A-3: Re-Designing RCA’s to Learn from Error and Create System Improvement

Presented by: Risk Management

JCC July 2017
I. Background:
A Root Cause Analysis (RCA) is a systematic process to analyze adverse and near miss events. A RCA takes a structured, systems approach to identify what happened, why it happened (root cause or causes) and how can the system/processes can be redesigned to prevent recurrence. The goal of conducting RCA’S is rooted in organizational learning with an emphasis on sustainable improvement and prevention of recurrence; a cornerstone of ZSFG’s True North Metrics. Additionally, accrediting bodies and state regulatory agencies mandate RCA’s for cases meeting sentinel event and reportable criteria. The RCA process includes four distinct steps; Step I Investigation/Fact-finding, Step II Analysis, Step III Corrective Actions, Step IV Monitoring for Effectiveness. The four steps of the RCA process are uniquely but equally important and organizational efforts should remain consistent and constant throughout the entire RCA process. At ZSFG, there is an imbalance that exists between the “heavy” organizational effort/response during Steps I: Facts and Step II: Analysis in comparison to the “lighter” and less disciplined organizational attention needed during Steps III: Action and Step IV: Monitoring, resulting in the lack of compliance/completion of the entire RCA process. Therefore, by re-designing the RCA process, the organization can better meet the objectives of learning from system events to create system level improvements and potentially prevent recurrence.

II. Current Conditions:
STEP I: FACTS:
Reactive
/Immediate Interest
STEP II: ANALYSIS
Focus on singular root cause/individual behavior/policy non-compliance

STEP III: ACTION
Proposed without concrete implementation plan/timeline

STEP III: MONITORING
Proposed without concrete compliance monitoring tool

Problem Statement:
ZSFG has not been 100% successful in completing and complying with the four steps of the RCA process. Specifically, steps III and IV are not completed XX% of the time resulting in an imbalance between steps I/II and III/IV.

III. Goals and Targets: What, How Much, By When?
1. Standard work for all steps in the RCA process will be completed by June 1st, 2017
2. Proposal for the Training/Center Curriculum training to be completed and presented to senior leadership by May 1, 2017.
3. 100% of Core RCA Team Facilitators will complete the CORE RCA education training program by July 1, 2017
4. By Dec 31, 2017, all four steps in the RCA process will be completed 80% of the time using SW as audit criteria.

IV. Analysis:

V. Proposed Countermeasures:

VI. Plan:
1. Provide Executive/Expanded Leadership (and JCC) overview of RCA re-design outlining process, roles, and responsibilities in assisting progress with countermeasures.
2. Draft standard work for each STEP with specific instructions and measurable audit criteria.
3. Provide Core Educational training on Just/Cultural Principles, RCA with associated SW for core RCA facilitators and team members. (meet with Nursing/MD leadership to discuss training methods/curriculum)

VII. Follow-Up:
Draft and design RCA evaluation tool to be used by all participants for each RCA. Debriefings on each RCA utilizing the countermeasures and audit tool as feedback and data collection. On a monthly, quarterly basis, include RCA A3 re-evaluation as part of RM PI metrics.
Background

• Serious safety events continue to occur at alarming rates across the country as a result of healthcare resulting in millions of patients harmed and substantial fiscal losses

• ZSFG is not immune
Why Does Learning from Safety Events Matter?

Third leading cause of death in U.S.

- Heart disease 597,689
- Cancer 574,743
- Medical errors 440,000
- Chronic lower respiratory diseases 138,080
- Stroke 129,476
- Accidents 120,859
- Alzheimer's disease 83,494

- AHA has 5,686 registered hospitals in the US
- Average deaths per hospital between 36.9 – 77.3
High Reliability

- High reliability organizations are organizations that operate in complex, high-hazard domains for extended periods without serious accidents or catastrophic failures.

- Aviation has achieved high reliability - minimizing adverse events despite a complex and risky work environment.

5 Characteristics

- preoccupation with failure
- reluctance to simplify explanations for operations successes and failures
- sensitivity to operations (situation awareness)
- deference to frontline expertise
- commitment to resilience
Does High Reliability Really Matter?

- Equivalent every 8 hours a plane would go down and kill approx 416 passengers
The Impact on Safety Events at ZSFG
Learning from Safety Events using Root Cause Analysis (RCA) approach

- Structured and systematic approach
- Identifies and understands system failures/failure modes and causal factors
- Aimed to prevent recurrence, correct safety hazards, improve outcome quality

Diagram:
- Symptom of the problem: “The Weed”
  Above the surface (obvious)
- The Underlying Causes: “The Root”
  Below the surface (not obvious)

The word root, in root cause analysis, refers to the underlying causes, not the one cause.
James Reason
Swiss Cheese Model: A visual representation for error/accident causation

Diagram:
- Triggers:
  - Lack of Procedures
  - Punitive Policies
  - Production Pressures
- Mixed Messages
- Clumsy Technology
- Zero Fault Tolerance
- Sporadic Training
- Attention Distractions
- Deferred Maintenance

Defenses:
- Policies and Procedures
- Team
- Environment
- Individual
- Equipment

Adverse Event
**Event Management/RCA Steps I-IV**

**Step I**
- GET THE FACTS
  - Go the Gemba
  - Review the chart
  - Interview Staff
  - Review applicable policies
  - Data review

**RCA II**
- ANALYZE
  - Data Review
  - 5 Why’s
  - Process Map
  - Fishbone
  - Causation Map
  - PD (SA)

**RCA III**
- ACTION
  - Evidence Based
  - Best Practice
  - Implementation Plan
  - Monitoring Plan
  - (PD)SA

**RCA IV**
- MONITORING
  - Study/Evaluate
  - Re-assess Actions
  - Data/outcomes
  - Are the actions preventing recurrence?
Current Conditions: RCA- 4 Steps

**STEP I: FACTS**
- Interviews, timeline, chart review 100%

**STEP II: ANALYSIS**
- Causation and workforce accountability (JC) 100%

**STEP III: ACTION**
- Actions/countermeasures to prevent recurrence 60%

**STEP IV: MONITORING**
- Audit/data information to monitor effectiveness 25%

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RCA 4 Steps w/ completion %

<table>
<thead>
<tr>
<th>Year</th>
<th>RCA Cases</th>
<th>Proposed Actions</th>
<th>Completed Actions</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>11</td>
<td>56</td>
<td>35</td>
<td>62.5%</td>
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<tr>
<td>2017</td>
<td>5</td>
<td>20</td>
<td>5</td>
<td>25%</td>
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<td>(2 in progress)</td>
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Culture of Safety Results
Frontline Feedback and Communication

AHRQ Culture of Safety Focus Areas

- Overall Perceptions of safety: Our Score 54%, AHRQ Benchmark 63%
- Frequency of events reported: Our Score 67%, AHRQ Benchmark 64%
- Feedback and Communication about error: Our Score 61%, AHRQ Benchmark 66%
- Non-punitive Response to error: Our Score 45%, AHRQ Benchmark 43%
- Hospital Management Support for patient Safety: Our Score 61%, AHRQ Benchmark 70%
Problem Statement

The organizational attention given during the RCA four step process is currently imbalanced and does not meet four key objectives:

1) system level learning from safety events (error)
2) creating system level improvements aimed at preventing recurrence
3) enhancing shared workforce accountability
4) building culture of safety through feedback and communication
TJC: RCA: “Thorough” requirement

• Determination of human & other factors
• Determination of related processes and systems
• Analysis of underlying cause and effect systems through a series of why questions
• Identification of risks & their potential contributions
• Determination of potential improvement in processes or systems
## TARGET AND GOALS

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<thead>
<tr>
<th>TARGET (FY 17-18)</th>
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<tbody>
<tr>
<td>All four required elements of the RCA process are completed using Standard Work</td>
<td>100%</td>
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<tr>
<td>Increase the positive responses to question on Culture of Survey aimed at Feedback and Communication</td>
<td>10%</td>
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<tr>
<td>Additional targets, metrics, goals under development</td>
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RCA process not designed to meet the objectives: learning from error and creating sustainable improvement.

People (P)
- Lack of Unit level ownership of error, harm events, safety
- RM centric activity with limited integration with Patient Safety/KPO/Performance Improvement
- RCA model does not employ Team based approach w/ assigned Exec Sponsor, RCA facilitators Subject matter experts
- Lack of coordination with M&M, Peer Review process; MD involvement limited to interviews not analysis portion of RCA's
- Time constraints/pressure/conflicts; no mandatory attendance requirement

Culture (C)
- Linear thinking of single root cause v. system view
- Cases viewed in isolation without consideration of recurrence vulnerability
- Not always viewed organizational priority
- Completion delays
- Hindsight or ZSFG historical bias/reactionary response rooted in individual culpability excluding organizational defect
- Better understanding of causality/workforce accountability needed (JC)
- UO data/ aggregate data collection limitations
- 5 "why" questioning model oversimplified
- Limited communication and feedback provided to frontline staff
- Limited usage of evidence based literature/best practices for proposed countermeasures
- Not always viewed organizational priority
- Completion delays

Education (E)
- Organizational edu/learning focused on A-3/Lean, and not specific to RCA: accident investigation, human factors, Just Culture/workforce accountability

Method (M)
- RCA reporting structure does include Unit - Monitoring (Improvement data)
- Insufficient follow up/ accountability actions implementation/monitoring
- Lack of structured education for Risk/Patient Safety/UO reporting
- RCA model does not employ Team based approach w/ assigned Exec Sponsor, RCA facilitators Subject matter experts
- Lack of coordination with M&M, Peer Review process; MD involvement limited to interviews not analysis portion of RCA's
- Time constraints/pressure/conflicts; no mandatory attendance requirement

Methodology (M)
- Better understanding of causality/workforce accountability needed (JC)
Just Culture is about:

- Creating an open, fair, and just culture
- Creating a learning culture
- Designing safe systems
- Managing behavioral choices
Accountability

**Backward-Looking Accountability**

*Before the fact…*
- Often nothing
- Or, “If you don’t do it…”

*After the fact…*
- Find the bad apple
- Blame and shame the individual for messing up

**Forward-Looking Accountability**

*Before the fact…*
- Build intrinsic motivation to do the right thing

*After the fact…*
- Acknowledge the mistake
- Fair consequence
- Focus on opportunities (and responsibilities!) for making changes
We can’t change the human condition, but we can change the conditions under which humans work.”

-James Reason
Why does Just Culture Matter?

We want to be a “learning organization” not a closed organization.

Many issues require a uniform and system approach to changing the situation, instead of playing whack a mole:
Next Steps: Countermeasures
Countermeasures: Driving the Culture of Safety

- RCA Model/Approach team based

- RCA Team: Executives, Expanded Executives, Unit Leaders, RCA-Improvement/content experts

- Unit Ownership: “...change programs that rely on so-called lean methods... are relevant if they are well executed and involve the employees who actually do the work” (Plsek, 2014; Schein Humble Consulting)
Countermeasure: Leadership/Culture and Process

- RCA’s shall become an organizational “priority” meeting

- RCA Lead shall partner with Executive sponsor and Expanded Executive leader

- RCA: within 72 hours of event (or sooner
  - Connect with Staff to check on their psychological safety (2nd victim)
    - Provide a message Safety: Just Culture
    - Managing Events: Balance between Learning and Shared Accountability

- Risk Management Committee: RCA “report out” provided by RCA team, with Q&A period

- Re-design reporting Structure to PIPS report to be done 3-4 months after event with STEP IV: Audit/data analysis of countermeasures and PDSA
Countermeasure: Process, Education, People

- RCA toolkit will include Standard Work/templates for all components of RCA process
  - Risk based prioritization system for classification of events requiring RCA’s
  - Disclosure
  - CIRT Activation
  - RCA Steps I-V
  - Just Culture/Algorithm utilization during RCA
    - ✓ in progress
    - Target: September

- Development RCA Education/ Curriculum
  - ✓ in progress
  - Sept-October
Questions