

## Exploring the Feasibility of POCUS Training for Advanced Practice Providers at an Academic Medical Center

Dear Editor:

Over the past few decades, point-of-care ultrasonography (POCUS) has evolved as an integral part of physical examination. Many US medical schools have incorporated POCUS training into their curricula, with over 70% reporting to have an ultrasound curriculum as of 2019.<sup>1</sup> As advanced practice providers (APP) play a significant role in delivering care across various specialties, it is crucial to consider the potential of APP-performed POCUS. In a recent survey involving 59 hospitalist faculty and APPs at the Medical College of Wisconsin, a majority of respondents (80%) expressed interest in pursuing POCUS training.<sup>2</sup>

In June 2023, we conducted a pilot POCUS course for a small group of Medicine APPs. The course was attended by 9 participants and spanned over 5 intensive hours, incorporating both didactic sessions and hands-on training. It encompassed core elements of hospital medicine POCUS, including basic physics and knobology, kidney, lung, and focused cardiac ultrasound.

Each topic was presented in concise lectures, lasting no more than 30 minutes. To enhance the understanding of sonographic anatomy, a 10-minute simulation of echocardiographic views was conducted using the heartworks augmented reality simulator. For the hands-on training, 3 scanning stations were set up with ultrasound machines and adult volunteer models.

Following completion of the workshop, an online voluntary anonymous survey was distributed to collect feedback. Out of the 9 attendees, 7 responded to the survey. The respondents were asked to rate their confidence on a qualitative scale of 0 to 10, in interpreting and acquiring images for different sonographic applications before and after the course. For kidney ultrasound interpretation, confidence rose from  $1 \pm 1.8$  to  $5.3 \pm 1.1$ , lung from  $1.7 \pm 2.6$  to  $6.6 \pm 1.5$ , focused cardiac from  $1.2 \pm 1.9$  to  $5.2 \pm 1.3$ , and familiarity with ultrasound modes and knobs from  $2.4 \pm 3.1$  to  $7.9 \pm 1.5$  ( $P < .001$  for all comparisons). Similarly, the confidence in performing kidney ultrasound increased from  $1.4 \pm 2$  to  $5 \pm 1.7$ , lung from  $1.4 \pm 2.1$  to  $5.3 \pm 1.4$ , cardiac (excluding inferior vena cava) from  $1.1 \pm 1.9$  to  $4.6 \pm 1.7$ , and inferior vena cava from  $2.2 \pm 2.3$  to  $5.4 \pm 2$  ( $P < .001$  for all comparisons). When asked whether they were willing to incorporate POCUS into routine practice, 100% of the respondents answered yes, assuming ultrasound machines are available and expert assistance is readily accessible.

While acknowledging that confidence alone does not guarantee proficiency, we find great en-

couragement in the enthusiasm displayed by the participants in learning POCUS. We plan to expand this program into a longitudinal curriculum with institutional support. Our upcoming project aims to provide handheld ultrasound devices to APPs for a specified duration, allowing us to analyze the evolution of image quality over time and use this data to develop local certification guidelines.

—Abhilash Koratala, MD; Paige Gioia, PA-C; Devin Madenberg, DO; Anu Taylor, MD

### REFERENCES

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