

Welcome!

Welcome to our simulation newsletter!

In earlier issues, we have talked about some of the steps of the simulation process. We are going to return to that in this issue.

Previously, we've discussed the simulation process as a whole, and then discussed the Goals and Creation

steps.

This month, after giving a quick review, we'll focus on Preparation. We've made the scenario — what do we need to do to actually perform it?

While COVID-19 may not affect the Goals and Creation steps too much (a heart attack scenario is still

a heart attack scenario in COVIDtime), it can affect Preparation — especially concerning how to keep participants safe during the simulation.

Please send us your feedback! *Our contact information is in the top left corner of the second page.*

Refresher on Previous Steps

Simulations are educational, interesting, and hopefully fun experiences for the participants. To make a simulation successful here at UVa, there are several steps we follow (listed in the lower right-hand corner of this page). Here are the ones we've discussed so far:

GOALS: Before anything else, decide on the goals of the simulation. What do the participants need to see

and practice? Once your goals are defined, the rest becomes much easier.

CREATION: With the goals in hand, you can create the scenario. If the simulation is a play, the scenario is the backstory and script — but a script the actors (participants) don't have to follow.

The backstory describes how the patient may respond to the participants'

actions, and also helps the participants "place" the manikin in their world. The script plans out where the simulation may go, and guides the simulationist in keeping the simulation focused on the goals.

PREPARATION is the next step, and is mostly logistics: what will we need, where, and when to make this simulation occur?

Preparation

Preparation involves getting ready for the simulation. There are several different aspects of this.

The simulation needs a date, time, and place. These can be very specific for simulations that are announced; unannounced simulations may need some flexibility. We cancel nearly half of our unannounced

simulations, usually due to high acuity/census or low staffing.

The simulation also needs a manikin, who is working correctly. We check, clean and charge our manikins the day before the simulation.

Some simulations need special props. We have an article on the next page with our favorites. Rigged

IVs, though, are common props used in simulations, so that medications and fluids can be given without hurting the manikin.

We use Things Needed lists to ensure we have and bring everything required.

More details about preparation on the next page!

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Steps of a Simulation:

- Goals
- Creation
- Preparation
- Running the Simulation
 - Briefing
 - Run
 - Debriefing
- Reset
- Assessment

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We create simulation-based experiences for current staff and students to maintain and improve their clinical judgment and teamwork skills during medical emergencies.

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<https://www.medicalcenter.virginia.edu/medical-emergency-simulation-area/simulation-newsletters>



Simulation During COVID-19:

SimJunior in an Emergency Medicine simulation. In addition to the gloves, participants were wearing masks, and fewer people were present in the room for the simulation.

Meet Our Staff!

Meet Whitney Lassiter, one of our wage simulationists! Whitney is a full-time staff and charge nurse in the MICU, where she's been for the last seven years. On the side, she works with us as one of our experienced simulationists. She's been facilitating simulations for more than three years.

Her specialty is with adult patients, and especially ICU patients (not a surprise, given her full-time position). She's also been running night shift mock codes in the MICU and STICU with Suzie Telfer. She was one of several initial COVID-19 trainers.

Her favorite simulation is

the Intern Readiness Course, where she works with fourth-year medical students to help prepare them to be residents.

We hope you'll have a chance to work with Whitney on a simulation soon!



Realism vs. Fidelity

Part of Preparation is creating the props (materials used during the simulation) your participants will need during the simulation.

We need some degree of props to make it easier for the participants to come into our world. Having actual IV fluids running, or a ventilator breathing for the patient, or a real Zoll for defibrillation allows participants to bring their real-world knowledge into the simulation, and allow them to immerse themselves in the experience.

However, the props don't need to be perfect (have a high level of realism), as long as they are close enough to help the participants believe (high fidelity). A picture of a bruise taped to the manikin is not as realistic as moulage, but it still allows the participant to find the problem and assess it.

The fidelity is also affected by the simulationist. If the simulationist is serious about the situation, is pacing the vital signs changes well, and is giving appropriate verbal responses from the patient, then the participants are more likely to suspend disbelief.

We work to bring the right mix of realism and fidelity to our simulations.

Some of Our Favorite Props

For daily use: rigged IV and central lines (allows fluids and meds to be given without anything going into the manikin). We use these all the time!

For specific simulations: clamps on test lungs for bronchospasms in a ventilated patient, carotid artery swelling using a King airway inside the manikin's skin, jugular venous distension, and our OR fire setup. There is a lot we can simulate!

Journal Article Spotlight

This month's journal article is Lie, S. A., et al. (2020). Process-Oriented In Situ Simulation Is a Valuable Tool to Rapidly Ensure Operating Room Preparedness for COVID-19 Outbreak. *Simulation in Healthcare*, 15(4), 225-233. This link should allow you to download the article: <https://pubmed.ncbi.nlm.nih.gov/32649591/>.

This is another example of a system-focused simulation. The transportation of the patient, the setup of the OR, and the movement of people and equipment were the focus of the simulation, instead of the patient's clinical care.

Please see our newsletter repository address above!