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Title

Teaching the Teachers of Point-Of-Care Ultrasound (POCUS): Creating a checklist for an Objective Structured Teaching Examination (OSTE) for Instructors of the Focused Assessment with Sonography for Trauma (FAST) Exam

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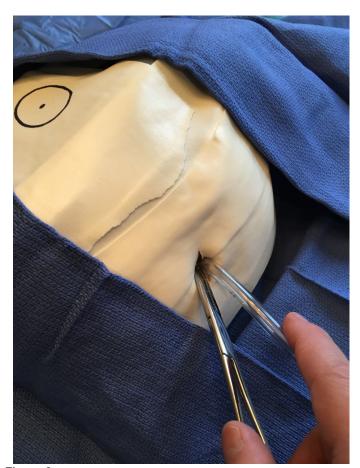


Figure 2.

Teaching the Teachers of Point-Of-Care
Ultrasound (POCUS): Creating a Checklist for
an Objective Structured Teaching Examination
(OSTE) for Instructors of the Focused
Assessment with Sonography for Trauma
(FAST) Exam

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Background: Competency in POCUS is required by the Residency Review Committee for multiple medical specialties not just limited to Emergency Medicine. As ultrasound use increases there is a need to ensure that senior residents and faculty are adept at instructing novice learners in POCUS. OSTEs focus on the teaching skills of residents and faculty and have been utilized to evaluate and enhance clinical teaching. There is a lack of literature detailing OSTE use in teaching procedures like POCUS.

Educational Objectives: We sought to create an OSTE checklist that could be used to evaluate an instructor teaching a FAST exam to a novice ultrasound learner. This OSTE is the basis for creating a curriculum for the instructor and evaluating the effectiveness of teaching the teachers of POCUS.

Curricular Design: A panel of faculty from our institution with both POCUS and medical education expertise created a preliminary OSTE checklist after reviewing the literature. The checklist was organized into three parts: short didactics, hands-on scanning and overall learning climate. We conducted a cross-sectional survey which was IRB exempt. We sent the draft checklist to a convenience sample of ultrasound directors for review. We asked specifically, "Is each particular point/item important for a FAST teacher to perform when instructing a novice ultrasound learner?" and the results were recorded in a binary fashion.

Impact/Effectiveness: The checklist was reviewed by 13 US directors nationally. A cutoff of 75% of respondents scoring the item as YES/KEEP was used to determine whether individual items should be kept or dropped. The final OSTE checklist reflects a total of 29 items out of the original 33 draft items (Table 1). Creation of a FAST OSTE will facilitate the development and evaluation of curriculum specifically designed for the instructors of POCUS starting with the core application of the FAST exam.



POCUS: OSTE Checklist for the FAST Exam

69.2%	30.8%	Hands-On Scanning 1. Facilitated learner's image acquisition by recognizing and correcting probe position and beam direction. 2. Used verbal cues to slide, rotate, fan, rock, flatten or	Keep 100%	Discard 0%
	30.8%			
		change pressure of the probe prior to demonstrating or physically directing the learner's hand.	100%	0%
	0%	 Emphasized the importance of fanning through the entire window (liver/kidney, spleen/kidney, pelvis 	92.3%	7.7%
76.9%	23.1%	hemoperitoneum.		
		 Instructed how to visualize above the diaphragm in the LUQ and RUQ views. 	100%	0%
100%	0%	Instructed how to rotate probe when rib shadows obstruct visualization.	92.3%	7.7%
		 Highlighted need to visualize inferior pole of R kidney in RUO. 	76.9%	23.1%
1000	004	7. Highlighted need to visualize entire	84.6%	15.4%
			53.8%	46.2%
10070	0.70	improve sensitivity for detecting free fluid.		
100%	0%	Explained that perinephric fat may appear as free Suid and the importance of comparing to expect to	69.2%	30.8%
84.6%	15.4%	side.		
84.6%	15.4%	Learning Climate	Keep	Discard
		Actively sought questions from the learner.	2.3%	7.7%
84.6%	15.4%	Probed the learner with questions to gauge understanding.	.00%	0%
84.6%	15.4%		4.6%	15.4%
100%	0%		.00%	0%
100%	0%	5. Created a comfortable/safe learning 7	6.9%	23.1%
100%	0%	environment.	2.201	7.7%
76.00/	22.10/		2.3%	7.7%
	76.9% 100% 100% 65.2% 100% 100% 100% 84.6% 84.6% 84.6% 100%	76.9% 23.1% 100% 0% 0% 15.4% 15.4% 15.4% 100% 0% 100% 0% 100% 0% 100% 0% 100% 0% 100% 0% 15.4% 1	S. Emphasized the importance of laming through the entire window (Inver) foliates page (Markey 2014)	Benghasterd the importance of faming through the entire window (Perry Molary poleny/Asters, perbe entire window). 100% 0% 10% 10% 10% 10% 10% 10% 10% 10%

Figure 1.

63 Teaching Video and Hands on Learning Improve Slit Lamp Exam Workshop

Mason J, Najarian S/MetroHealth Medical Center, Cleveland, OH

Background: Learning through multimedia can fill gaps in less commonly performed procedures and clinical exam skills. 4th year medical students (MS4's) and interns are generally uncomfortable and not proficient with slit lamp exams (SLEs). A concise video presentation that can be watched prior to an educational workshop, and also available for review on shift improves the provider's comfort and proficiency in performing a SLE. This model incorporates video learning, interactivity, practice, and repetition, which have been shown in prior studies to improve learning outcomes.