ULTRASOUND TRAINING AS AN OPPORTUNITY TO INTRODUCE COMPETENCY–BASED ASSESSMENT IN THE PRECLINICAL MEDICAL SCHOOL CURRICULUM

Matt Jackson, PhD
Assistant Dean
Wayne State School of Medicine
Detroit MI
I do not have any financial relationships with commercial interests related to the content of this educational activity
Ultrasound training is a unique and exciting way to meet the burgeoning Liaison Committee on Medical Education (LCME) standard of competency-based assessment.
Portable ultrasound machines provided by GE
Training incorporated into year 1 curriculum
MS1 training reinforced Gross Anatomy and students learned clinical applications throughout the sophomore Physical Diagnosis Course
Faculty from the Henry Ford Health System Departments of Surgery, Emergency Medicine, and Radiology responsible for training.

Freshman training includes a 30 minute introduction followed by hands-on training in small groups.

- Attendance is mandatory.
Year 1 Curriculum

1. Introduction to Ultrasound
2. Abdominal & Genitourinary
3. Cardiovascular
4. Musculoskeletal
5. Skills Assessment
WSU–SOM PROGRAM

• Largest single-campus medical school in U.S.
• Devices available for students to check out
  ❖ Student super users as trainers
Year 2 Curriculum

- Incorporated into Physical Diagnosis Course
- Cardiovascular and Abdominal systems
- Pathophysiology taught during debriefing sessions
Summer externships

Well-developed 3rd year clerkship US curriculum at Henry Ford clinical campus

4th year electives in Emergency Medicine & Surgery
Majority of students felt US was a valuable tool that they would use in their medical practice as primary care physicians or subspecialists

The World of Accreditation

Liaison Committee on Medical Education

Wayne State University School of Medicine
K1: KNOWLEDGE OF THE NORMAL STRUCTURE OF THE HUMAN BODY

Anatomy
Histology-Embryology
Neuroscience
Physical Diagnosis
Performance on USMLE Step 1

Ultrasound training
S1: THE ABILITY TO PERFORM A SATISFACTORY PHYSICAL EXAM

Performance in clinical medicine 1 and 2, using standardized patients
Performance on school Year 3 OSCE
Satisfactory evaluations in the required Year 3-4 clinical rotations

Ultrasound skills assessment during PD
LCME ED-5

A medical education program must include instructional opportunities for active learning and independent study to foster the skills necessary for lifelong learning.
Purpose

Identify most important scientific competencies required of matriculating students, as well as those required of medical school graduates
Competency M2
Apply major principles of physics and chemistry to explain normal biology, the pathobiology of significant diseases, and the mechanism of action of major technologies used in the prevention, diagnosis, and treatment of disease.
Ultrasound training is a natural fit for active-learning and competency-based education in the undergraduate medical school curriculum.

As more medical schools adopt ultrasound training into their curriculum the LCME will begin to expect it.
Acknowledgements

David Amponsah MD, RDCS
Nelia Afonso MD
Scott A. Dulchavsky MD, PhD