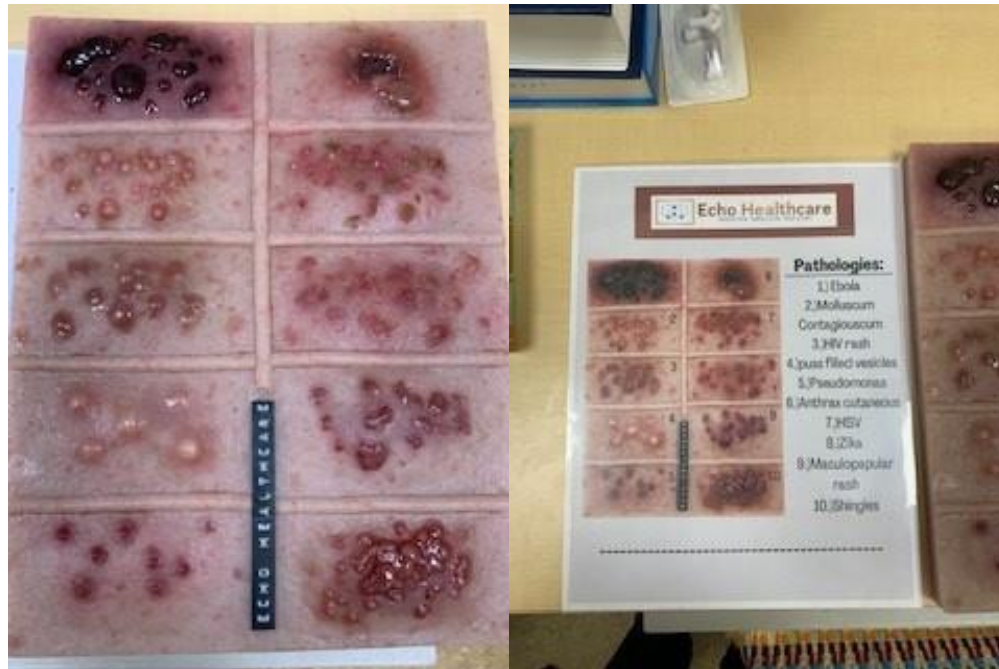


Preventing Misdiagnosis: How Infectious Disease Task Trainers Make a Difference

By Dr. Janet Sprehe, Program Director of Simulations, Resuscitation Education and Innovation (REI), SimLEARN



Silicone task trainers allow providers to see and feel various types of lesions that were being misdiagnosed for Monkeypox.

Doctors and mid-level providers often rely on medical booklets or journals to learn about specific disease conditions and see photos of each disease. However, these printed photos do not give a real, three-dimensional view of how certain lesions or disease states appear on a person. Prime examples of this are skin lesions, as was discovered during Monkeypox (MPox) trainings for emergency room and intensive care unit physicians and nurses. MPox was easily misdiagnosed and reported as Herpes Simplex Virus.

During our training, we found that many health care providers, including registered nurses, physician assistants, nurse practitioners and physicians were not comfortable with making an exact diagnosis. Often, they would refer patients to our infection control team to verify if their diagnosis was accurate. This was especially true if the patient returned to the emergency department or their provider within days to explore what was needed.

Realizing that we had a knowledge gap, the James A. Haley Veterans' Hospital Disaster Emergency Manager, Travis Garrett, met with Aaron Woodall from the hospital's infectious control department and Dr. Janet Sprehe, the Veterans Integrated Services Network (VISN) 8 simulation champion and program director of simulations/Resuscitation Education and Innovation (REI). The group met to discuss how to best address the high reliability organization (HRO) principle of preoccupation of failure

in the universal misdiagnosing of specific skin lesions related to MPox and what could be the most useful method for improving provider competency in diagnosing specific skin lesions.

[Echo Healthcare](#), a new company, was eager to help design a hands-on task trainer to view and touch various skin lesions that resembled MPox. Seven silicone task trainers were ordered that allow providers to see and feel various types of lesions that were being misdiagnosed for MPox. These lesions included Ebola, molluscum contagiosum, HIV rash, pus-filled vesicles, pseudomonas, cutaneous anthrax, herpes simplex virus, Zika, macropapulae rash, shingles, chickenpox and MPox.

The handheld task training modules were ordered with different skin tones, such as white, black, brown, Asian, Hispanic and olive skin tones, to see how the lesions may appear differently with different cultural and ethnic backgrounds. The correct name of the lesion was on the back of the silicone model, but a laminated reference guide also accompanied the training devices for the facilitator. Many participants stated that the learning device captured their curiosity in seeing how well they remembered lesion specifics. All those seeing the silicone, life-like lesions rated this tool as superior in learning differential diagnosis.