



# Guidelines for Care of Children in the Emergency Department

This checklist is based on the American Academy of Pediatrics (AAP), American College of Emergency Physicians (ACEP), and Emergency Nurses Association (ENA) 2009 joint policy statement "Guidelines for Care of Children in the Emergency Department," which can be found online at <http://aappolicy.aappublications.org/cgi/reprint/pediatrics;124/4/1233.pdf>. Use the checklist to determine if your emergency department (ED) is prepared to care for children.

## Administration and Coordination of the ED for the Care of Children

- Physician Coordinator for Pediatric Emergency Care.* The pediatric physician coordinator is a specialist in emergency medicine or pediatric emergency medicine; or if these specialties are not available then pediatrics or family medicine, appointed by the ED medical director, who through training, clinical experience, or focused continuing medical education demonstrates competence in the care of children in emergency settings, including resuscitation.
- Nursing Coordinator for Pediatric Emergency Care.* The pediatric nurse coordinator is a registered nurse (RN), appointed by the ED nursing director, who possesses special interest, knowledge, and skill in the emergency care of children.

## Physicians, Nurses and Other Healthcare Providers Who Staff the ED

- Physicians who staff the ED have the necessary skill, knowledge, and training in the emergency evaluation and treatment of children of all ages who may be brought to the ED, consistent with the services provided by the hospital.
- Nurses and other ED health care providers have the necessary skill, knowledge, and training in providing emergency care to children of all ages who may be brought to the ED, consistent with the services offered by the hospital.
- Baseline and periodic competency evaluations completed for all ED clinical staff, including physicians, are age specific and include evaluation of skills related to neonates, infants, children, adolescents, and children with special health care needs. (Competencies are determined by each institution's medical and nursing staff privileges policy.)

## Guidelines for QI/PI in the ED

- The QI/PI plan shall include pediatric specific indicators.
- The pediatric patient care-review process is integrated into the ED QI/PI plan. Components of the process interface with out-of-hospital, ED, trauma, inpatient pediatric, pediatric critical care, and hospital-wide QI or PI activities.

## Guidelines for Improving Pediatric Patient Safety

The delivery of pediatric care should reflect an awareness of unique pediatric patient safety concerns and are included in the following policies or practices:

- Children are weighed in kilograms.
- Weights are recorded in a prominent place on the medical record.
- For children who are not weighed, a standard method for estimating weight in kilograms is used (e.g., a length-based system).
- Infants and children have a full set of vital signs recorded (temperature, heart rate, respiratory rate) in medical record.
- Blood pressure and pulse oximetry monitoring are available for children of all ages on the basis of illness and injury severity.
- A process for identifying age-specific abnormal vital signs and notifying the physician of these is present.
- Processes in place for safe medication storage, prescribing, and delivery that includes precalculated dosing guidelines for children of all ages.
- Infection-control practices, including hand hygiene and use of personal protective equipment, are implemented and monitored.
- Pediatric emergency services are culturally and linguistically appropriate.
- ED environment is safe for children and supports patient- and family-centered care.
- Patient identification policies meet Joint Commission standards.
- Policies for the timely reporting and evaluation of patient safety events, medical errors, and unanticipated outcomes are implemented and monitored.

## Guidelines for ED Policies, Procedures, and Protocols

Policies, procedures, and protocols for the emergency care of children should be developed and implemented in the areas listed below. These policies may be integrated into overall ED policies as long as pediatric specific issues are addressed.

- Illness and injury triage.
- Pediatric patient assessment and reassessment.

## Guidelines for ED Policies, Procedures, and Protocols, Cont.

- Documentation of pediatric vital signs and actions to be taken for abnormal vital signs.
- Immunization assessment and management of the under-immunized patient.
- Sedation and analgesia, including medical imaging.
- Consent, including when parent or legal guardian is not immediately available.
- Social and mental health issues.
- Physical or chemical restraint of patients.
- Child maltreatment and domestic violence reporting criteria, requirements, and processes.
- Death of the child in the ED.
- Do not resuscitate (DNR) orders.
- Family-centered care:
  - Family involvement in patient decision-making and medication safety processes;
  - Family presence during all aspects of emergency care;
  - Patient, family, and caregiver education;
  - Discharge planning and instruction; and
  - Bereavement counseling.
- Communication with the patient's medical home or primary care provider.
- Medical imaging, specifically policies that address pediatric age- or weight-based appropriate dosing for studies that impart radiation consistent with ALARA (as low as reasonably achievable) principles.

### **Policies, Procedures, and Protocols for All-Hazard Disaster Preparedness**

Policies, procedures, and protocols should also be developed and implemented for all-hazard disaster-preparedness. The plan should address the following preparedness issues:

- Availability of medications, vaccines, equipment, and trained providers for children.
- Pediatric surge capacity for injured and non-injured children.
- Decontamination, isolation, and quarantine of families and children.
- Minimization of parent-child separation (includes pediatric patient tracking and timely reunification of separated children with their family).
- Access to specific medical and mental health therapies, and social services for children.
- Disaster drills which include a pediatric mass casualty incident at least every two years.
- Care of children with special health care needs.
- Evacuation of pediatric units and pediatric subspecialty units.

### **Policies, Procedures, and Protocols for Patient Transfers**

- Written pediatric inter-facility transfer procedures should be established.

## Guidelines for ED Support Services

Radiology capability must meet the needs of the children in the community served. Specifically:

- A process for referring children to appropriate facilities for radiological procedures that exceed the capability of the hospital is established.
- A process for timely review, interpretation, and reporting of medical imaging by a qualified radiologist is established.

Laboratory capability must meet the needs of the children in the community served, including techniques for small sample sizes. Specifically:

- A process for referring children or their specimens to appropriate facilities for laboratory studies that exceed the capability of the hospital is established.

## Guidelines for Equipment, Supplies, and Medications for the Care of Pediatric Patients in the ED

- Pediatric equipment, supplies, and medications are appropriate for children of all ages and sizes (see list below), and are easily accessible, clearly labeled, and logically organized.
- ED staff is educated on the location of all items.
- Daily method in place to verify the proper location and function of equipment and supplies.
- Medication chart, length-based tape, medical software, or other systems is readily available to ensure proper sizing of resuscitation equipment and proper dosing of medications.

### **Medications**

- |  |   |
|--|---|
| <input type="radio"/> atropine                                 | <input type="radio"/> antimicrobial agents (parenteral and oral)                  |
| <input type="radio"/> adenosine                                | <input type="radio"/> anticonvulsant medications                                  |
| <input type="radio"/> amiodarone                               | <input type="radio"/> antidotes (common antidotes should be accessible to the ED) |
| <input type="radio"/> antiemetic agents                        | <input type="radio"/> antipyretic drugs   |
| <input type="radio"/> calcium chloride                         | <input type="radio"/> bronchodilators   |
| <input type="radio"/> dextrose (D10W, D50W)                    | <input type="radio"/> corticosteroids   |
| <input type="radio"/> epinephrine (1:1000; 1:10 000 solutions) | <input type="radio"/> inotropic agents  |
| <input type="radio"/> lidocaine                                | <input type="radio"/> neuromuscular blockers                                      |
| <input type="radio"/> magnesium sulfate                        | <input type="radio"/> sedatives   |
| <input type="radio"/> naloxone hydrochloride                   | <input type="radio"/> vaccines  |
| <input type="radio"/> procainamide                             | <input type="radio"/> vasopressor agents  |
| <input type="radio"/> sodium bicarbonate (4.2%, 8.4%)          |   |
| <input type="radio"/> topical, oral, and parenteral analgesics |   |

**Equipment/Supplies: General Equipment**

- patient warming device
- intravenous blood/fluid warmer
- restraint device
- weight scale in kilograms (not pounds)
- tool or chart that incorporates weight (in kilograms) and length to determine equipment size and correct drug dosing
- age appropriate pain scale-assessment tools

**Equipment/Supplies: Monitoring Equipment**

- blood pressure cuffs
  - neonatal
  - infant
  - child
  - adult-arm
  - adult-thigh
- doppler ultrasonography devices
- electrocardiography monitor/defibrillator with pediatric and adult capabilities including pads/paddles
- hypothermia thermometer
- pulse oximeter with pediatric and adult probes
- continuous end-tidal CO<sub>2</sub> monitoring device

**Equipment/Supplies: Vascular Access**

- arm boards
  - infant
  - child
  - adult
- catheter-over-the-needle device
  - 14 gauge
  - 16 gauge
  - 18 gauge
  - 20 gauge
  - 22 gauge
  - 24 gauge
- intraosseous needles or device
  - pediatric
  - adult
- IV administration sets with calibrated chambers and extension tubing and/or infusion devices with ability to regulate rate and volume of infusate
- umbilical vein catheters
  - 3.5F
  - 5.0F
- central venous catheters (any two sizes)
  - 4.0F
  - 5.0F
  - 6.0F
  - 7.0F
- intravenous solutions
  - normal saline
  - dextrose 5% in normal saline
  - dextrose 10% in water

**Equipment/Supplies: Fracture-Management Devices**

- extremity splints
  - femur splints, pediatric sizes
  - femur splints, adult sizes
- spine-stabilization devices appropriate for children of all ages

**Equipment/Supplies: Respiratory**

- endotracheal tubes
  - uncuffed 2.5 mm
  - uncuffed 3.0 mm
  - cuffed or uncuffed 3.5 mm
  - cuffed or uncuffed 4.0 mm
  - cuffed or uncuffed 4.5 mm
  - cuffed or uncuffed 5.0 mm
  - cuffed or uncuffed 5.5 mm
  - cuffed 6.0 mm
  - cuffed 6.5 mm
  - cuffed 7.0 mm
  - cuffed 7.5 mm
  - cuffed 8.0 mm
- feeding tubes
  - 5F
  - 8F
- laryngoscope blades
  - straight: 0
  - straight: 1
  - straight: 2
  - straight: 3
  - curved: 2
  - curved: 3
- laryngoscope handle
- magill forceps
  - pediatric
  - adult
- nasopharyngeal airways
  - infant
  - child
  - adult
- oropharyngeal airways
  - size 0
  - size 1
  - size 2
  - size 3
  - size 4
  - size 5
- stylets for endotracheal tubes
  - pediatric
  - adult
- suction catheters
  - infant
  - child
  - adult
- tracheostomy tubes
  - 2.5 mm
  - 3.0 mm
  - 3.5 mm
  - 4.0 mm
  - 4.5 mm
  - 5.0 mm
  - 5.5 mm
- yankauer suction tip
- bag-mask device, self inflating
  - infant: 450 ml
  - adult: 1000 ml
- masks to fit bag-mask device adaptor
  - neonatal
  - infant
  - child
  - adult

**Equipment/Supplies: Respiratory, Continued**

- clear oxygen masks
  - standard infant
  - standard child
  - standard adult
  - partial nonrebreather infant
  - nonrebreather child
  - nonrebreather adult
- nasal cannulas
  - infant
  - child
  - adult
- nasogastric tubes
  - infant: 8F
  - child: 10F
  - adult: 14-18F
- laryngeal mask airway
  - size: 1
  - size: 1.5
  - size: 2
  - size: 2.5
  - size: 3
  - size: 4
  - size: 5

**Equipment/Supplies: Specialized Pediatric Trays or Kits**

- lumbar puncture tray (including infant/pediatric 22 gauge and adult 18-21 gauge needles)
- supplies/kit for patients with difficult airway (supraglottic airways of all sizes, laryngeal mask airway, needle cricothyrotomy supplies, surgical cricothyrotomy kit)
- tube thoracostomy tray
- chest tubes:
  - infant: 10-12F
  - child: 16-24 F
  - adult: 28-40 F
- newborn delivery kit, including equipment for resuscitation of an infant (umbilical clamp, scissors, bulb syringe, and towel)
- urinary catheterization kits and urinary (indwelling) catheters (6F–22F)

American Academy  
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™

American College of  
Emergency Physicians®  
ADVANCING EMERGENCY CARE 

