Ultrasound-Guided Peripheral IV Training to Improve Patient Outcomes and Reduce Costs

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(UGPIV skills training in SimLEARN laboratory. Photography by Ramon "Boty" Garcia)

Good patient outcomes require clinicians to have accurate and timely vascular access to add or remove chemicals in the bloodstream. However, dehydration creates significant challenges to IV insertion because the veins are more difficult to access. This has been a problem due to the new onslaught of pandemic-related populations. Inaccessibility delays laboratory studies needed for treatment planning and prevents patients from quickly receiving medications and fluids. Multiple attempts by different clinicians can exhaust time and resources that could better be used elsewhere. Extending time-to-treatment increases length of stay and cost of care, potentially affecting patient outcomes. Nurses require additional options for performing one of the most common procedures in daily clinical practice, the insertion of intravenous (IV) catheters.

An ultrasound machine can be used to identify subtle differences in blood vessels including identification of veins versus arteries, specific locations and depths, nerves, valves, thrombi, calcifications, and other irregularities that may not be detected by traditional means. Teaching clinicians to use ultrasound for guidance during peripheral IV insertion (UGPIV) can significantly impact patient care and outcomes by reducing the number of insertion attempts, thus speeding the delivery process, and reducing opportunities for trauma or infection. However, UGPIV requires specific training, simulation, practice, and ongoing mentorship. Previously, VHA has not offered standardized education

on the latest evidence-based practices in UGPIV. Now, through SimLEARN Innovation Center for Education (SLICE) course offerings, each VHA facility has access to the training beginning in May 2022.

Interested in hosting a course or teaching a class? Join the SLICE network and get access to free course materials, online education, lesson plans, checklists, and more. Apply within the SLICE Application Portal *(Note: This link will only work for VA employees).*

U.S. Department of Veterans Affairs