

## Creating a Longitudinal Ultrasound learning experience for fourth year medical students

### Purpose:

The previous traditional University of Colorado School of Medicine (CUSOM) curriculum included a two-week ultrasound elective with consistently high enrollment. As CUSOM transitioned to a novel longitudinal curriculum, this elective was no longer feasible. To fill the gap, we sought to create a longitudinal learning experience for fourth year medical students that aligned with their future career interests.

### Objectives:

Develop and implement a longitudinal learning experience for fourth year medical students in point-of-care ultrasound with preceptors that align with future career goals.

### Methods:

We developed a six-month, longitudinal ultrasound elective for medical students in their advanced stages of training. Students were paired with preceptors that are experts in point-of-care ultrasound in a variety of fields that aligned with their future career interests. Students worked with their preceptors over four to six months to achieve the course goals which were to: (1) become proficient in performing point-of-care ultrasound as it relates to future career goals, obtain and (2) Obtain a designated number of clinical ultrasounds, review images with faculty preceptor, (3) identify normal anatomy and pathologic findings with the assistance of a faculty preceptor, and (4) develop a patient centered approach to procedures. We conducted anonymous surveys of participating students and preceptors to evaluate the efficacy of the new course.

### Results:

We enrolled 10 students in the elective. Enrolled students were interested in a variety of specialties, including Pediatric and Adult Critical Care Medicine, Emergency Medicine, Musculoskeletal Radiological Medicine, Rheumatologic Medicine, and Hospital Medicine.

Initial feedback from preceptors included adjusting the number of ultrasounds to fit the clinical environment. Many preceptors were unable to complete the initially sought after 150 clinical

ultrasounds for various clinical and patient reasons. Additional feedback will be obtained at the course's completion in April.

#### Completion:

Implementation of a longitudinal ultrasound elective that aligns with student's future career goals was able to meet the need of providing a longitudinal clinical ultrasound experience for students in a novel medical school curriculum. To our knowledge there is no other longitudinal ultrasound experience that aligns with career goals offered at other institutions. The next steps will be to expand the elective to include more specialties and to make it more widely available to interested students. Enrollment for the upcoming year is targeted to enroll 30 students while about 30 students remain on the wait list for the elective. While this was implemented at one institution and the unique resources and needs assessment of widespread implementation should be evaluated."