



Pediatric Readiness in Emergency Medical Services Systems

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This is a joint policy statement from the American Academy of Pediatrics, American College of Emergency Physicians, Emergency Nurses Association, National Association of Emergency Medical Services Physicians, and National Association of Emergency Medical Technicians on pediatric readiness in emergency medical services systems.

Prehospital emergency care typically involves emergency medical technicians, paramedics, and other licensed medical providers who work in emergency medical services (EMS) systems in ground ambulances and fixed- or rotor-wing aircraft that are dispatched to an emergency when either a bystander calls 9-1-1 or when a patient requires interfacility transport for a medical illness or traumatic injury. Because prehospital emergency care of children plays a critical role in the continuum of health care, which also involves primary prevention, hospital-based acute care, rehabilitation, and return to the medical home, the unique needs of children must be addressed by EMS systems.¹⁻⁵ Pediatric readiness encompasses the presence of equipment and medications, usage of guidelines and policies, availability of education and training, incorporation of performance-improvement practices, and integration of EMS physician medical oversight to equip EMS systems to deliver optimal care to children.⁶⁻⁸ It has been shown that emergency departments are more prepared to care for children when a pediatric emergency care coordinator is responsible for championing and making recommendations for policies, training, and resources pertinent to the emergency care of children.^{9,10} The specialty of EMS medicine has the potential to derive similar benefits when members of the EMS community are personally

abstract

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invested in pediatric patient care. Although a critical aspect of pediatric readiness in EMS involves strong EMS physician oversight of these investments, a discussion of physician oversight of pediatric care in EMS is outside the scope of this article. This topic is, however, well addressed in the National Association of Emergency Medical Services Physicians position statement “Physician Oversight of Pediatric Care in Emergency Medical Services.”¹ This policy statement is accompanied by a technical report published simultaneously in this issue of *Pediatrics*.¹¹

RECOMMENDATIONS

To provide infrastructure designed to support the prehospital emergency care of children, the American Academy of Pediatrics, American College of Emergency Physicians, Emergency Nurses Association, National Association of Emergency Medical Services Physicians, and National Association of Emergency Medical Technicians believe that EMS systems and agencies should do the following:

- Include pediatric considerations in EMS planning and the development of pediatric EMS dispatch protocols, operations, and physician oversight (for example, as outlined in the National Association of Emergency Medical Services Physicians position statement “Physician Oversight of Pediatric Care in Emergency Medical Services”).¹
- Collaborate with medical professionals with significant experience or expertise in pediatric emergency care, public health experts, and family advocates for the development and improvement of EMS operations, treatment guidelines, and performance-improvement initiatives.²
- Integrate evidence-based, pediatric-specific elements into the

direct and indirect medical oversight that constitute the global EMS oversight structure.⁴

- Have pediatric-specific equipment and supplies available, using national consensus recommendations as a guide, and verify that EMS providers are competent in using them.^{3,4,12–15}
- Develop processes for delivering comprehensive, ongoing, pediatric-specific education and evaluating pediatric-specific psychomotor and cognitive competencies of EMS providers.^{13,14,16–18}
- Promote education and awareness among EMS providers about the unique physical characteristics, physiologic responses, and psychosocial needs of children with an illness or injury.^{19–21}
- Implement practices to reduce pediatric medication errors.^{22,23}
- Include pediatric-specific measures in periodic performance-improvement practices that address morbidity and mortality.⁴
- Submit data to a statewide database that is compliant with the most recent version of the National Emergency Medical Services Information System and work with hospitals to which it transports patients to track pediatric patient-centered outcomes across the continuum of care.⁴
- Develop, maintain, and locally enforce policies for the safe transport of children in emergency vehicles.⁴
- Develop protocols for the destination of pediatric patients, with consideration of regional resources and weighing of the risks and benefits of keeping children in their own communities.⁴
- Collaborate, along with receiving emergency departments, to provide pediatric readiness across the care continuum.^{4–10}
- Include provisions for caring for children and families in emergency

preparedness planning and exercises, including the care and tracking of unaccompanied children and timely family reunification in the event of disasters.^{3,4,24}

- Promote overall patient- and family-centered care, which includes using lay terms to communicate with patients and families, having methods for accessing language services to communicate with non-English-speaking patients and family members, narrating actions, and alerting patients and caregivers before interventions are performed. In addition, allow family members to remain close to their children during resuscitation activities and to practice cultural or religious customs as long as they are not interfering with patient care.¹⁹
- Have policies and procedures in place to allow a family member or guardian to accompany a pediatric patient during transport when appropriate and feasible.¹⁹
- Consider using resources compiled by the Emergency Medical Services for Children program when implementing the recommendations noted here.²⁵

CONCLUSIONS

Ill and injured children and their families have unique needs that can be magnified when the child’s ailment is serious or life-threatening. Resource availability and pediatric readiness across EMS agencies are variable. Providing high-quality EMS care to children requires an infrastructure that is designed to support the care of pediatric patients and their families. Therefore, it is important that EMS physicians, administrators, and personnel collaborate with pediatric acute care experts to optimize EMS care through the development of care models to minimize morbidity and mortality in children as a result of illness and injuries.

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ABBREVIATION

EMS: emergency medical services

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REFERENCES

1. National Association of EMS Physicians. Physician oversight of pediatric care in emergency medical services. *Prehosp Emerg Care*. 2017;21(1):88
2. Remick K, Gross T, Adelgais K, Shah MI, Leonard JC, Gausche-Hill M. Resource document: coordination of pediatric emergency care in EMS systems. *Prehosp Emerg Care*. 2017;21(3):399–407
3. Institute of Medicine, Committee of the Future of Emergency Care in the U.S. Health System. *Emergency Medical Services at the Crossroads*. Washington, DC: National Academies Press; 2006
4. Institute of Medicine, Committee of the Future of Emergency Care in the U.S. Health System. *Emergency Care for Children: Growing Pains*. Washington, DC: National Academies Press; 2006
5. Gausche-Hill M, Johnson RW, Warden CR, Brennan JA; American College of Emergency Physicians' Pediatric Emergency Committee. The role of the emergency physician in emergency medical services for children. *Ann Emerg Med*. 2003;42(2):206–215
6. Gausche-Hill M, Wiebe RA. Guidelines for preparedness of emergency departments that care for children: a call to action. *Ann Emerg Med*. 2001;37(4):389–391
7. American Academy of Pediatrics; Committee on Pediatric Emergency Medicine; American College of Emergency Physicians; Pediatric Committee; Emergency Nurses Association Pediatric Committee. Joint policy statement—guidelines for care of children in the emergency department. *Pediatrics*. 2009;124(4):1233–1243
8. Gausche-Hill M. Integrating children into our emergency care system: achieving the vision. *Ann Emerg Med*. 2006;48(2):131–134
9. Gausche-Hill M, Ely M, Schmuhl P, et al. A national assessment of pediatric readiness of emergency departments. *JAMA Pediatr*. 2015;169(6):527–534
10. Remick K, Kaji AH, Olson L, et al. Pediatric readiness and facility verification. *Ann Emerg Med*. 2016;67(3):320–328.e1
11. Owusu-Ansah S, Moore B, Shah MI, et al; American Academy of Pediatrics, Committee on Pediatric Emergency

- Medicine, Section on Emergency Medicine, Subcommittee on EMS, Section on Surgery. Technical report: pediatric readiness in emergency medical services systems. *Pediatrics*. 2020;145(1):e20193308
12. Glaeser PW, Linzer J, Tunik MG, Henderson DP, Ball J. Survey of nationally registered emergency medical services providers: pediatric education. *Ann Emerg Med*. 2000;36(1):33–38
 13. Hansen M, Meckler G, Dickinson C, et al. Children's safety initiative: a national assessment of pediatric educational needs among emergency medical services providers. *Prehosp Emerg Care*. 2015;19(2):287–291
 14. Gausche-Hill M. Pediatric continuing education for out-of-hospital providers: is it time to mandate review of pediatric knowledge and skills? *Ann Emerg Med*. 2000;36(1):72–74
 15. American Academy of Pediatrics; American College of Emergency Physicians; American College of Surgeons Committee on Trauma; Emergency Medical Services for Children; Emergency Nurses Association; National Association of EMS Physicians; National Association of State EMS Officials. Equipment for ground ambulances. *Prehosp Emerg Care*. 2014;18(1):92–97
 16. Su E, Schmidt TA, Mann NC, Zechnich AD. A randomized controlled trial to assess decay in acquired knowledge among paramedics completing a pediatric resuscitation course. *Acad Emerg Med*. 2000;7(7):779–786
 17. Henderson DP, Gausche M, Goodrich SM, Poore PD, Michael WB, Lewis RJ. Education of paramedics in pediatric airway management: effects of different retraining methods on self-efficacy and skill retention. *Acad Emerg Med*. 1998;5(5):429
 18. Gausche M, Henderson DP, Brownstein D, et al; Pediatric Education Task Force Members. Education of out-of-hospital emergency medical personnel in pediatrics: report of a national task force. *Ann Emerg Med*. 1998;31(1):58–64
 19. Ayub EM, Sampayo EM, Shah MI, Doughty CB. Prehospital providers' perceptions on providing patient and family centered care. *Prehosp Emerg Care*. 2017;21(2):233–241
 20. Schonfeld DJ, Demaria T; Disaster Preparedness Advisory Council and Committee on Psychosocial Aspects of Child and Family Health. Providing psychosocial support to children and families in the aftermath of disasters and crises. *Pediatrics*. 2015;136(4). Available at: www.pediatrics.org/cgi/content/full/136/4/e1120
 21. Schonfeld DJ, Demaria T; Committee on Psychosocial Aspects of Child and Family Health, Disaster Preparedness Advisory Council. Supporting the grieving child and family. *Pediatrics*. 2016;138(3):e20162147
 22. Kaji A, Gausche-Hill M, Conrad H, et al. Emergency medical services system changes reduce pediatric epinephrine dosing errors in the prehospital setting. *Pediatrics*. 2006;118(4):1493–1500
 23. Lammers R, Byrwa M, Fales W. Root causes of errors in a simulated prehospital pediatric emergency. *Acad Emerg Med*. 2012;19(1):37–47
 24. Disaster Preparedness Advisory Council. Medical countermeasures for children in public health emergencies, disasters, or terrorism. *Pediatrics*. 2016;137(2):e20154273
 25. Emergency Medical Services for Children Innovation and Improvement Center. Prehospital based care. Available at: <https://emscimprovement.center/domains/prehospital-care/>. Accessed November 19, 2019

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