

WHEN IT MATTERS MOST

AIR METHODS ANSWERS THE CALL



AIR METHODS UTILIZES VR SIMULATION TO IMPROVE PATIENT OUTCOMES

How do you continue to offer best-in-class training for clinicians during a pandemic, especially when you've been doing all in-person training? That was the challenge for the Air Methods clinical education team when the COVID-19 pandemic hit. After seeing the success hospitals had with virtual reality (VR) training, Clinical Education Director Enrique Murguia began redesigning Air Methods' clinical education approach to utilize this emerging technology.

Murguia and SVP of Clinical Services Stephanie Queen believe VR training will not only help train clinicians virtually, but it will also help clinicians focus on critical thinking, problem-solving, and communication. Murguia and Queen reviewed post-transport safety reports, which showed there was a gap between critical thinking and resuscitation. The critical care skills were great, but some clinicians had forgotten the basics, because they weren't performing them as often.

"Although you're looking for that precision of actual physical skill in a cadaver lab, building that muscle memory and bridging that critical thinking gap piece, VR really helps with that," said Queen.

"It triggers memory. It makes them do the assessment and identify the need for our clinicians to intervene," added Murguia. "So, you're not going to see the use of the blade; you're going to see the use of assessment skills clinicians need to incorporate to make that decision. Studies support that the learning transfer with VR is the same as standard patient simulation labs."

Air Methods has partnered with California-based VR developer SimX to create this first large-scale air medical VR training program. The team is developing a library of advanced clinical scenarios capable of having multiple players working together to treat patients in the virtual environment. These scenarios will include basics like resuscitation, as well as ventilator management, balloon pump, ECMO, and various trauma situations. Additionally, they will all incorporate Air Methods protocols and patient care guidelines.

"Medical directors, clinical directors, and the clinical education team will be able to log in and go through specific scenarios specific to the equipment used on our aircraft," explained Murguia.

The program will start with 24 VR headsets: 12 at the clinical training centers and 12 that will travel to various bases across the country. The clinical education team will incorporate the use of the VR headsets into current training standards.

"Our pilot program is going to refocus on our lower-performing bases [according to the post-transport safety results], which gives us an opportunity to bring them up to meet our clinical standards and clinical quality," said Murguia. "As we're tracking our clinical quality and we see those bases [get] up to where they need to be, then we can relocate those assets to other bases."

This program will not replace the in-person training that is still needed to develop and ingrain finite motor skills, like making an incision, that can only be done in a cadaver lab. VR training provides a way to stimulate critical thinking by offering up challenging scenarios through virtual training, to enhance clinician memory and help them make good decisions in the field, ultimately improving patient outcomes