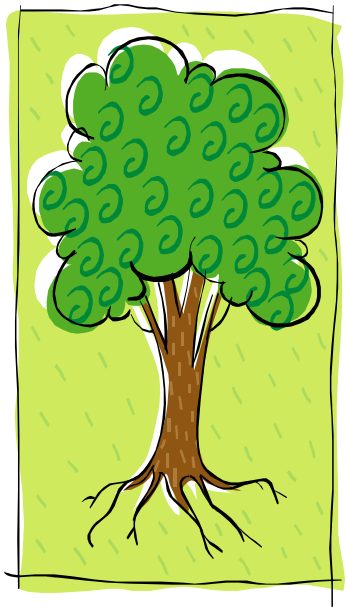
- Group post-its into categories of causal factors
  - Human factors – communication/teamwork
  - Human factors – training
  - Human factors – fatigue/staffing
  - Environment/Equipment
  - Rules/Policies/Procedures
  - Information management
  - Culture



- Create causal statements for each category
- Cause and effect diagrams can be helpful

Five Rules for Causal Statements

1. Clearly show cause and effect relationship
2. Use specific and accurate descriptions
3. Identify the system cause of the error
4. Identify preceding cause of policy or procedure violation
5. Acknowledge: failure to act is only causal when there is a preceding duty to act

Causal Statement: Policy/Procedure

- Error: Patient did not receive home medications for 5 days

- The lack of a policy to reconcile home medications with the physician's admitting orders resulted in the absence of an initial order for administration of specific home medications, which increased the likelihood that the home medications were omitted for five days after surgery.

Causal Statement: Training

- Error: RN did not follow new policy to double check a high alert medication

- Causal statement: Due to lack of encouragement and oversight by management to attend training AND production pressure, an informal norm was created to miss training and bypass the double check

Step Four:
Determine System Improvements

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- Relate causal statements to current process, policies/procedures
- Consult the literature, evidence-based guidelines, best practices from JCAHO, ISMP, USP – group member presents to all
- Consult similar hospitals…benchmark– group member presents to all
- Group brainstorming on how the EBM and benchmarks would work in their facility

Step Four: Determine System Improvements

- Desired improvements must be within the organization's control
- Prioritize necessary system improvements… Consider cost and frequency of occurrence
- Address the system sources of error WITHOUT adding complexity
- Be internally consistent…

Step Five:
The Action Plan

Step Five: Create an Action Plan

- Confirm WHAT needs to be done
- Determine WHO will be accountable
- Determine WHEN change initiated
- Determine HOW you will know change is successful

Step Five: The Action Plan

- Implement action plan in all areas where applicable, not just where the event occurred
- Decide how to measure the effectiveness of the action…
- The selected measure must provide data that will truly assess the action's effectiveness

Step Five: Measuring The Action

- Assign someone to be accountable for measuring effectiveness of change and reporting results
  - To quality council, safety committee
  - To medical staff
  - To the board
- Keep a log of your action plans

Step Five: Tracking Measures

- Implement, monitor and adjust as necessary Consider “secret shoppers”
- If periodic measurements reveal that actions are not effective…reconvene the team
- As in any PDSA cycle, it may take a couple of tries to get the process improvement right…Do not give up until measurements and people agree that system source of error is minimized

Special Concerns for Small Hospitals

- Fewer staff to draw team from
  - Management must encourage & adjust staff to allow participation in RCA teams
  - Create an incentive system for participation
  - Ensure feedback / thank yous to participants
- Team members must be truly equal…titles are dropped at the door
- Maintain the firewall

Drop Your Title at the Door

- Open, learning environment must be created
- Symbolic—Place name badges in a bowl
- Administrator may kick off the process to show support and then leave initial meetings; re-engage during action planning
- Facilitator can ask those who blame to leave even if that means the administrator is asked to leave

Firewall Solutions

- Assume system failure NOT individual fault
- If evidence points to an intentional unsafe act, stop RCA and refer for disciplinary action
- Those involved in discipline DO NOT facilitate RCA
- Team is truly interdisciplinary & diverse
- Train multiple people to facilitate RCA
- Consider external facilitator for sensitive events

Consider Different Time Frames for Implementation

- Individual interviews or group debriefing

- Multiple sessions or single session to identify root causes

- Availability of skilled facilitator

Individual or Group Debriefing?

- Individual Interviews
  - Internal facilitator has time, skill to conduct multiple individual interviews, & lack of bias
  - Organizational history of success, maturity with RCA process
- Group Debriefing
  - Need for external facilitator
  - Need to build organizational understanding & success with RCA process
  - Need to create RCA champions

Number of Causal Meetings

- Multiple meetings
  - Complex process
  - Multiple people involved in the event
  - Staff available for multiple one hour meetings
  - Internal skilled facilitator available
- Single meeting
  - Difficult for staff to meet multiple times
  - Staff available for one 3-hour meeting
  - Need for external facilitator
  - First meeting debriefs & identifies topics for action plans

Symptoms of Inadequate RCA

- Staff quit during/after an RCA
- Staff associate RCA with assigning individual blame- breach of firewall
- Action plans stall

Where to Seek Help??

- Goal…peer review and mentoring for RCA process in CAHs
- List of peer mentors
- Resources from VA

  http://www.va.gov/NCPS/rca.html

Contact Information

- Katherine Jones
  - kjonesj@unmc.edu 402-559-8913
- Anne Skinner
  - askinner@unmc.edu 402-559-8221