

Elective Description

Campus: SE Campus (Fargo)

Department: Internal Medicine

Elective/Experience Title: POCUS in General Internal Medicine

Course Number: IMED 9502

Location of Elective: Lake Region Healthcare - Fergus Falls, MN

Preceptor(s): Josh Overgaard, MD; Colt Edin, MD; Andre Genereux, MD

Period(s) Offered: Periods 1-4, 7 & 8

Course prerequisites:

Number of students per period: 1

Revised Curriculum Phase(s): 2 & 3

Purpose: To advance the understanding and skill in the use of bedside ultrasound and how it is incorporated into patient care.

Objectives: Following successful completion of this elective, the student will be able to:

1. Discuss the physics of ultrasound (US).
2. Apply knowledge of US physics to image generation and interpretation. (LO 4, EPA 3)
3. Identify indications and limitations of focused ultrasound examinations including when it is more appropriate to obtain other studies. (LO 4, EPA3)
4. Reliably acquire ultrasound images of lungs, heart, liver, kidneys, spleen, and urinary bladder and have a baseline understanding of image acquisition for musculoskeletal structures. (LO1,4, EPA 1,3)
5. Demonstrate professionalism during all interactions with patients including appropriate communication skills and attention to patient privacy. (LO 6, 15)
6. Interpret focused ultrasound images in real time to identify normal structure as well as common disease states. (LO 4, EPA 3)
7. Document point of care ultrasound findings accurately in the patient's medical record. (LO 2, EPA 1&5)
8. Integrate point of care ultrasound results to clinical decision making. (LO 4, EPA 3)
9. Perform complete history and physical examinations and formulate differential diagnoses of patients commonly encountered in an inpatient or outpatient internal medicine setting. (LO 1, 3 EPA 1, 2)
10. Accurately and succinctly perform oral patient case presentations. (LO 1, EPA 6)

Instructional Activities: During this elective, the student will be involved in/experience:

1. One-on-one didactic sessions regarding ultrasound physics, imaging, and image interpretation.
2. Evaluation and management of general internal medicine patients in the outpatient and inpatient setting.
3. Patient care with a focus on the use of bedside ultrasound with the preceptor. Though the use of ultrasound with every patient will not be feasible, it will be used as often as possible.
4. Case presentation to medical staff of one interesting ultrasound case.

Evaluation Methods: During and following this elective, the preceptor will:

1. Utilize the standardized UNDSMHS senior elective evaluation form.
2. Evaluate by discussion with the student their knowledge of ultrasound physics (Objective 1, 2).
3. Evaluate by direct observation the student's ability to employ appropriate use of POCUS in different patient care scenarios. (Objective 2, 3, 6)
4. Evaluate by direct observation the student's ability to operate the transducer and CPU correctly. (Objective 2,4)
5. Evaluate by direct observation the student's ability to obtain images reliably while also respecting patient modesty and draping appropriately. (Objective 4, 5)
6. Evaluate through case discussion the student's ability to incorporate their findings well into clinical decision-making. (Objective 8)
7. Evaluate by direct observation the student's ability to document findings accurately in the medical record. (Objective 7)
8. Evaluate by direct observation and case discussion the student's ability to perform history and physicals and formulate differential diagnoses for patients on an internal medicine service. (objective 9)
9. Evaluate by direct observation the student's ability to present orally both informal case presentations and one case conference presentation. (Objective 5)