

The effect of a resident acute care resuscitation training program on 2nd year pediatric residents' confidence in "code blue" situations

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The objective of this project was to determine whether an expert-led repetition cycle of mock codes would change the perceived level of confidence and skill in resuscitation for postgraduate year 2 (PGY2) pediatric trainees. This study was approved by the Quality and Risk Management Department of the Hospital for Sick Children.

PGY2 pediatric residents were contacted via email to participate. Seven weekly sessions were developed, led and debriefed by a pediatric intensivist. The sessions focused on technical and non-technical skills. Residents were surveyed pre and post to assess comfort level in technical and non-technical aspects of resuscitation. Fifteen residents participated in the study. All completed the baseline survey and 13 (87%) the post survey.

Prior to the mock code cycle, 11/15 (73%) disagreed with the statement "I feel comfortable in code blue situations," and only 1 resident agreed they had adequate knowledge to lead a "code blue." The post mock code cycle survey showed that residents felt more comfortable overall with resuscitation situations ($p = 0.004$) but also specifically with both technical and non-technical skills, such as defibrillator use ($p = 0.036$), handling simple airway management equipment (suctioning and oxygen) ($p = 0.021$) and managing a crowd in a code situation ($p = 0.035$). Post intervention all residents (13/13) agreed that if this mock code repetition cycle were to become part of the curriculum, they would be better prepared to lead resuscitations. Repetitive practice in resuscitation with focused debriefing may increase resident perception of knowledge and skills. Further studies are needed to formally assess competency as well as the optimal repetition cycle to maximize retention.