

Welcome!

Welcome to our Simulation Newsletter!

This month's topic is telesimulation. The Life Support Learning Center has worked closely with Drs.

Kathryn Mutter and Margaret Sande on telesimulations.

In this month's newsletter, we'll discuss what telesimulation is, how we've worked

with Dr. Mutter and Dr. Sande, and how you can use it.

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

Telesimulation Basics

Telesimulation is essentially simulation with one or more parties not physically present at the simulation.

You may choose to do telesimulation if some parties can't or wouldn't be allowed to be present. Some situations might include distance learning, time constraints, a restricted environment (such as an OR), or even a global pandemic.

Several things are needed if we are going to run a telesimulation. First, we need a manikin or Standardized Patient (SP), just as in a regular simulation. For a manikin, we will need a controller of some sort as well.

Second, we'll need to decide if we need someone else physically with the manikin or SP. If so, is that person simply running the manikin? Or is the person an ally in the simulation itself?

There are two ways an ally can be in the simulation. One is our usual ally role: they are a nurse, a physi-

cian, or someone else who interacts with the participants. The second is to be a "puppet", where the ally is controlled by the participants. For example, if the participant is a physician at a remote site, they could ask the puppet facilitator to listen for breath sounds and feel for a pulse. The ally who is the puppet would do that and relay their findings. You can think of the puppet facilitator as a participant's avatar in the simulation.

In addition to the participants, who may or may not be in the room, there may be other observers, as well. These observers may or

may not be allowed to participate or make suggestions.

We also need a way to "tele" the telesimulation. We used to do this with dedicated closed-circuit TVs in simulation centers and still do in some centers. However, given the pandemic, we are all now more familiar with teleconferencing software, and that works, too. We have telesimulated with both WebEx and Zoom, for example. So, while there is some extra work to arrange a telesimulation, it's minimal.



Telesimulation during the March 2020 Intern Readiness Course! The participant's face has been blurred on the screen.

Inside this issue:

<i>Welcome!</i>	1
<i>Telesimulation Basics</i>	1
<i>Telesimulation in Use</i>	2
<i>Journal Article Spotlight</i>	2
<i>Why Telesimulation?</i>	2
<i>Other Telesimulation Options</i>	2

Steps of a Simulation:

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

**University of Virginia
Life Support Learning Center**

1222 Jefferson Park Ave
Fifth Floor, Room 5603
Box 800309
Charlottesville, VA 22903

Phone: (434) 924-1765

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

Follow us on:

Facebook:

<https://www.facebook.com/UVALSLC>

Instagram:

@uva_slsc

YouTube:

<https://www.youtube.com/channel/UCx-KtMNJMIYLDWKEoOjrVvA>

Our newsletter repository:

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

Telesimulation in Use

The Life Support Learning Center's first major use of telesimulation was in March 2020 for the School of Medicine's Intern Readiness Course. This is a course for every fourth-year medical student here at UVa and has a significant simulation component to it. We were ready to support the course's director, Dr. Mutter, again in person in 2020 as we had in the years before, but one week before the course started, the world changed.

So, we pivoted to telesimulation. We had groups of 12 participants with one nurse and one physician. The nurse was also the simulationist, running the manikin, while the physician was also a puppet for the participants. Two participants "stood up" to be the Team Leads, while the others observed, and everyone participated in the debriefing.

The participants couldn't be hands-on, but still had to decide what needed to be done and in what order, still had to process the results they or their puppet found, and still had to practice communicating with other team members. The evaluations showed that, while the participants would have preferred in-person simulation, this was still very useful.

Separately, we have used telesimulation during the last year to continue the Emergency Medicine conference training simulation series during the pandemic. We had to reduce the number of people in the room, so we decided with Drs. Mutter and Sande to have some of the Emergency Medicine residents participate live, while the rest watched by teleconferencing software. Each group (live and observers) had their own debriefer. Participants have reported that each group has its own benefits.

Journal Article Spotlight

This month's article discusses simulation training at a major New York City hospital during the March and April 2020 COVID-19 outbreak. In addition to discussing simulation in general (which is a good enough reason to read an article by itself, right?), it specifically discusses using telesimulation to rapidly upskill non-ICU providers being brought into ICUs. See page 49 for more information on this.

The article is Pan, D. and Rajwani, K. (2021). Implementation of Simulation Training During the COVID-19 Pandemic: A New York Hospital Experience. *Simulation in Healthcare*, 16(1). The following link should work from a UVa computer (and possibly any computer):

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7853723/> .

Why Telesimulation?

Why do telesimulation? Why not simply do a talk-through on Zoom?

Talk-through scenarios, where the steps are discussed in order, are useful. But telesimulation brings in a more realistic sense of time pressure and task management. While it has the same objectives as a talk-through, it's still more realistic to be in a situation rather than talk about a situation.

Other Telesimulation Options

Telesimulation is a good way to hold simulations with Standardized Patients. It will protect the SP from contagious disease but still allow the participants to interact with a person in the role of the patient. While the participants can't do a hands-on assessment, the facilitators could replace parts of it by playing

pre-recorded breath sounds or showing pictures of pupils or of skin.

Telesimulation can also be used for large groups. Before COVID-19, the LSLC had done simulations in the OR with 90 observers. While that's not a good idea during a pandemic, a telesimulation with that number of

observers might actually be better, as the camera used to broadcast the simulation can get much closer to the participants and the manikin than most of the observers could during an in-person simulation.

As with simulation in general, telesimulation offers flexibility. What do you want your people to see?



Emergency Medicine Conference Training simulation in January 2021. The teleconferencing camera was roughly in the same place as the camera for this picture.