

## **Does mock code practice increase mastery of critical pediatric resuscitation skills?**

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Residents are often called upon to lead and participate in the resuscitation of pediatric patients. Because it is important that residents possess the requisite skills to provide pediatric resuscitations Emergency Medicine and Pediatric residents receive Pediatric Advanced Life Support (PALS) training as part of their curriculum. This 16 hour course is designed to provide the learner with: information needed to recognize infants and children at risk for cardiopulmonary arrest; information and strategies needed to prevent cardiopulmonary arrest in infants and children; and the cognitive and psychomotor skills needed to resuscitate and stabilize infants and children in respiratory failure, shock or cardiopulmonary arrest. However, calls for emergency resuscitations on pediatric wards are infrequent and therefore over time residents' experience with resuscitations can begin to deteriorate. While the occurrence of resuscitation may be infrequent the need for residents to be skilled in their implementation remains high. Thus, it is important to understand how to assure that resident pediatric resuscitation implementation knowledge and skills are maintained.

It has been suggested that mock code practices allow residents the opportunity to be exposed more frequently to code situations and therefore practice and improve their skills. Mock code programs have improved the confidence of housestaff in performing many life saving procedures. However, many mock code programs rely on self-report and indirect observation for assessment. What is lacking is a standardized way of assessing the performance of resuscitation skills by residents.

The purpose of this study is to determine whether the implementation of frequent mock code sessions for residents is beneficial in maintaining mastery of critical pediatric resuscitation skills, retention of cognitive material, and improving confidence in participation in code situations. A computerized infant simulator, Sim baby by Laerdal will be used to assess residents prior to (for baseline assessment) and after the intervention of a mock code program to examine whether the intervention improved specific critical resuscitation skills. This computerized simulator is programmed with code scenarios including respiratory arrest, asystole, and life threatening dysrhythmias. Intravenous and intraosseous lines may be placed.