

WORKSHOP SESSION SUMMARY
POST-CONFERENCE PROCEEDINGS
2018 National Trainers' Exchange

1. Session Title and Presenter's Contact Information:

Workshop title: **A Bi-modal Approach to Experiential Learning and Simulation in the Health Care Environment**

Presenter (s) Name: **Lisa McCormick, Andres Viles**

Presenter Organization: **Deep South Consortium/University of Alabama at Birmingham**

Presenter Email: dsbwtp@uab.edu

2. Workshop Summary:

The University of Alabama at Birmingham (UAB) Rapid Infectious Outbreak Team (RIOT) is an interprofessional team of UAB Health Systems employees who are prepared to care for patients with potentially contagious infectious diseases. As a result of the 2014 Ebola Virus Disease outbreak, the Centers for Disease Control and Prevention updated their guidance to include training be provided using various modalities and must include an opportunity to drill the actual process of donning and doffing personal protective equipment (PPE). As part of their training, UAB RIOT members participate in two types of simulation, immersive and procedural.

Immersive simulation, which involves using a manikin or standardized patient to portray a confirmed Ebola patient, encourages learners to immerse themselves in the task of caring for the simulated patient. This type of simulation provides a unique opportunity for the team to test the system for gaps in processes, equipment needs, and potential risk points for PPE breaches and contamination. Procedural simulation involves a skills-based approach. Team members rotate among different stations to practice and refine the skills needed to safely care and transport a patient with a potentially contagious infectious disease. This method of simulation training allows learners to gain in-depth knowledge of the skills, equipment, and procedures to be used during an infectious disease response while receiving tight coaching and feedback. Both approaches focus on building, maintaining, and mastering the skills needed to safely care for patients while wearing PPE.

This presentation describes best practices of simulation training and lessons learned.

3. Methods:

Lecture and discussion were the methods employed in this workshop. The purpose of this workshop was to share the best practices of simulation training and lessons learned by the UAB RIOT members.

Discussion centered on how simulation can be used to test systems, individuals, and teams. Key principles and best practices were shared for systems and team training.

The advantage of this delivery method was to introduce the ideas and concepts to a wide audience and then elicit feedback from the participants to encourage them to think about how they can apply these tools at their institution. This also served as an evaluation tool to determine if participants accepted the ideas presented.

4. Main Points/ Key Points Raised from Participants:

Key Lessons

- Simulation is can be used in outbreak response training to build confidence and competence in donning and doffing as well as performing procedures while in PPE. Simulation prevents skill decay and ensures clinical competence.
- Simulation is best done as a cycle – sim, debrief, and then by taking lessons to the clinical world. The process then starts over with simulation based on experiences and lessons learned in the clinical world.
- Well-designed simulations require significant upfront work in understanding expected behaviors, having equipment available and process understood, setting up learners to understand the environment.
- Simulation can be used to train at all levels of the healthcare delivery including 1) systems 2) individuals and 3) teams.
- Team training requires standardization of process and communication patterns before training. It also works best when as much of the actual patient care equipment is used as possible.
- For the Ebola Care Team Training, simulated patient care space was developed in the simulation center to reflect the actual patient care area as closely as possible. Staff learned to X-Ray while in PPE and other testing skills.
- Systems based training can be anytime, anywhere, through any point of access. It can be low budget to high stakes. System-based test include secret shoppers, in-situ drills, and table top exercises.
- Tips and tricks for designing simulations
 - a. Ensure that procedures/processes are developed & vetted by content experts
 - b. Pilot test scenarios with friends and family who will give vigorous feedback
 - c. Involve observers from multiple content areas to provide context, feedback
 - d. Train observers and provide standardized data collection tools
 - e. Record the activity for follow-up review and future training opportunities

Responses from the participants

- Audience members wanted to know more about the secret shopper process. Specifically, how does staff receive this type of training and how this training is balanced with normal operations? The presenter stated that it is very important to set expectations with the staff before a simulation takes place. The objectives and purpose of the simulation should be clearly

stated for the staff members. Staff is made aware that a secret shopper training is going to occur, but they do not know when. As long as staff is made aware of the purpose and benefits, most do not seem to mind the exercise.

- Audience members also wanted to know if real people and actors are used in simulations. Presenter responded that live actors are used, but they have all received training to be actors. Many times, untrained actors can over-act or take the simulation in a different direction. This may cause the overall objectives of the training not to be met.

5. References:

Dong, Y., Suri, H. S., Cook, D. A., Kashani, K. B., Mullon, J. J., Enders, F. T., ... & Dunn, W. F. (2010). Simulation-based objective assessment discerns clinical proficiency in central line placement: a construct validation. *Chest*, *137*(5), 1050-1056.

Sawyer, T., White, M., Zaveri, P., Chang, T., Ades, A., French, H., ... & Kessler, D. (2015). Learn, see, practice, prove, do, maintain: an evidence-based pedagogical framework for procedural skill training in medicine. *Academic Medicine*, *90*(8), 1025-1033.

Harvard Center for Medical Simulation. www.harvardmedsim.org/resources.php

Hennepin County Medical Center Simulation Center: Resources.
www.hcmc.org/education/sim/sim-resources/index.htm

Donning and Doffing PPE Competency Validation Checklist.
www.apic.org/Resource/_TinyMceFileManager/Topic-specific/Donning_and_Doffing_PPE_COMPETENCY_VALIDATION_CHECKLIST.pdf

Deep South Biosafety Worker Training Program. <https://www.soph.uab.edu/dsb/>

University of Alabama at Birmingham Office of Interprofessional Simulation for Innovative Clinical Practice. <https://www.uab.edu/simulation/>

6. Workshop Handouts/ Resources:

Handouts: A Bi-modal Approach to Experiential Learning and Simulation in the Health Care Environment - PPT