

Medical school ultrasound education Frequently Asked Questions (FAQ's)

Why should a medical school implement ultrasound training in their curriculum?

If medical school is meant to train the next generation of clinicians, it is important to always consider those tools that are available at the bedside and make sure 21st century clinicians are able to use these tools.

Why start ultrasound training in medical school? The challenge of ultrasound has been operator dependency and the opportunity for repeated exposure to learning ultrasound can augment medical student's understanding of anatomy, physiology and approach to clinical problems at the patient's bedside.

Do medical students enjoy using ultrasound? Medical students, like most people, enjoy getting their hands on technology and visualizing structures that remain hidden from view by surface anatomy.

How can medical students be expected to master performing ultrasound with a busy curriculum already full of material for them to learn? Many students who utilize ultrasound state it helps them to understand anatomy and cross sectional relationships along with understanding key physiologic principles. Many state it augments their understanding.

Are there programs that have implemented ultrasound in medical school? Yes, the literature is full of projects involving medical students and some schools such as Wayne State, University of South Carolina, Ohio State, and University of California Irvine have developed robust medical student ultrasound programs.

How does one start an ultrasound program within medical school? There is not a prescriptive path that fits every medical school. It usually begins with a point person or champion that advocates for implementing ultrasound into the curriculum and building a program one piece at a time.

Are there barriers to implementing an ultrasound program in medical schools? Apathy is the biggest barrier, along with time investment, money for salary support, equipment accrual, faculty support, and an already crowded curriculum.

Why should a dean of a medical school embrace the thought of ultrasound in medical education? Deans trying to coordinate a competitive advantage should picture the future of health care and wonder... 10-20 years in the future, will ultrasound be more used or less used? Will more physicians be using these tools in medical centers, the third world, and austere environments? Will the risk-benefit cost of expensive, potentially harmful modalities such as computed tomography be as prevalent in the future of health care or will ultrasound be more prevalent? Thoughtful questions about patient safety,

cost of screening and early diagnostic benefits of ultrasound should be considered when shaping the curriculum for future clinicians over the next 2 decades.

What is the Ultrasound First movement? Ultrasound first is an educational campaign launched by the AIUM to highlight the benefits of early ultrasound as safe, affordable and effective.

I thought ultrasound was only used to look at babies. Can physicians in other specialties use this modality? The capability of ultrasound equipment to transmit sound energy into the human body and produce images has been explored by physicians of multiple specialties to use in the care of their patients. The *New England Journal* article “Point of Care Ultrasound” (*NEJM* 2, 2011) delineates the use of ultrasound in most medical specialties.

How could ultrasound be used to replace the traditional methods of medical education? The best way to integrate ultrasound is not to replace previous educational methods but augment and facilitate the medical education process.

How can ultrasound be used in the teaching of medical education principles? Clinical correlations from patient screening, procedural guidance, and undifferentiated patient presentations are important ways to highlight how bedside ultrasound can be used to manage the clinical needs of patients in multiple settings.