

Using Systems Integration Simulation to Re-Assess Emergency Response TEAMs

-
-
-

Presenters/Authors:

Bonnie Mobley, BSN, RN

Mark Adler, MD



Disclosure(s)

- There are no financial interests or other relationships with manufacturers of commercial products, suppliers of commercial services, or commercial supporters. This presentation does not involve the unlabeled use of a product or product under investigational use.
- There is no commercial support.

Learning Objectives

1. Identify the steps necessary to integrate simulation into the development and implementation of a new process
2. Identify methods to address issues that arise during this process
3. Develop a plan for ongoing systems and processing testing for any new process

Overview of Main Topics

- Background of kidSTAR Medical Education
- The “why” behind our project
- Process Development Phases
- Process Implementation Phases
- Ongoing Simulation Support
- Discussion and Questions

kidSTAR Medical Education Program

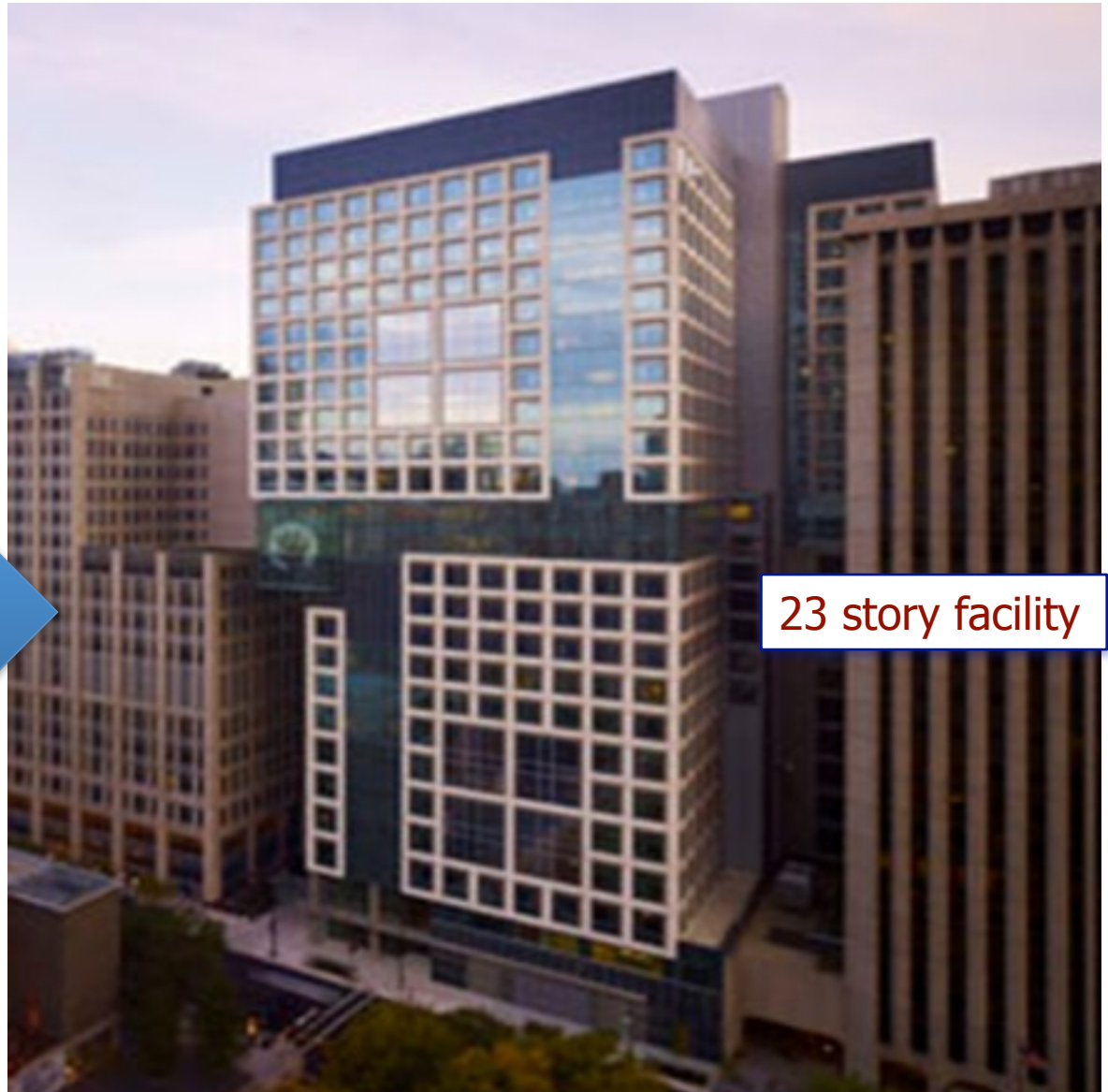
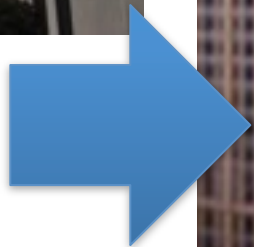
- kidSTAR Medical Education Program:
 - Interprofessional
 - Multi-disciplinary
- Primary goal is to improve the quality and safety of care for our patients through the use of innovative learning strategies



Background



9 story facility



23 story facility

Why?

- Free-standing Children's Hospital
- Review of code calls revealed:
 - 80% were non-inpatient/non-pediatric calls
 - minor, non-critical events

Why?

- Non-patients sent to the ED
 - Employees/parents/visitors/siblings
 - Inconsistent triage process
 - Inconsistent disposition
 - Lack of documentation these patients
- New Facility
- Development of Non-Emergency Response Team

GOALS

- **Activation & Response:**

- Correct team 80% of the time,
- 100% availability and response of team members
- 100% availability of emergency equipment

- **Documentation:**

- All NEAR Team calls are entered into a Safety Event Reporting System so all (including refusals) are captured
- All non-inpatients are offered additional ED assessment/screening
- 100% compliance with Refusal of Care processes

NEAR Team

- All non-inpatients
- Who?
 - Adults
 - Siblings
 - Outpatients
- How?
 - Same as code call
 - Anyone can initiate
- Response Team?
 - Paramedics
 - Nurses
 - ED Attending



Phase I

- Identified pilot areas
 - Lab
 - Lobby
 - Radiology
- Identified pilot scenarios
 - Employee injury
 - Outpatient syncope after lab draw
 - Visitor not feeling well
- Education and simulation
 - Specific to those areas
 - low fidelity simulation



Simulation and Debriefing

- Standardized patient
 - Faculty
 - Child
- In view of staff and visitors
 - Safety is a priority
 - Active and Passive learning
 - Buy in from management
- Debriefing
 - What worked
 - What didn't
 - Summarized and reviewed



Phase I

- Findings from piloted simulations
 - Existing departmental policies
 - Lacking clinical judgment to “make the call”
 - What the response team needs?
- Review and Revision
 - Investigated existing policies
 - Tweaked education
 - Surveyed Paramedics
- Resumed pilots

Orientation: Phase II

- House wide education launched
 - Computer based learning
 - Information at staff meetings
 - Ongoing simulations with just the NEAR response team
- Go-Live and Simulations Launched

Outcomes

- **Activation & Response:**
 - **Activation of the correct team 90% of the time**
 - 100% availability and response of team members
 - 100% availability of emergency equipment
- **Documentation:**
 - All NEAR Team calls are entered into a Safety Event Reporting System so all (including refusals) are captured
 - All non-inpatients are offered additional ED assessment/screening
 - 100% compliance with Refusal of Care processes.

Pre-Move Follow-Up

- New Hospital simulations
 - NEAR simulation scenarios added to orientation
 - Pre-Operational simulations tested “NEAR” response
- Findings
 - Areas that fell through the cracks
 - New areas that needed education
 - Expanding the education
 - Longer response time
 - Location
 - Response
 - Emergency Equipment

Post-Move Follow-Up

- NEAR Simulations - Part of Code Project
 - Inpatient areas
 - Public Areas
 - Outpatient Areas
 - Employee Only Areas
- Follow up:
 - By area
 - Reported to Emergency Response Committee
 - Tracked by Safety and Quality
- Unexpected:
 - Staff Buy In for Simulation
 - Recognition from Safety and Quality

Conclusion

- Effective way to introduces a new process, facilitates testing of new process prior to a house wide implementation,
- Provided safe learning environment for participants
- Debriefing allowed for questions related to the process
- Effectively provided education on new process that required fewer resources allowing for testing and reinforcement

References

Performance of first responders in simulated cardiac arrests.

Marsch SC, Tschan F, Semmer N, Spsychiger M, Breuer M, Hunziker PR.
Crit Care Med. 2005 May;33(5):963-7.

PMID: 15891321 [PubMed - indexed for MEDLINE]

Portable Advanced Medical Simulation for New Emergency Department Testing and Orientation. Kobayashi L, Patterson MD, Overly FL, Shapiro MJ, Williams KA, Jay GD. Acad Emerg Med. 2008 Nov;15(11):1166-74. Epub 2008 Jul 14.

PMID:18638036 [PubMed - indexed for MEDLINE]

Using simulation to orient code blue teams to a new hospital facility.

Villamaria FJ, Pliego JF, Wehbe-Janek H, Coker N, Rajab MH, Sibbitt S, Ogden PE, Musick K, Browning JL, Hays-Grudo J.

Simul Healthc. 2008 Winter;3(4):209-16.

PMID:19088665 [PubMed - indexed for MEDLINE]