

Gastroesophageal Balloon Tamponade Simulation-based Training: An Unmet Curricular Need Across Specialties

RATIONALE: Gastroesophageal balloon tamponade (GEBT) tube placement is a life-saving measure used as a bridge to definitive therapy in patients with variceal hemorrhage refractory to medical and/or endoscopic therapy. As an infrequently performed procedure, the development of proficiency may not be achieved through clinical experience alone. Within gastroenterology, simulation-based training in GEBT tube placement is an identified curricular need shown to improve knowledge and skills amongst both fellows and faculty. As GEBT competency needs extend to disciplines of critical care and emergency medicine (EM), we sought to understand the learner experience, confidence, and educational needs of faculty and fellows within these disciplines.

METHODS: A survey-based needs assessment was sent to trainees and faculty in EM and Pulmonary and Critical Care Medicine (PCCM) at the University of Colorado Hospital Training Sites. The assessment addressed the following themes: 1) experience with GEBT during training or clinical practice, 2) training needs in GEBT tube placement, and 3) self-confidence with GEBT tube placement and management.

RESULTS: 100 survey responses were included - 36 PCCM (21/21 possible trainees, 15/31 faculty) and 64 EM (34/68 trainees, 30/110 faculty). Most trainees agreed upon need for proficiency in GEBT tube placement by training completion (PCCM: mean 4.43 on 5-point Likert scale; EM: 4.91/5). Faculty agreed they should possess procedural proficiency (PCCM: mean 4.67/5; EM: 4.47/5) as most faculty expected to place a GEBT tube (PCCM: mean 4.67/5; EM 4.43/5). Trainees had limited experience placing GEBT tubes in clinical practice (9.5% PCCM and 29.4% EM placed ≥ 1). Faculty had more experience (80% PCCM, 70% EM placed ≥ 1). Both faculty and trainees reported similar rates of prior simulation training (53% of PCCM trainees, 54% of PCCM faculty, 24% of EM trainees and 37% of EM faculty). Self-confidence with GEBT tube placement without error was low across all groups (PCCM trainee: 1.76 out of 5-point Likert scale; EM trainee: 2.23/5; PCCM faculty: 3.4/5; EM faculty: 3.28/5). Most respondents desired more training opportunities (PCCM trainees: mean 4.33/5; EM trainees: 4.35/5; PCCM faculty: 4.47/5; EM faculty: 3.83/5). The most desirable training modality was simulation-based training (PCCM trainees: mean 4.67/5; EM trainees: 4.61/5; PCCM faculty: 4.4/5; EM faculty: 3.86/5).

CONCLUSION: GEBT is an infrequently performed procedure with complications when not performed properly and clinical exposure is insufficient to gain proficiency. Trainees and faculty across specialties have minimal experience, low procedural confidence, and highly desire a simulation-based training curriculum."