Title: Journey to Improve Patient Safety at UW Health: Applying Human Factors to Root Cause Analyses (RCA)

FIND a Process to Improve

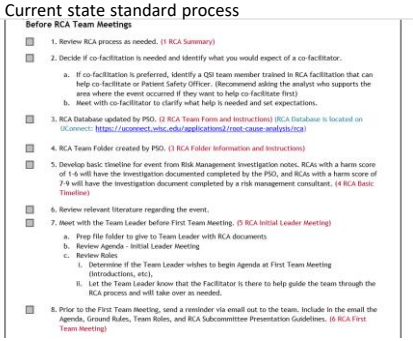
UW Health views patient safety as a foundational competency and system priority. The Quality and Safety Improvement Team determined that the process used to conduct Root Cause Analyses was not effective at addressing underlying reasons for patient safety events.. As a result, the preventive/corrective actions developed were not robust enough to prevent the harm event from recurring.

ORGANIZE a Team

Amy Topel, Amy Marver, Beth Thompson, Doug Wiegmann, Gary Bidwell, Caitlin McLeish, Maureen Walz, Taylor Somerville, Lori Haack

CLARIFY Current State

1. Current state standard process


Before RCA Team Meetings

1. Review RCA process as needed. (1 RCA Summary)
2. Decide if co-facilitation is needed and identify what you would expect of a co-facilitator.
   a. If co-facilitation is preferred, identify a QSI team member trained in RCA facilitation that can help co-facilitate or Patient Safety Officer. (Recommend asking the analyst who supports the area where the event occurred if they want to help co-facilitate first)
   b. Meet with co-facilitator to clarify what help is needed and set expectations.
3. RCA Database updated by PSO. (2 RCA Team Form and Instructions) (RCA Database is located on UConnect: https://uconnect.wisc.edu/applications2/root-cause-analysis/rca)
4. RCA Team Folder created by PSO. (3 RCA Folder Information and Instructions)
5. Develop basic timeline for event from Risk Management investigation notes. RCAs with a harm score of 1-6 will have the investigation documented completed by the PSO, and RCAs with a harm score of 7-9 will have the investigation document completed by a risk management consultant. (4 RCA Basic Timeline)
6. Review relevant literature regarding the event.
7. Meet with the Team Leader before First Team Meeting. (5 RCA Initial Leader Meeting)
   a. Prep file folder to give to Team Leader with RCA documents
   b. Review Agenda - Initial Leader Meeting
   c. Review Roles
      i. Determine if the Team Leader wishes to begin Agenda at First Team Meeting (introductions, etc.),
      ii. Let the Team Leader know that the Facilitator is there to help guide the team through the RCA process and will take over as needed.
8. Prior to the First Team Meeting, send a reminder via email out to the team. Include in the email the Agenda, Ground Rules, Team Roles, and RCA Subcommittee Presentation Guidelines. (6 RCA First Team Meeting)

2. Action plan implementation relied upon facilitator leading the RCA group as opposed to leaders of the operational areas involved. Low or no operational accountability existed. No follow-up accountability for action plans to ensure completion.

SPECIFIC AIM STATEMENT: *100% of RCAs will follow standard processes and will not have a repeat theme by December 31, 2018*

UNDERSTAND Variation

Through examination of the existing workflows identified variation in:

- Standard scoring methodology for determination high harm patient events to determine if RCA is warranted
- Training for internal QSI staff, other staff and faculty across UW Health in RCA process and tools
- Oversight and supervision of the RCA process
- RCA action plan assignment to operational owners and accountability for completion

SELECT the Improvement

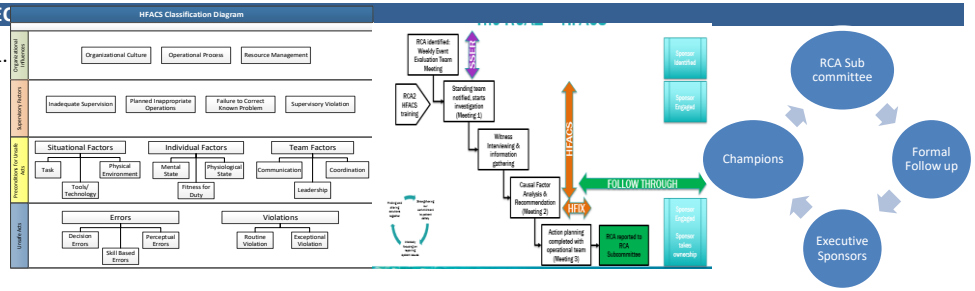
#	Causes	Best Practice (s)	Change Idea
1	Training for internal QSI staff, other staff, and faculty across UW Health in RCA process and tools is variable	RCA2 Process Human Factors Analysis and Classification System (HFACS)	1.Utilize RCA2 process, incorporate HFACS and standardize tools used. 2.Use formal calibration huddles and assessment to ensure learning & standardization.
2	No formal training of those involved in the RCA pr	Standardized training tools	Standardize RCA training
3	Follow up of action plans is delegated to facilitators not the leaders of the area where the event occurred.	Operational leaders own improvement in area of control.	1.Improve process to include routine follow up of action plans at Patient Safety Committee and optimize RCA Subcommittee expertise for action plan revision. 2.Executive sponsor accountability and support

PLAN and DO the Improvement

#	Change Idea	Measures / Outcomes
1	Standardization: Utilize RCA2 process, incorporating HFACS and standard tools.	Complete Y/N—New model developed with standard tools.
2	Standardization: Use formal calibration huddles and assessment to ensure learning & standardization	% use of the standard tools % completion of process steps
3	Standardization: Standardize RCA training to include roles & responsibilities of team members.	% completed RCA training
4	Schedule into multiple processes: Improve process to include routine follow up of action plans at Patient Safety Committee and optimize RCA Subcommittee expertise for action plan revision.	% follow ups at 90 day for RCAs reported to patient safety committee % Action plan review by RCA Subcommittee
5	Standardization: Routine Executive Sponsor accountability and support of RCAs	% Executive sponsors stating "somewhat clear" or "very clear" to question "How clear was your role?" % Executive sponsors stating "moderate" or "major" to question "Impact of RCA process on awareness of patient safety?"

CHEC

1.



2. 83% of RCA facilitators utilize the standard tools
   83% of RCA teams complete process steps

3. 100% of team members have completed RCA training

4. 100% action plans reviewed by RCA Subcommittee
   Follow up of action items at 90 days

Days post RCA sub	Action item total	# of completed action items
30	7	0
60	8	3
90	11	7
120	19	8
150	13	4
180	3	1

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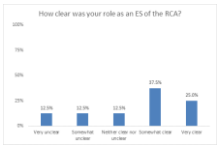

ACT and Determine Next Steps

Former UW Health RCA	Current RCA Process
Teams created when RCA identified	Standing teams identified (x10), prepared to meet
Team composed of > 8 people. Team membership includes individuals involved in the event directly	Team composed of 4 to 6 people. Team includes process experts and other individuals from all levels of organization (MD, RN, IS, Pharmacy, etc). Team membership does not include individuals involved in the event
Nonstandard approach to interviewing, gathering current state	Standard approach to interviewing, gathering current state
RCA review began between 10 and 24 days	RCA review begins close to event recognition (<72 hours)
Leadership infrequently, indirectly involved in the root cause analysis and action	Leadership (executive sponsor role) always directly and actively involved in the root cause analysis and action
No formal training or education	Formal training and education
Nonstandard approach to identifying corrective actions	Standard approach to identifying corrective actions
Often, a punitive tone	Non punitive, objective tone

	2018	2015-2017
Row Labels	Count	
Organizational Influence	50	34
Preconditions for Unsafe Acts	75	109
Supervisory Factors	46	56
Unsafe Acts	38	40
Grand Total	209	239

Conclusions: The standard RCA process is followed regularly but some RCAs with similar root causes have continued to occur at UW Health. The human factors process has increased understanding of root causes and the organization has greater understanding of the role of organizational culture and leadership in patient safety. Tests of change will continue.