

POINT OF CARE ULTRASOUND IN UNDERGRADUATE MEDICAL EDUCATION: WHERE DOES IT BELONG?

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ABSTRACT: Poster (2B)

- Purpose:** Point of care ultrasound (PoCUS) is portable ultrasound technology that can be used at the bedside to diagnose medical conditions and provide visual guidance for procedures. Physicians from many disciplines have been using PoCUS for over twenty years. Given that PoCUS is becoming a requirement of residency training programs and has proven utility in clinical practice to improve patient outcomes, educators are beginning to introduce PoCUS into undergraduate medical education. The goal of this literature review is to provide curriculum developers and teachers with insight into what is currently being done to teach and evaluate PoCUS both in Canada and worldwide. To achieve this, we surveyed Canadian medical schools and conducted a comprehensive search of the literature to summarize current methods of teaching and evaluating PoCUS used by medical schools.
- Methods:** A systematic search was employed using key terms to retrieve 141 relevant titles. Titles and abstracts were screened using a priori established inclusion criteria, yielding a total of 107 studies, from 70 institutions worldwide, which are summarized in this review. PoCUS educators at each of the 17 Liaison Committee on Medical Education (LCME) accredited Canadian medical schools were contacted by email to determine the current state of PoCUS education at the undergraduate level.
- Results:** PoCUS has been introduced at variable intervals in undergraduate medical curricula, with no universal approach. At the pre-clerkship level PoCUS is taught within both anatomy and clinical skills curricula. At several institutions PoCUS teaching is solely extracurricular. At present, instructors of all levels and backgrounds teach PoCUS, including clinicians, non-MD faculty, students, and residents. Evaluation of PoCUS is widely varied, and there is no data to determine how best to evaluate PoCUS at this level. Commonly encountered barriers to introducing PoCUS into undergraduate curriculum were lack of access to equipment and teaching space due to cost, and lack of trainer and available faculty.
- Conclusion:** PoCUS is being introduced to medical students in a variety of contexts, to varying degrees and is being evaluated in multiple ways. If PoCUS is deemed to be an important skillset for undergraduate medical students, the heterogeneity of approaches identified in this report may be perceived as both an asset and a challenge for program developers planning on incorporating PoCUS into their curriculum. In the future, studies investigating superiority in specific teaching methods or modes of evaluation are needed.