"We conducted an observational cohort study evaluating a POCUS training course that comprised 7 sessions of 2 hours each with didactics and proctored skills stations covering ultrasound applications for trauma (Focused Assessement with Sonography for Trauma (FAST) examination), obstetrics, vascular, soft tissue, regional anesthesia, focused echocardiography, and ultrasound guidance for procedures" Kotagal et al (2015).

Reference:

Kotagal, M., Quiroga, E., Ruffatto, B.J., Adedipe, A.A., Backlund, B.H., Nathan, R., Roche, A., Sajed, D. and Shah, S. (2015) Impact of Point-of-Care Ultrasound Training on Surgical Residents' Confidence. Journal of Surgical Education April 21st. .

Abstract:

OBJECTIVE: Point-of-care ultrasound (POCUS) is a vital tool for diagnosis and management of critically ill patients, particularly in resource-limited settings where access to diagnostic imaging may be constrained. We aimed to develop a novel POCUS training curriculum for surgical practice in the United States and in resource-limited settings in low- and middle-income countries and to determine its effect on surgical resident self-assessments of efficacy and confidence.

DESIGN: We conducted an observational cohort study evaluating a POCUS training course that comprised 7 sessions of 2 hours each with didactics and proctored skills stations covering ultrasound applications for trauma (Focused Assessement with Sonography for Trauma (FAST) examination), obstetrics, vascular, soft tissue, regional anesthesia, focused echocardiography, and ultrasound guidance for procedures. Surveys on attitudes, prior experience, and confidence in point-of-care ultrasound applications were conducted before and after the course.

SETTING: General Surgery Training Program in Seattle, Washington.

PARTICIPANTS: A total of 16 residents participated in the course; 15 and 10 residents completed the precourse and postcourse surveys, respectively.

RESULTS: The mean composite confidence score from pretest compared with posttest improved from 23.3 (±10.2) to 37.8 (±6.7). Median confidence scores (1-6 scale) improved from 1.5 to 5.0 in performance of FAST ($p < 0.001$). Residents reported greater confidence in their ability to identify pericardial (2 to 4, $p = 0.009$) and peritoneal fluid (2 to 4.5, $p < 0.001$), to use ultrasound to guide procedures (3.5 to 4.0, $p = 0.008$), and to estimate ejection fraction (1 to 4, $p = 0.004$). Both before and after training, surgical residents overwhelmingly agreed with statements that ultrasound would improve their US-based practice, make them a better surgical resident, and improve their practice in resource-limited

settings.
CONCLUSIONS: After a POCUS course designed specifically for surgeons, surgical residents had improved self-efficacy and confidence levels across a broad range of skills.
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