UVA Health

UVa Health Simulation News

University of Virginia Life Support Learning Center

Volume 2, Issue 9

September 2021

Welcome!

Welcome to our Simulation Newsletter!

This month, we are celebrating the arrival of new manikins! We would like to introduce them to you and discuss their capabilities. We'll use this to branch into the kinds of simulations they can do.

We can simulate most anything, one way or another, but having the right manikins makes certain simulations much easier to do. You'll see some significant improvements with the manikins we now have available.

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

Our New Manikins!

We have received several new manikins that will be used across Prehospital and Life Support Learning Center. Here is an overview:

We have two new Chloe manikins made by Gaumard. Chloe is a full-body manikin. She is on the low-tech end of the manikin scale: she does not provide chest rise and fall, her pulses are created by a squeeze bulb, and she does not have pupillary reaction. She can provide an auscultated blood pressure and can provide CPR feedback. She allows an IV to be started in one arm. She will be used primarily by the Prehospital program.

We have one new five-year old child manikin that is similar in capabilities to Chloe (Gaumard does not provide it a name), though this manikin also allows practice in trach care. This manikin will also be used primarily by the Prehospital program.

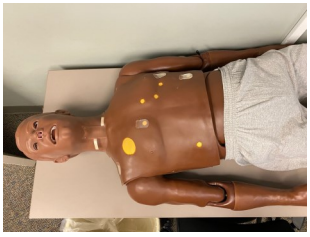
Some of you know one of our previous manikins, a HAL from Gaumard. We have an updated HAL now. This manikin provides pulses, chest rise and fall, breath/heart/bowel sounds, and pupillary reaction. Both arms have IV access points and one leg has an IO access point. New HAL can interact with actual monitoring equipment (BP, oxygen saturation, and heart monitor) — perhaps no more simulated monitors! He can also interact with ventilators and will show correct settings and responses on the vent. New HAL will be used primarily by the Life Support Learning Center.

Finally, we have a Noelle with a Premie HAL from Gaumard. Noelle is a specialty simulator — she can birth a manikin! We are very excited about this. Her manikin baby is the Premie HAL. Both manikins can work as stand-alone manikins as well.

Noelle has pulses, chest rise and fall, heart and lung sounds, and pupillary responses. In addition, she shows tocodynamometry strips and has epidural placement with landmarks, palpable contractions, maneuvers for the infant (such as McRoberts), and postpartum palpable fundus.

Premie HAL is a 30-weeker 1.3kg newborn with pulses (including umbilical), chest rise and fall, and heart and lung sounds. In addition, Premie HAL has grunting, central cyanosis, and crying synchronized with breathing.

We are still in the process of putting all these manikins in service. However, they allow us to expand the scenarios we can simulate. We'll talk more about that on Page 2.



New HAL! He's 12-lead-capable, too

Inside this issue:

Steps of a Simulation:

- Goals
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Pediatric Resident simulation in September with Sim Junior — an announced simulation

What Kind of Sims Can We Do Now?

New HAL's abilities should allow us to do more types of simulations. Manikins have been "untethered" (no power cords needed) for a while, but HAL's ability to use actual monitoring devices as they would be used on an actual patient goes even farther. We should now be able to do simulations that move: road trips, room changes, and transport in ambulances are some of the new options we have.

In addition, HAL's ability to interact with an actual ventilator allows more involvement by Respiratory Therapists in simulations. Don't tell Gaumard that we have connected old HAL to a ventilator — but the ventilator was confused by him and needed unusual settings to come close to being useful. New HAL should be much improved.

Noelle and Premie HAL add a new category of manikins for us. These could do simulations in the Emergency Department or perhaps doing a birth of twins in Labor and Delivery with their Noelle and baby. In addition, all of our manikins could be used for in-the-moment training. A birth of a baby in an ICU comes to mind here. This situation doesn't happen often, if it's going to happen let's practice it a day or two before it occurs.

Having more manikins also allows us to run multi-manikin simulations (such as our sessions with Interventional Radiology and Endoscopy) without blocking our other offerings such as ACLS classes. It would also allow us to do more patient flow simulations, in which we look more at how patients flow through an area (and less on the clinical care). Simulating care in a new area is an example of this.

CTU simulation in September — announced

Journal Article Spotlight

We looked for an article on surprise vs. announced simulations (see below) and did not find much. So, this month's article is on *in situ* vs. off-site simulations. The article is Sorensen, J.L., et al. (2017). Design of simulation-based medical education advantages and disadvantages of in situ simulation versus off-site simulation. *BMC Medical Education (17)* 20. The following link should work from any UVa computer: https://https://bmcmededuc.biomedcentral.com/articles/10.1186/s12909-016-0838-3.

Surprise vs. Announced Simulations

HAL's new capabilities also allow us to do more surprise (really, semi-surprised) simulations. Other than our In-House Adult Mock Codes, we always collaborate with local units for simulations — but some simulations work better if the participants don't know exactly when they're coming.

Surprise simulations usually are better at showing what would happen in real life, as the participants don't have time to prepare. Their responses are closer to what they would do in real life with such a patient. We usually have our contact in an area tell the staff that a simulation will occur, but not when. This is what we've done with night shift ICU mock codes.

Announced simulations usually are better at training staff on something new. The participants are present at a specific date and time and usually know what the scenario will be. These can also be used for other simulations, as well — it's still good to practice caring for a deteriorating patient even if you know the simulation is going to happen.

Both have their roles as educational experiences. It all goes back to the question we ask so often: what do you want your people to see?