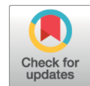
CEEM Clinical and Experimental Emergency Medicine

Clin Exp Emerg Med 2020;7(3):241-242
https://doi.org/10.15441/ceem.20.046



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eISSN: 2383-4625

Pediatric critical procedures in the emergency department

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Received: 7 May 2020
Revised: 3 June 2020
Accepted: 16 June 2020

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Dear Editor,

We have read the article by Cabalatungan et al.[1] published in *Clinical and Experimental Emergency Medicine* with great interest. In this study, data from the National Hospital Ambulatory Medical Care Survey between 2010 and 2014 was used to identify adult and pediatric patients undergoing critical procedures in the emergency department (ED) and estimated a single emergency physician performed pediatric central line insertion, cardiopulmonary resuscitation, and endotracheal intubation once every 3.2, 5.2, and 2.8 years, respectively. The authors concluded that general emergency physicians perform these procedures at a significantly lower rate compared to the same critical procedures on adult patients.[1] We agree that this article highlights a fundamentally important finding—the infrequency of pediatric critical procedures in the ED setting.

This study lays the groundwork but does not answer the question—where and how frequent are pediatric critical procedures performed in an emergency setting? We hypothesize that there may be a particular hospital and ED types where critical pediatric procedures may be even less frequently performed than Cabalatungan et al.[1] suggest. This is partly because the National Hospital Ambulatory Medical Care Survey data set includes representation from both general hospitals and freestanding pediatric facilities.[2] Due to the possibility of uneven distribution of these procedures across different hospital types, physicians working within certain hospitals may perform critical procedures in children even less frequently while other physicians within freestanding pediatric facilities may have performed the majority of the procedures in the database. Future research and sub-analysis of procedures by ED type is warranted. This information will allow for identification of emergency physicians that are at highest risk for pediatric skill decay.

While the percentage of pediatric critical procedures performed in pediatric EDs is unknown, it is clear that they also happen infrequently. In one study, a pediatric ED reported that 63% of pediatric emergency physicians did not perform any successful endotracheal intubations in a 12-month period.[3] An additional study noted within a single pediatric ED, chest compressions are performed a median of 3 minutes per pediatric emergency physician, per year.[4] The deficit may be further exacerbated in an academic setting, where faculty frequently take a supervisory rather than hands-on role in procedural performance.

As a result, alternative experiences to keep procedural skills up-to-date and demonstrate skill maintenance are equally necessary for both pediatric emergency physicians and emergency physicians. Some of these alternative experiences may include: procedural courses, simulation, deliberate practice with appropriate feedback, or practice within different clinical settings such as the operating room.[1,5] As it seems that pediatric critical procedures may be rare events regard-

How to cite this article:
Foster AA, Eisenberg MA. Pediatric critical procedures in the emergency department. Clin Exp Emerg Med 2020;7(3):241-242. https://doi.org/10.15441/ceem.20.046

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less of practice environment, working together to optimize the skills of emergency physicians and pediatric emergency physicians is a critical next step as we continue to expand and encourage pediatric readiness in all EDs in the United States.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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