

**Pediatric Equipment and Supplies for  
Emergency Departments**

<b>Essential Equipment and Supplies</b>	Yes	No
<p><b>Monitoring</b></p> <ol style="list-style-type: none"> <li>1. Cardiorespiratory monitor with strip recorder</li> <li>2. Defibrillator (0-400 J capability) with pediatric and adult paddles (4.5 cm and 8 cm)</li> <li>3. Pediatric and adult monitor electrodes</li> <li>4. Pulse oximeter with sensors sizes newborn through adult</li> <li>5. Thermometer/rectal probe*</li> <li>6. Sphygmomanometer</li> <li>7. Doppler blood pressure device</li> <li>8. Blood pressure cuffs               <ol style="list-style-type: none"> <li>(a) neonatal</li> <li>(b) infant</li> <li>(c) child</li> <li>(d) adult and</li> <li>(e) thigh sizes</li> </ol> </li> <li>9. Method to monitor endotracheal tube and placement †</li> </ol>		
<p><b>Vascular Access</b></p> <ol style="list-style-type: none"> <li>1. Butterfly needles (19-to 25-gauge)</li> <li>2. Catheter-over-needle devices (14- to 24-gauge)</li> <li>3. Infusion device ‡</li> <li>4. Tubing for above</li> <li>5. Intraosseous needles (16- and 18-gauge) §</li> <li>6. Arm boards               <ol style="list-style-type: none"> <li>(a) infant</li> <li>(b) child</li> <li>(c) adult</li> </ol> </li> <li>7. Intravenous fluid/blood warmers</li> <li>8. Umbilical vein catheters (sizes 3.5 Fr and 5 Fr)   </li> <li>9. Seldinger technique vascular access kit (with pediatric sizes 3, 4, 5 Fr catheters)</li> </ol>		
<p><b>Airway Management</b></p> <ol style="list-style-type: none"> <li>1. Clear oxygen masks (preterm, infant, child, and adult sizes)</li> <li>2. Non-rebreathing masks (infant, child, and adult sizes)</li> <li>3. Oral airways (sizes 00-5)</li> <li>4. Nasopharyngeal airways (12 to 30 fr)</li> <li>5. Bag-valve-mask resuscitator, self-inflating (450 and 1000 mL sizes)</li> <li>6. Nasal cannulae (infant, child, and adult sizes)</li> <li>7. Endotracheal tubes: uncuffed (sizes 2.5. to 8.5) and cuffed (sizes 5.5 to 9)</li> </ol>		

8.	Stylets (pediatric and adult sizes)		
9.	Laryngoscope handle (pediatric and adult)		
10.	Laryngoscope blades, curved (sizes 2 and 3) and straight (sizes 0 to 3)		
11.	Magill forceps (pediatric and adult)		
12.	Nasogastric tubes (sizes 6 to 14 Fr)		
13.	Suction catheters: flexible (sizes 5 to 16 Fr) and Yankauer suction tip		
14.	Chest tubes (sizes 8 to 40 Fr)		
15.	Tracheostomy tubes (sizes 00 to 6) <sup>†</sup>		
<b>Resuscitation medications (see Table)</b>			
1.	Medication chart, tape, or other system to ensure ready access to information on proper per kilogram doses for resuscitation drugs and equipment sizes <sup>#</sup>		
<b>Miscellaneous</b>			
1.	Infant and standard scales		
2.	Infant formula and oral rehydrating solutions		
3.	Heating source (infrared lamps or overhead warmer)		
4.	Towel rolls/blanket rolls or equivalent		
5.	Pediatric restraining devices		
6.	Resuscitation board		
7.	Sterile linen (available within hospital for burn care)		
<b>Specialized pediatric trays</b>			
1.	Tube thoracotomy with water seal drainage capability		
2.	Lumbar puncture (spinal needle sizes 20-,22-, and 25-gauge)		
3.	Urinary catheterization with pediatric Foley catheters (sizes 5 to 16 Fr)		
4..	Obstetric pack		
5.	Newborn kit (a) umbilical vessel cannulation supplies (b) meconium aspirator		
6.	Venous cutdown		
7.	Surgical airway kit ‡‡		
<b>Fracture Management</b>			
1.	Cervical immobilization equipment (sizes child to adult) <sup>§§</sup>		
2.	Extremity splints		
3.	Femur splints (child and adult sizes)		
<b>Desirable Equipment and Supplies</b>			
1.	Medical photography capability		

**Table.** *Pediatric resuscitation medications.*

Drug Name	How Supplied	Quantity Per Container	Yes	No
1. Atropine	Prefilled syringe	10 mL (.1 mg/mL) 5 mL (.1 mg/mL)		
2. Adenosine	Vial	1 mL (1 mg/mL)		
3. Bretylium	Prefilled syringe	10 mL (50 mg/mL)		
4. Calcium chloride	Ampule Vial	10 mL (50 mg/mL) 20 mL (50 mg/mL)		
5. Dextrose (25% and 50%)	Prefilled syringe	10 mL (100 mg/mL=27.1 mg elemental calcium)		
6. Dopamine	Prefilled syringe	10 mL		
7. Dobutamine	Vial	5 mL (40 mg/mL) 10 mL (40 mg/mL)		
8. Epinephrine 1:1000	Vial	10 mL (25 mg/mL) 20 mL (12.5 mg/mL)		
9. Epinephrine 1:10,000	Prefilled syringe	1 mL, 2 mL 30 mL (1 mg/mL)		
10. Isoproterenol	Prefilled syringe	10 mL (.1 mg/mL) 3 mL (.1 mg/mL)		
11. Lidocaine	Vial	5 mL (.2mg/mL)		
12. Naloxone	Prefilled syringe	5 mg/mL, 10 mg/mL 15 mg/mL, 20 mg/mL 40 mg/mL, 100 mg/mL 200 mg/mL		
13. Sodium bicarbonate	Vial	5 mL (20 mg/mL)		
	Ampule	1 mL, 10 mL (.4 mg/mL)		
	Vial	2 mL (1 mg/mL)		
	Prefilled syringe	50 mL (8.4%) (1 mEq/mL) 10 mL (8.4%) (1 mEq/mL) 10 mL (4.2%) (.5 mEq/mL)		

## ENDNOTES

- \* Suitable for hypothermic and hyperthermic measurements with temperature capability from 25° to 44°C.
- † May be satisfied by a disposable ETco<sub>2</sub> detector, bulb, or feeding tube methods for endotracheal tube placement.
- ‡ To regulate rate and volume.
- § May be satisfied by standard bone marrow aspiration needles, 13- or 15-gauge.
- || Available within the hospital.
- ¶ Ensure availability of pediatric sizes within the hospital.
- # System for estimating medication doses and supplies may use the length-based method with color codes, or other predetermined weight (kilogram)/dose method.
- ‡‡ May include any of the following items: tracheostomy tray, cricothyrotomy tray, ETJV (needle jet).
- §§ Many types of cervical immobilization devices are available. These include wedges and collars. The type of device chosen depends on local preference and policies and procedures. Whatever device is chosen should be stocked in sizes to fit infants, children, adolescents, and adults. The use of sandbags to meet this requirement is discouraged because they may cause injury if the patient has to be turned.

[Source: Seidel et al, Committee on Pediatric Equipment and Supplies for Emergency Departments, National Emergency Medical Services for Children Resource Alliance, Annals of Emergency Medicine, Volume 31:1, January 1998, pp. 54-57]