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Figure 2.

44 Low-Cost, Ultrasound-Compatible Paracentesis Model for Medical Trainees

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Introduction/Background: Paracentesis is an important procedure as physicians are poor predictors of spontaneous bacterial peritonitis. Simulation-based education has improved procedural skills training and decreased morbidity associated with invasive procedures. Deliberate practice with an ultrasound-compatible paracentesis simulator significantly improved resident procedural competence. Low-cost, ultrasound-compatible models for pericardiocentesis have been developed. We developed a low-cost, ultrasound-compatible model for medical trainees to perform paracenteses.

Objectives:

1. Review and model anatomic considerations when performing bedside paracentesis.
2. Develop a reproducible, ultrasound-compatible model that is efficient to use as an educational intervention.

Curricular Design: A prototype of our model was tested by medical students at Oregon Health and Science University under faculty supervision and all trainees obtained “peritoneal fluid.” The model was then revised to make it ultrasound-compatible. We propose that this model be utilized in conjunction with additional education interventions including an online video paracentesis tutorial; an educational session reviewing indications for, benefits/risks of, and procedure set-up for paracentesis; and an outcome measurement of self-perceived competence and improved understanding of the tactile feedback necessary for this procedure.

- Materials:**
- Whoopie cushion (12 pk \$7)
 - Animal Twist and Shape Balloons (25/pk \$2.50; 144/pk \$10)
 - Vegetable oil (\$1.50)
 - Sink
 - 60mL syringe
 - Flesh-colored 9x11 sheets of felt (\$0.99/sheet)
 - 1-inch Binder Clip (24/pk \$3)
 - 12-inch basin (Medline \$3)
 - Paracentesis kit (18 G needle, syringe)
 - Ultrasound

Impact: Simulation training can improve procedural skills and patient care. Prior non-commercial, paracentesis models are limited by their expense, time, faculty commitment and tool availability. Our simulator is low-cost, easy-to-assemble, ultrasound-compatible, and well-received by medical trainees.



Figure 1.



Figure 2.

45 Mapping Emergency Medicine Milestones to an Existing Simulation Curriculum

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Background: The Accreditation Council for Graduate Medical Education defines milestones that all residents are expected to meet. Program directors must develop methods to