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LOS ANGELES COUNTY
DEPARTMENT OF HEALTH SERVICES
EMERGENCY MEDICAL SERVICES AGENCY
EDAP STANDARDS
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EDAP STANDARDS

INTRODUCTION:

The Emergency Department Approved for Pediatrics (EDAP) Standards were developed as a concerted effort by the Committee on Pediatric Emergency Medicine, which is made up of representatives from the following organizations: Los Angeles Pediatric Society, Pediatric Liaison Nurses of Los Angeles County, California Chapter of the American College of Emergency Physicians, National EMSC Resource Alliance, California Chapter 2 of the American Academy of Pediatrics, Emergency Nurses Association, American College of Surgeons, and Los Angeles County Department of Health Services Emergency Medical Services Agency.

The Standards have been approved by The Hospital Association of Southern California and meet or exceed the standards established by the Emergency Medical Services for Children (EMSC) administration, personnel, and policy guidelines for the care of pediatric patients in the emergency department set forth by the California Emergency Medical Services Authority in 1995.

DEFINITIONS:

Board certified: Completed an approved educational training program and an evaluation process including an examination designed to assess the knowledge, skills and experience necessary to provide quality patient care in that specialty.

Board prepared: Successful completion of a Board approved emergency medicine or pediatric residency training program and demonstrate active progression in the certifying process.

Emergency Department Approved for Pediatrics (EDAP): A licensed basic emergency department that is approved by the County of Los Angeles to receive pediatric patients from the 9-1-1 system. These emergency departments provide care to pediatric patients by meeting specific requirements for professional staff, quality improvement, education, support services, equipment, supplies, medications, and established policies, procedures, and protocols.

ENPC: Emergency Nurses Association-Emergency Nursing Pediatric Course

Medical Pediatric Critical Care Center (MPCCC): A licensed acute care hospital that is approved by the County of Los Angeles to receive critically ill non-trauma pediatric patients from the 9-1-1 system.

PALS: American Heart Association Pediatric Advanced Life Support Course

Pediatric Critical Care Center (PCCC): A licensed acute care hospital that is approved by the County of Los Angeles to receive patients from the 9-1-1 system. In addition, this center provides tertiary-level pediatric care services and serves as a referral center for critically ill and injured pediatric patients.

Promptly available: Being in the emergency department within a period of time that is medically prudent and appropriate to the patient's clinical condition; and further, that the interval between the arrival of the patient to the emergency department and the arrival of the respondent should not have a measurably harmful effect on the course of patient

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management or outcome.

PTC: Pediatric Trauma Center

Qualified specialist: A physician licensed in the State of California who has: 1) taken special postgraduate medical training, or has met other specified requirements; and 2) active progression towards board certification in the corresponding specialty for those specialties that have board certification and are recognized by the American Board of Medical Specialties.

Senior resident: A physician licensed in the State of California who has completed at least two years of the residency under consideration and has the capability of initiating treatment when the clinical situation demands, and who is in training as a member of the residency program at the designated hospital.

APLS: American Academy of Pediatrics-American College of Emergency Physicians Advanced Pediatric Life Support Course

I. ADMINISTRATION/COORDINATION

A. EDAP Medical Director

1. Qualifications:

- a. Qualified specialist in Emergency Medicine or Pediatrics
- b. Completion of eight hours of CME in topics related to pediatrics every two years
- c. Current PALS or APLS provider or instructor

2. Responsibilities:

- a. Oversight of EDAP quality improvement (QI) program
- b. Member of hospital emergency department committee and pediatric committee
- c. Liaison with pediatric critical care centers (PCCC), trauma centers, base hospitals, community hospitals, prehospital care providers, and the EMS Agency
- d. Identify needs and facilitate pediatric education for emergency department physicians
- e. Review, approve, and assist in the development of all pediatric policies and procedures

B. Designated Pediatric Consultant *

1. Qualifications:

- a. Qualified specialist in pediatrics or subspecialty in pediatric emergency medicine

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2. Responsibilities:

- a. Member of hospital emergency department committee and pediatric committee
- b. Participation with EDAP staff in developing and monitoring pediatric QI program, protocols, policies and procedures
- c. Consult with EDAP Medical Director and Pediatric Liaison Nurse as needed

* Pediatric Consultant may also be the EDAP Medical Director

C. Pediatric Liaison Nurse (PdLN)

1. Qualifications:

- a. At least two years experience in pediatrics or in an emergency department that sees pediatric patients, within the previous five years
- b. Experience with QI programs is recommended
- c. Current PALS or APLS provider /instructor
- d. Completion of a two day pediatric emergency nursing course or ENPC course *
- e. Completion of eight hours of Board of Registered Nursing (BRN) approved continuing education units (CEU) in pediatric topics every two years

2. Responsibilities:

- a. Attend monthly meetings of the Pediatric Liaison Nurses of Los Angeles County
- b. Participate in the development and maintenance of a pediatric QI program
- c. Liaison with PCCC's, trauma centers, base hospitals, community hospitals, prehospital care providers, and the EMS Agency
- d. Member of selected hospital based emergency department and/or pediatric committees
- e. Notify the EMS Agency in writing of any change in status of the EDAP Medical Director, Pediatric Consultant, and Pediatric Liaison Nurse

* A two day pediatric emergency nursing course should include but not limited to a broad spectrum of topics including: injury prevention, resuscitation, surgical emergencies, apparent life threatening event (ALTE), death of a child to include SIDS, trauma, medical conditions, submersions, respiratory emergencies, airway

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management, ingestion, child abuse and neglect, fever to include bacterial and viral infections, seizures, and neonatal emergencies.

II. PERSONNEL

A. Physicians-Qualifications/Education

1. Twenty four hour emergency department coverage shall be provided or directly supervised by physicians functioning as emergency physicians or pediatricians experienced in emergency care. This includes senior residents practicing at their respective hospitals only.
2. At least 75% of the emergency department coverage shall be provided by physicians who are Board certified or demonstrate active progression in the certifying process towards emergency medicine or pediatrics.
3. Those emergency department physicians who are not board certified or board prepared shall be a current PALS or APLS provider or instructor.

B. Nurses-Qualifications/Education

1. At least 75% of the total RN staff and at least one RN per shift in the emergency department shall be a current PALS or APLS provider or instructor.
2. At least one RN per shift shall have completed a two day pediatric emergency nursing course (within the last 4 years).

NOTE: It is highly recommended that all nurses regularly assigned to the emergency department meet the above requirements.

3. All nurses assigned to the emergency department shall attend at a minimum; eight hours of pediatric BRN approved education every two years, which may include the two day pediatric emergency nursing course.

C. Pediatric physicians/Specialty services

1. There shall be a pediatric on call panel that allows for telephone consultation and a promptly available pediatrician to the emergency department twenty four hours per day. This pediatrician shall be board certified or board prepared.

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2. A plan shall exist whereby other pediatric specialists may be consulted and available in at least the following specialties: surgery, orthopedics, anesthesia and neurosurgery. This requirement may be met by a written agreement with a PCCC.
 3. A plan shall exist whereby a second emergency physician or pediatrician will be available within thirty minutes to serve as back-up for the emergency department in critical situations.
- D. Physician Assistant-Qualifications/Education
1. Physician Assistant licensed by the State of California
 2. PA working in the emergency department shall be a current PALS or APLS provider or instructor.

III. POLICIES, PROCEDURES, AND PROTOCOLS

- A. Establish procedures and protocols for pediatric emergency patients to include but not limited to:
1. Triage and initial evaluation
 2. Patient safety
 3. Suspected child abuse and neglect
 4. Transfers
 5. Consents
 6. Sedation/analgesia
 7. Do-not-resuscitate (DNR)/Advanced Health Care Directives
 8. Death to include SIDS and the care of the grieving family
 9. Aeromedical transport to include landing procedure
 10. Daily verification of proper location and functioning of equipment and supplies of the pediatric code cart.
 11. Immunizations
 12. Child abandonment to include a recent (within 72 hours) postpartum woman without evidence of a newborn
 13. Family presence
- B. Establish a written interfacility consult and transfer agreement with a PCCC to facilitate transfers of critically ill (PTC or MPCCC) and injured pediatric patients (PTC). The consult shall be available twenty four hour a day for telephone consultation.
- C. Establish a written interfacility consult and transfer agreement with a California Children Services (CCS) approved Level II or Level III Neonatal Intensive Care Unit (NICU).

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IV. QUALITY IMPROVEMENT (QI)

- A. A pediatric QI program shall be developed and monitored by the EDAP Medical Director and Pediatric Liaison Nurse with input from the Designated Pediatric Consultant as needed.
- B. The program should include an interface with prehospital care, emergency department, trauma, pediatric critical care, pediatric in-patient, and hospital wide QI activities.
- C. A mechanism shall be established to easily identify pediatric (14 years & under) visits to the emergency department.
- D. The pediatric QI program should include identification of the indicators, methods to collect data, results and conclusions, recognition of improvement, action(s) taken, assessment of effectiveness of actions and communication process for participants.
- E. The pediatric QI program should include review of the following pediatric patients seen in the emergency department:
 - 1. Deaths
 - 2. Cardiopulmonary and/or respiratory arrests, including all pediatric intubations
 - 3. Suspected child abuse or neglect
 - 4. Transfers to and/or from another facility
 - 5. Admissions from the ED to an adult ward or ICU
 - 6. Selected return visits to the ED
 - 7. Pediatric transports within the 9-1-1 system
- F. A mechanism to document and monitor pediatric education of EDAP staff shall be established.

V. SUPPORT SERVICES

- A. Respiratory Therapy
 - 1. At least one respiratory therapist shall be in house twenty four hours per day.
 - 2. Current PALS provider or instructor
- B. Radiology
 - 1. Radiologist on call and promptly available twenty four hours per day

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2. Radiology technician in house twenty four hours per day with a back up technician on call and promptly available
3. CT scan technician on call and promptly available

C. Laboratory

1. Technician in house twenty four hours per day and a back up technician on call and promptly available
2. Clinical Laboratory capabilities in house:
 - a. Chemistry
 - b. Hematology
 - c. Blood bank
 - d. Arterial blood gas
 - e. Microbiology
 - f. Toxicology
 - g. Drug levels

NOTE: Toxicology and drug levels may be done offsite if routine tests are available within two hours.

VI. EQUIPMENT, SUPPLIES, AND MEDICATIONS

Pediatric equipment, supplies, and medications shall be easily accessible, labeled, and logically organized. EDAP staff shall be appropriately educated as to the locations of all items. Each EDAP shall have a method of daily verification of proper location and function of equipment and supplies. It is highly recommended that each EDAP have a mobile pediatric crash cart.

The following are requirements for equipment, supplies, and medications for an EDAP:

GENERAL EQUIPMENT

Foley catheters (8-22fr)

IV blood/fluid warmer

Length and weight tape for determining pediatric resuscitation drug dosages

Meconium Aspirator

OB Kit

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Posted or readily available pediatric drug dosage reference material calculated on a dose per kilogram basis.

Restraint device

Weight scale in kilograms

Warming device

MONITORING EQUIPMENT

Blood pressure cuffs (infant, child, adult, and thigh)

Doppler

ECG monitor/defibrillator (0-400 Joules) with pediatric and adult paddles

End tidal CO₂ monitor or detector, (adult and pediatric sizes)

Hypothermia thermometer

Pulse oximeter

RESPIRATORY EQUIPMENT

Bag-valve-mask device, self inflating (pediatric size: 450-900ml and adult size: 1000-2000ml)

Bag-valve, with clear masks (neonate, infant, child, and adult sizes)

Endotracheal tubes (uncuffed: 2.5-5.5 and cuffed: 6.0-9.0)

Laryngoscope (curved and straight: 0-3)

Magill forceps (pediatric and adult)

Nasal cannulae (infant, child, and adult)

Nasopharyngeal airways (infant, child, adult)

Nasogastric tubes (including 5 and 8fr feeding tubes)

Oral airways (sizes 0-5)

Clear oxygen masks (standard and non-rebreathing) for infant, child, and adult

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Stylets for endotracheal tubes

Suction catheters (sizes 6-12fr)

Tracheostomy tubes (sizes 0-6)

Yankauer suction tips

VASCULAR ACCESS EQUIPMENT

Arm boards (infant, child, and adult)

Infusion devices to regulate rate and volume

Intraosseous needles

IV administration sets with calibrated chambers

IV catheters (14-26ga)

IV solutions (D5.2NS, D5.45NS, D5NS, D10W, and NS)

Stopcocks (3 way)

Umbilical vein catheters

FRACTURE MANAGEMENT DEVICES

Pediatric cervical spine immobilization devices

Pediatric femur splint

Spine board (long and short)

SPECIALIZED TRAYS OR KITS

Cricothyrotomy tray

Pediatric lumbar puncture tray

Pediatric tracheostomy tray

Thoracostomy tray

Chest tube (sizes 10-28fr)

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Venous cutdown tray

PEDIATRIC SPECIFIC RESUSCITATION MEDICATIONS

Albuterol	Dobutamine
Amiodarone	Epinephrine (1:1000 and 1:10,000)
Atropine	Lidocaine
Adenosine	Naloxone
Calcium chloride	Procainamide
Dextrose (25% & 50%)	Racemic epinephrine for inhalation
Dopamine	Sodium Bicarbonate

Note: It is suggested that these drugs be immediately available in the resuscitation room and not locked in a computerized system.