Supplementary Online Content


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This supplementary material has been provided by the authors to give readers additional information about their work.
PEDIATRIC READINESS ASSESSMENT AND SCORING

A Resource Document

Prepared by the National EMS for Children Data Analysis Resource Center
About the Project

The National Pediatric Readiness Project is a national multi-phase quality improvement initiative to ensure all U.S. emergency departments have the essential guidelines and resources in place to provide effective emergency care to children. The support for this project is provided by the EMS for Children Program, the American Academy of Pediatrics, the American College of Emergency Physicians, and the Emergency Nurses Association.

In January 2013, the first phase of this project was launched and consisted of an electronic assessment sent to all emergency departments (EDs) across the nation. A total of 5,017 hospitals with EDs were assessed with 4,150 hospitals responding— an 82.7% response rate. Upon completion of the assessment, respondents received a score based on a 100-point scale representing their readiness to care for pediatric patients.

The Assessment and the Score

This document includes a copy of the assessment as well as the scoring matrix that was used to generate an overall pediatric readiness score for each participating hospital. This information can be helpful for hospitals as they launch quality improvement efforts and want to track changes in their score over time.

The total number of points possible was 100. A score of 100 represents the essential components needed to establish a foundation for pediatric readiness, but is in no way inclusive of all the components recommended for pediatric readiness. Hospitals are encouraged to carefully review the Guidelines for Care of Children in the Emergency Department, which served as the basis for the assessment, to develop a comprehensive pediatric readiness program for a hospital.

Determining which of the assessment questions would be scored and how heavily they would be scored was done by a group of clinical experts through a modified Delphi approach. In developing the scoring criteria, the experts were asked to consider results of two recently published assessments on pediatric readiness of emergency departments, as well as recommendations from the Institute of Medicine report on the Future of Emergency Care in the United States.

How to Read This Document

This document contains all the questions from the pediatric readiness assessment. If a question in the assessment was used in the scoring, it will be followed by the number of points allotted to that question as shown in red in the example below:
11. [9.5 points] Does your hospital have a physician coordinator who is assigned the role of overseeing various administrative aspects of pediatric emergency care (e.g., oversees quality improvement, collaborates with nursing, ensures pediatric skills of staff, develops and periodically reviews policies)?

Questions about the Document or the Project

If you have questions about this document, you are invited to contact the National EMS for Children Data Analysis Resource Center at 801-585-9158.

For additional information about this project including state and national results, please consult the project website located at www.pediatricreadiness.org.

1. www.pediatricreadiness.org/About_PRP
2. www.pedsready.org/nationalResponseRate.aspx
Please provide us with the following information, in case we need to contact you to clarify any of your responses:

Name: __________________________________________________________

Title/Position: ____________________________________________________

Phone number: ____________________________________________________

Email: ____________________________________________________________

These first few questions will tell us about the infrastructure of your hospital and emergency department.

1. What is the name of your hospital? _________________________________

2. In what city is your hospital located? ________________________________

3. Zip code of your hospital: _________________________________________

4. Does your hospital have an emergency department (ED) that is open 24/7?  
   □ Yes   □ No → (You do not need to complete the assessment...thanks for your time.)

5. Is each of the following organizations used for accreditation of your hospital?  
   (Check Yes or No for each)
   a. The Joint Commission (TJC)  Yes □ No □
   b. Centers for Medicare and Medicaid Services (CMS)  Yes □ No □
   c. DNV (Det Norske Veritas)  Yes □ No □
   d. Other  Yes □ No □
   You marked “Other” to the previous question. Please indicate the organizations used for accreditation of your hospital: ________________________________

6. Which one of the following is the best description of your ED configuration for the care of children (children as defined by your hospital)?  
   (Choose one)
   a. □ Pediatric ED in a Children’s hospital (hospital cares ONLY for children)
   b. □ Separate pediatric ED in a general hospital (adult and children within one hospital)
   c. □ General ED (pediatric and adult patients seen in same area)
   d. □ Stand-by ED (physician on call)
e. □ Free-standing ED (ED unattached to a hospital with inpatient services)

f. □ Other
   
   You marked “Other” to the previous question. Please describe your ED configuration for the care of children: ____________________________

7. Are any children admitted to your inpatient services (NICU, PICU, adult ICU, nursery, pediatric inpatient unit, and/or adult inpatient unit)?

   □ Yes  □ No  Go to 9

8. If yes, which of the following inpatient services may admit children?
   (Check Yes or No for each)
   
   a. Neonatal intensive care unit    Yes □ No □
   b. Pediatric intensive care unit  Yes □ No □
   c. Adult intensive care unit      Yes □ No □
   d. Newborn nursery                Yes □ No □
   e. Pediatric inpatient unit       Yes □ No □
   f. Adult inpatient unit           Yes □ No □

9. What is the upper age that your ED uses to define a pediatric medical patient?
   (Choose one)
   
   a. 12 years □
   b. 13 years □
   c. 14 years □
   d. 15 years □
   e. 16 years □
   f. 17 years □
   g. 18 years □
   h. 19 years □
   i. 20 years □
j. 21 years
k. Other

You marked “Other” to the previous question. Please indicate the age your ED uses to define pediatric medical patients:________________________

10. What is the upper age that your ED uses to define a pediatric trauma patient? (Choose one)
a. 12 years
b. 13 years
c. 14 years
d. 15 years
e. 16 years
f. 17 years
g. 18 years
h. 19 years
i. 20 years
j. 21 years
k. Other

You marked “Other” to the previous question. Please indicate the age your ED uses to define pediatric trauma patients:________________________

Answers to the following questions will help us to better understand the resources available for the care of children in your ED.

Physician Administration/Coordination

11. [9.5 points] Does your hospital have a physician coordinator who is assigned the role of overseeing various administrative aspects of pediatric emergency care (e.g., oversees quality improvement, collaborates with nursing, ensures pediatric skills of staff, develops and periodically reviews policies)?
Note: The physician coordinator for pediatric emergency care may have additional administrative roles in the ED.

☐ Yes  ☐ No → Go to 13

12. If yes, is there a job description or written list of responsibilities for this physician coordinator?

☐ Yes  ☐ No

Nurse Administration/Coordination

13. [9.5 points] Does your hospital have a nurse coordinator who is assigned the role of overseeing various administrative aspects of pediatric emergency care (e.g., facilitates continuing education, facilitates quality improvement activities, ensures pediatric-specific elements are included in orientation of staff)?

Note: The nurse coordinator for pediatric emergency care may have additional administrative roles in the ED.

☐ Yes  ☐ No → Go to 15

14. If yes, is there a job description or written list of responsibilities for this nurse coordinator?

☐ Yes  ☐ No

The following assessment questions refer to personnel, quality improvement, and patient safety in the ED. If you have a separate pediatric ED, then answer based on resources for that area; if you do not have a separate pediatric ED, then answer based on the overall ED resources.

Personnel – Physicians

15. Thinking of the physicians who currently staff your ED and care for children, what types of training are represented?
   (Check Yes or No for each)
15b. Are all of your physicians in the ED who care for children board certified in Pediatric Emergency Medicine or by the American Board of Emergency Medicine/American Osteopathic Board of Emergency Medicine?

☐ Yes  ➔ Go to 17

☐ No

16. Thinking of the physicians who care for children in your ED, but are not board certified in Pediatric Emergency Medicine or by the American Board of Emergency Medicine/American Osteopathic Board of Emergency Medicine, which of the following life support courses are required by your hospital as part of credentialing? (Check Yes or No for each)

a. Basic Life Support (BLS)  
   Yes ☐ No ☐

b. Advanced Cardiac Life Support (ACLS)  
   Yes ☐ No ☐

c. Pediatric Basic Life Support (PBLS) (e.g., Healthcare Provider CPR certification or basic life support)  
   Yes ☐ No ☐

d. Pediatric Advanced Life Support (PALS)  
   Yes ☐ No ☐

e. APLS: The Pediatric Emergency Medicine Resource (APLS)  
   Yes ☐ No ☐

f. Neonatal Resuscitation Program (NRP)  
   Yes ☐ No ☐

g. International Trauma Life Support (ITLS; formerly Basic Trauma Life Support)  
   Yes ☐ No ☐

h. Advanced Trauma Life Support (ATLS)  
   Yes ☐ No ☐

i. Other  
   Yes ☐ No ☐
You marked “Other” to the previous question. Please describe other life support courses your hospital requires of physicians caring for children in the ED: ______________________________________

17. [5 points] Does your hospital require specific pediatric competency evaluations of physicians staffing the ED (e.g., sedation and analgesia)?

☐ Yes
☐ No

Personnel – Nurses

18. Does your institution’s staff policy for nurses include requirements for each of the following? (Check Yes or No for each)

(a) Continuing education requirements in pediatric emergency care
Yes ☐ No ☐

(b) Maintenance of specialty certification for nurses (e.g., CEN, CPEN)
Yes ☐ No ☐

19. Does your hospital require nurses caring for children in the ED to complete any of the following life support courses as a part of employment? (Check Yes or No for each)

(a) Basic Life Support (BLS)
Yes ☐ No ☐

(b) Advanced Cardiac Life Support (ACLS)
Yes ☐ No ☐

(c) Pediatric Basic Life Support (PBLS) (e.g., Healthcare Provider CPR certification or basic life support)
Yes ☐ No ☐

(d) Emergency Nursing Pediatric Course (ENPC)
Yes ☐ No ☐

(e) Pediatric Advanced Life Support (PALS)
Yes ☐ No ☐

(f) APLS: The Pediatric Emergency Medicine Resource (APLS)
Yes ☐ No ☐

(g) Neonatal Resuscitation Program (NRP)
Yes ☐ No ☐

(h) International Trauma Life Support (ITLS; formerly Basic Trauma Life Support)
Yes ☐ No ☐

(i) Trauma Nursing Core Course (TNCC)
Yes ☐ No ☐

(j) Other
Yes ☐ No ☐
You marked “Other” to the previous question. Please describe other life support courses your hospital requires of nurses caring for children in the ED:________________________

20. **[5 points]** Does your hospital require specific pediatric competency evaluations of nurses staffing the ED (e.g., triage, pain assessment)?

☐ Yes  
☐ No

**Personnel – Mid-level Practitioners (Nurse Practitioners, Physician Assistants)**

21. Does your hospital have mid-level practitioners (nurse practitioners and/or physician assistants) that provide care for children in the ED?

☐ Yes  
☐ No  → **Go to 25**

22. If yes, does your institution’s staff privileges policy for mid-level practitioners include requirements for each of the following? (Check Yes or No for each)

a. Continuing education requirements in pediatric emergency care  
   Yes ☐ No ☐

b. Maintenance of specialty certifications  
   Yes ☐ No ☐

23. Does your hospital require mid-level practitioners caring for children in the ED to complete any of the following life support courses as a part of employment? (Check Yes or No for each)

a. Basic Life Support (BLS)  
   Yes ☐ No ☐

b. Advanced Cardiac Life Support (ACLS)  
   Yes ☐ No ☐

c. Pediatric Basic Life Support (PBLS) (e.g., Healthcare Provider CPR certification or basic life support)  
   Yes ☐ No ☐

d. Emergency Nursing Pediatric Course (ENPC)  
   Yes ☐ No ☐

e. Pediatric Advanced Life Support (PALS)  
   Yes ☐ No ☐

f. APLS: The Pediatric Emergency Medicine
Resource (APLS) Yes □ No □
g. Neonatal Resuscitation Program (NRP) Yes □ No □
h. International Trauma Life Support (ITLS; formerly Basic Trauma Life Support) Yes □ No □
i. Trauma Nursing Core Course (TNCC) Yes □ No □
j. Other Yes □ No □

You marked "Other" to the previous question. Please describe other life support courses your hospital requires of mid-level practitioners caring for children in the ED: ____________________________________________

24. Does your hospital require specific pediatric competency evaluations of mid-level practitioners staffing the ED (e.g., triage, pain assessment)?

□ Yes □ No

Quality Improvement

25. [5 points] Does your ED have a pediatric patient care-review process? (This may be a separate Quality Improvement/Performance Improvement Plan for pediatric patients or integrated into the overall ED Quality Improvement/Performance Improvement Plan.)

□ Yes □ No  Go to 27

26. If yes, is each of the following components included in the Quality Improvement/Performance Improvement Plan?
   (Check Yes or No for each)

   a. [0.5 points] Identification of quality indicators for children (e.g., performing lumbar puncture on febrile neonates)  Yes □ No □

   b. [0.5 points] Collection and analysis of pediatric emergency care data (e.g., admissions, transfers, death in the ED, or return visits)  Yes □ No □

   c. [0.5 points] Development of a plan for improvement in pediatric
emergency care (e.g., process to ensure that variances in care are addressed through education or training and reassessed for evidence of improvement)  

Yes □  No □

d. [0.5 points] Re-evaluation of performance using outcomes-based measures (e.g., how often was pain rapidly controlled or fever properly treated)  

Yes □  No □

Pediatric Patient Safety in the ED

27. Are all* children seen in the ED weighed in kilograms (without conversion from pounds)?

*Note: This includes critical situations when a child might bypass triage and have his/her weight estimated in kilograms.

□ Yes  □ No  ➔ Go to 29

28. [3.5 points] Is the weight recorded in the ED medical record in kilograms only?

□ Yes  ➔ Go to 30

□ No

29. If no, how are children in the ED weighed, and how is the weight recorded in the medical record?  
(Choose one)

a. □ Weighed in pounds and converted to kilograms for recording in the medical record

b. □ Weighed in either pounds or kilograms with an option to record in either pounds or kilograms in the medical record

30. [1.4 points] Are temperature, heart rate, and respiratory rate recorded on all children?  

Yes □  No □

31. [1.4 points] Is blood pressure monitoring available for children of all ages based on severity of illness?  

Yes □  No □
32. [1.4 points] Is pulse oximetry monitoring available for children of all ages based on severity of illness?  
   Yes [ ] No [ ]

33. [1.4 points] Is a written procedure in place for notification of physicians when abnormal vital signs are found in all children?  
   Yes [ ] No [ ]

34. [3.5 points] Is a process in place for the use of pre-calculated drug dosing in all children?  
   Yes [ ] No [ ]

35. [1.4 points] Is a process in place that allows for 24/7 access to interpreter services in the ED?  
   Yes [ ] No [ ]

Next we wish to know about policies and/or procedures that your ED has to address the needs of children. These pediatric policies may be integrated into the overall ED policy manual or may be listed separately. They should also be written and available to staff in the ED.

Policies and Procedures

36. [2.12 points] Does your ED have a triage policy that specifically addresses ill and injured children? 
   ![Yes □ No □](#)

   Go to 38

37. If yes, do you use a validated pediatric triage tool?  
   Yes [ ] No [ ] Unsure [ ]

38. Does your ED have each of the following listed policies and procedures? (Check Yes or No for each)

   a. [1.7 points] Pediatric patient assessment and reassessment  
      Yes [ ] No [ ]

   b. [1.7 points] Immunization assessment and management of the under-immunized child  
      Yes [ ] No [ ]

   c. [1.7 points] Child maltreatment  
      Yes [ ] No [ ]

   d. [1.7 points] Death of the child in the ED  
      Yes [ ] No [ ]

   e. [1.7 points] Reduced-dose radiation for CT and x-ray imaging  
      Yes [ ] No [ ]
based on pediatric age or weight  

Yes □ No □

39. [2.12 points] Does your ED have a policy for promoting family-centered care? (e.g., family presence, family involvement in clinical decision making, etc.)

□ Yes
□ No

40. [2.12 points] Does your hospital disaster plan address issues specific to the care of children?

□ Yes
□ No

41. Does your hospital care for children with social and mental health issues?

□ Yes
□ No

42. Does your hospital have a written guideline for the transfer of children with social and mental health issues out of your facility to an appropriate facility?

□ Yes
□ No

Next we would like to know about your hospital’s inter-facility transfer guidelines.

43. [2.12 points] Does your hospital or medical facility have written inter-facility guidelines that outline procedural and administrative policies with other hospitals for the transfer of patients of all ages including children in need of care not available at your hospital?

Note: Compliance with EMTALA does not constitute having inter-facility transfer guidelines. The guidelines may be a separate document or part of an inter-facility transfer agreement document.

□ Yes → Go to 44
□ No → Go to 45
We currently do not have written guidelines, but are in the process of developing them.

If you are in the process of developing guidelines, when do you anticipate the guidelines to be ready? Month/Year (mm/yyyy):__________  ➔ Go to 45

44. You answered that your facility has written inter-facility transfer guidelines. Please indicate whether the guidelines include the information specifically for the transfer of patients for each item below.
   (Check Yes or No for each)
   a. Defined process for initiation of transfer, including the roles and responsibilities of the referring facility and referral center (including responsibilities for requesting transfer and communication)  Yes ☐ No ☐
   b. Process for selecting the appropriate care facility  Yes ☐ No ☐
   c. Process for selecting the appropriately staffed transport service to match the patient's acuity level (level of care required by patient, equipment needed in transport, etc.)  Yes ☐ No ☐
   d. Process for patient transfer (including obtaining informed consent)  Yes ☐ No ☐
   e. Plan for transfer of copy of patient medical record  Yes ☐ No ☐
   f. Plan for transfer of copy of signed transport consent  Yes ☐ No ☐
   g. Plan for transfer of personal belongings of the patient  Yes ☐ No ☐
   h. Plan for provision of directions and referral institution information to family  Yes ☐ No ☐

Next we would like to know about your hospital’s inter-facility transfer agreements.

45. Does your hospital or medical facility have written inter-facility agreement(s) with other hospitals for the transfer of patients of all ages including children in need of care not available at your hospital?
   ☐ Yes
   ☐ No

Downloaded From: by a Non-Human Traffic (NHT) User on 11/04/2018
We currently do not have written agreements, but are in the process of developing them.

If you are in the process of developing agreements, when do you anticipate the agreements to be ready? Month/Year (mm/yyyy): ___________________

We would like to know about the equipment and supplies for children in your ED and how they are stored and resupplied. If you have not already printed the entire assessment, we recommend printing this portion of the assessment and taking it to your equipment and supply areas to complete to ensure accurate reporting.

Equipment and Supplies

46. [1 point] Is the ED staff trained on the location of all pediatric equipment and medications?

☐ Yes
☐ No

47. [1 point] Is there a daily method used to verify the proper location and function of pediatric equipment and supplies?

☐ Yes
☐ No

48. [1 point] Is a medication chart, length-based tape, medical software, or other system readily available to ensure proper sizing of resuscitation equipment and proper dosing of medications?

☐ Yes
☐ No

49. Is each of the following monitoring equipment items available for immediate use in the ED?
   (Check Yes or No for each)
   a. [0.55 points] Neonatal blood pressure cuff
      Yes ☐ No ☐
   b. [0.55 points] Infant blood pressure cuff
      Yes ☐ No ☐
   c. [0.55 points] Child blood pressure cuff
      Yes ☐ No ☐
   d. [0.55 points] Defibrillator with pediatric and adult capabilities including pads/paddles
      Yes ☐ No ☐
e. [0.55 points] Pulse oximeter with pediatric and adult probes
   Yes ☐ No ☐

f. [0.55 points] Continuous end-tidal CO2 monitoring device
   Yes ☐ No ☐

50. Is each of the following fluid resuscitation equipment items available for immediate use in the ED?
   (Check Yes or No for each)
   a. [0.55 points] 22 gauge catheter-over-the-needle
      Yes ☐ No ☐
   b. [0.55 points] 24 gauge catheter-over-the-needle
      Yes ☐ No ☐
   c. [0.55 points] Pediatric intra-osseus needles
      Yes ☐ No ☐
   d. [0.55 points] IV administration sets with calibrated chambers and extension tubing and/or infusion devices with ability to regulate rate and volume of infusate
      Yes ☐ No ☐
   e. [0.55 points] Umbilical vein catheters (3.5F or 5.0F)
      Yes ☐ No ☐
   f. [0.55 points] Central venous catheters
      (any two sizes in range, 4F-7F)
      Yes ☐ No ☐

51. Is each of the following respiratory/airway management equipment items available for immediate use in the ED?
   (Check Yes or No for each)
   a. [0.557 points] Endotracheal tubes: cuffed or uncuffed 2.5 mm
      Yes ☐ No ☐
   b. [0.557 points] Endotracheal tubes: cuffed or uncuffed 3.0 mm
      Yes ☐ No ☐
   c. [0.557 points] Endotracheal tubes: cuffed or uncuffed 3.5 mm
      Yes ☐ No ☐
   d. [0.557 points] Endotracheal tubes: cuffed or uncuffed 4.0 mm
      Yes ☐ No ☐
   e. [0.557 points] Endotracheal tubes: cuffed or uncuffed 4.5 mm
f. [0.557 points] Endotracheal tubes: cuffed or uncuffed 5.0 mm
   - [ ] Yes  
   - [ ] No

h. [0.557 points] Endotracheal tubes: cuffed 6.0 mm
   - [ ] Yes  
   - [ ] No

j. [0.557 points] Laryngoscope blades: straight, size 0
   - [ ] Yes  
   - [ ] No

k. [0.557 points] Laryngoscope blades: straight, size 1
   - [ ] Yes  
   - [ ] No

m. [0.557 points] Laryngoscope blades: curved, size 2
   - [ ] Yes  
   - [ ] No

n. [0.557 points] Pediatric-sized Magill forceps
   - [ ] Yes  
   - [ ] No

o. [0.557 points] Nasopharyngeal airways: infant-sized
   - [ ] Yes  
   - [ ] No

p. [0.557 points] Nasopharyngeal airways: child-sized
   - [ ] Yes  
   - [ ] No

q. [0.557 points] Oropharyngeal airways: size 0 (50mm)
   - [ ] Yes  
   - [ ] No

r. [0.557 points] Oropharyngeal airways: size 1 (60mm)
   - [ ] Yes  
   - [ ] No

s. [0.557 points] Oropharyngeal airways: size 2 (70mm)
   - [ ] Yes  
   - [ ] No

t. [0.557 points] Oropharyngeal airways: size 3 (80mm)
   - [ ] Yes  
   - [ ] No
u. **[0.557 points]** Stylets for pediatric/infant-sized endotracheal tubes  
   Yes □  No □

v. **[0.557 points]** Tracheostomy tubes: size 3.0 mm  
   Yes □  No □

w. **[0.557 points]** Tracheostomy tubes: size 3.5 mm  
   Yes □  No □

x. **[0.557 points]** Tracheostomy tubes: size 4.0 mm  
   Yes □  No □

y. **[0.557 points]** Bag-mask device, self inflating: infant, 450 ml  
   Yes □  No □

z. **[0.557 points]** Masks to fit bag-mask device adaptor: neonatal  
   Yes □  No □

aa. **[0.557 points]** Masks to fit bag-mask device adaptor: infant  
   Yes □  No □

bb. **[0.557 points]** Masks to fit bag-mask device adaptor: child  
   Yes □  No □

c. **[0.557 points]** Clear oxygen masks: standard infant  
   Yes □  No □

d. **[0.557 points]** Clear oxygen masks: standard child  
   Yes □  No □

e. **[0.557 points]** Non-rebreather masks: infant-sized  
   Yes □  No □

ff. **[0.557 points]** Non-rebreather masks: child-sized  
   Yes □  No □

gg. **[0.557 points]** Nasal cannulas: infant  
   Yes □  No □

hh. **[0.557 points]** Nasal cannulas: child  
   Yes □  No □

ii. **[0.557 points]** Laryngeal mask airways: size 1  
   Yes □  No □

jj. **[0.557 points]** Laryngeal mask airways: size: 1.5
<p>| | | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>kk.</td>
<td><strong>[0.557 points]</strong> Laryngeal mask airways: size: 2</td>
<td></td>
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<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>ll.</td>
<td><strong>[0.557 points]</strong> Laryngeal mask airways: size: 2.5</td>
<td></td>
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<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>mm.</td>
<td><strong>[0.557 points]</strong> Laryngeal mask airways: size: 3</td>
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<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>nn.</td>
<td><strong>[0.557 points]</strong> Suction catheters: at least one in range 6-8F</td>
<td></td>
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<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>oo.</td>
<td><strong>[0.557 points]</strong> Suction catheters: at least one in range 10-12F</td>
<td></td>
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<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>pp.</td>
<td><strong>[0.557 points]</strong> Supplies/kit for pediatric patients with difficult airways (supraglottic airways of all sizes, needle cricothyrotomy supplies, surgical cricothyrotomy kit)</td>
<td>Yes</td>
</tr>
</tbody>
</table>
**Answers to the following question will help us to better understand barriers to the care of children in your ED.**

**Barriers**

52. Do you perceive each of the following as a barrier or not a barrier in implementing national guidelines for pediatric readiness in your ED? (Check Yes or No for each)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>a. Cost of personnel</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>b. Cost of training personnel</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>c. Lack of educational resources</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>d. Lack of appropriately trained physicians</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>e. Lack of appropriately trained nurses</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>f. Lack of administrative support</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>g. Lack of policies for pediatric emergency care</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>h. Lack of a Quality Improvement/Performance Improvement Plan for children</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>i. Lack of a disaster plan for children</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>j. Lack of interest in meeting the guidelines</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>k. Unaware that national guidelines existed and/or unfamiliar with national guidelines</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>l. Other</td>
<td>Yes ☐ No ☐</td>
</tr>
</tbody>
</table>

You marked "Other" to the previous question. Please describe other barriers in meeting national guidelines for pediatric readiness in your ED:

____________________________

**Finally, please provide actual data or estimations of ED patient volume for the following:**

53. List the total number of patients (adult and pediatric) seen in your ED in the last year. (Numeric data only, e.g., 5000, not “five thousand”)

Number of Total Patients ________________
54. Estimate the number of pediatric patients (as defined by your hospital) seen in your ED in the last year.
(Choose one)
   a. Low: <1,800 pediatric patients (average of 5 or fewer a day)
   b. Medium: 1,800 – 4,999 pediatric patients (average of 6-13 a day)
   c. Medium to High: 5,000 – 9,999 pediatric patients (average of 14-26 a day)
   d. High: >=10,000 pediatric patients (average of 27 or more a day)

55. If you know the actual number or a more precise estimate of pediatric patients seen in your ED in the last year, please record below. (Numeric data only, e.g., 500, not “five hundred”)
   Number of Pediatric Patients ____________

If you have any comments, please note them here:

______________________________________________________________________________
______________________________________________________________________________

______________________________________________________________________________
Table 1: Roll Out of the National Pediatric Readiness Project Web-based Assessment by Cohort (January-August 2013)*

<table>
<thead>
<tr>
<th>Field Test/Pilot</th>
<th>Cohort 1</th>
<th>Cohort 2</th>
<th>Cohort 3</th>
<th>Cohort 4</th>
<th>Cohort 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>Arizona</td>
<td>Colorado</td>
<td>Alabama</td>
<td>Alaska</td>
<td>Delaware</td>
</tr>
<tr>
<td>Guam</td>
<td>Hawaii</td>
<td>District of</td>
<td>Connecticut</td>
<td>American Samoa</td>
<td>Federated States of</td>
</tr>
<tr>
<td>Maryland</td>
<td>Montana</td>
<td>Columbia</td>
<td>Georgia</td>
<td>Idaho</td>
<td>Micronesia</td>
</tr>
<tr>
<td>Minnesota</td>
<td>Nevada</td>
<td>Florida</td>
<td>Indiana</td>
<td>Illinois</td>
<td>Kansas</td>
</tr>
<tr>
<td></td>
<td>Nebraska</td>
<td>Kentucky</td>
<td>Iowa</td>
<td>Missouri</td>
<td>Louisiana</td>
</tr>
<tr>
<td></td>
<td>Nevada</td>
<td>Michigan</td>
<td>Massachusetts</td>
<td>North Carolina</td>
<td>Maine</td>
</tr>
<tr>
<td></td>
<td>Northern Mariana Islands</td>
<td>Oklahoma</td>
<td>New Jersey</td>
<td>Pennsylvania</td>
<td>Marshall Islands</td>
</tr>
<tr>
<td></td>
<td>Oregon</td>
<td>Mississippi</td>
<td>New Mexico</td>
<td>South Dakota</td>
<td>New Hampshire</td>
</tr>
<tr>
<td></td>
<td>Rhode Island</td>
<td>Utah</td>
<td>New York</td>
<td>Tennessee</td>
<td>Ohio</td>
</tr>
<tr>
<td></td>
<td>Texas</td>
<td>Virginia</td>
<td>Virgin Islands</td>
<td>Vermont</td>
<td>Palau</td>
</tr>
<tr>
<td></td>
<td>Washington</td>
<td></td>
<td>Wyoming</td>
<td></td>
<td>Puerto Rico</td>
</tr>
<tr>
<td></td>
<td>West Virginia</td>
<td></td>
<td></td>
<td></td>
<td>South Carolina</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wisconsin</td>
</tr>
</tbody>
</table>

* Approximately 900 hospitals included in each cohort
eTable2. Patient Safety in the ED

<table>
<thead>
<tr>
<th></th>
<th>All Hospitals</th>
<th>Low</th>
<th>Medium</th>
<th>Medium-High</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are all children seen in the ED weighed in kilograms?¹</td>
<td>2802 (67.7%)</td>
<td>853 (52.5%)</td>
<td>893 (71.8%)</td>
<td>564 (79.9%)</td>
<td>492 (87.7%)</td>
</tr>
<tr>
<td>If yes, is the weight recorded in the ED medical record in kilograms only?²</td>
<td>1909 (75.3%)</td>
<td>525 (65.7%)</td>
<td>608 (73.8%)</td>
<td>401 (81.3%)</td>
<td>375 (89.3%)</td>
</tr>
<tr>
<td>Are temperature, heart rate, and respiratory rate recorded on all children?</td>
<td>4081 (98.6%)</td>
<td>1599 (98.3%)</td>
<td>1233 (99.1%)</td>
<td>694 (98.3%)</td>
<td>555 (98.9%)</td>
</tr>
<tr>
<td>Is blood pressure monitoring available for children of all ages based on severity of illness?</td>
<td>4060 (98.1%)</td>
<td>1580 (97.2%)</td>
<td>1232 (99.0%)</td>
<td>697 (98.7%)</td>
<td>551 (98.2%)</td>
</tr>
<tr>
<td>Is pulse oximetry monitoring available for children of all ages based on severity of illness?</td>
<td>4125 (99.7%)</td>
<td>1618 (99.5%)</td>
<td>1242 (99.8%)</td>
<td>704 (99.7%)</td>
<td>561 (100.0%)</td>
</tr>
<tr>
<td>Is a written procedure in place for notification of physicians when abnormal vital signs are found in all children?</td>
<td>2904 (70.2%)</td>
<td>995 (61.2%)</td>
<td>914 (73.5%)</td>
<td>545 (77.2%)</td>
<td>450 (80.2%)</td>
</tr>
<tr>
<td>Is a process in place for the use of pre-calculated drug dosing in all children?</td>
<td>3267 (79.0%)</td>
<td>1185 (72.9%)</td>
<td>1000 (80.4%)</td>
<td>583 (82.6%)</td>
<td>499 (88.9%)</td>
</tr>
<tr>
<td>Is a process in place that allows for 24/7 access to interpreter services in the ED?</td>
<td>3951 (95.5%)</td>
<td>1493 (91.8%)</td>
<td>1204 (96.8%)</td>
<td>699 (99.0%)</td>
<td>555 (98.9%)</td>
</tr>
</tbody>
</table>

¹Note: This includes critical situations when a child might bypass triage and have his/her weight estimated in kilograms.

²The denominator for recording in kilograms was 2,535 which consisted of all hospitals that reported weighing only in kilograms. This number also excludes California hospitals which were not asked this question.
### eTable 3. Policies for Care of Children in the ED

<table>
<thead>
<tr>
<th>Policy</th>
<th>All Hospitals</th>
<th>Low</th>
<th>Medium</th>
<th>Medium-High</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child maltreatment</td>
<td>3439 (89.6%)</td>
<td>1313  (84.2%)</td>
<td>1087  (93.5%)</td>
<td>584 (92.8%)</td>
<td>455 (93.6%)</td>
</tr>
<tr>
<td>Patient assessment and reassessment</td>
<td>3040 (73.5%)</td>
<td>1026 (63.1%)</td>
<td>973 (78.2%)</td>
<td>555 (78.6%)</td>
<td>486 (86.6%)</td>
</tr>
<tr>
<td>Written inter-facility guidelines</td>
<td>2922 (70.6%)</td>
<td>1053 (64.8%)</td>
<td>878 (70.6%)</td>
<td>535 (75.8%)</td>
<td>456 (81.3%)</td>
</tr>
<tr>
<td>Family-centered care</td>
<td>2468 (59.7%)</td>
<td>821 (50.5%)</td>
<td>784 (63.0%)</td>
<td>447 (63.3%)</td>
<td>416 (74.2%)</td>
</tr>
<tr>
<td>Death of the child in the ED</td>
<td>2402 (58.1%)</td>
<td>820 (50.4%)</td>
<td>743 (59.7%)</td>
<td>425 (60.2%)</td>
<td>414 (73.8%)</td>
</tr>
<tr>
<td>Triage policy that specifically addresses ill and injured children?</td>
<td>2385 (57.7%)</td>
<td>678 (41.7%)</td>
<td>774 (62.2%)</td>
<td>485 (68.7%)</td>
<td>448 (79.9%)</td>
</tr>
<tr>
<td>Reduced-dose radiation for CT and x-ray imaging based on pediatric age or weight</td>
<td>2176 (52.6%)</td>
<td>711 (43.7%)</td>
<td>663 (53.3%)</td>
<td>407 (57.6%)</td>
<td>395 (70.4%)</td>
</tr>
<tr>
<td>Immunization</td>
<td>2137 (51.7%)</td>
<td>734 (45.1%)</td>
<td>673 (54.1%)</td>
<td>391 (55.4%)</td>
<td>339 (60.4%)</td>
</tr>
<tr>
<td>Social and mental health issues</td>
<td>1825 (47.6%)</td>
<td>528 (33.9%)</td>
<td>575 (49.4%)</td>
<td>367 (58.3%)</td>
<td>355 (73.0%)</td>
</tr>
<tr>
<td>Disaster plan</td>
<td>1938 (46.8%)</td>
<td>613 (37.7%)</td>
<td>577 (46.4%)</td>
<td>370 (52.4%)</td>
<td>378 (67.4%)</td>
</tr>
</tbody>
</table>
eFigure. National Map of Pediatric Readiness Response Rates by State

The map can be found at http://www.pedsready.org (March 3, 2014).