

#275 Stephanie Jarrin

Advisor(s): Michael Keenaghan

POCUS in the PICU: Measures of Pediatric Resident Self Efficacy

Rationale: Point-of-care ultrasound (POCUS) has become a critical tool for physicians in several areas of clinical practice. No longer restricted to diagnostic imaging departments, POCUS assists in developing procedural guidelines and tailored treatments/diagnosis, allows ongoing monitoring of a patient, and aids in performing invasive procedures with increased confidence and safety. Despite its demand, current residents report little or no POCUS knowledge or training. This study aimed to measure PICU residents' POCUS knowledge and self-efficacy before and after an educational intervention.

Methods: A POCUS curriculum with self-study didactic lectures and hands-on experience was designed. Before the intervention, residents completed a written POCUS test to measure their baseline knowledge. Residents had access to video lectures on ultrasound fundamentals for self-study; In-person teaching was limited to hands-on scanning tutorials. At the end of 1-month PICU rotation, residents completed their initial POCUS test again to measure the success of the intervention.

Results: Sixteen residents (Mean=31, SD=.45; 25% male) completed the pre- and post-course knowledge test, with significant improvement following the curriculum. Residents reported increased knowledge performing POCUS and rated the POCUS hands-on training favorably. At baseline, 91% of residents believed POCUS was quite beneficial for their patients.

Discussion: The training tested in this study strives to bridge the current disconnect in pediatric resident education. We have designed a curriculum that incorporates both didactic and hands-on learning experiences to increase the resident's POCUS competence. After completing their first PICU rotation and our curriculum, we expect to find that residents are not only familiar with POCUS fundamentals but comfortable with performing several POCUS exams.