

Letters to the Editor

Formal Training in POCUS Can Positively Impact Family Medicine Practices

Original Article: Point-of-Care Ultrasonography

Issue Date: March 1, 2020

See additional reader comments at: <https://www.aafp.org/afp/2020/0301/p275.html>

To the Editor: I was encouraged by the article about point-of-care ultrasonography (POCUS). The authors did an excellent job reviewing the literature and applications of POCUS that are relevant to family physicians. The elements of training and competency were addressed, including a list of resources; however, the availability of ultrasound fellowships was not mentioned. In fact, the article noted that there is limited use of POCUS by family physicians because of the training burden needed to gain competency in standard POCUS examinations.

As a family physician and clinical ultrasound fellow at West Virginia University, I have experienced the positive impact that POCUS can have on clinical practice. This impact is stated best by Jesper Weile, "POCUS examinations excel in speed and availability for every patient and are as accessible as the stethoscope."¹

Residents and medical students in primary care rotations are seeking skills and guidance on the use of POCUS.^{2,3} The article mentions guidelines from the American Academy of Family Physicians designed to assist residency programs in adding POCUS to the educational curriculum (https://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint290D_POCUS.pdf). The lack of formal POCUS training mentioned in the *American Family Physician* article is supported by a survey of family medicine residency directors in Canada. A total of 93% of program directors saw value in having a POCUS curriculum, but less than one-third had a curriculum in place. More

than one-half cited a lack of instructors as a barrier.⁴ More residency faculty training is needed to overcome the discrepancy between learner desire and teaching limitations.

As family physicians aim to gain competency in POCUS, we should collaborate with our colleagues in emergency medicine. The Society of Clinical Ultrasound Fellowships (<https://eusfellowships.com>) lists the programs that offer fellowships in ultrasonography. Although these programs are based mainly in emergency medicine departments, there are openings for family medicine candidates. The National Resident Matching Program statistics for 2019 show that 59.7% of ultrasound fellowship programs were left unfilled.⁵ This year, the department of emergency medicine at West Virginia University hosted its first family medicine-trained clinical ultrasound fellow. The Ohio State University announced its first family medicine-trained ultrasound fellow starting in the summer of 2020 as a joint venture between the departments of family medicine and emergency medicine.⁶

When fellowship-trained POCUS faculty join the ranks of already outstanding family medicine residency programs, we will have more tools to provide high-quality, efficient, and cost-effective health care in our communities.

Cindy Soto Shavor, MD

Morgantown, W.Va.

Email: sotoshavor@gmail.com

Author disclosure: No relevant financial affiliations.

References

1. Weile J, Brix J, Moellekaer AB. Is point-of-care ultrasound disruptive innovation? Formulating why POCUS is different from conventional comprehensive ultrasound. *Crit Ultrasound J*. 2018;10(1):25.
2. Mellor TE, Junga Z, Ordway S, et al. Not just hocus POCUS: implementation of a point of care ultrasound curriculum for internal medicine trainees at a large residency program. *Mil Med*. 2019;184(11-12):901-906.

Send letters to afplet@aafp.org, or 11400 Tomahawk Creek Pkwy., Leawood, KS 66211-2680. Include your complete address, email address, and telephone number. Letters should be fewer than 400 words and limited to six references, one table or figure, and three authors.

Letters submitted for publication in *AFP* must not be submitted to any other publication. Possible conflicts of interest must be disclosed at time of submission. Submission of a letter will be construed as granting the AAFP permission to publish the letter in any of its publications in any form. The editors may edit letters to meet style and space requirements.

This series is coordinated by Kenny Lin, MD, MPH, deputy editor.

LETTERS TO THE EDITOR

3. Weemer M, Hutchins M, Beachy E, et al. Considerations for implementing point-of-care ultrasound in a community-based family medicine residency program. *J Med Educ Curric Dev.* 2019;6:2382120519884329.
4. Micks T, Braganza D, Peng S, et al. Canadian national survey of point-of-care ultrasound training in family medicine residency programs. *Can Fam Physician.* 2018; 64(10):e462-e467.
5. National Resident Match Program. Emergency medicine match results statistics report 2019. Accessed April 28, 2020. <http://www.nrmp.org/fellowships/emergency-medicine-match>
6. The Ohio State University Department of Family Medicine News. Dr. Patel named first family medicine ultrasound fellow. Accessed April 28, 2020. <https://wexnermedical.osu.edu/departments/family-medicine/newsletters/pocus-fellowship>

In Reply: We appreciate Dr. Shavor's comments and endorse her persuasive argument for expanding POCUS instruction in family medicine residency programs. We regret the oversight of omitting ultrasound fellowships from our list of training opportunities.

We recognize the value of POCUS fellowship training for academic faculty but are less certain of its application in family medicine if appropriate training, image storage, and financial supports are not in place. Primary care ultrasound fellowships are not yet accredited by the Accreditation Council for Graduate Medical Education.¹ Graduates do not receive a Certificate of Additional Qualification, and there are no established standards for credentialing or insurance liability.

POCUS accessibility is nearing that of the stethoscope for many, but widespread use may be limited by accuracy and user proficiency challenges. Would we be broadly using stethoscopes if they cost thousands of dollars, carried

liability for missed diagnoses, had limited data, and offered uncertain reimbursement?

Although new skills augment capability, they also require maintenance. There is some evidence that ultrasound skills can degrade quickly. In one study, residents and medical students lost most knowledge gained from cardiac ultrasound training after one month.² In another study of medical student ultrasound training, only one-half could identify lung A-lines eight weeks later.³

The promise of POCUS is important, but issues surrounding skill retention and application remain.

Editor's Note: Dr. Arnold is contributing editor for *AFP*.

Michael J. Arnold, MD, FAFAP

Bethesda, Md.
Email: michael.arnold@usuhhs.edu

Christopher E. Jonas, DO, FAFAP, CAQSM

Bethesda, Md.

Rachel E. Carter, MD, MS, RDMS

Jacksonville, Fla.

Author disclosure: No relevant financial affiliations.

References

1. Barron KR, Wagner MS, Hunt PS, et al. A primary care ultrasound fellowship: training for clinical practice and future educators. *J Ultrasound Med.* 2019;38(4):1061-1068.
2. Yamamoto R, Clanton D, Willis RE, et al. Rapid decay of transthoracic echocardiography skills at 1 month: a prospective observational study. *J Surg Educ.* 2018;75(2): 503-509.
3. Rappaport CA, McConomy BC, Arnold NR, et al. A prospective analysis of motor and cognitive skill retention in novice learners of point of care ultrasound. *Crit Care Med.* 2019;47(12):e948-e952. ■