

Simulation as a Competency Validation Tool for Registered Nurses

Sylvia Bertram PhD, RN, Chia-Yin Lin MSN, CNS, RN

Kaiser Permanente Oakland Medical Center

Abstract

The need to ensure effective communication among registered nurses during patient hand-off and safe medication administration practices of all nurses was identified at Kaiser Permanente Oakland Medical Center. A four hour medication safety class was developed and implemented to meet the identified need. Simulation was the methodology chosen to validate nursing staff competence with safe medication administration using the MedRite process and patient hand-off using Nurse Knowledge Exchange (NKE) process. Competency validation of 1,004 staff nurses took place over a six week period of time. The class outline, approach used to schedule staff, simulation scenarios for each specialty, and evaluation results will be presented.

The Challenge:

Kaiser Permanente Oakland Medical Center's Clinical Staff Development Department was charged with developing and implementing a mandatory Medication Administration Safety class for over 1,000 RNs with a 7 1/2 week timeframe.

The Identified Need:

To ensure effective communication among registered nurses during patient hand-off and safe medication administration practices of all nurses.



The Program:

A four hour medication safety class was developed including taking the Regional Math Test. Simulation was the methodology chosen to validate nursing staff competence with safe medication administration using the MedRite process and patient hand-off using Nurse Knowledge Exchange (NKE) process. The class outline follows:

Time	Class Content	
0800-0815 AM	Registration, sign-in, and collection of Med Safety Packet quiz & High Alert Med Policy (HAMP) quiz	
0815-0915 AM	All 24 participants	
	Introduction and overview	5 minutes
	Patient safety, human factor & simulation	20 minutes
	NKE & MedRite skit (video)	10 minutes
	Video discussion & debriefing	14 minutes
	Independent double check for HAMP	6 minutes
0915-1015 AM	Group A	Group B
	12 participants Proctored Regional Math Test	12 participants divided into couples Demonstrates NKE and Medication Administration using MedRite
1015-1030 AM	Break (Group A and Group B switch)	
1030-1130 AM	12 participants divided into couples Demonstrates NKE and Medication Administration using MedRite	12 participants Proctored Regional Math Test
	1150-1200 AM	
Wrap-up and Sign-off		

Objectives:

Upon completion of the lecture the participant will be able to:

- Articulate the role of clinical simulation as a teaching and competency validation tool.
- Demonstrate safe medication administration using the MedRite process.
- Perform a bedside hand-off using NKE and MAR verification.
- Participate in debriefing of MedRite and NKE simulation experience.
- Successfully complete the Regional Math Test, HAMP quiz, and Medication Safety Packet quiz with a 90% pass rate.
- Recognize how to properly dispose of pharmaceutical waste.
- Understand basic principles behind transmission based isolation.

Rotation through NKE and MedRite demonstration is as follows: Participant A reads patients history and then demonstrates NKE and MAR verification with Participant B. Participant B demonstrates Medication Administration using MedRite. Then participant B demonstrates NKE and MAR verification with changes that have occurred over the past 12 hour shift to Participant A. Participant A demonstrates Medication Administration using MedRite.

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Scheduling:

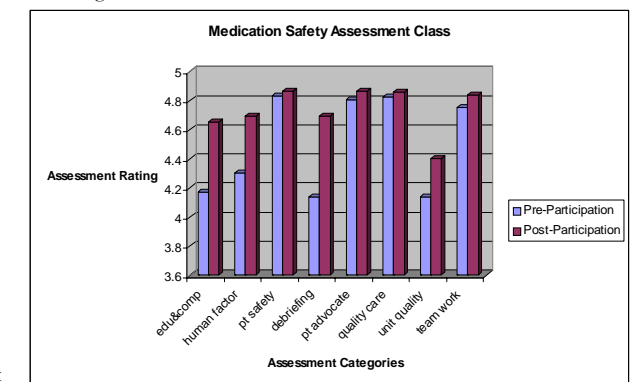
Developed a scheduling format delineating a specific number of nurses allowed from each specialty area for every class. The schedule was placed on our shared drive for all Managers to register their nurses.

Simulation Scenarios:

A simulation scenario template was developed and used by all specialty areas for patient hand-off with NKE, medication administration using MedRite, and competency validation tools.

Evaluation:

- 1,004 nurses took the Regional Math Test with a 1.3% failure rate (13 nurses). Developed remedial action guidelines for Math Test failures and presented to the California Nurses Association prior to implementation of the program.
- Developed guidelines for failing NKE and Med Rite demonstrations.
- Built a highly functional team that produced an educationally sound program, individual strengths were brought to light and appreciated, cooperation was embraced while bridging specialties, and M&Ms (plain and peanut) a must.
- Established on-going coaching and monitoring on patient care units to re-enforce bedside NKE and MedRite performance.
- Increase in reporting of medication errors.
- Pre and post assessment program results indicated a statistically significant increase in simulation use, human factors, and debriefing knowledge.



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