ABSTRACT

BACKGROUND: The Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Pediatrics (ABP) have initiated the Pediatric Milestone Project with the goal to "refine the ACGME competencies and to set performance standards as part of the continued commitment to document outcomes of training and program effectiveness." [1] Pediatric patient care is often rooted in problems with airway. While there are courses that teach pediatric airway skills, there are no validated assessment tools specific for competency in pediatric airway management.

OBJECTIVE: To develop and validate an assessment tool for evaluating pediatric airway skills for physician trainees.

METHODS: We modified the Airway Section of the TRACS tool from the Brett-Flugel et al. study which assesses pediatric residents' resuscitation skills.[2] The original tool evaluates airway skills using a yes/no question style. Modified TRACS has a 5-point scale with descriptive anchors for each. We used a Delphi process to establish expert consensus on the importance of pediatric airway skills. Our multidisciplinary, multi-institutional panel was chosen based on each individual's expertise in one or more of the following areas: pediatric airway management, resuscitation medicine, graduate medical education, and simulation education research. This process provides face and content validity. The first round responses were used to prepare the second and final questionnaire.

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The first questionnaire included questions related to the evaluation of airway skills and to compare the two tools. The second round responses were used to prepare the second and final questionnaire.

The themes were used to guide the production of the final tool.

RESULTS: A tool that assesses competency in pediatric airway management has been developed and is being validated using expert consensus. The tool has 7 sections. Sample section on effectiveness of bag-valve-mask ventilation is used to illustrate the transformation from the original tool to the current version.

CONCLUSIONS: We have developed a validated tool that assesses competency in pediatric airway management. Training Programs can use this tool to ensure that their graduates have mastered such a life-saving skill set as proper pediatric airway management or to determine those struggling with airway skills in order for a timely and appropriate intervention to be made. This tool will be used in a future study examining simulated scenarios to evaluate airway skills in residents of different levels, further validating the tool by assessing feasibility, construct validity, inter-rater and intra-rater reliability, and test-retest reliability.

THEME: CRICOID PRESSURE: (Should the use of cricoid pressure be assessed in the tool?)

METHODS

"We modified the Airway Section of the TRACS tool from the Brett-Flugel et al. study which assesses pediatric residents' resuscitation skills.[2] The new version is called Modified TRACS. We used a Delphi process to establish expert consensus on the importance of pediatric airway skills and to how assess such skills both in real and simulated scenarios.

Our multidisciplinary, multi-institutional panel was chosen based on each individual's expertise in one or more of the following areas: pediatric airway management, resuscitation medicine, graduate medical education, and simulation education research. This process provides face and content validity. The first round responses asked the expert questions related to the evaluation of airway skills and to compare the two tools. The second round responses were used to prepare the second and final questionnaire.

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