Missouri Pediatric Excellence in Emergency Care Program

MO-PEEC

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Pediatric Emergency Champion PEC: Tier I

A hospital with extensive pediatric resources, must include a PICU and NICU

Personnel:

Administrative:

PECC requirements: Physician PECC and Nurse PECC

Physician PECC:

Board-eligible or board-certified in Pediatric Emergency Medicine (PEM), Pediatrics and Emergency Medicine (dual-board EM/Peds), pediatric intensive care (PICU), Pediatric or Emergency Medicine physician with experience in pediatric emergency medicine*. CVs will be reviewed by EMSC Physicians*

The Physician PECC is responsible for the following:

● Promoting and verifying adequate skill and knowledge of emergency department staff physicians and other emergency department health care providers (i.e., physician assistants and advanced practice nurses) in the emergency care and resuscitation of infants and children.

● Overseeing emergency department pediatric quality improvement, patient safety, injury and illness prevention, and clinical care activities.

● Assisting with development and periodic review of emergency department guidelines and procedures and standards for medications, equipment, and supplies to ensure adequate resources for children of all ages.

● Serving as liaison/coordinator to appropriate in-hospital and out-of-hospital pediatric care committees in the community (if they exist).

● Serving as liaison/coordinator to a definitive care hospital (such as a regional pediatric referral hospital and trauma center), EMS agencies, primary care providers

● Consults with nurse PECC on pediatric emergency education for emergency department health care providers and out of hospital providers affiliated with the ED.

● Ensuring that pediatric needs are addressed in hospital disaster/emergency preparedness plans.

● Collaborating with the pediatric nursing coordinator to ensure medications, equipment, supplies, and other resources for children in the ED

Nursing Coordinator Role / PECC:

QUALIFICATIONS:

- **Has a specific interest in enhancing delivery of pediatric emergency care.**
- **Maintains competency in pediatric emergency care.**

- **Is committed to spending time to work on the PECC role. Specific time commitment to be determined in discussion with leadership.**

RESPONSIBILITIES:

- **Promotes skill and knowledge in the emergency care and resuscitation of infants and children for ER Staff and providers.**
- **Serves as a resource when questions arise related to pediatric care.**
- **Share educational content with ER staff and updates on available training.**
- **Create pediatric quality improvement and pediatric patient safety initiatives.**
- **Review and if needed, improve equipment, supplies and medications related to pediatric care.**
- **Establish pediatric injury and illness prevention initiatives.**
- **Work collaboratively with the Missouri State EMSC office to improve pediatric care.**
- **Serve as liaison to appropriate pediatric care committees and other providers of pediatric care in the community.**
- **Interact collaboratively with emergency department personnel to enhance pediatric care.**
- **Create or improve departmental pediatric disaster preparedness.**
- **Collaborating with the PECC physician coordinator to ensure medications, equipment, supplies, and other resources for children in the ED**

Staffing:

Physician/Provider requirements: The emergency department physician must have skill, knowledge, and training to provide emergency care to children of all ages consistent with services provided by hospital.

Physicians:

Physicians staffing must be Board-eligible or Board-certified in one of the allopathic or osteopathic boards of: Emergency Medicine or Pediatric Emergency Medicine.

Advanced Practice Providers:

Advanced Practice Providers staffing the emergency department must have skill, knowledge, and training to provide emergency care to children of all ages consistent with services provided by hospital.

Nurse Practitioners:

Completed a Family Nurse Practitioner Program (FNP) or an Acute Care Nurse Practitioner (ACNP) program specializing in pediatrics (such as PNP-AC)

Obtained an advanced practice nursing license from the State of Missouri.

Additional board certification in emergency care as an Emergency Nurse Practitioner (ENP) preferred

Physician Assistant:

Current Missouri licensure

Master's degree in physician assistant

Nursing Requirements: Nurses staffing the emergency department must have skill, knowledge, and training in providing emergency care to children of all ages consistent with services provided by hospital.

Nursing staff must be licensed in the State of Missouri or multistate compact privilege.

<u>Continuing Education:</u>

EM board Certified Physicians: Must complete 12 hours every 4 years of pediatric based non-trauma continuing education.

Advanced Practice Providers: Must complete 12 hours every 4 years of pediatric based non-trauma continuing education.

- **100% of Advance Practice Providers are required to have current PALS or APLS certification**
- **PALS and/or APLS may only be counted for 4 of the 12 continuing education hours every 4 years.**

Nursing: Must complete 12 hours every 4 years of pediatric based non-trauma continuing education.

- **50% of nursing staff are ENPC verified within 24 months.**
  - ***ENPC equivalent courses will be accepted upon approval from EMSC education***
- **75% of Nursing staff PALS within 24 months of hire**

<u>Facility Requirements: in house or consult services</u>

- **Pediatric Intensive Care Unit (PICU)**

- **Pediatric Neonatal Intensive Care Unit (NICU)**
- **24/7 primary or consultative coverage for surgery (both General and Orthopedic)**
- **24/7 in-house coverage with at least one EM Board Certified physician or senior (3rd year) PEM fellow**
- **24/7 in-house pediatric respiratory therapy coverage**
- **24/7 in-house or consultative coverage for pharmacy**
- **24/7 lab (including blood bank)**
- **Process in place for consult of pediatric sub-specialties**

Pediatric Quality Improvement

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 outcomes for care.

Each emergency department must produce 3 indicators for outcomes of clinical care reflecting the pediatric population (QI measures)

See site manual for suggestions on QI projects

PEEC Champion Hospitals are required to participate in CARES please contact Kayla Riel for information on this program

PEEC Champion Hospitals are required to be Project ADAM Hub Site for Heart Safe Schools

Policies, Procedures and Planning for pediatric Patients with the Emergency Department

Interfacility Transfer plan

The facility shall have transfer guidelines concerning the transfer of pediatric patients to outside institutions, both medical and behavioral *EIIC Transfer Kit*

Patient Safety and Care

- **Pediatric patients must have a weight measured on a scale locked in kilograms and have it documented in a prominent place in the medical record.**
- **For children who are not weighed, a standard method for estimating weight in kg is used. (*e.g., a length-based weight system*)**
- **Pediatric patients must have temperature, heart rate, *blood pressure*, respiratory rate, and pulse oximetry captured in the medical record.**

- **A reference for identifying age-specific vital signs**
- **Pediatric patients will have pain scores documented with a developmentally appropriate scale**
- **A process for timely reporting Critical labs to responsible provider**
- **Medical imaging guidelines that are consistent with as-low-as reasonably- achievable (ALARA) principles.**

<u>Pediatric Medication safety</u>

- **Pediatric medication name and dosage is validated by non-ordering clinical care giver *(e.g., nurse or pharmacy)* prior to administration**
- **Processes in place for safe medication storage, prescribing, and delivery that includes pre-calculated dosing guidelines for children of all ages *(e.g., Pixis)***
- **Have a standard formulary for pediatric high-risk and commonly used medications**
- **Reduce the number of available concentrations of high-risk medications to the smallest possible number**

<u>Pediatric Sedation Plan</u>

- **When sedation of a pediatric patient is used, please included guideline or policy for review.**
- **list of comfort measures and or distraction tools during painful procedures (J-tips, oral sucrose, topical, numbing spray)**
- **Child life resources available for age-appropriate psychosocial and procedural support**
- **Difficult airway plan in place**

<u>Family-centered care</u>

- **Involving families in patient care decision-making and in medication safety processes.**
- **Family presence during all aspects of emergency care, including resuscitation.**
- **Education of the patient, family, and regular caregivers.**
- **Discharge planning and instruction.**
- **Bereavement counseling.**

<u>Trauma assessment</u>

- **Pediatric trauma assessment**
- **Plan for pediatric rapid intravenous fluid infusion**

<u>Behavioral Health Plan</u>

- **Approved suicide risk screening tool**
- **Pharmaceutical plan for an agitated child**
- **Pediatric restrain plan**

- **Room set up for safety of a child**

Pediatric Disaster Preparedness plan

The hospital should engage with regional partners who will aid in disaster response

REGIONAL COALITION BUILDING

> **Developing and strengthening both internal and external coalition partnerships aids in disaster response and allows an institution to ramp up their capabilities quickly and effectively. Examples of regional partners included in site survey toolkit**

PEDIATRIC SURGE CAPACITY

Evaluate an institution's current surge capacity to identify weaknesses and develop strategies that address all aspects of surge capacity. State the current capacity and have plans high number of pediatric patients.

TRIAGE, INFECTION CONTROL AND DECONTAMINATION

Prepare the initial stage of a disaster response including triage and decontamination Address necessary considerations unique to the pediatric population.

EVACUATION

Plan for safe and effective evacuation of pediatric patients. This includes evacuation from the foundational through the advanced care levels.

PEDIATRIC PATIENT TRACKING & FAMILY REUNIFICATION

Pediatric disasters bring unaccompanied minors. Developing family tracking and reunification policies. Considering special security situations.

LEGAL AND ETHICAL CONSIDERATION

The pediatric population requires special legal and ethical planning and policy implementation. Including:

- **Process for Emergency Management and Hospital Counsel to alert leaders to Federal and State Emergency declarations, orders, regulatory waivers, and legislative developments.**
- **Emergency Operations Plan (EOP) includes at minimum all hazards required by CMS/TJC/Federal and State Law.**
- **And duty to Plan for the arrival of pediatric patients in All Hazards EOP**
- **EOP includes communication to first responders and receivers about basic exemptions from consent during life or limb-threatening conditions.**

BEHAVIORIAL HEALTH

Develop and implement a multidisciplinary approach to pediatric behavioral health

CHILDREN AND YOUTH WITH SPECIAL HEALTH CARE NEEDS

Have policy that addresses care of children with special health care needs in pediatric disaster response.

EXERCISES, DRILLS, AND TRAINING

Execute routine disaster drills and training. Include pediatric scenarios in these exercises.

Guidelines for pediatric patients in the emergency department

Triage Guidelines

These resources should include, but are not limited to, the following:

- **Illness and injury triage of a pediatric patient.**
- **Pediatric patient assessment and reassessment guide (PAT).**
- **Documentation of pediatric vital signs**
- **Consent (including situations in which a parent is not immediately available).**
- **Disposition with the patient's medical home, primary health care provider and referring facilities.**

Clinical Practice Guidelines for pediatric patients in the emergency department

Physician to physician review

The facility shall have access to guidelines addressing appropriate stabilization measures in response to the following pediatric CPG's.

1. **Trauma**
2. **Cardiac arrest** ***(every child death in the ED will be reviewed by EMSC physician)***
3. **Respiratory distress or failure**
4. **Sepsis/ shock**
5. **Seizures**
6. **Febrile/hypothermic neonate**
7. **Social/Behavioral/mental health**
8. **Metabolic emergencies (hyper/hypoglycemia)**
9. **Abdominal pain**
10. **Medically complex**
11. **Musculoskeletal injures/ infections**
12. **Toxic ingestion**
13. **foreign body**
14. **Physical or chemical restraint of patients.**
15. **Do-not-resuscitate orders**
16. **Child abuse and neglect**

17. Isolation precautions / Infectious Disease
18. Imminent birth of a child in the emergency department

Equipment & Supplies (* indicated for only tier I hospitals)

General Equipment

- Infant warming device or chemical warming device
- Bear hugger*
- Intravenous blood/fluid warmer
- Restraint device
- Weight scale locked in kilograms only (not pounds)
- length-based resuscitation tape
- Pain-scale–assessment tools appropriate for age

Monitoring Equipment

- Blood pressure cuffs (neonatal, infant, child, adult-arm and thigh)
- Blood glucose monitor
- Doppler ultrasonography devices
- Electrocardiography monitor
- defibrillator with pediatric and adult capabilities including pediatric-sized pads/paddles
- Hypothermia thermometer (esophageal, rectal)
- Pulse oximeter with pediatric and adult probes
- Continuous end-tidal CO2 monitoring device

Respiratory Equipment and Supplies

- Ventilators
- CPAP
- Heated high flow nasal canula
- Laryngeal mask airway (LMA) Sizes 1, 1.5, 2, 2.5, 3, 4, and 5 e.g I-gel, king, combi tubes
- 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
- Laryngoscope blades (curved: 2 and 3; straight: 0, 1, 2, and 3)
- Laryngoscope handle
- Glide Scope*

- **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 o Sizes 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5 mm**
- **Yankauer suction tip**
- **Neo and pediatric suction tips**
- **Bag-mask device (manual resuscitator), self-inflating (infant size: 250mL; child size: 450 mL; adult size: 1000 mL)**
- **Masks to fit bag-mask device adaptor (neonatal, infant, child, and adult sizes)**
- **Clear oxygen masks for an infant, child, and adult**
- **Nasal cannulas (infant, child, and adult)**
- **Nasogastric tubes (sump tubes): infant (8F), child (10F), and adult (14F–18F)**
- **Feeding tubes (5F and 8F**

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 infuscate**
- **Umbilical vein catheters (3.5F and 5.0F)**
- **Central venous catheters (4.0F– 7.0F)**
- **Intravenous solutions to include normal saline and Lactated Ringer; 5%,10% and 25% dextrose in water (D5, D10, D25)**

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

- **Standardized code cart**
- **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, 28-40F)**
- **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)**

Pediatric Emergency Prepared PEP: Tier II

A hospital with some pediatric capabilities such as level II nursery, OB and/or Pediatric in-patient

Personnel

Administrative:

One PECC: Physician, nurse, or advance practice provider PECC. *Two PECC strongly* encouraged 2

Physician/Provider requirements: The emergency department physician must have skill, knowledge, and training to provide emergency care to children of all ages consistent with services provided by hospital.

Physicians:

Physicians staffing must be Board-eligible or Board-certified in one of the allopathic or osteopathic boards of: Emergency Medicine, Pediatric Emergency Medicine, Family Medicine, or internal medicine.

Advanced Practice Providers:

Advanced Practice Providers staffing the emergency department must have skill, knowledge, and training to provide emergency care to children of all ages consistent with services provided by hospital.

Nurse Practitioners:

Completed a Family Nurse Practitioner Program (FNP) or an Acute Care Nurse Practitioner (ACNP) program specializing in pediatrics (such as PNP-AC)

Obtained an advanced practice nursing license from the State of Missouri.

Additional board certification in emergency care as an Emergency Nurse Practitioner (ENP) preferred

Physician Assistant:

Current Missouri licensure

Master's degree in physician assistant

Nursing Requirements: Nurses staffing the emergency department must have skill, knowledge, and training in providing emergency care to children of all ages consistent with services provided by hospital.

Nursing staff must be licensed in the State of Missouri or multistate compact privilege.

<u>Continuing Medical Education:</u>

EM board Certified Physicians: Must complete 10 hours every 4 years of pediatric based continuing education.

Non-Board-Certified EM Physicians: Must complete 10 hours every 4 years of pediatric based continuing education.

- **100% of non-EM Physician are required to have current PALS or APLS certification**
- **PALS and/or APLS may only be counted for 4 of the 10 continuing education hours every 4 years.**

Advanced Practice Providers: Must complete 10 hours every 4 years of pediatric based continuing education.

- **100% of Advance Practice Providers are required to have current PALS or APLS certification**
- **PALS and/or APLS may only be counted for 4 of the 10 continuing education hours every 4 years.**

Nursing: Must complete 10 hours every 4 years of pediatric based continuing education.

- **50% of nursing staff are ENPC verified within 24 months.**
  - ***ENPC equivalent courses will be accepted upon approval from EMSC education***
- **75% of Nursing staff PALS within 24 months of hire**

- **PALS and/or APLS may only be counted for 4 of the 10 continuing education hours every 4 years**

Facility Requirements: (in house only)

- **24/7 in-house coverage with at least one physician or advanced practice provider**
- **24/7 in-house coverage with at least one respiratory therapist**
- **Basic radiographic capabilities with weight-based imaging guidelines**
- **24/7 lab**
- **24/7 in house pharmacy**

Inpatient facility Requirements: *if facility is admitting pediatric patient.*

Physician: Consult with Family Medicine or Pediatrician prior to admitting any child to a non-pediatric or general adult or ICU floor

Staffing: PALS or equivalent course is required for any nurse responsible for the care of a child while on the floor.

Equipment: Pediatric crash cart or jump bag is required for any floor admitting pediatric patients

Quality Improvement: Process in place to response and management of a critically ill child (respiratory distress, cardiac arrest)

Pediatric Quality Improvement

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 outcomes for care.

Each emergency department must produce 3 indicators for outcomes of clinical care reflecting the pediatric population (QI measures)

See site manual for suggestions on QI projects

Policies, Procedures and Planning for pediatric Patients with the Emergency Department

Interfacility Transfer plan

The facility shall have transfer guidelines concerning the transfer of pediatric patients to outside institutions, both medical and behavioral ***EIIC Transfer Kit***

Patient Safety and Care

- **Pediatric patients must have a weight measured on a scale locked in kilograms and have it documented in a prominent place in the medical record.**
- **For children who are not weighed, a standard method for estimating weight in kg is used. (*e.g., a length-based weight system*)**
- **Pediatric patients must have temperature, heart rate, *blood pressure*, respiratory rate, and pulse oximetry captured in the medical record.**
- **A reference for identifying age-specific vital signs**
- **Pediatric patients will have pain scores documented with a developmentally appropriate scale**
- **A process for timely reporting Critical labs to responsible provider**
- **Medical imaging guidelines that are consistent with as-low-as reasonably- achievable (ALARA) principles.**

Pediatric Medication safety

- **Pediatric medication name and dosage is validated by non-ordering clinical care giver *(e.g., nurse or pharmacy)* prior to administration**
- **Processes in place for safe medication storage, prescribing, and delivery that includes pre-calculated dosing guidelines for children of all ages *(e.g., Pixis)***
- **Have a standard formulary for pediatric high-risk and commonly used medications**
- **Reduce the number of available concentrations of high-risk medications to the smallest possible number**

Pediatric Sedation Plan

- **When sedation of a pediatric patient is used, please included guideline or policy for review.**
- **list of comfort measures and or distraction tools during painful procedures (J-tips, oral sucrose, topical, numbing spray)**
- **Child life resources available for age-appropriate psychosocial and procedural support**
- **Difficult airway plan in place**

Family-centered care

- **Involving families in patient care decision-making and in medication safety processes.**
- **Family presence during all aspects of emergency care, including resuscitation.**

- **Education of the patient, family, and regular caregivers.**
- **Discharge planning and instruction.**
- **Bereavement counseling.**

Trauma assessment

- **Pediatric trauma assessment**
- **Plan for pediatric rapid intravenous fluid infusion**

Behavioral Health Plan

- **Approved suicide risk screening tool**
- **Pharmaceutical plan for an agitated child**
- **Pediatric restrain plan**
- **Room set up for safety of a child**

Pediatric Disaster Preparedness plan

Toolkits available through EIIC or **https://www.mthcc.org/assets/aap-reunification-toolkit-2018-08.pdf**

- **Hospital disaster plan and annexes address issues specific to the care of children and the needs of children are included in the mock drills.**
- **Have a plan or procedure in place to provide family assistance and support the reunification process of child and adult. Family reunification Toolkit.**
- **Communication with HCC in hospitals region**

Guidelines for pediatric patients in the emergency department

Triage Guidelines

These resources should include, but are not limited to, the following:

- **Illness and injury triage of a pediatric patient.**
- **Pediatric patient assessment and reassessment guide (PAT).**
- **Documentation of pediatric vital signs**
- **Consent (including situations in which a parent is not immediately available).**
- **Disposition with the patient's medical home, primary health care provider and referring facilities.**

Clinical Practice Guidelines for pediatric patients in the emergency department

Physician to physician review

The facility shall have access to guidelines addressing appropriate stabilization measures in response to the following pediatric CPG's.

1) **Trauma**
2) **Cardiac arrest** ***(every child death in the ED will be reviewed by EMSC physician)***
3) **Respiratory distress or failure**
4) **Sepsis/ shock**
5) **Seizures**
6) **Febrile/hypothermic neonate**
7) **Social/Behavioral/mental health**
8) **Metabolic emergencies (hyper/hypoglycemia)**
9) **Abdominal pain**
10) **Medically complex**
11) **Musculoskeletal injures/ infections**
12) **Toxic ingestion**
13) **foreign body**
14) **Physical or chemical restraint of patients.**
15) **Child abuse and neglect**
16) **Isolation precautions / Infectious Disease**
17) **Imminent birth of a child in the emergency department**

Equipment & Supplies

General Equipment

- **Infant warming device**
- **Intravenous blood/fluid warmer**
- **Restraint device**
- **Weight scale locked in kilograms only (not pounds)**
- **length-based resuscitation tape**
- **Pain-scale–assessment tools appropriate for age**

Monitoring Equipment

- **Blood pressure cuffs (neonatal, infant, child, adult-arm and thigh)**
- **Blood glucose monitor**
- **Doppler ultrasonography devices**
- **Electrocardiography monitor**
- **defibrillator with pediatric and adult capabilities including pediatric-sized pads/paddles**
- **Hypothermia thermometer (esophageal, rectal)**
- **Pulse oximeter with pediatric and adult probes**
- **Continuous end-tidal CO2 monitoring device**

Respiratory Equipment and Supplies

- Ventilators
- CPAP
- Heated high flow nasal canula
- Laryngeal mask airway (LMA) Sizes 1, 1.5, 2, 2.5, 3, 4, and 5 e.g I-gel, king, combi tubes
- 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
- 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 o Sizes 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5 mm
- Yankauer suction tip
- Neo and pediatric suction tips
- Bag-mask device (manual resuscitator), self-inflating (infant size: 250mL; child size: 450 mL; adult size: 1000 mL)
- Masks to fit bag-mask device adaptor (neonatal, infant, child, and adult sizes)
- Clear oxygen masks for an infant, child, and adult
- Nasal cannulas (infant, child, and adult)
- Nasogastric tubes (sump tubes): infant (8F), child (10F), and adult (14F–18F)
- Feeding tubes (5F and 8F

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 infuscate
- Central venous catheters (4.0F– 7.0F)
- Intravenous solutions to include normal saline and Lactated Ringer; 5% and 10% dextrose in water (D5, D10)

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

- Standardized code cart
- Supplies/kit for patients with difficult airway plan
- Tube thoracostomy tray
- Chest tubes to include infant, child, and adult sizes (infant: 10F–12F; child, 16F–24F; adult, 28-40F)
- 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)

Pediatric Emergency Ready PER: Tier III

Critical Access Hospital or Community Level ED with limited inpatient capabilities for pediatrics and level one nurseries.

Personnel

Administrative:

One PECC: Physician, nurse, or advance practice provider PECC

Physician/Provider requirements: The emergency department physician must have skill, knowledge, and training to provide emergency care to children of all ages consistent with services provided by hospital.

Physicians:

Physicians staffing must be Board-eligible or Board-certified in one of the allopathic or osteopathic boards of: Emergency Medicine, Pediatric Emergency Medicine, Family Medicine or internal medicine.

Advanced Practice Providers:

Advanced Practice Providers staffing the emergency department must have skill, knowledge, and training to provide emergency care to children of all ages consistent with services provided by hospital.

Nurse Practitioners:

Completed a Family Nurse Practitioner Program (FNP) or an Acute Care Nurse Practitioner (ACNP) program specializing in pediatrics (such as PNP-AC)

Obtained an advanced practice nursing license from the State of Missouri.

Additional board certification in emergency care as an Emergency Nurse Practitioner (ENP) preferred

Physician Assistant: Current Missouri licensure and Master's degree in physician assistant

Nursing Requirements: Nurses staffing the emergency department must have skill, knowledge, and training in providing emergency care to children of all ages consistent with services provided by hospital.

Nursing staff must be licensed in the State of Missouri or multistate compact privilege.

Continuing Medical Education of pediatric patients in the Emergency department:

EM board Certified Physicians: Must complete 6 hours every 4 years of pediatric based continuing education.

Non-Board-Certified EM Physicians: Must complete 6 hours every 4 years of pediatric based continuing education.

- **50% of non-EM Physician are required to have current PALS or APLS certification.**
- **PALS and/or APLS may only be counted for 2 of the 6 continuing education hours every 4 years.**

Advanced Practice Providers: Must complete 6 hours every 4 years of pediatric based continuing education.

- **100% of Advance Practice Providers are required to have current PALS or APLS certification.**

- **PALS and/or APLS may only be counted for 2 of the 6 continuing education hours every 4 years.**

Nursing: Must complete 6 hours every 4 years of pediatric based continuing education.

- **25% of nursing staff are ENPC verified within 24 months.**
- ***ENPC equivalent courses will be accepted upon approval from EMSC education***
- **25% of Nursing staff PALS within 24 months of hire**
- **PALS and/or APLS may only be counted for 2 of the 6 continuing education hours every 4 years**

Facility Requirements: (in house only)

- **24/7 in-house coverage with at least one physician or advanced practice provider**
- **24/7 in-house coverage with at least one respiratory therapist**
- **Basic radiographic capabilities with weight-based imaging guidelines**
- **24/7 lab or POC capabilities**
- **24/7 in house or consultative pharmacy**

Pediatric Quality Improvement

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 outcomes for care.

Each emergency department must produce 3 indicators for outcomes of clinical care reflecting the pediatric population (QI measures)

See site manual for suggestions on QI projects

Emergency Departments are required to report all pediatric outcomes in CARES

Policies, Procedures and Planning for pediatric Patients with the Emergency Department

Interfacility Transfer plan

The facility shall have transfer guidelines concerning the transfer of pediatric patients to outside institutions, both medical and behavioral *EIIC Transfer Kit*

Patient Safety and Care

- **Pediatric patients must have a weight measured on a scale locked in kilograms and have it documented in a prominent place in the medical record.**
- **For children who are not weighed, a standard method for estimating weight in kg is used. (*e.g., a length-based weight system*)**
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- **A reference for identifying age-specific vital signs**
- **Pediatric patients will have pain scores documented with a developmentally appropriate scale**
- **A process for timely reporting Critical labs to responsible provider**
- **Medical imaging guidelines that are consistent with as-low-as reasonably- achievable (ALARA) principles.**

Pediatric Medication safety

- **Pediatric medication name and dosage is validated by non-ordering clinical care giver *(e.g., nurse or pharmacy)* prior to administration**
- **Processes in place for safe medication storage, prescribing, and delivery that includes pre-calculated dosing guidelines for children of all ages *(e.g., Pixis)***
- **Have a standard formulary for pediatric high-risk and commonly used medications**
- **Reduce the number of available concentrations of high-risk medications to the smallest possible number**

Pediatric Sedation Plan

- **When sedation of a pediatric patient is used, please included guideline or policy for review.**
- **list of comfort measures and or distraction tools during painful procedures (J-tips, oral sucrose, topical, numbing spray)**
- **Child life resources available for age-appropriate psychosocial and procedural support**
- **Difficult airway plan in place**

Family-centered care

- **Involving families in patient care decision-making and in medication safety processes.**

- **Family presence during all aspects of emergency care, including resuscitation.**
- **Education of the patient, family, and regular caregivers.**
- **Discharge planning and instruction.**
- **Bereavement counseling.**

Trauma assessment

- **Pediatric trauma assessment**
- **Plan for pediatric rapid intravenous fluid infusion**

Behavioral Health Plan

- **Approved suicide risk screening tool**
- **Pharmaceutical plan for an agitated child**
- **Pediatric restrain plan**
- **Room set up for safety of a child**

Pediatric Disaster Preparedness plan

Toolkits available through EIIC or **https://www.mthcc.org/assets/aap-reunification-toolkit-2018-08.pdf**

- **Hospital disaster plan and annexes address issues specific to the care of children and the needs of children are included in the mock drills.**
- **Have a plan or procedure in place to provide family assistance and support the reunification process of child and adult. Family reunification Toolkit.**
- **Communication with HCC in hospitals region**

Guidelines for pediatric patients in the emergency department

Triage Guidelines

These resources should include, but are not limited to, the following:

- **Illness and injury triage of a pediatric patient.**
- **Pediatric patient assessment and reassessment guide (PAT).**
- **Documentation of pediatric vital signs**
- **Consent (including situations in which a parent is not immediately available).**
- **Disposition with the patient's medical home, primary health care provider and referring facilities.**

Clinical Practice Guidelines for pediatric patients in the emergency department

Physician to physician review

The facility shall have access to guidelines addressing appropriate stabilization measures in response to the following pediatric CPG's.

1) **Trauma**
2) **Cardiac arrest *(every child death in the ED will be reviewed by EMSC physician)***
3) **Respiratory distress or failure**
4) **Sepsis/ shock**
5) **Seizures**
6) **Febrile/hypothermic neonate**
7) **Social/Behavioral/mental health**
8) **Metabolic emergencies (hyper/hypoglycemia)**
9) **Abdominal pain**
10) **Medically complex**
11) **Musculoskeletal injures/ infections**
12) **Toxic ingestion**
13) **foreign body**
14) **Physical or chemical restraint of patients.**
15) **Child abuse and neglect**
16) **Isolation precautions / Infectious Disease**
17) **Imminent birth of a child in the emergency department**

Equipment & Supplies

General Equipment

- **Infant warming device**
- **Intravenous blood/fluid warmer**
- **Restraint device**
- **Weight scale locked in kilograms only (not pounds)**
- **length-based resuscitation tape**
- **Pain-scale–assessment tools appropriate for age**

Monitoring Equipment

- **Blood pressure cuffs (neonatal, infant, child, adult-arm and thigh)**
- **Blood glucose monitor**
- **Doppler ultrasonography devices**
- **Electrocardiography monitor**
- **defibrillator with pediatric and adult capabilities including pediatric-sized pads/paddles**
- **Hypothermia thermometer (esophageal, rectal)**
- **Pulse oximeter with pediatric and adult probes**
- **Continuous end-tidal CO2 monitoring device**

Respiratory Equipment and Supplies

- Ventilators
- CPAP
- Heated high flow nasal canula
- Laryngeal mask airway (LMA) Sizes 1, 1.5, 2, 2.5, 3, 4, and 5 e.g I-gel, king, combi tubes
- 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
- 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 o Sizes 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5 mm
- Yankauer suction tip
- Neo and pediatric suction tips
- Bag-mask device (manual resuscitator), self-inflating (infant size: 250mL; child size: 450 mL; adult size: 1000 mL)
- Masks to fit bag-mask device adaptor (neonatal, infant, child, and adult sizes)
- Clear oxygen masks for an infant, child, and adult
- Nasal cannulas (infant, child, and adult)
- Nasogastric tubes (sump tubes): infant (8F), child (10F), and adult (14F–18F)
- Feeding tubes (5F and 8F

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 infuscate
- Central venous catheters (4.0F– 7.0F)
- Intravenous solutions to include normal saline and Lactated Ringer; 5% and 10% dextrose in water (D5, D10)

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

- **Standardized code cart**
- **Supplies/kit for patients with difficult airway plan**
- **Tube thoracostomy tray**
- **Chest tubes to include infant, child, and adult sizes (infant: 10F–12F; child, 16F–24F; adult, 28-40F)**
- **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)**

Reference Page: