**MEMORANDUM**

To: Family Medicine Leadership Council Members

From: Sarah Cole, Warren Newton, Tim olde Hartman, Ryan Paulus, Margot Savoy,

Dean Seehuesen

Re: Towards a Specialty Wide Strategy for Implementation of Point of Care Ultrasound:

A Discussion paper

Date: July 8, 2024

Colleagues,

Attached is a three page document that gives suggestions for a collaborative specialty wide approach to training, practice and research in the use of point of care ultrasound in family medicine. Representatives of AAFP, ABFM, ADFM, AFMRD, NAPCRG and STFM met to prepare this document; they’ve also had a chance to comment on the draft. Please understand that it is a DRAFT—additions, corrections, edits welcome. Note that was some disagreement about curricular strategy; I’ve retained a comment to give you a perspective on the (useful) disagreement.

This document will be discussed at the Friday afternoon and perhaps at CAFM. I hope that we come out of the session on the Friday afternoon with a plan for action.

**Situation**: POCUS training and practice are spreading rapidly across US medical schools, in residencies, including Family Medicine, and, increasingly in practice. A growing body of literature suggest this modality is easily learned by family physicians, enhances clinical care and increases patient satisfaction. Rapidly spreading POCUS technology as well as AI offer an opportunity for significant improvements in clinical care. As yet, however, there is not a coordinated strategy across Family Medicine to set best practices for training, faculty development, practice and directions for research. A particular challenge is the need for education and skill training across a physician’s career—UME, GME and CME. What follows is a draft of principles for discussion at the August 2024 Family Medicine Leadership Council.

1. ***What we know about the spread of point of care ultrasound?*** ABFM data suggest that about 50% of residents intend to include POCUS in their practice, that almost 90% of residencies have at least one resident who intends to do POCUS. More intend than say they are prepared to use in practice (!), and that about 20% of recent graduates are incorporating POCUS into their practice, with significantly higher rates for those who are working as hospitalists or in Emergency Departments . 20% represents about 1000 physicians a year with current numbers of residents.

It is likely that the spread will continue: the ACGME Family Medicine Review Committee major revision of residency guidelines made POCUS training in point of care ultrasound a requirement, albeit a detailed requirement, and signaled intent to reevaluate at the first minor revision. ABFM has begun to insert ultrasound images into its certification exams and has included POCUS in its list of priority issues in health and health care that they expect family physicians to know about.

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1. ***Education*** ***for residents and practicing Family Physicians*** – Many entities including the AAFP, state chapters and private CME providers are providing instruction in point of care ultrasound, typically weekend experiences. Demand is huge. The AAFP has provided a white paper on POCUS education: ()<https://www.aafp.org/dam/AAFP/documents/medical_education_residency/program_directors/Reprint290D_POCUS.pdf>. Many family physicians in sports medicine, emergency medicine and taking care of pregnant patients have baseline competence for their areas, and may represent a reserve of faculty expertise that is useful the specialty. Additionally, family physicians in independent practices and direct primary care practices may also have significant POCUS experience. In terms of certification, STFM has developed a year long intensive course for faculty, but capacity is limited. The American College of Physicians offers POCUS training including a POCUS course hub (https://www.acponline.org/meetings-courses/focused-topics/point-of-care-ultrasound-pocus-for-internal-medicine) and a POCUS mentorship via a live 1:1 mentorship course(<https://www.acponline.org/meetings-courses/focused-topics/point-of-care-ultrasound-pocus-for-internal-medicine/point-of-care-ultrasound-pocus-mentorship-program>). The Society of Hospital Medicine runs a course targeting hospitalists of all specialties. (<https://www.shmlearningportal.org/content/2021-principles-point-care-ultrasound?utm_medium=cpc&utm_source=Google_SE&utm_campaign=POCUS&utm_term=5.16.24&utm_content=POCUSOnlineSeries&promo=GOOGLE&gad_source=1&gclid=CjwKCAjwnK60BhA9EiwAmpHZw9dEhzpvRv-v1CmAlpVOFQO3ayHu-naJKuD0J8QWwVcjwG_MxRtfCBoC8kIQAvD_BwE>). Commercial entities also host courses for example, Butterfly Academy (https://support.butterflynetwork.com/hc/en-us/articles/4412840279579-Using-Butterfly-Academy).

Emergency Medicine has developed a rigorous process for accrediting one year POCUS fellowships which could be open to Family Physicians if we choose to participate . This certification is targeted to individuals who run ultrasound clinical services.

To meet the needs for education of residents, faculty and practicing family physicians, we recommend development of a formal tiered curriculum with a core list of POCUS procedures that all residents should become competent in. Initially, this might be approximately 3-5 specific procedures that would be most useful in continuity practice with a mandatory over read process and an explicit and some volume requirements. Perhaps this could be in a form like ALSO with a version for instructors. Equity of access to education no matter the setting of residency or practice should be integrated into planning.

We further recommend a competency-based educational emphasis with:

* 1. Development of guidelines to assess POCUS competency in family medicine
  2. Assessment of learning status at the beginning of the education – particularly important for new residents since there is a great variability in POCUS training in medical schools. There is also great variation in POCUS background among practicing physician, so initial assessment is important..
  3. POCUS faculty with expertise necessary to assess competency.
  4. Assessment of competency along with some explicit volume expectations, and some required volume of mandatory over-reads.
  5. Development of a process to demonstrate ongoing competency for hospitals—eg. an OPPE process.
  6. Development of a process for education in advanced procedures and the differences between diagnostic POCUS and POCUS used to guide procedures.

1. ***Faculty Development:*** the greatest constraint on POCUS training is the availability of faculty who are qualified and able to teach and assess performance. The STFM faculty development certification is high quality but limited in numbers for the demand in 772 residencies and in the other CME workshops. The specialty needs to teach the teachers—eg develop more faculty capacity, and develop approaches that will be accessible to faculty no matter their setting. Initial steps include:
   1. Consider developing an ALSO-instructor-like course to complement the introductory courses in ultrasound.
   2. Access to a national set of “teaching” images to be used at modest cost; robust teaching sets need to have more than just images.
   3. Explore development of an “overread” service which will be available widely for residencies and departments without enough faculty who are competent: Institutional, HIPPA, cybersecurity and liability protection would be necessary.
2. ***Implementing POCUS In Practice***:
   1. Protection of privacy must be designed for.
   2. Images need to be kept and integrated into EHRs at a local level. Best practices need to be identified and promoted.
   3. Clinical practices should implement a system of quality assurance with overread of certain proportions of scan; the specialty should develop guidelines for QA.
   4. The specialty needs to decide on a strategy for POCUS credentialing in hospitals – will it be procedure or part of a “core” for all FPs.
   5. Information about purchasing of POCUS machines, safe keeping, insurance and other practical issues need to be collected, shared and updated regularly.
   6. Business plans for adoption need to be explored and disseminated, with identification of revenue opportunities, costs identified and kept up to date.
   7. Adoption will be driven by local factors. We need to create a process for sharing best practices with respect to policy, procedures and politics.
3. ***Spreading POCUS Skills to Practicing Physicians***: Broadly, there are three groups of practicing FPs with respect to acquiring POCUS skills: enthusiasts (both residents and practicing physicians), those who see no value for adopting in their current practice setting, and those on the edge of adoption. A practical problem is that the family physicians making clinical and structural decisions for practices are often of an age and practice that may see little incremental value in POCUS, and thus may have a bias against policies that support POCUS implementation.

What should be the strategy for engagement and education going forward for practicing physicians? Do we envision an update program annually as a CME, both locally and nationally? Should we develop a procedural certification process, perhaps including regular image review as Pathology does? Or like a BLS annual renewal process?

Another strategy might be to use levers such as performance improvement options for ABFM continuing certification, which the AAFP and other CME providers could provide PI CME.

1. ***Research on the effectiveness of POCUS*** – There is a growing body of research in Emergency Medicine and Hospital Medicine establishing the value of POCUS in emergency and hospital settings—typically for particular clinical problems or in particular contexts. Family physicians work in large numbers in these settings, and these findings need to disseminate to these individuals. FPs researchers also need to contribute to this literature: the voice of primary care is important.

There is a significant gap in the evidence, however, when it comes to the use of POCUS in continuity practice by personal physicians. Important questions iinclude:

* 1. What is the frequency of use and value of particular procedures in a typical family practice?
  2. What are the operating characteristics of POCUS by indication, experience of the clinician and by specifc technology?
  3. How useful is POCUS in continuity practice—how often is it needed in what kind of practice? Does it provide information that changes management, or alter the prognosis of patients with specific symptoms or specific diseases? What are the most important/valuable POCUS procedures?
  4. Does POCUS improve cost-effectiveness of primary care?
  5. What are optimal ways to train POCUS – and to maintain competency?
  6. Will AI overread be accurate and add value to provision of ultrasound?
  7. What are the practical barriers and promoters of POCUS practice by family physicians and other primary care clinicians?
  8. What would be an effective specialty wide strategy for promoting research in POCUS?