Solano County Health & Social Services Department

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POLICY MEMORANDUM 7300

Date: May 21, 2014

REVIEWED/APPROVED BY:

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SUBJECT: **EMERGENCY DEPARTMENT APPROVED FOR PEDIATRICS (EDAP) – SPECIALTY CENTER DESIGNATION**

AUTHORITY: CALIFORNIA HEALTH & SAFETY CODE, DIVISION 2.5, Chapter 2, Section 1797.67; Chapter 4, Article 1, Section 1797.222; Chapter 4, Article 3, Section 1798.170 and 1798.172.

PURPOSE/POLICY:

A. Hospitals in Solano County are encouraged to utilize these guidelines for developing, evaluating, and implementing appropriate staffing and equipment for the care of children/minors in their respective emergency departments.

B. To ensure 9-1-1 pediatric patients are transported to the most appropriate facility that is staffed, equipped, and prepared to administer emergency care to the needs of the pediatric patient.

C. To establish the Quality Improvement (QI) requirements for the hospitals and Advanced Life Services (ALS) Ambulance Service Provider components of the Emergency Medical Services (EMS) System.

Note: See Attachment C for Solano County EDAP Introduction.

A. DEFINITIONS:

Children/Minors With Special Health Care Needs: Children/minors who have any type of condition that may affect normal growth and development. This may include physical disability, developmental or learning disability, technologic dependency, and/or chronic illness. The developmental age of children/minors with special health care needs may be younger than the chronological age. The developmental age is used when working with this population.

Emergency Department Approved for Pediatrics (EDAP): A licensed basic Emergency Department (ED) that is approved by the Solano Emergency Medical Services Cooperative (SEMSC) to receive pediatric patients from the 9-1-1 system. These EDs 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.

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

Pediatric Critical Care Center (PCCC): A licensed acute care hospital that is approved by a local EMS agency 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.

Pediatric Patient: Any person less than 15 years of age.

Primary Care Provider (PCP): A primary care physician is a generalist physician who provides definitive care to the undifferentiated patient at the point of first contact and takes continuing responsibility for providing the patient's care.

PTC: Pediatric Trauma Center

STEMI: ST segment Elevation Myocardial Infarction

Note: See Attachment D for a complete list of definitions.

II. EDAP STANDARDS: ADMINSTRATION/COORDINATION

A. EDAP Medical Director
   1. Qualifications:
      a. Qualified specialist in Emergency Medicine* or Pediatric Emergency Medicine
      b. Completion of four hours of Continuing Medical Education (CME) in topics related to pediatrics annually
      c. Current Advanced Pediatric Life Support (APLS) or Pediatric Advanced Life Support (PALS) provider

   2. Responsibilities:
      a. Oversight of EDAP Process Improvement (PI) program
      b. Member of hospital ED and pediatric committee
      c. Liaison with PCCC, trauma centers, base hospitals, community hospitals, prehospital care providers, and the EMS Agency
      d. Identify needs and facilitate pediatric education for ED physicians
      e. Ensure pediatric disaster preparedness for the ED
      f. Review, approve, and assist in the development of all pediatric policies and procedures

***Note:** Incumbent must have special interest, knowledge, and skill in emergency medical care of children/minors, as demonstrated by training, clinical experience, or focused CME.

B. Designated Pediatric Consultant
   1. Qualifications:
      a. Board Certified in Pediatrics
   2. Responsibilities:
      a. Member of hospital ED committee and pediatric committee
      b. Participation with EDAP staff in developing and monitoring pediatric PI program, protocols, policies, and procedures
      c. Participate in facilitation of pediatric education for ED physicians
      d. Participation in pediatric disaster preparedness for the ED
      e. Consult with EDAP Medical Director and Pediatric Liaison Nurse when needed

C. Pediatric Liaison Nurse (PdLN)
   1. Qualifications:
      a. At least two years experience in pediatrics, or in an emergency department that sees pediatric patients
      b. Experience with PI programs is recommended
      c. Completion of a two day pediatric emergency nursing course or Emergency Nursing Pediatric Course (ENPC) provider/instructor course

d. Current PALS or APLS provider/instructor or ENPC
e. Completion of four hours of Board of Registered Nursing (BRN) approved Continuing Education Units (CEU) in pediatric topics annually

Note: Certified Pediatric Emergency Nurse (CPEN) Certification is recommended.

2. Responsibilities:
   a. Attend Solano County EMS Agency meetings as needed in regard to pediatric care
   b. Participate in the development and maintenance of a pediatric PI program
   c. Collaborate with the EDAP Medical Director to ensure the ED is prepared to care for children/minors of all ages, including children/minors with special health care needs or mental illness.
   d. Promote patient and family education in illness and injury prevention
   e. Facilitation of ED nursing CEUs and competency evaluations for pediatrics
   f. Liaison with PCCCs, trauma centers, base hospitals, community hospitals, prehospital care providers, and the EMS Agency
   g. Member of selected hospital based ED and/or pediatric committees
   h. Ensure emergency nursing preparedness for pediatric disasters
   i. Notify the EMS Agency in writing of any change in status of EDAP Medical Director, Pediatric Consultant, and Pediatric Liaison Nurse

Note: A two day pediatric emergency nursing course should include, but not be limited to, a broad spectrum of topics including: injury prevention, resuscitation, surgical emergencies, Apparent Life Threatening Events (ALTE), death of a child/minor (to include Sudden Infant Death Syndrome [SIDS]), trauma, medical conditions, submersions, respiratory emergencies, airway management, ingestion, child/minor abuse and neglect, fever (to include bacterial and viral infections), seizures, and neonatal emergencies.

III. EDAP PERSONNEL

A. Physicians - Qualifications/Education
1. ED coverage shall be provided or directly supervised by physicians functioning as emergency physicians or pediatricians experienced in emergency care on a full-time basis (96 hours or more per month in an emergency department) 24 hours a day, seven days a week, and 365 days per year. This includes senior residents practicing at their respective hospitals only.
2. At least 75% of ED 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 ED physicians who are not board certified or board prepared shall be current APLS or PALS provider.
4. Complete pediatric competency evaluations annually that are age specific and include neonates, infants, children/minors, adolescents, and children/minors with special healthcare needs. Competencies may include, but not be limited to, the following: Airway management, burn care, critical care monitoring, medication delivery, device/equipment safety, pain assessment and treatment, trauma care, and vascular access.

B. Nurses - Qualifications/Education
1. At least 75% of the total Registered Nurse (RN) staff in the ED shall be a current PALS or APLS provider or instructor.
2. At least one RN per shift in the ED shall be current ENPC or have completed a two-day pediatric emergency nursing course (within the last four years).
3. Complete pediatric competency evaluations annually that are age specific and include neonates, infants, children/minors, and adolescents.
4. All nurses assigned to the ED shall attend, at a minimum; four hours of pediatric-related education approved by the Board of Registered Nursing (BRN) or by demonstrating written participation in an internal education process conducted by the EDAP program every year.
5. Complete pediatric competency evaluations annually that are age specific and include neonates, infants, children/minors, adolescents, and children/minors with special healthcare needs*. Competencies may include, but are not limited to, the following: airway management, burn care, critical care monitoring, medication delivery, device/equipment safety, pain assessment and treatment, trauma care, and vascular access.

***Note:** It is highly recommended that all nurses regularly assigned to the ED meet the above requirements

C. Pediatric Physician/Specialty Services
1. There shall be a pediatric on-call panel that allows for telephone consultation. This pediatrician shall be board certified or board eligible.
2. A written 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 promptly available to serve as back-up for the ED in critical situations.

D. Mid-level Practitioner-Qualifications/Education*
1. Physician Assistant (PA) or Nurse Practitioner (NP) licensed by the State of California.
2. PA or NP working in the ED shall complete four hours of pediatric education yearly.
3. Complete pediatric competency evaluations annually that are age specific and include neonates, infants, children/minors, adolescents, and children/minors with special healthcare needs.

*If applicable to the hospital

IV. EDAP POLICIES, PROCEDURES, AND PROTOCOLS

A. Establish protocols and procedures for pediatric emergency patients to include, but not be limited to:

1. Triage and initial evaluation
2. Pediatric assessment
3. Patient safety
4. Suspected child/minor abuse and neglect
5. Transfers
6. Consents
7. Sedation/analgesia
8. Radiation dosage protocol
9. Mental health emergencies
10. Pain assessment and treatment
11. Do-Not-Resuscitate (DNR)/Advanced Health Care Directives
12. Death to include SIDS and the care of the grieving family
13. Aeromedical transport to include landing procedure
14. Daily verification of proper location and functioning of equipment and supplies of the pediatric code cart
15. Immunizations
16. Child/minor abandonment to include a recent (within 72 hours) postpartum woman without evidence of a newborn

17. Family centered care
18. Disaster preparedness written plan that addresses the following pediatric issues:
    a. A plan to minimize parent-child/minor separation and improved methods for reuniting separated children/minors with their families
    b. A plan that addresses pediatric surge capacity for both injured and non-injured children/minors
    c. A plan that includes access to specific medical and mental health therapies, as well as social services, for children/minors in the event of a disaster
    d. A plan which ensures that disaster drills include a pediatric mass casualty incident once every two years
    e. Decontamination

B. Establish a written interfacility consult and transfer agreement with a Pediatric Critical Care Center (PCCC) to facilitate transfers of critically ill pediatric patients to a Pediatric Trauma Center (PTC) or Medical Pediatric Critical Care Center (MPCCC). The consult service shall be available 24 hours 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)

V. EDAP PROCESS IMPROVEMENT (PI)

A. A pediatric PI 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, ED, trauma, pediatric critical care, pediatric inpatient, and hospital wide PI activities
C. A mechanism shall be established to easily identify pediatric (children/minors less than 15 years of age) visits to the ED
D. The pediatric PI program should include identification of the indicators, methods to collect data, results, conclusions, recognition of improvement, actions taken, assessment of effectiveness of actions, and communication process for participants
E. Periodic review of aggregate data of pediatric emergency visits
F. The pediatric PI program should include review of the following pediatric patients seen in the ED:

    1. Deaths
    2. Cardiopulmonary and/or respiratory arrests, including all pediatric intubations
    3. Suspected child/minor abuse or neglect
    4. Transfers to and/or from another facility

5. Trauma admissions from the ED
6. Operating room admissions from the ED
7. Admissions from the ED to any inpatient units where pediatric patients may be admitted
8. Select repeated visits to the ED
9. Patient safety including adverse events involving medication delivery

G. A mechanism to document and monitor pediatric education of EDAP staff shall be established

H. Pediatric clinical competency evaluations should be developed for all licensed ED staff. Competencies should be age specific and include neonates, infants, children/minors, adolescents, and children/minors with special healthcare needs. Competencies may include, but not be limited to:

1. Airway Management
2. Burn care
3. Critical care monitoring
4. Medication delivery and device/equipment safety
5. Pain assessment and treatment
6. Trauma care
7. Vascular access

VI. EDAP SUPPORT SERVICES

A. Registered Respiratory Therapy
1. At least one registered respiratory therapist shall be in the hospital 24 hours a day
2. PALS current
3. Complete pediatric competency evaluations annually that are age specific and include neonates, infants, children/minors, and adolescents

B. Radiology
1. Radiologist on call and promptly available 24 hours per day
2. Radiology technician in house 24 hours per day
3. CT scan technician on call and promptly available

C. Laboratory
1. Technician in house 24 hours per day
2. Clinical Laboratory capabilities in house:
   a. Chemistry
   b. Hematology
   c. Blood Bank
   d. Arterial blood gas
   e. Microbiology
   f. Routine toxicology and drug levels

VII. EDAP EQUIPMENT, SUPPLIES, AND MEDICATIONS

Pediatric equipment, supplies, and medications shall be easily accessible, labeled, and logically organized. EDAP staff will be appropriately educated as to the locations of all items.

Each EDAP will 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 crash cart. Trays and other items may be housed in other departments, (for example, Newborn Nursery or Central Supply) as long as the items are immediately accessible to the ED staff.

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

GENERAL EQUIPMENT

- Foley catheters (8-22fr)
- IV blood/fluid warmer
- Length based tape for estimating weights for purposes of determining pediatric medication dosages
- Meconium aspirator
- OB kit
- Pain assessment tools appropriate for age
- Posted or readily available pediatric drug dosage reference material calculated on a dose per kilogram basis
- Restraint device
- Scale capable of providing weight in kilograms
- Warming device

MONITORING EQUIPMENT

- Blood pressure cuffs (infant, child, adult, and thigh)
- Doppler
- Electrocardiogram (ECG) monitor/defibrillator with pediatric and adult paddles
- End tidal Carbon Dioxide (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 (cuffed and/or uncuffed: 2.5-5.5 and cuffed: 6.0-9.0)
- Laryngoscope (appropriate size range of curved and straight)
- Magill forceps (pediatric and adult)
- Nasal cannulae (infant, child, and adult)
- Nasopharyngeal airways (infant, child, and adult)
- Nasogastric tubes (including 5 French (Fr) and 8 Fr feeding tubes)
- Oral airways
- Clear oxygen masks (standard and reservoir) for infant, child/minor, and adult
- Stylets for endotracheal tubes (pediatric and adult)
- Suction catheters (sizes 6 Fr-12 Fr)
- Tracheostomy tubes
- Yankauer suction tips

VASCULAR ACCESS EQUIPMENT

- Arm boards (infant, child/minor, and adult)
- Infusion device to regulate rate and volume
- Intraosseous needles
- IV administration sets with calibrated chambers
- IV catheters (14G-24G)
- IV solutions (D5.2NS, D5.45NS, D5NS, D10W, and NS)
- Stopcocks (3-way)
- Umbilical vein catheters

FRACTURE MANAGEMENT DEVICES

- Pediatric spinal immobilization devices
- Pediatric femur splint
- Spine board

SPECIALIZED TRAYS OR KITS

- Cricothyrotomy tray to include equipment to perform needle cricothyrotomy
- Difficult airway supplies/kit
- Newborn delivery kit (kit with equipment for initial resuscitation of a newborn: umbilical clamp, scissors, bulb syringe, and towel)
- Pediatric lumbar puncture tray
- Pediatric tracheostomy tray
- Thoracostomy tray
- Chest tubes (sizes 10 Fr-28 Fr)
- Venous cutdown tray

PEDIATRIC SPECIFIC RESUSCITATION MEDICATIONS

- Resuscitation *medications per the American Heart Associations (AHA) PALS guideline.

<u>*NOTE: It is suggested that these drugs be immediately available in the resuscitation room and not locked in a computerized system.</u>

VIII. INITIAL EDAP DESIGNATION PROCESS:

A hospital must follow these instructions to initiate the process to obtain recognition as an Emergency Department Approved for Pediatrics (EDAP).

A. Application Instructions

1. A hospital choosing to participate in the voluntary facility recognition process submits a letter of intent to the Solano County EMS Agency.
2. Within two weeks, Solano County EMS personnel will review the letter of intent and send a letter of receipt outlining next steps.
3. A formal application is required. The EDAP Application Attachment A and EDAP Application Attachment B can be found at the Solano County EMS website under the forms tab. The application fee should be submitted with the application.
4. Solano County EMS personnel will review the application within 90 days of receipt.
5. Within 90 days following receipt of the application and supporting documents, the hospital will be informed as to the status of the application. If all documentation is in order, a site visit will be scheduled. A letter to the hospital will be sent providing the date of the visit four to eight weeks before the site survey is conducted. Evaluation tools used by the site survey team will be included as an attachment to the letter.

B. Site Survey Process

1. Site survey team arrives at hospital (see Attachment E section I)
2. Opening conference (see Attachment E section II)
3. Emergency Department, Pediatric unit*, and Neonatal Intensive Care Unit tours (see Attachment E section III)
4. Review of documents and manuals (see Attachment E section IV)
5. Exit meeting (see Attachment E section V)

*If applicable to the hospital

C. Site Survey Team

1. The site survey team will be comprised, at a minimum, of a physician and nurse team along with a representative(s) from the Solano EMS agency. All team members will be given information regarding the site survey responsibilities, expectations, process, and assessment.

E. Following the Site Survey

1. Within six weeks following the site visit, the hospital will receive the results of the survey. Hospitals meeting all requirements will receive a letter from the Solano EMS agency formally recognizing the hospital as EDAP certified.
2. Hospitals that do not meet the requirements will receive a letter from the Solano EMS agency outlining the areas of non-compliance. Any outstanding unmet criteria identified during the site visit must be addressed within six weeks. If deemed necessary, another site survey may be scheduled.
3. Withdrawal of recognition status may occur at any time should a hospital fail to meet any of the requirements. In this situation, the hospital will notify Solano County EMS at least 60 days prior to withdrawal and identify how area prehospital provider agencies, area hospitals, and Solano County EMS Agency will be notified.

IX. EDAP Renewal Process

A. Renewal of EDAP designation will occur annually, with site visits scheduled as necessary. Hospitals must submit the renewal application and fees along with supporting documentation.

B. A letter will be sent to the hospitals notifying them of when Solano County EMS is accepting applications for renewal. Applications should be submitted by the due date announced by the agency.

X. Destination Protocols for Ambulances:

In all cases, the health and well-being of the pediatric patient is the overriding consideration in determining patient destination. Factors to be considered include severity and stability of the pediatric patient's illness or injury; current status of the pediatric receiving facility; anticipated transport time; and request by the patient, family guardian, or physician.

For purposes of this policy, the closest receiving center is the most accessible EDAP.

A. Critically Injured Child/Minor:

Paramedics will transport critically injured children/minors to the closest Pediatric Trauma Center.

B. Critically Ill Child/Minor:

Paramedics will transport critically ill children/minors to the closest EDAP.

C. Non-Critical Child/Minor:

All children/minors entering the EMS system who require ambulance transport, and are critically ill or injured, will be transported to the closest EDAP. However, for children/minors who are NOT critically ill or injured, requests for transport to a Non-EDAP (or more distant EDAP) may be honored. Such requests will require signature by the patient's legal guardian. Paramedics will ensure documentation of this request within the patient's PCR and submit the Non-EDAP Acknowledgement Form to the EMS.

If a parent or guardian is not present, the minor will be transported to the closest EDAP.

D. Non-EDAP Transport Acknowledgement Form:

1. Paramedics will inform the parent or person legally responsible for the child that a form requesting transportation to an emergency department that has not been designated as an EDAP must be completed.
2. Original copies will be submitted by the transporting agency by the 15th of every month.

***Note**: See Attachment G for a copy of the Non-EDAP Transport Acknowledgment Form.

XI. Solano EMS Data Sharing and Meeting Participation Requirements

Attendance of PI/EDAP and Trauma Advisory Committee (TAC) meetings are mandatory; and attendance of STEMI meetings is highly recommended.

Data sharing is an important aspect of process improvement and efficiency of prehospital care. Representatives from the EDAP designated hospitals will present the following information at the EMS Quarterly meetings:

1. Data on system performance for each EDAP hospital. The content of the presentation should be focused on identifying opportunities for improvement and to recognize outstanding performance given by prehospital personnel. The presentation should include patient interfacility transfers, and patient outcome.
2. Cases that involve the three required pediatric process improvement monitors:
   a. Pediatric Deaths
   b. Pediatric Interfacility Transfers
   c. Suspected child/minor abuse/neglect
3. Cases that did not follow Policy 7300

ALS field providers must comply with all policies and protocols used to care for pediatric patients. ALS PI leaders are required to submit pediatric-related data including:

- Monthly list of all pediatric patients treated under pediatric protocols by the 15th day of each month. (i.e., March data due April 15th)