

COMMENTARY**POCUS: Is It Time? . . . And Is There Time?***Stephen T. Erickson, MD, FAAFP*

Point-of-care ultrasound (POCUS) is increasingly recognized as an important and useful improvement for bedside clinical care. Its wide adoption is slowed by the time it takes to perform, and the time it takes to learn. This commentary discusses this dilemma, and needed directions in education, technical advancements, and financial workflows for family medicine clinicians to better incorporate POCUS into clinical practice. (J Am Board Fam Med 2025;38:958–961.)

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Point-of-care ultrasound (POCUS) has grown steadily in its clinical applications since the Focused Abdominal Sonography for Trauma examination became a widely used standard of care in trauma assessment in the USA by the late 1980s. The usefulness of ultrasound, as an extension of (and an improvement over) the physician's clinical examination skills has been described repeatedly in the literature.^{1,2} In addition to adding diagnostic accuracy, POCUS users describe faster time to diagnosis.^{8,11,12} Patients report improved satisfaction, trust in their physician, and understanding of their condition when real time ultrasound images of a health problem can be viewed together in real time.^{13–15} The benefits of POCUS when compared with many traditional physical examination techniques has led a majority of US medical schools to incorporate POCUS training into the earliest stages of medical training.³ In 2023, the Accreditation Council for Graduate Medical Education added POCUS training as a mandatory part of Family Medicine residency training,¹⁰ and the American Academy of Family Physicians has published curriculum recommendations for POCUS training of Family Physicians.⁹ Despite these recommendations, there continues to be a gap in Family

Medicine faculty skills in POCUS, with a recent survey reporting only 29.1% of teaching Family Physicians reporting that they would comfortably perform POCUS on their patients.²¹

Concurrent with the growth of POCUS, ultrasound equipment has become increasingly convenient and affordable to use. Handheld ultrasound devices can now be purchased for a few thousand dollars, and carried as easily as a stethoscope from patient to patient. Artificial intelligence features are beginning to be incorporated in these devices to assist the user in both obtaining diagnostic images as well as interpreting ultrasound findings.

Clinical indications for POCUS come up regularly in Family Medicine. Several observational studies have described approximately 10% of patient encounters benefiting from a POCUS examination and the POCUS findings changing management 30 to 50% of the time.^{4,5}

With such promising trends, it might be surprising that most Family Physicians today still do not use ultrasound at the bedside. A recent study reported only 5.4% of Family Physicians surveyed feeling extremely comfortable using POCUS, while 95.6% agreed that POCUS was somewhat or extremely important to Family Medicine.¹⁶

Why are we not embracing ultrasound? Are we slow to adopt new technology? Our specialty has always prided itself on the interpersonal relationship with our patient over technical gadgetry. Yet we have readily incorporated into our practices things like telemedicine, continuous glucose meters, and yes, electronic medical records when we saw that such technology would benefit our patients.

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Do we fear the medicolegal risk of making an incorrect diagnosis? We should note that a recent study of malpractice cases involving POCUS has demonstrated that lawsuits are rare, and most frequently cite a physician's failure to perform POCUS when clinically indicated—not mis-diagnosis or harm from using POCUS.²²

The largest barrier to POCUS adoption is likely time. Learning to perform ultrasound requires an investment of time. For a practicing physician with no previous ultrasound experience, the American Institute for Ultrasound in Medicine recommends a minimum of 10 hours of Continuing Medical Education (CME), while American College of Emergency Physicians recommends “a comprehensive course, series of short courses, or preceptorship” to achieve a minimum level of competence.^{17,18} Proficiency and confidence in the use of ultrasound will require additional practice, image review, and hopefully mentorship along the way. Even once these training milestones are achieved, an ultrasound-augmented physical examination may feel like one more thing in a long list of things we are supposed to be doing in a 20-minute visit. A recent and oft-quoted study has calculated that it would take a primary care clinician 26.7 hours of work each day to provide all the care that a multitude of specialty guidelines would recommend we do.⁶ While studies suggest that the typical POCUS examination takes only 5 minutes,¹⁹ and is impactful enough to change the plan of care 50% of the time,^{4,19} that 5 minutes is still a significant portion of the time allotted on the clinic schedule. When time is short, it may be tempting to order an imaging study from the radiology department instead, despite the benefits described earlier.

Several things need to happen to accelerate the growth of POCUS from a niche tool for certain enthusiasts to a workhorse technology that we all use regularly:

1. **Outcomes-oriented research:** The promise and hope of POCUS is that by allowing a faster and more accurate diagnosis, downstream benefits will accrue in terms of quicker recovery, fewer hospitalizations or complications, and less money spent on additional tests or ineffective treatments. These are not easy studies to perform, but such studies are necessary for POCUS to fully prove its worth. A recent study demonstrating an 81% reduction in Emergency department visits, urgent care visits, and phone calls when POCUS was integrated in

early pregnancy care in a primary care clinic²³ is a fine example of the evidence of downstream benefits that is needed.

2. **Refinement and improvement of POCUS technology:** Device manufacturers have made amazing refinements in ultrasound technology in recent years. They will need to continue to optimize POCUS devices that work within the time constraints of a Family Physician's day. “Instantly on and connected” is what we have come to expect of our smart phones, and what we will need from our ultrasound device. Slow start up times, limited battery life, unreliable pairing of wireless devices and screens, manual data entry, limited portability, and tedious imaging archiving workflows make POCUS too frustrating for most primary care clinicians. Ultrasound data needs to flow seamlessly into our Electronic Medical Record (EMR). More validated automation tools are needed to speed up the exam and lower the currently high training barriers to practice integration. Many such tools have recently appeared including automatic quantitative assessment of cardiac ejection fraction or pulmonary congestion, Artificial Intelligence (AI) generated estimated fetal weight/gestational age, and automated measurement of bladder volume. Such tools need to be expanded, included in POCUS training, and standardized across manufacturers.
3. **Financial reimbursement:** POCUS requires an ongoing investment in the technology, and adds value to the patient encounter. As such, it should be billed for appropriately when used. Many physicians who have started to use POCUS remain uncertain about whether or how they should bill for their POCUS exams. The current Current Procedural Terminology (CPT) guidance for billing ultrasound studies is based upon traditional radiologist/sonographer performed exams, and has not been revised to accommodate the differences of POCUS. A recent study has demonstrated the feasibility of billing for POCUS. When using standard CPT codes for limited ultrasound exams, and carefully following documentation guidelines, a single physician using POCUS regularly in a Family Medicine practice received insurance reimbursements totaling nearly \$12,000 in a year—enough to pay for the initial investment in POCUS technology several

times over.⁷ Understanding how and when to charge for the ultrasound-enhanced exam needs to be a part of POCUS training.

4. **Promoting and monitoring adoption of POCUS by family physicians:** There is little current information about the proportion of Family Physicians using POCUS today, or what percentage of physicians who seek training go on to use POCUS regularly. The most recent national survey data on POCUS use by Family Physicians was collected in 2018. At that time 7% of Family Physicians were using ultrasound for non-obstetric indications in 2018.²⁰ That survey predates the arrival of most handheld ultrasound systems on the market today. While POCUS training is available from a variety of sources, more research is needed on optimal course content, teaching methods, and post-training mentorship to develop competence. Ultrasound is a somewhat unique skill to master in that it requires not only cognitive learning, but considerable time spent practicing manual skills of probe manipulation and image acquisition. There is an especially urgent need to “train the trainers” by increasing the numbers of family medicine teachers who are skilled in POCUS.

The benefits of POCUS are growing more apparent all the time. We stand at the threshold of a seismic shift in how we perform our physical examination. Having the ability to peer directly into the living body and examine its inner structure at the bedside was once the stuff of science fiction—it is now the new reality. Although more research is needed, the existing evidence is compellingly positive. POCUS will make us better diagnosticians, and better able to triage, treat, and counsel our patients. There is great potential for the ultrasound-enhanced examination to enhance our relationships with our patient, while also improving outcomes and efficiency. It is time for Family Medicine to embrace POCUS.

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