Supplemental Digital Appendix 3

Pre- and Post-Assessment, From a Study of Simulated Interprofessional Adverse Event analysis, Hospital of the University of Pennsylvania, 2019–2020

PRE-Assessment

Start of Block: Default Question Block

Q19 Root Cause Analysis Simulation for the Interprofessional Learning Environment Pre-Assessment

Q22 What is your name?

- First Name (1) ________________________________________________
- Last Name (2) ________________________________________________

Q21 Are you here today as a participant or facilitator?

- Participant (1)
- Facilitator (2)

Q8 What is your role?

- Intern (1)
- Resident (2)
- Faculty/Attending (16)
- Advanced Practice Provider (e.g. PA, CRNP, Midwife, CRNA) (3)
- Nurse (e.g. RN, LVN, LPN) (4)
- Medical Assistant/Aide (6)
- Pharmacist (7)
- Respiratory Therapist (10)
Display This Question:

If What is your role? = Resident

Q18 What is your post-graduate year (PGY)?

- PGY 2 (1)
- PGY 3 (2)
- PGY 4 (3)
- PGY 5 (4)
- PGY 6 (5)
- PGY 7 (6)
- PGY 8 (7)
- PGY 9 (8)
- PGY 10 (9)
- Other (10) ________________________________________________
Display This Question:
If What is your role? = Intern
Or What is your role? = Resident

Q14 Please select your residency program

▼ Otorhinolaryngology (1) ... Other (19)

Display This Question:
If What is your role? = Advanced Practice Provider (e.g. PA, CRNP, Midwife, CRNA)
Or What is your role? = Faculty/Attending
Or What is your role? = Nurse (e.g. RN, LVN, LPN)
Or What is your role? = Medical Assistant/Aide
Or What is your role? = Pharmacist
Or What is your role? = Respiratory Therapist
Or What is your role? = Physical, Occupational, or Speech Therapist
Or What is your role? = Technician (e.g. EKG, Lab, Radiology)
Or What is your role? = Dietitian
Or What is your role? = Unit Assistant/Clerk/Scheduler/Receptionist
Or What is your role? = Administration/Management
Or What is your role? = Other
Or What is your role? = Quality, Safety, or Process Improvement Specialist

Q15 Please write in your department/division/unit

________________________________________________________________

Display This Question:
If Are you here today as a participant or facilitator? = Participant

Q1 Have you receive prior education in the science or practice of patient safety?

☐ Yes (1)

☐ No (2)

☐ I Don't Know (3)
### Display This Question:

**If Are you here today as a participant or facilitator? = Participant**

Q7 Have you previously participated in a real or simulated root cause analysis (RCA)?

- Yes (1)
- No (2)
- I Don't Know (3)

### Display This Question:

**If What is your role? = Intern  
Or What is your role? = Resident  
And If  
Are you here today as a participant or facilitator? = Participant**

Q2 Learning the science of patient safety should be an educational priority of a residency training program.

- Strongly agree (1)
- Somewhat agree (2)
- Neither agree nor disagree (3)
- Somewhat disagree (4)
- Strongly disagree (5)

### Display This Question:

**If Are you here today as a participant or facilitator? = Participant**

Q9 In my work area/unit, there are good procedures and systems to prevent errors from happening.

- Strongly agree (13)
- Somewhat agree (14)
- Neither agree nor disagree (15)
- Somewhat disagree (16)
- Strongly disagree (17)
Q10 In your work area/unit, when the following mistakes happen, how often are they reported?

<table>
<thead>
<tr>
<th>Mistake Description</th>
<th>Always (16)</th>
<th>Most of the time (17)</th>
<th>Sometimes (18)</th>
<th>Rarely (19)</th>
<th>Never (20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>When a mistake is made, but is caught and corrected before affecting the patient</td>
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<td>(1)</td>
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<tr>
<td>When a mistake is made, but has no potential to harm the patient</td>
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<td>Ø</td>
<td>Ø</td>
<td>Ø</td>
</tr>
<tr>
<td>When a mistake is made that could harm the patient, but does not</td>
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<td>Ø</td>
<td>Ø</td>
<td>Ø</td>
</tr>
<tr>
<td>When a mistake is made that harms the patient</td>
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<td>Ø</td>
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<tr>
<td>(4)</td>
<td>Ø</td>
<td>Ø</td>
<td>Ø</td>
<td>Ø</td>
<td>Ø</td>
</tr>
</tbody>
</table>

Q11 In the past 12 months, how many safety event reports have you filled out and submitted?

- No Event Reports (1)
- 1-2 Event Reports (2)
- 3-5 Event Reports (3)
- 6-10 Event Reports (4)
- 11-20 Event Reports (5)
- 21 Event Reports or More (6)
Q12 How often are you given feedback about changes put into place based on safety event reports?

- Always (11)
- Most of the time (12)
- Sometimes (13)
- Rarely (14)
- Never (15)

Q4 The current model of patient safety includes which of the following principles? (Select the Best Answer)

- a. Recognize that all errors are preventable (1)
- b. Focuses on identifying individuals responsible for the error (2)
- c. Encourages a culture where reporting is not valued (3)
- d. Learns from errors, near misses, and adverse events (4)
- e. All of the above (5)
- f. None of the above (6)

Q5 The key principles of a root cause analysis (RCA) include which of the following? (Select All That Apply)

- Leadership and Facilitation (Blame Free) (16)
Q6 What is the correct order of steps in a root cause analysis (RCA)?
(Drag and Drop in Correct Order)

- Review Safety Event Submissions (1)
- Interview Key Personnel/Review Source Documents/Inspect Equipment (2)
- Develop an Event Timeline (3)
- Identify Potential Root Causes (4)
- Develop an Action Plan with Corrective System Redesigns (5)
- Implement the Action Plan (6)

Display This Question:
If Are you here today as a participant or facilitator? = Participant

End of Block: Default Question Block
POST-Assessment

Q23 Are you here today as a facilitator or participant?

- Facilitator (1)
- Participant (2)

Skip To: End of Survey If Are you here today as a facilitator or participant? = Facilitator

Q13 What is your role?

- Intern (1)
- Resident (2)
- Faculty/Attending (21)
- Advanced Practice Provider (e.g. PA, CRNP, Midwife, CRNA) (3)
- Nurse (e.g. RN, LVN, LPN) (4)
- Medical Assistant/Aide (6)
- Pharmacist (7)
- Physical, Occupational, or Speech Therapist (8)
- Technician (e.g. EKG, Lab, Radiology) (9)
- Dietitian (10)
- Unit Assistant/Clerk/Scheduler/Receptionist (11)
- Administration/Management (12)
- Quality, Safety, Process Improvement Specialist (22)
Q19 What is your post-graduate year (PGY)?

- PGY 2 (1)
- PGY 3 (2)
- PGY 4 (3)
- PGY 5 (4)
- PGY 6 (5)
- PGY 7 (6)
- PGY 8 (7)
- PGY 9 (8)
- PGY 10 (9)
- Other (10)

Q16 Please select your residency program

- Otorhinolaryngology (1)
- Other (19)
Or What is your role? = Technician (e.g. EKG, Lab, Radiology)
Or What is your role? = Dietitian
Or What is your role? = Unit Assistant/Clerk/Scheduler/Receptionist
Or What is your role? = Administration/Management
Or What is your role? = Other
Or What is your role? = Faculty/Attending
Or What is your role? = Quality, Safety, Process Improvement Specialist

Q17 Please write in your department/division/unit.

________________________________________________________________

Q8 This root cause analysis (RCA) simulation increased my knowledge about the patient safety investigation process at Penn.

○ Strongly agree (1)
○ Somewhat agree (2)
○ Neither agree nor disagree (3)
○ Somewhat disagree (4)
○ Strongly disagree (5)

Q18 This root cause analysis (RCA) simulation provided me with feedback about a patient safety event that is relevant to my practice.

○ Strongly agree (11)
○ Somewhat agree (12)
○ Neither agree nor disagree (13)
○ Somewhat disagree (14)
○ Strongly disagree (15)
Q15 In the future, when the following mistakes happen, how often will you report them?

<table>
<thead>
<tr>
<th></th>
<th>Always (31)</th>
<th>Most of the time (32)</th>
<th>Sometimes (33)</th>
<th>Rarely (34)</th>
<th>Never (35)</th>
</tr>
</thead>
<tbody>
<tr>
<td>When a mistake is made, but is caught and corrected before affecting the patient (13)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>When a mistake is made, but has no potential to harm the patient (14)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>When a mistake is made that could harm the patient, but does not (15)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>When a mistake is made that harms the patient (16)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q10 I would repeat this root cause analysis (RCA) simulation for other trainees and staff.

○ Strongly agree (1)
○ Somewhat agree (2)
○ Neither agree nor disagree (3)
○ Somewhat disagree (4)
○ Strongly disagree (5)

Q12 The interprofessional design of this root cause analysis (RCA) simulation was important for my learning.

○ Strongly agree (1)
○ Somewhat agree (2)
○ Neither agree nor disagree (3)
○ Somewhat disagree (4)
○ Strongly disagree (5)
Q20 This root cause analysis (RCA) simulation has increased my ability to participate in a future patient safety event analysis.

- Strongly agree (11)
- Somewhat agree (12)
- Neither agree nor disagree (13)
- Somewhat disagree (14)
- Strongly disagree (15)

Q21 The real action plan generated by Penn Medicine from this root cause analysis (RCA) will prevent similar events from happening in the future.

- Strongly agree (11)
- Somewhat agree (12)
- Neither agree nor disagree (13)
- Somewhat disagree (14)
- Strongly disagree (15)

Q11 To improve this root cause analysis (RCA) simulation, I would suggest...

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Q4 The current model of patient safety includes which of the following principles? (Select the Best Answer)

- a. Recognize that all errors are preventable (1)
b. Focuses on identifying individuals responsible for the error (2)

c. Encourages a culture where reporting is not valued (3)

d. Learns from errors, near misses, and adverse events (4)

e. All of the above (5)

f. None of the above (6)

Q5 The key principles of a root cause analysis (RCA) include which of the following? (Select All That Apply)

- Leadership and Facilitation (Blame Free) (9)
- Interdisciplinary Approach (10)
- Firsthand Accounts/Source Documents (11)
- Focus on Systems (Not Individuals) (12)
- Identify Strong Corrective Actions (13)
- Plan for Implementation/Sustainability (14)

Q6 What is the correct order of steps in a root cause analysis (RCA)? (Drag and Drop In Correct Order)

1. Review Safety Event Submissions
2. Interview Key Personnel/Review Source Documents/Inspect Equipment
3. Develop an Event Timeline
4. Identify Potential Proximate/Root Causes
5. Develop an Action Plan with Corrective System Redesigns
6. Implement the Action Plan

End of Block: Default Question Block