How Do Critical Events Contribute to Change in Practice?

Allina 2009 Risk Management Retreat
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The Goals of Performing a Critical Event Review

- To discover
  - What happened
  - Why it happened
  - What to do to prevent it from happening again

- Root cause analysis is a tool for identifying prevention strategies and a part of the effort to build a culture of safety by moving beyond the culture of blame.
What We Don’t Want!

“To address this mistake we must use root-cause analysis. I’ll begin by saying it’s not my fault.”
As a Diagnostic Tool...

- In root cause analysis, basic and contributing causes are discovered in a process similar to diagnosis of disease – with the goal always in mind of preventing recurrence.
  
  -- Sidney Dekker

- Both are impartial, methodical, information driven
The Compulsories

● **Thorough**
  ● Determination of human and other factors
  ● Determination of related processes/systems
  ● Analysis of underlying cause and effect through a series of “why” questions
  ● Identification of risks and their potential contributions
  ● Determination of potential process/system improvements

● **And Credible**
  ● Participation by leadership *and* those most closely involved
  ● Internally consistent
  ● Consideration of relevant literature
A Root Cause Analysis Analogy

- Problems are like weeds
- If you leave a weed alone, you will get more weeds.
- If you remove a weed by cutting it at the surface, the weed will grow back.
- You have to kill or remove the weed’s root to prevent future weeds.
- The best solution would be to treat the soil so weeds don’t take root in the first place.
5 Whys

- Repeatedly ask “why did this occur?”
- 5 times is a good rule of thumb, but not the magic number to find the issue related to the problem
- Consider just in time awareness as part of the CER session intro
How to Complete the 5 Whys

1. Write down the specific problem
2. Ask why the problem happened
3. Write down the answer
4. If the answer provided in step 3 doesn’t identify the root cause of the problem, repeat steps 1-3 until there is agreement from the team that the root cause has been identified
5. Usually takes 3-5 whys
An every day example

- **Problem Statement** – you are on your way to work and your car gets a flat tire.

- **Why did you get a flat tire?**
  - Ran over nails in the garage.
  
  *IF YOU STOPPED HERE AND “SOLVED” THE PROBLEM BY SWEEPING UP THE NAILS, DID YOU MISS THE MARK?*

- **Why were there nails on your garage floor?**
  - The box the nails were in on the shelf was wet, the box fell apart and nails fell from the box onto the floor.

- **Why was the box wet?**
  - There was a leak in the roof and it rained hard last night
5 x 5 Whys Technique

1. What proof do I have that this cause exists?
2. What proof do I have that this cause could lead to the stated effect?
3. What proof do I have that this cause actually contributed to the problem?
4. Is everything else needed, along with this cause, for the stated effect to occur?
5. Can anything else, besides this cause, lead to the stated effect?

--Bill Wilson
5 Rules of Causation

- Adapted from David Marx
- Designed to create minimum standards for an investigation
- Help to address the real biases we all bring to the investigation process
The 5 Rules of Causation

1. Causal statements must clearly show the “cause and effect” relationship.
2. Negative descriptors are not used in causal statements.
3. Each human error must have a preceding cause.
4. Each procedural deviation must have a preceding cause.
5. Failure to act is only causal when there was a pre-existing duty to act.
Rule 1. Causal statements must clearly show cause-effect relationship

- The link between your root cause and the *undesirable patient* outcome should be obvious; the reader needs to understand your logic in linking your causes to the outcome.

- *Example* – *Nurse was fatigued* is deficient without your description of *how and why this led to a slip or mistake.*
Rule 2. Negative descriptors are not used in causal statement.

- Shortened findings are bad choices because they are broad, negative judgments that do little to describe the actual condition that led to the event.
Rule 3. Each human error must have a preceding cause

- Most critical events involve at least one human error
- Discovery that a human erred does little to aid in the prevention process
- It is the cause of the error, not the error itself, which leads us to productive prevention strategies
Rule 4. Each procedural deviation must have a preceding cause

- Procedural violations are like human errors in that they are not directly manageable
- It is the cause of the procedural deviation that we can manage

- Example – technician is missing steps in a procedure because he is not aware of the process checklist. Work on education.
Rule 5. Failure to act is only causal when there was a pre-existing duty to act.

- We can all find ways in which our investigated mishap would not have occurred – not the purpose of our review
- Our job is to find out why this event occurred in our system as it is designed today
- Example – an MD’s failure to prescribe a med can only be causal if he was required to prescribe the med in the first place. The duty to perform may arise from standards and guidelines for practice.
Corrective Action Plan

- The main question to ask to identify appropriateness of action is ........

  - Will successful implementation of this action, prevent (or greatly minimize) this type of event from recurring?
New Questions for Fatigue/Scheduling

- Did staff who were involved in the AHE believe that staffing was appropriate to provide safe patient care?
  - If no, did staff who were involved in the AHE believe that staffing issues contributed to the AHE?

- Did actual staffing levels deviate from planned staffing at the time of the AHE, or during key times that led up to the event?

- Were there any unexpected issue/incidents that occurred at the time of the AHE, or during key times that led up to the AHE?
  - If yes, did these issues impact staffing levels or workload for staff involved in the AHE?
  - If yes, did staff who were involved in the event believe that this change contributed to the AHE?
Developing a Corrective Action Plan

- Do actions meet the following?
  - Unmistakable link to the root cause(s) including identified preceding causes
  - Specific
  - Easily understood and implemented
  - Developed by the process owners/leaders
  - Measurable
Corrective Actions

- **Stronger**
  - Physical plant changes
  - New devices with pre-purchase usability testing
  - Forcing function (engineering controls)
  - Simplification of the process with removal of unnecessary steps
  - Standardization of equipment
  - Tangible involvement and action by leadership in support of patient safety
Corrective Actions

● **Intermediate**
  ● Redundancy
  ● Increase in staffing/decrease in workload
  ● Software enhancements/modifications
  ● Elimination/reduction of distraction
  ● Readback
  ● Checklist or other cognitive aid
  ● Enhanced documentation/communications
Corrective Actions

- Weaker
  - Double checks
  - Warnings and labels
  - Training
  - New/revised policy and procedure

--NCPS Patient Safety Intervention Hierarchy
## Safety Assessment Code

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How do you know there is improvement?

- Measurement!
  - Measure effectiveness (not completion) of action
  - Remember that “all improvement will require change, but not all change will result in improvement” (G. Langley)
  - Clearly define all aspects of the measurement plan upfront.
  - Include a GOAL (level of expected compliance with the action – usually a percentage)
  - Have a THRESHOLD (minimum acceptable level of performance that if the measure fell below this level, additional action would be triggered. Typically 90% +

  - Your threshold is your MOS data point for the MDH
Measurement Specifics

- For AHE’s one MOS is required for each category in which a root cause is identified
- No root cause or contributing factor, no MOS
- Defined numerator and denominator
- Defined sampling plan with timeframe
- Realistic performance threshold
- The clock for measurement – 3 months from date of implementation of action
- Usual expectation is 3 continuous months of measurement with an end result of ≥90% achievement by the last month
- If not met a 3 months, need to re-measure another 3 months
Metric Change: 2009-2010

- Requirement to have both process and outcome measures
- Typically the MOS is to measure the success of a changed or new process
- The ultimate goal is to improve the outcome – now addressed in “How will success be measured over time?”
Building in Leader Accountability for Successful Implementation

- At the time of CAP development, determine which individuals or groups will get monthly updates on the implementation progress and measures and which leader will present.
- Check in with responsible leader 5-7 days before report as a reminder and to offer support as needed.
The Learnings and Spread

● Our goal is to have a robust *Learning Culture*

● This is a culture in which both reactive and proactive activities are performed in order to prevent future events and failures –
  - In this care setting in this hospital
  - In other care settings in this hospital
  - In other care settings in other hospitals
  - In other care settings in other business units
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Safety Alerts

- Determination for the value and need of an alert will be a part of the critical event review process
- Review of planned process
- Prioritize actions
- Identify areas of action
- System for accountability
“May I be excused? My brain is full.”
As CER facilitators/leaders—some advice........

- “It’s not that I’m so smart, it’s just that I stay with problems longer.”

  --Albert Einstein