

General Concepts in Developing an Ultrasound Curricula

- Problem Identification and General Needs Assessment
 - Targeted Needs Assessment
 - Goals and Objectives
 - Educational Strategies
 - Implementation
 - Evaluation and Feedback
1. **Problem Identification and Needs Assessment:** Ultrasound has become more portable and accessible to the everyday clinician yet the requisite training and expertise is not commonplace for the practicing clinician. Ultrasound equipment and expertise is not uniformly available to all the specialties that could use this tool in the care of their patients
 2. **Targeted Needs Assessment:** Each learner that delineates a specialty choice will narrow their ultrasound needs (e.g. CCUS → thoracic ultrasound). As students/learners refine their career goals, the ultrasound curricula will requisitely focus on those skills necessary for their eventual specialty.
 3. **Goals and Objectives:** The goals and objectives to learn the psychomotor task of acquiring and interpreting ultrasound images will be consistent for each focused ultrasound procedure (e.g. performing a focused cardiac ultrasound) and will become more specific as the curriculum advances.
 4. **Educational Strategies:** The educational strategy of the Ultrasound Academy will be employed for all learners and is demonstrated in the Ultrasound Echo document. Surveying all learners, access to asynchronous online material and assessment through Carmen learning management system, Synchronous didactics, hands on deliberate practice, saving images to a digital portfolio, patient exams in a clinical environment, modular assessment of ultrasound skills in a practical examination, final recommendation.
 5. **Implementation:** These curriculum are currently being implemented in the clinical skills lab, clinical settings in the Emergency department, ICU and on various rotations.
 6. **Evaluation and Feedback:** Online Carmen Quizzes, practical hands on examinations, final yearly assessment of skill sets, and bedside teaching are some of the methods for providing ultrasound competency feedback to learners.

Reference

Curriculum Development for Medical Education: A Six-Step Approach 2nd Ed. David Kern, Patricia Thomas, Mark Hughes, Johns Hopkins Press 2009