UVAHealth

UVa Health Simulation News

UVAHealth Life Support Learning Center

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Welcome!

Welcome to our Simulation Newsletter!

We want to talk about going "one step farther" in this issue.

A lot of simulations and a lot of the topics in the debriefings of those simulations are about clinical issues, which is very useful. However, we can use simulations for more than that. We can talk about how responding to an emergency is different than usual patient care. We'll discuss this more in the following articles.

We're also going to try out a new feature this month — an editorial. We've always stated our opinions in a low-key way, but this would be more formalized. Let us know what you think of it. Is it useful for you?

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

Clinical Emergency Response

The extreme example of a medical emergency is a cardiac arrest. We have classes that help us know what to do (BLS, ACLS, PALS, and NRP) and we can do code simulations to practice what we learn in the classes.

In codes or other emergencies, there's a lot of things that need to be done clinically.

This requires a lot of people to do many things all at once, which is why we swarm the room. We need to obtain new vital signs, start compressions if needed, get more IV access, perhaps perform a 12-lead, and so on. We're going to call this a first-level response.

All of this we need to practice and then discuss in the debriefs — the quality of compressions, how to do the defibrillation process, what meds to give when, and so on.

This level of response is important. It's the foundation of the response and needs to happen to respond successfully. It's why code simulations are so popular.

However, we can do more than this.

Organizing the Response

As we learn in ACLS, PALS, and NRP courses, there's another level of response that we need to do.

There are a lot of people in the room, so we need to organize the team and assign roles. We need to decide whether to intubate now or later. We need to prepare our upcoming medications. We need to start thinking about the Hs & Ts (from ACLS and PALS), considering why the patient might have died and how we might be able to fix that problem.

We're going to call this a second-level response — stepping back and seeing the whole situation.

From what we've seen in our simulations, that "stepping back" process is hard and takes deliberate practice.

All of this is the next level of response. It can all be simulated and then discussed in the debrief. Just like the clinical response, this is important and another reason why we simulate codes.

But we can do even more than this, as well.

Inside this issue:

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 improve their clinical judgment and teamwork skills during medical emergencies.

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https://www.medicalcenter.virginia.edu/mesa/simulation-newsletters

Pictures!

Another picture of a Main OR Malignant Hyperthermia simulation. They're so fun to run!

STICU new nurse orientation simulations, which hits all three levels of thinking.

Answer: We believe they were targeting first– and second-level responses.

Next-Level Thinking

There's another level of response that can be simulated.

In routine care, providers usually want a lab value, a vital sign, a physical finding, or an image before starting treatment for a problem, which makes sense — I want to know what the problem is before treating it.

In emergencies, I may not have that time. I may need to make a best guess and go with it. If my patient is extremely short of breath, speaking in two-word sentences, and tripoding, I shouldn't get a blood gas — I should give them oxygen. I need to treat life threats now. Then I can think about getting a blood gas.

The part that's next-level is the realization that I have to change the way I'm approaching this patient. I don't have time to get the detailed data I need before I do anything — I need to intervene with the information I have now and then refine my differential diagnosis and treatments as I go.

We're going to call this a third-level response. It's even more of a stepping-back from the situation to see a bigger picture — that I need to change how I am responding.

Simulations Can Do All Levels

We've said this a lot, and we still believe it. Simulations can help with all the levels of thinking. Take code simulations as an example.

If you're looking to practice first-level responses (clinical skills), the simulation and debriefing can be aimed at that. Our First Five Minutes program is an example of this.

If you're looking to practice second-level responses (organizing the situation), we can simulate that as well. This is a major focus of our Adult Code Team Just-In-Time training: how do I walk into a room with a code in progress and take the Team Lead role?

Third-level responses are hard for many people who don't routinely respond to emergencies. So let's practice with a plastic patient. The PICU, STICU, and soon ED new nurse simulations are examples.

Journal Article

This month, our article discusses a trauma simulation program for a smaller hospital. Quick quiz for you: what level of response were they aiming at? [Our answer is below.] The article is: Knapp, GM. (2023). Trauma Team High-Fidelity Simulation Training in a Rural Level III Trauma Center: An Interprofessional Experience. *Journal of Trauma Nursing, 30*(2), 103-107.

We have a link for this that should work on any UVa computer: https://dx-doi-org.proxy1.library.virginia.edu/10.1097/JTN.0000000000000709.

Editorial

We see the lack of third-level responses frequently in our simulations, especially as we simulate emergencies. It is our opinion that UVa should do more training on how to respond to emergencies, whether that be in classes such as ACLS and AMLS, or whether it is in simulations.