To develop a reliable and validated tool to evaluate technical resuscitation skills in a pediatric simulation setting" Faudeux et al (2017).

Abstract:

OBJECTIVES: To develop a reliable and validated tool to evaluate technical resuscitation skills in a pediatric simulation setting.

STUDY DESIGN: Four Resuscitation and Emergency Simulation Checklist for Assessment in Pediatrics (RESCAPE) evaluation tools were created, following international guidelines: intraosseous needle insertion, bag mask ventilation, endotracheal intubation, and cardiac massage. We applied a modified Delphi methodology evaluation to binary rating items. Reliability was assessed comparing the ratings of 2 observers (1 in real time and 1 after a video-recorded review). The tools were assessed for content, construct, and criterion validity, and for sensitivity to change.

RESULTS: Inter-rater reliability, evaluated with Cohen kappa coefficients, was perfect or near-perfect (>0.8) for 92.5% of items and each Cronbach alpha coefficient was ≥0.91. Principal component analyses showed that all 4 tools were unidimensional. Significant increases in median scores with increasing levels of medical expertise were demonstrated for RESCAPE-intraosseous needle insertion (P = .0002), RESCAPE-bag mask ventilation (P = .0002), RESCAPE-endotracheal intubation (P = .0001), and RESCAPE-cardiac massage (P = .0037). Significantly increased median scores over time were also demonstrated during a simulation-based educational program.

CONCLUSIONS: RESCAPE tools are reliable and validated tools for the evaluation of technical resuscitation skills in pediatric settings during simulation-based educational programs. They might also be used for medical practice performance evaluations.

Reference:


Thank you to our partners for supporting IVTEAM