



Road Map to a Culture of Patient Safety: Feasibility of Interdisciplinary Mock Root Cause Analysis (RCA)



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BACKGROUND

Establishing a culture of patient safety is critical for optimizing patient outcomes with root cause analysis (RCA) representing an important process in improving patient safety¹. For a RCA, a multi-disciplinary team is assembled to investigate an adverse event and close calls to identify potential systems issues.

Residents are key players in promoting patient safety as they are expected to practice in different institutions and eventually teach other health care providers in different aspects of patient safety and quality. Therefore, education of residents in patient safety is a critical component of their curriculum as recognized by the ACGME and established in the milestone requirements.

Routine and inclusive involvement of all residents in RCAs is difficult due to the substantially higher number of residents in relation to institutionally performed RCAs and residents' clinical duty schedules.

OBJECTIVES

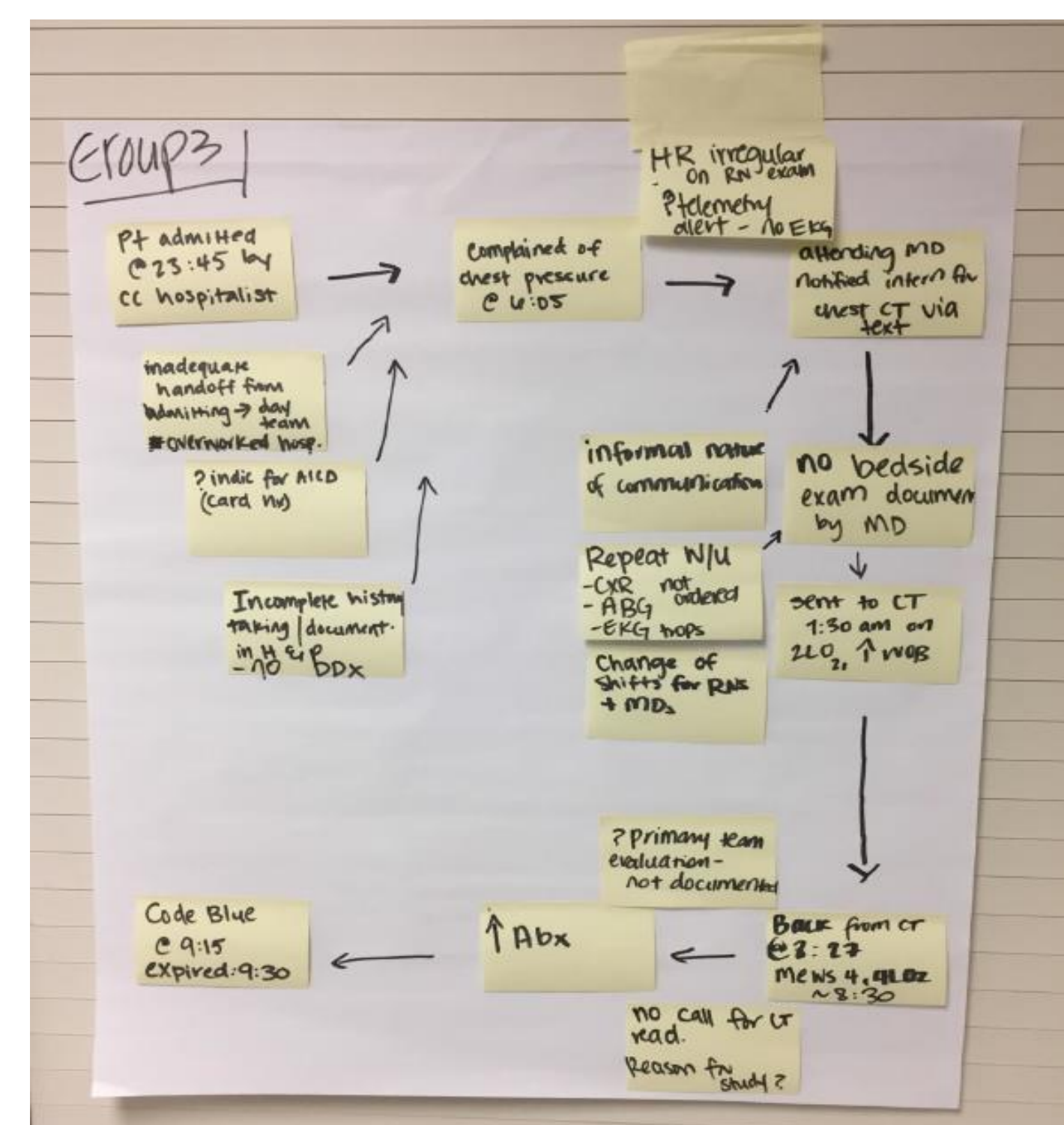
- To introduce residents to the RCA process by simulating a RCA using a sentinel event clinical case relevant to the residents' clinical practice.
- To promote interdisciplinary teamwork between radiology and internal medicine residents.
- To establish a patient safety culture in the residents' curriculum.
- To teach basic principals of patient safety and the RCA process.



STUDY DESIGN

- An interdisciplinary mock RCA was conducted with 23 residents (11 from Internal Medicine and 12 from Radiology)
- Residents received the simulated clinical case constructed as medical record chart in advance of the simulation exercise
- Prior to the mock RCA, basic concepts and tools to conduct an RCA were reviewed
- Residents were divided into interdisciplinary teams (2 Internal Medicine and 2 Radiology residents) to discuss the case, develop a process map and formulate a root cause statement
- Residents were also provided the opportunity to "interview" those involved in the simulated case (attending, intern, radiology resident, nurse, etc)
- The session concluded with each group presenting their root cause statement with recommended action(s) to a simulated executive committee(faculty)
- To assess knowledge, residents completed a pre-Individual Readiness Assurance Test (IRAT) followed by an identical post-Group Readiness Assurance Test (GRAT)
 - Content of the test was based on patient safety literature and evidence contained in the brief RCA review that preceded the simulation.
 - The test consisted of 10 questions, single best answer format, with each question worth 1 point (total 10 points).

EXAMPLE OF FLOW MAP

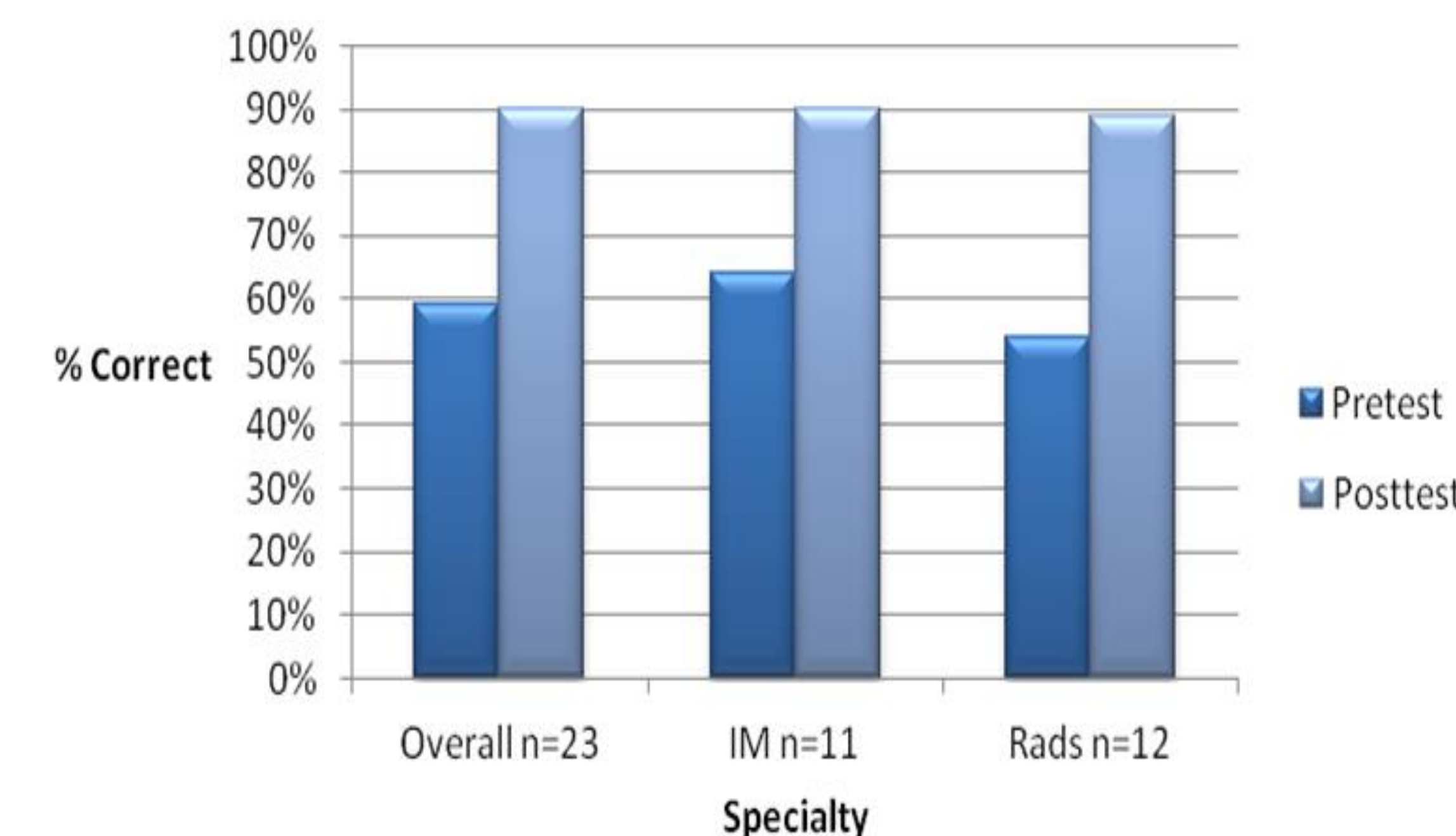


Examples of Root Cause Statements:

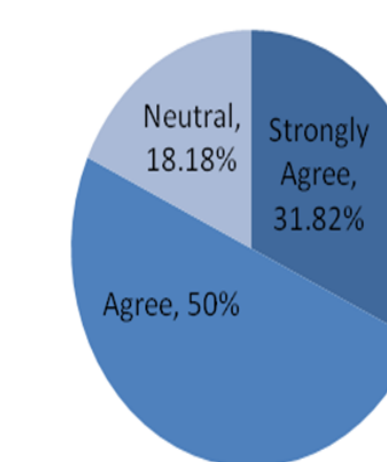
- Lack of structured hand offs leading to significant misses.
- Lack of clinical evaluation of deteriorating patient leading to delay in diagnosis & appropriate treatment.

PRINCIPAL FINDINGS

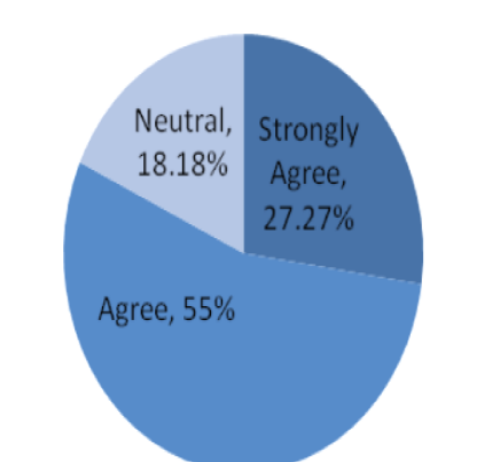
Knowledge Pre and Posttest



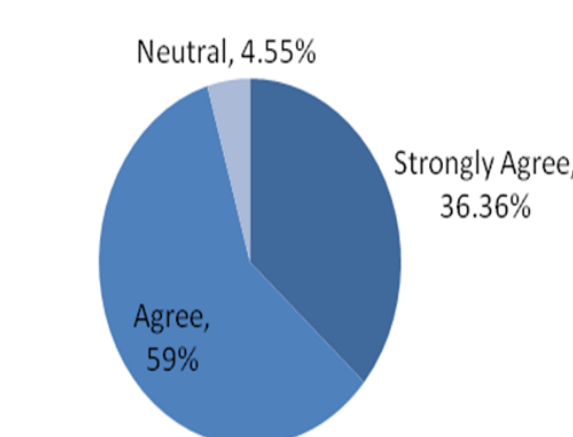
I am more likely to report a patient safety incident



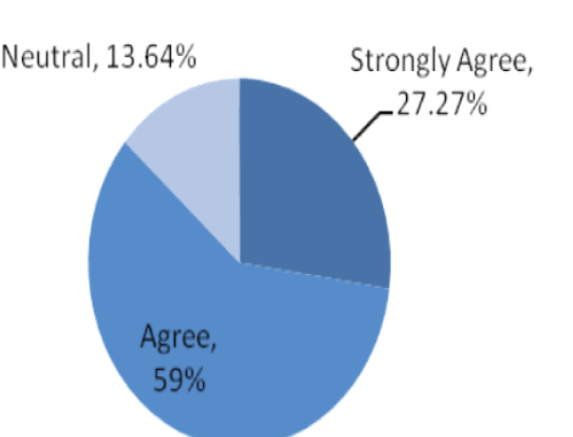
I am more comfortable with being interviewed by an RCA team



I am more comfortable in participating in a real RCA life if called upon to do so



I am more confident that a RCA is likely to change patient's care in a meaningful way



CONCLUSIONS AND IMPLICATIONS

- An interdisciplinary mock RCA is feasible, uncovers subspecialty specific roadblocks to promoting a safe patient environment, and improves RCA-related knowledge.
- Due to time constraints of a real root cause analysis as well as the time constraints of residents a simulated RCA experience is a favorable alternative.
- A simulated RCA can be used to teach multiple concepts and tools.

References & Acknowledgements

- VA National Center for Patient Safety. June 2015. Root Cause Analysis. <http://www.patientsafety.va.gov/media/rca.asp>.
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