Dear editor,

Point-of-care Ultrasound (POCUS) is defined as diagnostic or procedural guidance ultrasound that is performed by a clinician during a patient encounter to help guiding the evaluation and management of the patient. It is often referred to as the fifth pilar of physical examination. The use of POCUS has been increasing these last few years since it is much more accessible, but most of all because it increases diagnostic accuracy, gives prognostic information, and allows monitoring of patients during follow-up. It should not be seen as a replacement for comprehensive examinations made by radiologists or cardiologists. It is however useful in many scenarios such as hospital wards and emergency rooms.

This technique gained popularity in emergency medicine because of its utility in the primary assessment of acutely ill patients enhancing diagnostics and resuscitation.

Consequently, some questions arise – is it a useful technique in the field of internal medicine (IM)? Should we be integrating POCUS teaching in our residency?

The answer is yes.

POCUS can be split into procedural and diagnostic. Ultrasound guided procedures are becoming the mainstay when considering invasive techniques. Placement of central venous lines, thoracocentesis and paracentesis are some of the many procedures that are now performed with more accuracy and safety. Diagnostic POCUS has a wide variety of applications, it can help diagnosing a diffuse interstitial syndrome in decompensated heart failure, a pulmonary embolism with right ventricular disfunction or a deep venous thrombosis. It can identify an acute myocardial infarction or determine the etiology of shock. It can abbreviate the classifications of acute kidney injury. We can assess venous congestion and minimize the challenges the physical examination alone poses in determining volume status. Who is the internist who never had trouble deciding at what point to stop fluid resuscitation?

Also of great importance is the fact that the exam is performed by the same clinician who generates the question and integrates the findings with the patient’s care. To be used successfully adherence to several stewardship elements is essential, namely appropriate patient selection, clinical indication, consideration of pre-test probability and the spectrum of the disease.

Many IM program directors feel that formal POCUS education should be included in IM residency training, and many learners desire training, however several barriers exist: lack of ultrasound equipment; lack of standardized curriculum and of POCUS-trained faculty.

Portable ultrasound devices have decreased in both size and cost, making this barrier the easiest to overcome.

So, what do we need to start learning? And what do we need to start teaching?

POCUS has already been included as a mandatory competence in the European curriculum of IM. The training model continues, however, to be an obstacle. Even though more and more papers are being written with the purpose of developing ultrasound programs with the methods mentioned, the implementation of this new technique remains challenging.

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