

The Time Is Now: Uncovering the Value of Pediatric Readiness in Emergency Departments

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More than 80% of families depend on community, rural, and remote emergency departments (EDs) to care for their children who are sick and injured.¹ In the great majority of cases, similar to in adult cases, a child's straightforward illness or injury is easily managed, and the child is discharged from the hospital to his or her family.² However, unlike adults, when a child presents with a critical illness or injury, most EDs are unprepared to quickly stabilize that child. In this issue of *Pediatrics*, Ames et al³ evaluate the potential impact of this gap in the study "Emergency Department Pediatric Readiness and Mortality in Critically Ill Children." On the basis of a national self-assessment of pediatric readiness, EDs commonly lack ≥ 1 critical elements, including pediatric patient safety and clinical care policies, quality improvement (QI) processes to monitor pediatric emergency care delivery, oversight to ensure that pediatric needs are met and integrated into all aspects of emergency care, and maintenance of pediatric competencies.^{1,4-6}

The National Pediatric Readiness Project, a national QI collaborative formed jointly by the American Academy of Pediatrics, the American College of Emergency Physicians, the Emergency Nurses Association, and the federal Emergency Medical Services for Children Program, strives to ensure that high-quality pediatric emergency care is available in every ED.⁷ Staying true to the principles of improvement

science, the National Pediatric Readiness Project created self-assessments, resources, tools, and national collaborative activities to support EDs to identify and overcome gaps in pediatric readiness.^{4-6,8} Yet, despite widespread national engagement, questions regarding the value of pediatric readiness remain. Does pediatric readiness make a difference in patient outcomes?

Over the last few decades, adherence to specialized systems of care with specific designated resources (eg, trauma, stroke, and ST-segment elevation myocardial infarction [STEMI]) has been associated with decreased morbidity and mortality for the populations impacted and has, subsequently, led to the establishment of national standards of care.⁹⁻¹⁷ More specifically, the development of trauma centers in the United States has resulted in significant reductions in preventable deaths caused by injury.^{18,19} Similarly, development of stroke and STEMI centers across the United States has decreased morbidity and mortality related to these conditions because of the establishment of standard requirements for resources and processes of care.¹⁴⁻¹⁷ Unfortunately, no such national standards exist for pediatric emergency care.

There are several challenges in assessing the impact of pediatric readiness on patient outcomes. Although children account for some 30 million ED visits every year in the United States, most are seen in EDs that

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evaluate <15 children per day. Most EDs lack sufficient volume of pediatric patients who are critically ill or injured to assess the impact of pediatric readiness on outcomes. Additionally, fewer than half of EDs conduct QI activities to evaluate delivery of emergency care to children. When present, QI processes often take the form of clinical case reviews that are focused more narrowly on case-specific gaps rather than system-based readiness. Finally, overall mortality rates in children are low compared with those of adults. Although the pediatric population accounts for roughly 30% of the total population in the United States and 20% to 25% of all ED visits, <2% (48 000) of all deaths occur in this age range.^{2,20} Thus, although reductions in mortality due to system changes could be significant, the low rate of occurrences makes childhood mortality a challenging marker to assess. In the absence of a system-based collaborative approach, it is difficult to evaluate the impact of pediatric readiness on quality of emergency care delivery, much less health outcomes.

In their study, Ames et al³ overcome these barriers to demonstrate the potential impact of pediatric readiness on mortality. Previous efforts have revealed an association between the establishment of statewide pediatric readiness recognition programs (ie, pediatric readiness) and decreased trends in pediatric mortality.^{21,22} Yet, confounding factors limit conclusions that can be drawn from these data. In their study, Ames et al³ link pediatric readiness to health outcomes using data that track individual patients across the entire health care–system encounter, to admission, death, or discharge. While controlling for patient-level confounders (age, chronic conditions, and severity of illness), the authors directly link pediatric readiness to decreased mortality. By using previous

estimates for the percentage of ED deaths among pediatric patients and by extrapolating from the results described by Ames et al,³ if all EDs adhered to pediatric readiness guidelines, the percentage of pediatric deaths in EDs could dramatically decrease.²⁰

ABBREVIATIONS

ED: emergency department
 QI: quality improvement
 STEMI: ST-segment elevation myocardial infarction

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