

Welcome!

Welcome to our Simulation Newsletter!

We are going to start this year by going through the steps of a simulation, as we have in previous years. Each month will be one of the steps.

We've done Goals and Creation. This month, we'll do Preparation.

This is not a glamorous part of simulations, but it's important. Frequently, it's the difference between a simulation that runs smoothly and one that

doesn't.

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

What Do We Need to Bring?

Manikin

Usually, the biggest thing we bring is a manikin. The type of manikin depends on a number of variables: age, ability, and manikin capabilities. In LSLC, we have a preemie infant, nonpowered infants, a child, and adult manikins. Some manikins have higher end capabilities such as programmable pupil reaction, asymmetrical chest rise, tongue edema, variable pulses, and auscultation sounds (abdomen, heart, and lungs). If we created a scenario of a patient with increased ICP or a tension pneumothorax or diminishing/absent pulses when holding pressure for a femoral arterial line removal, we would choose a manikin with those capabilities if it is available. Sometimes, a Standardized Patient (actor) is a better fit for the scenario. If a scenario revolves around treating a behavioral health issue or delivering bad news, a Standardized Patient would better meet

the scenario objectives.

Moulage

Other considerations with the manikin would be how it would be moulaged which would include type of attire (gown vs. clothing) and any starting assessment findings such as bruises, abrasions, bleeding, incisions, a goiter, or a hematoma. It would also include IV access if the patient would have that prior to the start of the simulation.

Other Stuff

We also bring any equipment needed during the simulation. Basic items would include monitoring equipment (telemetry leads, BP cuff, SpO2 monitor, and temperature probe). Others might include a mock StatStrip, pen light, IV pumps, defibrillator, and oxygen delivery devices. If equipment would be used with a patient during the scenario, we try to bring it or ask you to bring it to the

simulation to enhance realism. We also plan for medications, fluids, and blood products. If we believe the participants will want a 12 lead ECG or x-ray, we print those for the simulation. The list of supplies needed can be extremely basic or very complex depending upon the particular simulation.

Imagine

What would the following patients look like?

- A 28 YO mom in labor
- A 62 YO coming to UVA via EMS from a motor vehicle crash with a fractured femur and pelvis
- A 82 YO with a small bowel obstruction awaiting surgery

What manikin do you need?

What will you need to moulage?

What equipment will you need to accomplish your goals?

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Steps of a Simulation:

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

UVAHealth
Life Support Learning Center

1222 Jefferson Park Ave
Fifth Floor, Room 5603
Box 800309
Charlottesville, VA 22903
Phone: (434) 924-1765
Email: jph5z@uvahealth.org

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

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Our newsletter repository:

<https://www.medicalcenter.virginia.edu/medsa/simulation-newsletters>

Why We Bring Our Stuff

1. **Safety:** We use our meds and fluids that are realistic enough to drive the simulation but don't look exactly like yours to prevent them from accidentally being used for actual patients. There has been actual patient harm from simulated meds getting mixed up and given to patients. We label all of our simulated meds, fluids, and blood "Not For Human Use."
2. **Cost:** By using our supplies, costs for the Medical Center are minimized. We also obtain expired items from MERCI. Occasionally, when we don't have a particular item, we use the unit's equipment, but it is rare.
3. **Specialty Capabilities:** Our Zoll doesn't upload CPR metrics into the cloud where our Resuscitation Coordinator obtains the data for analysis. If we used a unit Zoll, it would be confusing, and create time inefficiencies for our Resuscitation Coordinator.

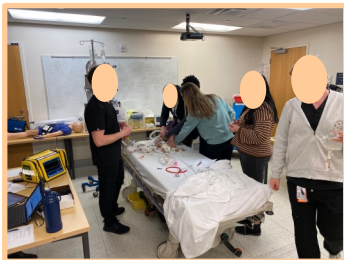


**Not for
human use**
Education only

Why We Bring All the Stuff

Full-on simulation is not talk-through. We don't just "simulate it." We actually do it (and then debrief). Participants need to see how long things take during the patient deterioration. Participants need to experience how hard it is to keep situational awareness and to realize when to bring other people in. To create suspension of disbelief and pull you into the sim, we need "the things." So....we bring all the stuff you need!

Pictures!



PICU nurses care for a critically ill patient post cardiac surgery.

Emergency Medicine residents intubate and code a critically ill infant.



3G developed a fractured femur and went for repair recently.

Journal Article

Our article this month is Congenie, K., et al. (2023). Learning from Latent Safety Threats Identified During Simulation to Improve Patient Safety. *The Joint Commission Journal on Quality and Patient Safety*, 49, 716—723. The article discusses how simulation can find near miss and unsafe conditions and identify ways for an organization to improve its safety culture.

We have a link for this that should work from any computer:

<https://www-sciencedirect-com.proxy1.library.virginia.edu/science/article/abs/pii/S1553725023002027?via%3Dihub>

Editorial

There are times when talking things through (a tabletop exercise) is useful, but full-on sims with an interdisciplinary team brings much more richness to the experience. It allows us to truly see how long certain assessments or procedures take and what equipment is needed. It stresses the soft skills like communication (which we think we do well with but often could improve). Doing full-on sims give us a correct sense of which team members should be involved with a particular patient situation. It shows us what processes work to make patient care safer and more efficient.