



## Description of Essential Criteria for PREPARED PLUS Emergency Department

Access to optimal emergency care for children is affected by the lack of availability of equipment, appropriately trained staff to care for children, and policies and procedures that ensures timely transfer to definitive care. Although advances have been made that promote access to emergency care for children, improved awareness of the pediatric resources available to hospitals and the development of a coordinated emergency and trauma care systems, may optimize access and outcomes for many acutely ill and injured children.

### Institutional Organization

#### **Physician/Provider Requirements:**

##### **Physicians**

- Twenty-four hour coverage of the emergency department (ED) shall be provided by at least one physician responsible for the care of critically ill or injured children.
- Physicians staffing a Prepared Plus ED should be Board-eligible or Board-certified in one of the allopathic or osteopathic boards of: Emergency Medicine or Pediatric Emergency Medicine. If board-certified in Pediatrics or Family Medicine, they must have at least 5 years of active and continuous pediatric emergency experience.

##### **Mid-Level Providers:**

Nurse Practitioners staffing a Prepared Plus ED must have:

- Completed an Acute Care Nurse Practitioner (ACNP) or Emergency Nurse Practitioner (ENP) program.
- Obtained an advanced practice nursing license from the State of Arizona
- Credentialing that reflects orientation, ongoing training, and specific competencies in the care of the pediatric emergency patients. A Registered Nurse Practitioner (RNP) shall only provide health care services within the nurse practitioner's scope of practice for which the RNP is educationally prepared and for which competency has been established and

maintained. Educational preparation means academic coursework or continuing education activities that include both theory and supervised clinical practice.

Physician Assistants staffing a Prepared Plus ED must have:

- Current Arizona licensure
- Credentialing that reflects orientation, ongoing training, and specific competencies in the care of the pediatric emergency patient.

### **Continuing Medical Education:**

All Physician staff and Mid-Level Providers shall maintain at least 8 hours of clearly pediatric emergency medicine CME every year.

- Pediatric Advanced Life Support (PALS) or Advanced Pediatric Life Support (APLS) is recommended for physicians. Non-board-certified physicians are required to have current PALS or APLS certification. Board-certified emergency medicine physicians are required to have held PALS or APLS certification at one time. PALS and APLS *may* be counted towards 2 hours of the CME requirement.
- Nurse Practitioners and Physician Assistants are required to have current PALS, Emergency Nurse Pediatric Course (ENPC) or APLS certification

### **Coverage:**

There must be 24/7 in-house coverage by a physician with a second physician available as back up within 1 hour for unusual events (disasters, unexpected high acuity). Both must meet the above Prepared Plus level requirements.

## **Nursing Requirements**

### **Nursing Staff:**

- Nursing staff must be licensed in the State of Arizona or multistate compact privilege.
- All Nursing personnel shall have PALS certification within 6 months of hire.
- 25% of nursing staff are ENPC verified.
- 5% of nursing staff are certified (CEN, CPEN, CFRN, CTRN or CCRN)
- All Nursing staff shall maintain at least 8 hours of clearly pediatric emergency medicine CE every year. PALS and ENPC may be counted towards 2 hours of the CE requirement.
- Baseline and periodic competency evaluations completed for all ED clinical staff 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 policy.

### **Facility Requirements:**

- Basic radiographic capabilities with image gently protocols\*
  - CT scan capabilities 24/7 with image gently protocols\*
- \*If image gently protocols are not utilized, what protocols are used to reduce pediatric CTs and radiation doses

- Laboratory 24/7 (including Blood Bank)

**On-Call Coverage:**

- Formal: None
- All coverage needs not met by the Prepared Plus institution must be met with nonexclusive formal transfer agreements with outside institutions

**Quality Improvement:**

The health care institution shall have an operational Quality/Performance improvement program that monitors, evaluates, and improves the performance of pediatric patient care on a continuous basis. An acceptable performance improvement program includes a Multidisciplinary Committee comprised of: Medical Director,  $\geq 2$  additional Physicians, and Nurse Manager. Pediatric emergency medical care shall be included in the hospital emergency department's quality improvement (QI) program and reported to the hospital QI committee.

The health care institution shall establish continuous quality improvement (CQI) activities with documented CQI monitors addressing pediatric care within the emergency department, with identified clinical indicators and/or outcomes for care.

Required review:

- All transfers out
- All pediatric deaths
- All child abuse/maltreatment

Choose one or more of the following:

- Pediatric diversion
- Left without treatment
- Incident Reports
- Pediatric ED return visits as defined by hospital policy (24, 48, 72 hours)
- Pediatric medication errors
- Asthma management

**Pediatric CQI Liaison**

A member of the professional staff who has ongoing involvement in the care of pediatric patients shall be designated and supported by the hospital as the pediatric liaison. This individual may be employed in an area other than the emergency department and shall have pediatric inpatient, critical care, or emergency department experience. The responsibilities of the pediatric liaison shall include:

1. Work in conjunction with the ED nurse manager and the ED medical director to ensure compliance with and documentation of the pediatric continuing education of all emergency department staff.

2. Maintain a data summary and work in conjunction with the multidisciplinary CQI committee to coordinate criteria-based review and follow-up of sample pediatric emergency department visits.

## **Guidelines and Procedures:**

### **Interfacility Transfer**

- The facility shall have transfer guidelines/procedures concerning transfer of critically ill and injured pediatric patients to outside institutions.

### **Suspected Child Abuse**

- The facility shall have guidelines/procedures addressing the identification, evaluation and referral of victims of suspected child abuse in accordance with State law.

### **Patient Safety and Care**

- Pediatric patient scales are locked in kilograms; if a facility is unable to lock the scale, weights are verified by a second staff member.
- Pediatric medication name/ dosage are validated by a second caregiver.
- Blood pressures are attempted on all pediatric patients regardless of age.
- Use of a evidence based pediatric clinical pathway for acute respiratory illness
- Medical imaging guidelines that address age- or weight-appropriate dosing for children receiving studies that impart ionizing radiation, consistent with as-low-as reasonably-achievable (ALARA) principles.

### **Pediatric Sedation Guidelines**

- If conscious sedation is used for pediatric radiology and/or painful procedures please include guideline or policy for review

### **Disaster Preparedness**

Hospital disaster plan addresses issues specific to the care of children and the needs of children are included in the mock drills.

### **Guidelines**

The facility shall have guidelines (minimum of 5) addressing appropriate stabilization measures in response to critically ill or injured pediatric patients (i.e., trauma, respiratory distress, seizures). Staff should be educated accordingly; and they should be monitored for compliance and periodically updated. These resources should include, but are not limited to, the following:

1. Illness and injury triage.
2. Pediatric patient assessment and reassessment.
3. Documentation of pediatric vital signs, abnormal vital signs, and actions to be taken for abnormal vital signs.
4. Immunization assessment and management of the under-immunized patient.

5. Sedation and analgesia for procedures, including medical imaging.
6. Consent (including situations in which a parent is not immediately available).
7. Social and mental health issues.
8. Physical or chemical restraint of patients.
9. Child maltreatment (physical and sexual abuse, sexual assault, and neglect) and domestic violence mandated reporting criteria, requirements, and processes.
10. Death of the child in the ED.
11. Do-not-resuscitate orders.
12. Family-centered care, including:
  - a. Involving families in patient care decision-making and in medication safety processes.
  - b. Family presence during all aspects of emergency care, including resuscitation.
  - c. Education of the patient, family, and regular caregivers.
  - d. Discharge planning and instruction.
  - e. Bereavement counseling.
13. Communication with the patient's medical home or primary health care provider.

## **Equipment And Supplies For Use In Pediatric Patients In The ED:**

### **General Equipment**

- Patient warming device
- Intravenous blood/fluid warmer
- Restraint device
- Weight scale, in kilograms only (not pounds), for infants and children
- Tool or chart that incorporates both weight (in kilograms) and length to assist physicians and nurses in determining equipment size and correct drug dosing (by weight and total volume), such as a length-based resuscitation tape
- Pain-scale–assessment tools appropriate for age
- Availability of topical anesthetics

### **Monitoring Equipment**

- Blood pressure cuffs (neonatal, infant, child, adult-arm and thigh)
- Doppler ultrasonography devices
- Electrocardiography monitor/defibrillator with pediatric and adult capabilities including pediatric-sized pads/paddles
- Hypothermia thermometer
- Pulse oximeter with pediatric and adult probes
- Continuous end-tidal CO<sub>2</sub> monitoring device

### **Respiratory Equipment and Supplies**

- Endotracheal tubes:
  - Uncuffed: 2.5 and 3.0 mm
  - Cuffed or uncuffed: 3.5, 4.0, 4.5, 5.0, and 5.5 mm

- Cuffed: 6.0, 6.5, 7.0, 7.5, and 8.0 mm
- Feeding tubes (5F and 8F)
- Laryngoscope blades (curved: 2 and 3; straight: 0, 1, 2, and 3)
- Laryngoscope handle
- Magill forceps (pediatric and adult)
- Nasopharyngeal airways (infant, child, and adult)
- Oropharyngeal airways (sizes 0–5)
- Stylets for endotracheal tubes (pediatric and adult)
- Suction catheters (infant, child, and adult)
- Tracheostomy tubes (sizes 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5 mm)
- Yankauer suction tip
- Bag-mask device (manual resuscitator), self-inflating (infant size: 250mL; child size: 450 mL; adult size: 1000 mL)
- Clear oxygen masks (non-rebreathing) for an infant, child, and adult
- Masks to fit bag-mask device adaptor (neonatal, infant, child, and adult sizes)
- Nasal cannulas (infant, child, and adult)
- Nasogastric tubes (sump tubes): infant (8F), child (10F), and adult (14F–18F)
- Laryngeal mask airway (sizes 1, 1.5, 2, 2.5, 3, 4, and 5)

#### **Vascular Access Supplies and Equipment**

- Arm boards (infant, child, and adult sizes)
- Catheter-over-the-needle device (14–24 gauge)
- Intraosseous needles or device (pediatric and adult sizes)
- Intravenous catheter–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 and 5.0F)
- Central venous catheters (4.0F– 7.0F)
- Intravenous solutions to include: normal saline; dextrose 5% in normal saline; and dextrose 10% in water

#### **Fracture-Management Devices**

- Extremity splints, including femur splints (pediatric and adult sizes)
- Spine-stabilization method/devices appropriate for children of all ages

#### **Specialized Pediatric Trays or Kits**

- Lumbar-puncture tray including infant (22-gauge), pediatric (22-gauge), and adult (18- to 21 gauge) lumbar-puncture needles
- Supplies/kit for patients with difficult airway conditions (to include but not limited to supraglottic airways of all sizes, such as the laryngeal mask airway, 2 needle cricothyrotomy supplies, surgical cricothyrotomy kit)
- Tube thoracostomy tray
- Chest tubes to include infant, child, and adult sizes (infant: 10F–12F; child, 16F–24F; adult, 28F– 40F)

- Newborn delivery kit (including equipment for initial resuscitation of a newborn infant: umbilical clamp, scissors, bulb syringe, and towel)
- Urinary catheterization kits and urinary (indwelling) catheters (6F–22F)

### **Institutional Commitment:**

Prepared Plus ED can serve as a resource for all Prepared Emergency Departments.

Prepared Plus ED will be assigned 1 other Emergency Department to perform site review every year.

### **Reference:**

American Academy of Pediatrics, Committee on Pediatric Emergency Medicine; American College of Emergency Physicians, Pediatric Committee, Emergency Nurses Association. Guidelines for care of children in the emergency department. *Pediatrics*. 2009; 124(4):1233-1243.

#### Certification:

Wade CH. Perceived effects of specialty nurse certification. A review of the literature. 2009;89 (1);183-192

#### Child Abuse:

Development of Hospital-Based Guidelines for Skeletal Survey in Young Children With Bruises *Pediatrics*. 2015;135 (2)312-320. e <http://pediatrics.aappublications.org/content/135/2/e312>

#### Blood Pressure:

Zebrack et al. Early resuscitation of children with moderate-to-severe traumatic brain injury. *Pediatrics* 2009; 124:56-64

An emergency department septic shock protocol and care guideline for children initiated at triage. *Pediatrics*. 2011;127(6):e1585-92.