MORE THAN A MEETING

MAXIMIZING THE EFFECTIVENESS OF YOUR ROOT CAUSE ANALYSIS PROCESS

Leanne Park, RN JD
Director, Risk Management
Providence Health Care
OBJECTIVES

• Explore the benefits of Root Cause Analysis (RCA)
• Discuss common barriers associated with facilitating RCA and implementing action items
• Practical suggestions for overcoming common RCA barriers
QUALITY IMPROVEMENT CONTINUUM

- Incident identification
- **Prioritization of incidents**
- Systematic notification of incidents to those who need to know
- **Investigation using RCA depending on the severity of the incident**
- Analysis and action regarding recommendations
- **Feedback of aggregated data within the system**
- Open disclosure
ROOT CAUSE ANALYSIS DEFINED

• A systematic process for identifying “root causes” of problems or events and an approach for responding to them. RCA is based on the basic idea that effective management requires more than merely “putting out fires” for problems that develop, but finding a way to prevent them.

• Designed to answer three questions:
  • What happened?
  • Why did it happen?
  • What can be done to prevent it in the future?
COMMON RCA TECHNIQUES

The “5-Whys” Analysis
• A simple problem-solving technique. Often the answer to the first “why” prompts a second “why” and so on—providing the basis for the “5-why” analysis.

Barrier Analysis
• Involves the tracing of pathways by which a target is adversely affected by a hazard, including the identification of any failed or missing countermeasures that could or should have prevented the undesired effect(s).

Change Analysis
• Looks systematically for possible risk impacts and appropriate risk management strategies in situations where change is occurring.

Causal Factor Tree Analysis
• Technique used to record and display, in a logical, tree-structured hierarchy, all the actions and conditions that were necessary and sufficient for a given consequence to have occurred.

Failure Mode and Effects Analysis
• A “system engineering” process that examines failures in products or processes.

Fish-Bone Diagram or Ishikawa Diagram
• An analysis tool that provides a systematic way of looking at effects and the causes that create or contribute to those effects.

Pareto Analysis
• A statistical technique in decision making that is used for analysis of selected and a limited number of tasks that produce significant overall effect. The premise is that 80% of problems are produced by a few critical causes (20%).

Fault Tree Analysis
• The event is placed at the root (top event) of a “tree of logic”. Each situation causing effect is added to the tree as a series of logic expressions.
WHAT TYPE OF RCA MUST BE COMPLETED?

In **WA state**, DOH reportable Adverse Events must undergo RCA and action plan development. (RCW 70.56.020, WAC 246-302-020)

- RCA must follow the procedures and methods of:
  - The Joint Commission;
  - The department of Veterans Affairs national center for patient safety; or
  - Another nationally recognized root cause analysis methodology the department has found acceptable for the type of facility reporting an adverse health event

- **The Joint Commission** requires that Sentinel Events undergo
  - “a thorough and credible root cause analysis and action plan...”
MOTIVATIONS TO PERFORM RCA

• **Facility** commitment to safe patient care
• **Regulatory** Requirement
  • The Joint Commission/WA Department of Health
• **Contract agreement**
  • CMMS
  • Private payors
• **Community** Standard of Care
  • IOM – “To Err is human”/AHRQ recommendations
  • Public opinion/expectation
COMMON BARRIERS TO PERFORMING RCA

• 2006 Australian study that interviewed trained RCA facilitators; evaluated perspectives surrounding RCA
• Participants reported difficulties experienced while conducting RCAs
  • Lack of:
    • Time (75.0%)
    • Resources (45.0%)
    • Feedback (38.3%)
  • Difficulties with:
    • Colleagues (44.5%)
    • RCA teams (34.2%)
    • Other professions (26.9%)
    • Management (16.7%)
JAMA article in 2008, Dr. Wu performed retrospective meta-analysis of RCA literature

- Citing published studies going back as far as 2002, the authors reported problems with RCAs such as:
  - Incomplete investigations,
  - Ineffectual corrective actions,
  - Failure to follow through on implementing actions, and
  - Lack of evaluation to assess the outcomes from actions that are implemented
COMMON BARRIERS TO IMPLEMENTING RCA ACTION ITEMS

- Maryland Office of Health Care Quality’s retrospective review of RCAs revealed that those hospitals that fail to find and fix serious systematic problems lack leadership involvement in the investigation process.

- Of the 168 RCAs reviewed in 2007, the most common action plan was to educate staff (65%).

- In the Australian study, almost a quarter were unsure whether recommendations of their RCA teams were implemented.
COMMON BARRIERS
Develop and adopt facility definition of **Serious Safety Event** (SSE)
  - Track and transparently report SSE throughout organization

**Triage** system to identify incident types that require RCA vs those that require lower level of review
  - Not all SSE are “reportable”
  - Near-miss events are important opportunity

**Formalize** the process for lower level review
  - Keep centralized file
  - Track action items
  - Train all leaders in how to complete lower level review
EXAMPLE BARRIER

• At one hospital, a patient known to be allergic to latex had an anaphylactic reaction to a Penrose (latex) drain inserted during surgery.
• Following an RCA of this event, the operating room (OR) manager was instructed to evaluate all OR supplies and convert to non-latex where such products were available.
• Six months after the RCA, the manager had not yet started the evaluation.
EXAMPLE BARRIER

• At another hospital, anesthesiologists complained that it wasn't convenient to always label medication containers on the sterile field and they often didn't follow this safe practice.

• Medical staff leaders were unwilling to speak up and say, "For the sake of patient safety, we will no longer accept this behavior."
“WEAK” ACTION ITEMS

- When developing action item:
  - Look outside your organization – every time
  - Try not to limit yourself to resources currently available
  - Do not set unattainable timeline for completion
  - Utilize formal project management methods and resources
  - Do not rely on front-line team members as ONLY source for action item development
- Clear, unambiguous action item ownership (local and executive)
- Make action item, owner, and completion actions public
- Do not “close” action item until completion has been validated
- Consider involving outside parties as an “oversight tool”
CANNOT MOTIVATE PHYSICIAN INVOLVEMENT

- Engage senior physician leadership
  - If a physician was key player in event, consider having an MD leader facilitate RCA
- Provide “safe space”
  - Clearly outline MD involvement in Facility Coordinated Quality Improvement Plan
  - Partner with MD insurer whenever possible
  - Consider confidentiality agreements, limits on note-taking or recording
  - Ensure a “partner” MD is present to provide support
- Create clear expectation
  - Make participation mandatory in Medical Staff Bylaw
  - Ensure senior physician leadership holds MDs accountable
CANNOT COORDINATE SCHEDULES TO ENABLE ALL RELEVANT PARTIES TO ATTEND

- Consider setting a recurring, protected date/time when all RCAs are scheduled. Ensure this is “block time” on executive and physician leader calendars.
- If key parties absolutely cannot attend, consider obtaining a narrative statement from the involved clinician. Read the narrative out loud at RCA meeting.
- Utilize technology. Teleconference, etc…
OUTSIDE PARTIES WANT TO ATTEND RCA

- **Partner Organizations/Vendors**
  - Pursue transparency whenever possible
  - Signed confidentiality agreements
  - Assure BAA is in place
  - Consider including Quality Improvement confidentiality language into contract agreement

- **Patient/Family**
  - Prepare clinicians for patient/family involvement
  - Be prepared to financially support your disclosure - partner with your claims/insurance team

- **Non-employed Physicians**
CANNOT GET LEADERSHIP ENGAGED

• **Provide consistent, transparent data regarding:**
  • SSE rate
  • Number of RCA & low level review
  • Action items developed and those completed
  • Barriers to action item completion (resource need, lack of leader accountability)

• **Do not wait to be asked for the data**
  • Imbed Patient Safety & RCA data into key meetings (physician leadership, executive leadership, operation management)
  • Show Patient Safety and Patient Satisfaction data together. **Patient Experience** is not a silo.

• **Be prepared to “tie it all together” to give context to any situation**
WHAT SHOULD BE TRACKED?

- Go beyond incident reporting
  - Triage decision, SSE status
  - Meetings scheduled and held
  - Detailed action items (ownership, completion state)
  - Cost to review
  - Cost to resolve
  - Recurrence of similar events
  - Disclosure
  - Evolution into a Claim
  - Detailed notes regarding conversations with patient/family & interviews of involved providers
- Ability to create and run reports on any data point
TECHNOLOGY FOR RCA WORK PRODUCT

Move beyond Excel
• Access
• Sharepoint
• RedCap
• Microsoft Project Management
• Claims databases (STARS, RISKMASTER)
• Incident Reporting databases (RL Solutions, Quantros, Midas, UHC)
SELF-EVALUATION

- **What type of events get RCA?**
  - Anything beyond the mandatory regulatory requirement? Who decides? How is decision made?

- **Who facilitates and participates in the RCA?**
  - Do the participants have the actual operational power to effectuate the action items? Is physician participation mandatory? Who “owns” the action item?

- **Are action items well-developed?**
  - How do you ensure effective action item? How is completion of an action item validated? Is audit/survey/data collection required? Is there outside oversight? (i.e. Board of Directors)

- **Are you maximizing your ability to effect change?**
  - Do you have a process to review all RCAs to identify pattern or trend? Are the RCA learnings being shared and spread? Are you able to validate sustained change?
CONCLUSION

• It is not the RCA process that truly makes the difference; it is implementing and evaluating recommendations that will truly make the difference.
QUESTIONS?

Leanne Park, RN JD
Director, Risk Management
Providence Health Care

Leanne.park@providence.org
509.474.3035
RESOURCES


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• Braithwaite J, Westbrook MT, Mallock NA, Travaglia JF, Iedema RA. Experiences of health professionals who conducted root cause analyses after undergoing a safety improvement programme. Qual Saf Health Care. 2006;15:393-399. [go to PubMed]