Los Angeles County EMS Agency Emergency Medical Services for Children System Plan

The entry level of Pediatric Receiving Center designation for Los Angeles (LA) County is Emergency Department Approved for Pediatrics (EDAP) which is equivalent to a General Pediatric Receiving Center (PedRC) as per the regulations. LA County also designates qualified hospitals as Pediatric Medical Center (PMC) for providing higher level of care for the critically ill pediatric patient. Pediatric Trauma Centers (PTC) are designated hospitals that meet the minimum regulatory requirements to provide pediatric trauma care. All PMCs and PTCs are required to be EDAPs. PMCs meet the standards for Advanced PedRC and PTCs meet the regulatory requirements of Comprehensive PedRCs per the regulations.

In 1985, the LA County EMS Agency designated 63 EDAPs. Three additional EDAPs were designated in the subsequent years. However, by the end of 2005, 21 hospitals have relinquished their EDAP designation. As of June 30, 2018, there were 38 designated EDAPs (this includes one in Orange County and one in Ventura County).

In the mid-1980's, the LA County EMS Agency began designating Pediatric Critical Care Centers (PCCC) to care for critically ill and injured pediatric patients. The revised trauma regulations were released in 1999 which allowed LA County EMS to designated PTCs and develop a separate list of requirements for hospitals that can provide higher level of care (non-traumatic) to critically ill pediatric patients. In 2005, the EMS Agency changed the name designation from PCCC to PMC for critically ill children to more clearly differentiate from PTC.

§100450.216(c)

(1) EMSC program goals and objectives

To ensure that 9-1-1 pediatric patients are transported to the most appropriate facility that is staffed, equipped and prepared to administer emergency and/or definitive care appropriate to the needs to the pediatric patient. This is done by establishing minimum standards for the designation of EDAP, PMC and PTC. These facilities provide care to pediatric patients by meeting specific requirements for professional staff, quality improvement, education, support services, equipment, supplies, medications, and established policies and procedures.

(2) The names and titles of local EMS Agency personnel with a role in the planning, implementation, and management of an EMSC program

Cathy Chidester, EMS Agency Director

Dr. Marianne Gausche-Hill, EMS Agency Medical Director

Dr. Nichole Bosson, EMS Agency Assistant Medical Director

Richard Tadeo, EMS Agency Assistant Director

Christine Clare, Chief-Hospital Programs

Paula Rashi, STEMI Receiving Center (SRC) Program Manager

Karen Rodgers, EDAP and PMC Programs Coordinator

Michelle Williams, Chief Data Systems Management

(3) Injury and illness prevention planning that includes coordination, education, and data collection

All EDAPs must have policies and procedures in place that address immunization assessment and management of the under-immunized patient and pediatric safety in the emergency department. Data submission is also required.

Reference No. 316, Emergency Department Approved for Pediatrics (EDAP) Standards (Attachment A)

In addition to the above, all PMC's have policies related to mental health and substance abuse. They must also provide outreach and pediatric education to EDAPs and EMS providers and they must have a Suspected Child Abuse and Neglect (SCAN) Team.

Reference No. 318, Pediatric Medical Center (PMC) Standards (Attachment B)

All PTCs are required to have an outreach program which includes trauma prevention for the general public and public education and illness/injury prevention education, as per Title 22, Chapter 7, Subsection 100261 (e) (4) (B) and (C)

(4) (A) Policies for care and services rendered to pre-hospital EMS pediatric patients:

1. First response non-transport

   Reference No. 832, Treatment/Transport of Minors (Attachment C)

2. Transport

   Reference No. 510, Pediatric Patient Destination (Attachment D)

   Reference No. 832, Treatment/Transport of Minors (Attachment E)

3. Interfacility transfer

   9-1-1 EMS is not utilized in the interfacility facility transfer of critically ill pediatric patients. All PMCs are required to either have a pediatric interfacility transport program or have a written agreement with agencies or other programs to provide timely transportation of critically ill pediatric patients to and from the PMC.

   Reference No. 318, Pediatric Medical Center (PMC) Standards (Attachment B)

   For critically injured pediatric patients that are not at a designated trauma center and meet designated criteria, 9-1-1 EMS may be utilized for trauma re-triage.

   Reference No. 506, Trauma Triage (Attachment F)

4. Critical care

This is for initial care and transport of critical children only, for secondary transfer of critical children see (4)(A)3. above.

Reference No. 510, Pediatric Patient Destination (Attachment D)

Reference No. 832, Treatment/Transport of Minors (Attachment E)

(B) <u>This shall include, but not be limited to:</u>

1. Pediatric-specific personnel training

The EMS Agency annually mandates an EMS Update for all EMS paramedic providers and Mobile Intensive Care Nurses (MICN). This education always has pediatric components and is a minimum of 4 hours. The following pediatric topics were included in the most recent EMS Updates:

2016: Pediatric Resuscitation

2017: Case studies for the following Provider Impressions (PI) which included pediatric patients:

Brief Unresolved Unexplained events (BRUE)

Hypoglycemic emergencies

Respiratory distress

Seizure activity

2018: New Treatment Protocols- which resulted in 40 distinct pediatric specific treatment protocols. Previously for all but 6, the pediatric protocols were incorporated in the adult protocols. In addition, there were pediatric-specific scenario based teaching modules.

2. Pediatric ambulance equipment

Reference No. 703, ALS Unit Inventory (Attachment G)

Reference No. 703.1, Private Provider Non–9-1-1 ALS Unit Inventory (Attachment H)

Reference No. 704, Assessment Unit Inventory (Attachment I)

Reference No. 706, ALS EMS Aircraft Inventory (Attachment J)

Reference No. 710, Basic Life Support Ambulance Equipment (Attachment K)

Reference No. 712, Nurse Staffed Critical Care Transport Unit Inventory (Attachment L)

Reference No. 713, Respiratory Care Practitioner Staffed Critical Care Transport Unit Inventory (Attachment M)

(5) A quality improvement plan contacting process-outcome measures as referenced in section 100450.224 of this Chapter

All EDAPs are required to have a quality improvement (QI) process in place which includes all elements included in section 100450.224. These processes are reviewed at each re-designation survey to ensure compliance.

Reference No. 316, Emergency Department Approved for Pediatrics (EDAP) Standards (Attachment A)

Reference No. 618, EMS Quality Improvement Program Committees (Attachment N)

Reference No. 620, EMS Quality Improvement Program (Attachment O)

(6) A list of facilities providing pediatric critical care and pediatric trauma services

See attached map.

Facilities with a green box are designated Pediatric Medical Centers that provide pediatric critical care services. Facilities with a yellow dot are designated Pediatric Trauma Centers

(7) List of designated hospitals with agreements to participate in the EMSC system of care

See attached map

(8) A list of facilities providing pediatric physical rehabilitation resources

Children's Hospital Los Angeles

Miller's Children Hospital

Rancho Los Amigo

(9) Copies of the local EMS agency's EMSC pediatric patient destination policies

Reference No. 510, Pediatric Patient Destination (Attachment D)

(10) A description of the method of field communication to the receiving hospital specific to the EMSC patient

Reference No. 510, Pediatric Patient Destination (Attachment D)

Reference No. 716, Paramedic Communications System (Attachment P)

(11) A description of the method of data collection from the EMS providers and designated EMSC hospital to the local EMS agency and the EMS Authority

Reference No. 316, Emergency Department Approved for Pediatric (EDAP) Standards (Attachment A)

Reference No. 318. Pediatric Medical Center (PMC) Standards (Attachment B)

Reference No. 607, Electronic Submission of Prehospital Data (Attachment Q)

(12) A policy or description of how the local EMS agency integrates a PedRC in a neighboring Jurisdiction

Los Angeles County EMS, in collaboration with neighboring EMS Agencies, reached out to hospitals in neighboring jurisdictions that receive patients from LA County. LA County EMS asked these neighboring hospitals if they would like to participate in the pediatric receiving center program within LA County and receive 9-1-1 pediatric patients from LA County. Upon meeting all of the requirements, the hospital was then approved as an EDAP for LA County. Currently there are two designated EDAPs in bordering counties (one in Orange County and one in Ventura County).

(13) Pediatric surge planning

All EDAPs are required to have a policy addressing pediatric surge planning. Review of said policy is completed at each designation/re-designation survey.

Reference No. 316, Emergency Department Approved for Pediatrics (EDAP) Standards (Attachment A)

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: **EMERGENCY DEPARTMENT APPROVED FOR PEDIATRIC (EDAP) STANDARDS**

REFERENCE NO. 316

PURPOSE: To establish minimum standards for the designation of Emergency Departments Approved for Pediatrics (EDAP). These Emergency Departments (ED) provide care to pediatric patients by meeting specific requirements for professional staff, quality improvement, education, support services, equipment, supplies, medications, and established policies and procedures.

DEFINITIONS:

Advanced Pediatric Life Support (APLS): The Pediatric Emergency Medicine Resource: A continuing medical education program developed by American Academy of Pediatrics (AAP) and American College of Emergency (ACEP). APLS features an innovative modular curriculum designed to present the information physicians, nurses and allied health professionals need to assess and care for critically ill and injured children during first few hours in the ED or office-based setting. Course is valid for four years.

Board Certified (BC): Successful completion of the evaluation process through one of the Member Boards of the American Board of Medical Specialties (ABMS) including an examination designed to assess the knowledge, skills and experience necessary to provide quality patient care in a particular specialty.

Board Eligible (BE): Successful completion of an residency training program with progression to board certification based on the timeframe as specified by the American Board of Medical Specialties (ABMS).

Department of Children and Family Services (DCFS): A mandated component of Emergency Response Services, administered by the Los Angeles County Department of Children and Family Services. The Child Protection Hotline (CPH) intake evaluation staff is responsible for assessing any referral, whether verbal or written, which alleges child abuse, neglect or exploitation to determine whether an in-person investigation and consultation is required.

The CPH operates 24 hours a day, seven days a week. The 24 hour number (1-800-540-4000) staffed by employees of the DCFS is responsible for screening calls from the community related to issues of child abuse and neglect. In the event, CPH volume of calls received exceeds the number of social worker's available, an Overflow/callback provisional number (not an official reporting number) is given to the caller. The caller is responsible to re-contact CPH and make a referral, assuring the mandated reporting process is initiated and completed.

Emergency Departments Approved for Pediatrics (EDAP): A licensed basic or comprehensive emergency department (ED) that is approved by the Emergency Medical Services (EMS) Agency to receive pediatric patients via 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 and procedures, as per the guidelines outlined in Ref. No. 510, Pediatric Patient Destination.

APPROVED: Cathy Chidester
Director, EMS Agency

Marianne Gausche-Hill, MD
Medical Director, EMS Agency

Emergency Nursing Pediatric Course (ENPC): Two-day course developed by the ENA that provides core-level pediatric knowledge and psychomotor skills needed to care for pediatric patients in the emergency care setting. Course is valid for four years.

Pediatric Advisory Committee (PedAC): Acts in an advisory capacity to the EMS Agency and is responsible for all matters regarding pediatric care and policy development pertinent to the practice, operation and administration of prehospital care, emergency departments, and pediatric intensive care units (PICU). Committee reviews, evaluates, and makes recommendations on issues related to EMS which impact the pediatric population.

Pediatric Emergency Course: Two-day course with topics pre-approved by the EMS Agency that provides knowledge about the acutely ill and injured child, and a minimum of 14 hours of continuing education. Course is valid for four years.

Pediatric Advanced Life Support (PALS): Instructor-based course with hands-on skills validation by American Heart Association. Course is valid for two years.

Pediatric Medical Center (PMC): A licensed acute care hospital that is approved by the EMS Agency to receive **critically ill** pediatric patients via the 9-1-1 system based on guidelines outlined in Ref. No. 510, Pediatric Patient Destination.

Pediatric Trauma Center (**PTC):** A licensed acute care hospital that is approved by the EMS Agency to receive **injured** pediatric patients via the 9-1-1 system based on guidelines outlined in Ref. No. 506, Trauma Triage. These centers provide tertiary pediatric care and serve as referral centers for critically injured pediatric patients.

Promptly Available: Able to be physically present in the ED within a period of time that is medically prudent and appropriate to the patient's clinical condition; and further, should not have a measurably harmful effect on the course of patient management or outcome. Hospital guidelines shall be established that address response time for on-call physicians.

Qualified Specialist: A physician licensed in the State of California who has become BC or BE in the corresponding specialty by American Board of Medical Specialties (ABMS) or American Osteopathic Association (AOA).

Senior Resident: A physician licensed in the State of California who is in training as a member of the residency program at the designated hospital, has completed at least two years of the residency, and is in good standing.

Sexual Assault Forensic Examiner (SAFE): Examiners are trained healthcare professionals with additional training in conducting adult and adolescent sexual assault forensic medical examinations and/or child sexual abuse forensic medical examinations. SAFE encompasses several categories of examiners (e.g., physicians, nurse practitioners, physician assistants, and registered nurses).

Sexual Assault Response Team (SART) Centers: A center specializing in child abuse, neglect, and forensic examinations in the case of an acute sexual assault/abuse event (defined as occurring within 72 hours), which has the capabilities of providing comprehensive medical and psychological forensic examinations and consist of a knowledgeable staff whose training, expertise, and state-of-the-art equipment exceeds the community standards. The SART Center shall have the capabilities of being mobile in the event that the patient is medically unstable for discharge.

The EDAP shall ensure that a forensic examination and interview process for a case of acute sexual assault/abuse event (defined as occurring within 72 hours) or appropriate referral for such examination if over 72 hours.

If the EDAP cannot provide the necessary forensic examination, coordination of care with a local SART Center, which has the capabilities of providing a comprehensive medical and psychological examination for the sexually abused pediatric patient must be arranged.

POLICY:

I. EDAP Designation / Confirmation Agreement:

A. EDAP initial designation and EDAP re-confirmation is granted after a satisfactory review by the EMS Agency for a period of three years.

B. The EMS Agency reserves the right to perform scheduled site visits or request additional data of the EDAP at any time.

C. The EDAP shall immediately provide written notice to the Director of the EMS Agency if unable to adhere to any of the provisions set forth in the EDAP Standards.

D. The EDAP shall provide a 90-day, written notice to the EMS Agency Director of intent to withdraw from the EDAP program.

E. The EDAP shall notify the EMS Agency within 15 days in writing of any change in status of the EDAP Medical Director, ED Nurse Manager/Director, Designated Pediatric Consultant, and Pediatric Liaison Nurse (PdLN) by submitting Ref. No. 621.1, Notification of Personnel Change Form.

II. EDAP Approval Process

A. General Hospital Requirements:

1. Licensed by the State of California Department of Public Health (CDPH) as a General Acute Care Hospital, and

a. Be approved for Basic or Comprehensive Emergency Medical Services pursuant to the provisions of Title 22, Division 5, California Code of Regulations

b. Accredited by a Centers for Medicare & Medicaid Services (CMS) recognized Hospital Accreditation Organization

B. EDAP Leadership Requirements:

1. EDAP Medical Director is a qualified specialist in Emergency Medicine (EM) or Pediatric Emergency Medicine (PEM)

a. Responsibilities:

i. Oversee EDAP quality improvement (QI) program and monitor to ensure adherence to the EDAP Standards

ii. Promote and verify adequate skills and current knowledge of ED staff physicians and mid-level practitioners in pediatric emergency care and resuscitation

iii. Member of both the ED and pediatric committees (if applicable) to ensure that pediatric care needs are addressed and communicated across disciplines

iv. Liaison with PMCs, PTCs, base hospitals, community hospitals, prehospital care providers, and the EMS Agency to ensure pediatric care needs are addressed

v. Collaborates with the ED Nurse Manager/Director and the PdLN to ensure adherence to the EDAP Standards for staffing, medication, equipment, supplies, and other resources for children in the ED

vi. May also be assigned others roles in the ED

b. Committee Participation:

The EMS Agency's Pediatric Advisory Committee meets quarterly in March, June, September, and December to address pediatric care issues related to prehospital care, emergency departments, and pediatric intensive care units (PICU). Committee members are appointed to ensure that the five EDAP regions are represented. For non-committee member EDAP Medical Directors, attendance is highly encouraged.

2. Designated Pediatric Consultant – A qualified specialist in pediatrics and/or subspecialty in PEM

a. Responsibilities:

i. Promptly available for consultation

ii. Participate in the development and monitoring of pediatric QI program, and pediatric policies and procedures

iii. Collaborate with the EDAP Medical Director and PdLN as needed

iv. May also be the EDAP Medical Director

3. ED Nurse Manager/Director - Licensed as a Registered Nurse (RN) in the State of California

a. Responsibilities:

i. Ensure compliance with the EDAP Standards, EDAP Agreement, and EMS Agency policies and procedures

ii. Oversee the EDAP QI program

iii. Appoint an ED RN as the PdLN and provide a written description of responsibilities to ensure compliance with EDAP Standards

iv. Ensure that the PdLN is allocated the appropriate time and resources necessary to comply with the EDAP Standards. Allocation of time/hours may be based on the ED's annual pediatric volume:

1) Low: <1800 pediatric patients per/year
2) Medium: 1800 - 4999 pediatric patients per/year
3) Medium-High: 5000 - 9999 pediatric patients per/year
4) High: >10,000 pediatric patients per/year

v. Collaborate with the PdLN to develop and implement policies and procedures for all aspects of pediatric care

vi. Ensure opportunities for the staff to meet the EDAP educational requirements

vii. Ensure that the QI reports are presented at applicable hospital committees (e.g., ED, hospital-wide QI, and/or pediatric committees)

viii. Ensure that the appropriate documentation is readily available for the EMS Agency during the review process (e.g., physicians' credentials, nursing and respiratory care practitioners' continuing education)

ix. Serves as a contact person for the EMS Agency and available upon request to respond to County business

4. Pediatric Liaison Nurse (PdLN) – Nurse Coordinator for pediatric emergency care

a. Qualifications:

i. Licensed as an RN in the State of California

ii. At least two years of experience working in pediatrics, or in an ED that provides care for pediatric patients, within the previous five years

iii. Current PALS provider or instructor

iv. Completion of a two-day pediatric emergency course within the last four years

v. Completion of seven hours of pediatric continuing education (CE) approved by the Board of Registered Nursing (BRN) every two years

b. Responsibilities:

i. Collaborate with the EDAP Medical Director, ED Nurse Manager/Director, and Designated Pediatric Consultant to ensure compliance with Ref. No. 316, EDAP Standards, Ref. No. 312, Pediatric Liaison Nurse, and policies and procedures established by the EMS Agency

ii. Maintain and monitor the EDAP QI program

iii. Serve as a liaison and maintain effective lines of communication with:

1) ED management, physicians, and personnel
2) Hospital pediatric management, physicians, and personnel
3) Paramedic base hospital personnel, as applicable
4) System PdLNs
5) Prehospital care coordinators (PCCs), as needed, to follow up with pediatric treatment/transport concerns
6) Prehospital care providers as needed, to follow up with pediatric treatment and/or transport concerns
7) Other EDAPs and PMCs
8) EMS Agency

iv. Serve as a contact person for the EMS Agency and be available upon request to respond to County business

v. Monitor Pediatric Education:

1) Develop a mechanism to track and monitor pediatric continuing education for the ED staff
2) Maintain continuing education documentation, to be readily available to the EMS Agency during the review process

vi. Committee Participation:

The EMS Agency's Pediatric Advisory Committee meets quarterly in March, June, September, and December to address pediatric care issues related to prehospital care, emergency departments, and pediatric intensive care units (PICU). Committee members are appointed to ensure the five EDAP regions are represented. For non-committee member PdLNs, attendance is highly encouraged.

C. Personnel

1. ED Physicians

a. Twenty-four hour ED coverage shall be provided or directly supervised by physicians functioning as emergency physicians, or pediatricians experienced in emergency care, or senior residents

b. At least 75% of the physicians attending in the ED shall be BC or BE in EM or PEM

c. ED physicians who are not EM or PEM BC or BE shall have current PALS or APLS providers or instructors

2. Pediatricians (applies to EDAPs with associated pediatric admission unit)

a. There shall be a call panel for telephone consultation and a qualified specialist in pediatrics to be promptly available to the ED twenty-four hours per day

b. Those pediatricians who are not BC or BE shall be current PALS or APLS provider or instructor

3. Pediatric Subspecialty Services

Pediatric subspecialty physicians shall be available through in-house panel, phone consultation, telemedicine, or transfer agreements

4. Mid-Level Practitioners (Physician Assistants and Nurse Practitioners)

a. Mid-level practitioners shall be licensed by the State of California

b. All mid-level practitioners assigned to the ED caring for pediatric patients must be current PALS or APLS provider or instructors

5. Registered Nurses

a. All RN staff in the ED caring for pediatric patients must be current PALS providers or instructors. In addition, all nurses assigned to the ED shall attend at least 14 hours of BRN-approved pediatric education every four years.

b. At least one RN per shift shall have completed a two-day Pediatric Emergency Course within the last 4 years and be available for patient care. It is highly recommended that all nurses regularly assigned to the ED complete this course as well.

III. Two-Day Pediatric Emergency Course – Continuing Education

A. May be completed in-house or off-site

B. The interval between Day/Part 1 and Day/Part 2 must be completed within a six month period

If the interval between Day/Part 1 and Day/Part 2 is greater than six months, this will only fulfill the 14 hour requirement in Section C.5.a above.

C. Curriculum should be selected from this broad spectrum of pediatric topics which have been pre-approved by the EMS Agency:

1. Airway management
2. Brief Resolved Unexplained Event (BRUE) and previously called Apparent life-threatening event (ALTE) ≤ 12 months of age
3. Child Maltreatment (suspected child abuse, neglect, and sexual assault) to include the mandated reporting process
4. Coordination of care with an SART Center for an acute suspected sexual assault victim requiring a forensic examination
5. Death
6. Fever/Sepsis/Shock
7. Female presenting with signs & symptoms of recent delivery and no history of giving birth / newborn abandonment
8. Human trafficking
9. Injury prevention
10. Medical conditions (e.g., diabetic ketoacidosis, inborn errors of metabolism, etc.)
11. Medication safety
12. Neonatal emergencies
13. Pain Management
14. Disaster response
15. Poisonings
16. Procedural Sedation
17. Respiratory emergencies
18. Resuscitation
19. Seizures
20. SIDS/SUID
21. Special health care needs
22. Submersions
23. Surgical emergencies
24. Trauma/Burns
25. Triage

IV. Quality Improvement (QI) Program Requirements

QI program shall be developed as per Ref. No. 620, EMS Quality Improvement Program, and monitored by the EDAP Medical Director, ED Nurse Manager/Director, and PdLN, with input as needed from the Designated Pediatric Consultant.

A. Develop a mechanism to easily identify pediatric (14 years of age and under) visits to the ED

B. Identification and trending of important aspects of pediatric care requiring improvement, to include 100% medical record review of:

1. Deaths
2. Child Maltreatment (suspected child abuse, neglect, and sexual assault) to include the mandated reporting process
3. Transfers to higher level of care
4. Admissions from the ED to an adult medical surgical unit and/or adult intensive care unit (ICU)
5. Unscheduled/unplanned return visits to the ED within 48 hours that are admitted or transferred

C. Hospital and EMS Agency quality of care review may include, but is not limited to

the following high-risk patients and important aspects of care:

1. Patients requiring critical care or pediatric intensive care unit (PICU)
2. Pediatric patients transported via the 9-1-1 requiring admission or transfer to higher level of care
3. Airway management
4. Acute dehydration
5. Blunt head trauma
6. Diabetic ketoacidosis
7. Fever in infants less than three months of age
8. Long bone fractures
9. Medication safety
10. Seizures
11. Sepsis
12. Respiratory distress (e.g., asthma, bronchiolitis, croup, foreign body, aspiration pneumonia)
13. Facility-specific issues as identified by the PdLN and/or physician
14. Prevention of unnecessary tests and procedures per the “Choosing Wisely® Initiatives”

D. Maintain written QI plan, trending and analysis reports, agenda, minutes and attendance rosters to be readily available to the EMS Agency for the review process.

V. Ancillary Services

A. Respiratory Care Practitioners (RCP)

1. At least one RCP shall be in-house twenty-four hours per day to respond to the ED

2. All RCPs shall be a current PALS provider or instructor

3. The hospital shall have a mechanism to track and monitor PALS certifications for RCP

B. Radiology

1. The radiology department shall have pediatric-specific policies and procedures pertaining to imaging studies of children

2. Qualified specialist in radiology must be on-call and promptly available twenty-four hours per day

3. Radiology technician must be in-house twenty-four hours per day, with a back-up technician on-call and promptly available

4. CT scan technician must be on-call and promptly available

5. Ultrasound technician or designated operator must be on-call and promptly available

C. Laboratory

1. Laboratory service shall have pediatric-specific policies and procedures pertaining to laboratory studies of children, including, but not limited to, obtaining samples, and microtechnique for small or limited sample sizes

2. Technician must be in-house twenty-four hours per day, with a back-up technician on-call and promptly available

VI. Policies and Procedures

Policies and procedures pertaining to the emergency care of children shall include, but are not limited to, the following, and multiple required elements may be incorporated into one policy – e.g., "Care of the Pediatric patient in the ED":

A. Triage:

1. Vital signs recorded at triage for infants and children, to include age-appropriate measurement of temperature, heart rate, respiratory rate, and pain scale.

2. Blood pressure and pulse oximetry monitoring shall be available for children of all ages. Optimally, blood pressure and pulse oximetry should be assessed on all children. Exceptions must be addressed in policy and monitored.

B. Pediatric patient safety in the ED (e.g., environment of care)

C. Immunization assessment and management of the under immunized patient

D. Reporting of all aspects of the mandated reporting of child maltreatment (suspected child abuse, neglect, and sexual assault) to include:

1. An immediate verbal telephone report to Child Protection Hotline (CPH) and/or law enforcement if the child is in danger

2. Completion of the written or online Suspected Child Abuse Report (SCAR) #8572 report to Department of Children and Family Services (DCFS) within 36 hours

3. Documentation of the case number or referral number and tracking number in the medical record

4. Social Service (during business hours) or Registered Nurse (afterhours/weekends) to review the final patient disposition with the physician on-duty to assure the mandated reporting and medical record documentation is complete, and the coordination of care per CPH is communicated for a safe disposition of the child (family, caregiver or law enforcement)

5. Develop a checklist to assure all forms, notifications and documentation are completed with physician notification and appropriate documentation

6. Monthly QI reviews by Social Services and ED to assure the appropriate

recognition of and reporting processes of child maltreatment cases

E. Include in the above policy the coordination of care with a Sexual Assault Response Team (SART) Center for an acute suspected sexual assault patient/victim requiring a forensic evidentiary examination or appropriate referral to include:

1. Patient to receive a medical screening examination and any necessary stabilization treatment

2. ED nurse or physician to notify the law enforcement agency in the city where the crime occurred

   a. Once law enforcement officer arrives and authorizes a forensic evidentiary examination

   b. The officer will contact the forensic nurse

   c. Obtain the officer's identification (department and badge number) for documentation

   d. The forensic nurse and advocates are on-call and must be notified directly by law enforcement

   e. If the ED has any questions, they may contact the forensic nurse for consult or for clarification

   f. Obtain the SART Center's address and the arranged time, that the officer and patient will meet the forensic nurse

   g. Prior to the patient's disposition to the SART Center, patient must be medically cleared and all emergency medical conditions stabilized. The patient should be discharged from the ED

3. Provide specific discharge instructions and required documentation to include:

   a. Plan of care

   b. Patient destination to include the SART Center address

   c. Transported/accompanied by law enforcement or permit the patient to be transported by family or caregiver

4. Develop a checklist to assure all forms, notifications and documentation are completed with physician notification and appropriate documentation for a safe disposition

F. Pediatric assessment and reassessment, including identification of abnormal vital signs according to the age of the patient, and physician notification when abnormal values are obtained

G. Pain assessment, treatment, and reassessment, utilizing developmentally appropriate pain scales (include a description of the tools used for infant and child)

H. Consent and assent for emergency treatment (including situations in which a parent/legal guardian is not immediately available)

I. Do Not Resuscitate (DNR) orders/Advanced Health Care Directives (AHCD)

J. Death of the child in the ED and care of the grieving family

K. Care and safety for the pediatric patient with mental and/or behavioral health emergencies

L. Physical and chemical restraint of patients

M. Procedural sedation

N. Reducing radiation exposure for pediatric patients

O. Safe surrender of newborns

P. Daily verification of proper location and functioning of equipment and supplies for the pediatric crash cart, and a content listing of items in each drawer

Q. Family Centered Care, including:

1. Supporting appropriate family presence during all aspects of care to include invasive procedures and resuscitation

2. Education of the patient, family, and regular caregivers

3. Discharge planning and instructions

4. Culturally and linguistically appropriate services

R. Communication with patient's medical home or primary provider based on illness and severity (e.g., aftercare instructions, x-ray results, laboratory studies, as appropriate)

S. Transfer from the ED to another facility

T. A surge plan for back-up personnel in the ED

U. Disaster preparedness addressing the following pediatric issues:

1. Minimizing parent-child separation, and methods for reuniting separated children with their families

2. Pediatric surge capacity for both injured and non-injured children

3. Medical and mental health therapies, as well as social services, for children in the event of a disaster

4. Disaster drills that include a pediatric mass casualty incident at least once every two years

5. Decontamination

V. Medication safety addressing the following pediatric issues:

1. All pediatric weights shall be recorded in kilograms:

a. Children shall be weighed in kilograms, with the exception of children who require emergency stabilization, and the weight shall be recorded in a prominent place on the medical record such as with the vital signs

b. For children who cannot be safely weighed, a standard method for estimating weight in kilograms shall be used (e.g., a length-based resuscitation tape)

c. Scales used to weigh children must be configured to display weights in kilograms only

d. Electronic medical records shall allow for weight entries in kilograms only

2. Medication orders should be written clearly, in milligrams per kilogram, and should specify the total dosage – not to exceed the safe maximum dosage

3. Processes for safe medication storage, prescribing, and delivery should be established and should include the use of pre-calculated dosing guidelines for children of all ages

4. Involve the patient and /or family in the medication safety process to ensure accurate patient identification and provide education as to the rationale for the medication

VII. Interfacility Transfer

A written Interfacility Consultation and Transfer Agreement for tertiary or specialty care shall be established, which shall include, at a minimum, the following:

A. A plan for subspecialty consultation (telephone, or real-time telemedicine) twenty-four hours per day

B. Identification of transferring and receiving hospitals' responsibilities in accordance with Emergency Medical Treatment and Active Labor Act (EMTALA)

C. A process for selecting the appropriately staffed transport service to match the patient's acuity level

VIII. Equipment, Supplies, and Medications

A. Pediatric equipment, supplies, and medications shall be easily accessible, labeled, and logically organized – a mobile pediatric crash cart shall be utilized

B. Staff shall be able to identify the locations of all items. A locator chart of the

locations of all items (e.g., a locator grid identifying the required equipment and supplies) shall be maintained.

C. The following are the required EDAP equipment, supplies, and medications:

1. General Equipment

a. Weight scale measuring only in kilograms for both infants and children

b. Standardized length-base resuscitation tape (most recent edition) or other standardized method to estimate pediatric weights in kilograms

c. Pediatric drug dosage reference material with dosages calculated in milligrams per kilogram – either posted, or readily available

d. Developmentally appropriate pain scale assessment tools for infants and children

e. Blood and IV fluid warmer (Rapid infuser)

f. Warming and cooling system with appropriate disposable blankets

2. Monitoring Equipment

a. Blood pressure cuffs in the following sizes:

i. Neonatal
ii. Infant
iii. Child
iv. Adult arm
v. Adult thigh

b. Vascular Doppler device (handheld)

c. ECG monitor/defibrillator:

i. ECG electrodes in pediatric and adult sizes
ii. Defibrillator paddles in pediatric and adult sizes, and/or;
iii. Hands-free defibrillation device
iv. External pacing capability
v. Multifunction pads in pediatric and adult sizes

d. Thermometer with hypothermia capability

3. Airway Management

a. Bag-Valve-Mask (BVM) device with self-inflating bag in the following sizes:

i. Infant (minimum 450ml)
ii. Child
iii. Adult

b. BVM clear masks in the following sizes:

i. Neonate
ii. Infant
iii. Child
iv. Adult

c. Laryngoscope handle:

i. Pediatric
ii. Adult

d. Laryngoscope Blades:

i. Macintosh/curved: 2, 3
ii. Miller/straight: 0, 1, 2, 3

e. Endotracheal Tubes:

i. Uncuffed: size mm 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5
ii. Cuffed: size mm 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0

f. Stylets for endotracheal tubes:

i. Pediatric
ii. Adult

g. Magill Forceps:

i. Pediatric
ii. Adult

h. Continuous end-tidal CO2 monitoring device for pediatric and adult patients (preferred). If not available, colorimetric CO2 detector may be utilized.

i. Pulse oximeter unit with sensors in the following sizes:

i. Infant
ii. Pediatric
iii. Adult

j. Nasopharyngeal Airways:

Size 12, 14, 18, 20, 22, 24, 26, 30 Fr

k. Oropharyngeal Airways:

i. Neonatal: size 00 / 40 mm
ii. Infant: size 0 / 50 mm
iii. Child: size 1 / 60 mm
iv. Small child: size 2 / 70 mm

v. Small adult: size 3 / 80 mm
vi. Medium adult: size 4 / 90 mm
vii. Large adult: size 5 / 100 mm

l. Clear oxygen masks in the following sizes:

i. Infant
ii. Child
iii. Adult

m. Non-rebreather masks in the following sizes:

i. Infant
ii. Child
iii. Adult

n. Nasal cannulas in the following sizes:

i. Infant
ii. Child
iii. Adult

o. Suction catheters in the following sizes:

6, 8, 10, 12 Fr

p. Yankauer suction tips

q. Feeding tubes:

5, 8 Fr

r. Nasogastric Tubes:

Size 5, 8, 10, 12, 14, 16, 18 Fr

s. Laryngeal Mask Airways (LMA):

Sizes 1, 1.5, 2, 2.5, 3, 4, 5

t. Cricothyrotomy Catheter set (pediatric)

u. Tracheostomy trays: **Requirement for PMC's. Optional for EDAP's**

i. Pediatric
ii. Adult

v. Tracheostomy Tubes: **Requirement for PMC's**. **Optional for EDAP's**

i. Neonatal: size mm 2.0, 2.5, 3.0, 3.5, 4.0, 4.5
ii. Pediatric: size mm 3.0, 3.5, 4.0, 5.0, 5.5, 6.0

4. Vascular Access Equipment

    a. Arm boards in the following sizes:

        i. Infant
        ii. Child
        iii. Adult

    b. IV volume rate control administration sets with calibrated chambers

    c. IV catheters in the following sizes:

        16, 18, 20, 22, 24 gauge

    d. 3-way stopcocks

    e. Device or needle to achieve intraosseous (IO) vascular access, to include needles in the appropriate sizes for pediatric and adult patients

    f. IV solutions, to include the following in 250ml and/or 500ml bags:

        i. 0.9 NS
        ii. D5.45NS
        iii. D5NS
        iv. D10W

5. Fracture Management Devices

    a. Splinting supplies for long bone fractures

    b. Spinal motion restriction devices in the following sizes:

        i. Infant
        ii. Child
        iii. Adult

    c. Spinal board with the appropriate straps

6. Specialized Trays or Kits

    a. Newborn delivery kit to include:

        i. Bulb syringe
        ii. Umbilical clamps
        iii. Towels
        iv. Scissors

    b. Newborn initial resuscitation equipment should be readily available, including:

        i. Meconium aspirator

ii. Radiant warmer
iii. BVM device with self-inflating bag and clear mask for newborns

c. Umbilical Vein Catheters, or 5.0 Fr feeding tube

d. Central Line Trays in the following sizes:
Requirement for PMC's. **Optional for EDAP's.**

i. 4.0 Fr
ii. 5.5 Fr
iii. 7.0 Fr

e. Thoracostomy tray:

i. Pediatric
ii. Adult

f. Chest drainage system

g. Chest tubes in the following sizes: (At least one in each size range)

(10 – 12) (16 – 24) (28 – 40) Fr – **Requirement for EDAP's**
8, 12, 16, 20, 24, 28 Fr – **Required for PMC's**

h. Lumbar Puncture trays and spinal needles:

i. 22 g, 3 inch
ii. 22-25 g, 1½ inch

i. Urinary catheterization sets and urinary (indwelling) catheters in the following sizes:

5, 8, 10, 12, 14, 16 Fr

7. Pediatric-Specific Resuscitation

a. Immediately available drug calculation resources

b. The following medications must be immediately available:

i. Adenosine
ii. Albuterol
iii. Amiodarone
iv. Atropine
v. Atrovent
vi. Calcium chloride
vii. Dobutamine
viii. Dopamine
ix. Epinephrine 0.1mg/mL **(IV administration**)
x. Epinephrine 1mg/mL (**IM administration**)
xi. Epinephrine for inhalation
xii. Lidocaine

xiii. Mannitol or hypertonic saline
xiv. Naloxone
xv. Procainamide
xvi. Sodium Bicarbonate 4.2% (or a process to obtain the drug in an emergency situation)
xvii. Sodium Bicarbonate 8.4%

CROSS REFERENCE:

Prehospital Care Policy Manual

Ref. No. 312, Pediatric Liaison Nurse
Ref. No. 318, Pediatric Medical Centers
Ref. No. 506, Trauma Triage
Ref. No. 508, Sexual Assault Patient Destination
Ref. No. 508.1, SART Center Roster
Ref. No. 510, Pediatric Patient Destination
Ref. No. 620, EMS Quality Improvement Program
Ref. No. 621, Notification of Personnel Change
Ref. No. 621.1, Notification of Personnel Change Form
EMS Agency Pediatric Advisory Committee Bylaws
EMS Agency SART Standards
California Clinical Forensic Medical Training Center, California Sexual Assault Response Team (SART) Manual

ACKNOWLEDGEMENTS

The EMS Agency EDAP Standards were first developed by the Committee on Pediatric Emergency Medicine (COPEM), 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 (ACEP), National Emergency Medical Services for Children (EMSC) Resource Alliance, American Academy of Pediatrics (AAP)-California Chapter 2, Emergency Nurses Association (ENA), American College of Surgeons (ACS), and the EMS Agency.

The EDAP Standards have since been revised, endorsed by The Hospital Association of Southern California, and now meet or exceed the guidelines established by the Emergency Medical Services Authority (EMSA) #182: Administration, Personnel, and Policy for the Care of Pediatric Patients in the Emergency Department, and the 2009 Joint Policy Statement: Guidelines for Care of Children in the Emergency Department which was ratified by the AAP, ACEP, and the ENA.

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: PEDIATRIC MEDICAL CENTER (PMC) STANDARDS REFERENCE NO. 318

PURPOSE: To establish minimum standards for the designation of Pediatric Medical Centers (PMC). The PMC's must meet specific requirements for professional staff, quality improvement, education, support services, equipment, supplies, medications, and established policies and procedures. PMC's will provide an emergency department capable of managing complex pediatric emergencies, a Pediatric Intensive Care Unit (PICU), physicians with pediatric sub-specialties and/or experience in pediatric care, pediatric critical care consultation for community hospitals, and outreach educational programs for the EMS community.

DEFINITIONS:

Advanced Pediatric Life Support (APLS): The Pediatric Emergency Medicine Resource: is a continuing medical education program developed by American Academy of Pediatrics (AAP) and American College of Emergency Physicians (ACEP). APLS features an innovative modular curriculum designed to present the information physicians, nurses and allied health professionals need to assess and care for critically ill and injured children during first few hours in the ED or office-based setting. Course is valid for four years.

Board Certified (BC): Successful completion of the evaluation process through one of the Member Boards of the American Board of Medical Specialties (ABMS) including an examination designed to assess the knowledge, skills and experience necessary to provide quality patient care in a particular specialty.

Board Eligible (BE): Successful completion of a residency training program with progression to board certification based on the timeframe as specified by the American Board of Medical Specialties (ABMS).

Certified Registered Nurse Anesthetist (CRNA): An advanced practice registered nurse (APRN) who has acquired graduate-level education and board certification in anesthesia.

Children with Special Health Care Needs: Children who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that is required by children generally.

Department of Children and Family Services (DCFS): A mandated component of Emergency Response Services, administered by the Los Angeles County Department of Children and Family Services. The Child Protection Hotline (CPH) intake evaluation staff is responsible for assessing any referral, whether verbal or written, which alleges child abuse, neglect or exploitation to determine whether an in-person investigation and consultation is required.

APPROVED: Director, EMS Agency

Medical Director, EMS Agency

The CPH operates 24 hours a day, seven days a week. The 24 hour number (1-800-540-4000) staffed by employees of the DCFS is responsible for screening calls from the community related to issues of child abuse and neglect.

Emergency Departments Approved for Pediatrics (EDAP): A licensed basic or comprehensive emergency department that is approved by EMS Agency to receive pediatric patients via 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 and procedures, as per the guidelines outlined in Reference No. 510, Pediatric Patient Destination.

Emergency Information Form (EIF): To optimize emergency care for children with special needs. The EIF was developed by American Academy of Pediatrics (AAP) and American College of Emergency Physicians (ACEP). The EIF will help facilitate the transfer of relevant information and ensure the medical history for Children with Special Health Care Needs (CSHCN) is summarized for the healthcare providers.

Immediately available: Unencumbered by conflicting duties or responsibilities, responding without delay when notified, and being physically available to the specified area of the PMC.

On call: Agreeing to be available, according to a predetermined schedule, to respond to the Pediatric Medical Center (PMC) in order to provide a defined service.

Pediatric Advisory Committee (PedAC): Acts in an advisory capacity to the EMS Agency and is responsible for all matters regarding pediatric care and policy development pertinent to the practice, operation and administration of prehospital care, emergency departments and pediatric intensive care units (PICU). Committee reviews, evaluates and makes recommendations on issues related to the EMS which impact the pediatric population.

Pediatric Critical Care Education: Topics in pediatric critical care that addresses fundamental principles for the management of the critically ill pediatric patient, and a minimum of 14 hours of continuing education every four years.

Pediatric Advanced Life Support (PALS): Instructor-based course with hands-on skills validation by American Heart Association. Course is valid for two years.

Pediatric Experience: A physician specialty approved by the appropriate hospital body and the PMC Medical Director, based on education, training, and experience to provide care to the pediatric patient.

Pediatric Medical Center (PMC): A licensed acute care hospital that is approved by the EMS Agency to receive **critically ill** pediatric patients via the 9-1-1 system based on guidelines outlined in Reference No. 510, Pediatric Patient Destination.

Pediatric Trauma Center (PTC): A licensed acute care hospital that is approved by the EMS Agency to receive **injured** pediatric patients via the 9-1-1 system based on guidelines outlined in Reference No. 506, Trauma Triage. These centers provide tertiary pediatric care and serve as referral centers for critically injured pediatric patients.

Promptly Available: Able to be physically present in the PMC within a period of time that is medically prudent and appropriate to the patient's clinical condition; and further, should not have a measurably harmful effect on the course of patient management or outcome.

Hospital guidelines shall be established that address response time for on-call physicians.

Qualified Specialist: A physician licensed in the State of California who is BC or BE in the corresponding specialty by American Board of Medical Specialties (ABMS) or American Osteopathic Association (AOA).

Senior Resident: A physician licensed in the State of California who is in training as a member of the residency program at the designated hospital, has completed at least two years of the residency, and is in good standing.

Sexual Assault Response Team (SART) Centers: A center specializing in child abuse, neglect, and forensic examinations in the case of an acute sexual assault/abuse event (defined as occurring within 72 hours), which has the capabilities of providing comprehensive medical and psychological forensic examinations and consist of a knowledgeable staff whose training, expertise, and state-of-the-art equipment exceeds the community standards. The SART Center shall have the capabilities of being mobile in the event that the pediatric patient is medically unstable for transport.

POLICY:

I. PMC Designation / Confirmation Agreement:

A. PMC initial designation and PMC re-confirmation is granted after a satisfactory review by the EMS Agency for a period of three years.

B. The EMS Agency reserves the right to perform scheduled on-site visits or request additional data of the PMC at any time.

C. The PMC shall immediately provide written notice to the Director of the EMS Agency if unable to adhere to any of the provisions set forth in the PMC Standards.

D. The PMC shall provide a 90-day, written notice to the EMS Agency Director of intent to withdraw from the EDAP or PMC programs.

E. The PMC shall notify the EMS Agency within 15 days, in writing of any change in status of the PMC Medical Director, PMC Nurse Coordinator, or PICU Nurse Manager/Director by submitting the Notification of Personnel Change Form, (Reference No. 621.1).

II. PMC Approval Process

A. General Hospital Requirements:

At a minimum, meet the California Children's Services Standards for Pediatric Community Hospitals, and

1. Meet or exceed the Emergency Medical Services (EMS) Agency Standards for Emergency Departments Approved for Pediatrics (EDAP)

2. Has a Suspected Child Abuse and Neglect (SCAN) Team

3. Has a PICU approved by California Children's Services (CCS)

B. Administration/Coordination

1. PMC Medical Director

Maintains board certification in pediatric critical care.

Responsibilities:

a. Implement and ensure compliance with the PMC Standards

b. Serve as chairperson of the PMC Committee or assign a designee

c. Coordinate medical care across departmental and multidisciplinary committees

d. Maintain direct involvement in the development, implementation, and maintenance of a comprehensive multidisciplinary QI program

e. Identify, review, and correct deficiencies in the delivery of pediatric critical care

f. Review, approve, and assist in the development of transfer guidelines and all PMC policies and procedures

g. Collaborates with the PMC Nurse Coordinator to ensure appropriate pediatric critical care education programs are provided to the staff related to the quality improvement findings

h. Coordinates with PMC Nurse Coordinator to liaison with other PMCs, base hospitals, community hospitals and prehospital care providers

2. PMC Nurse Coordinator

a. Qualifications:

i. Licensed as a Registered nurse in the State California

ii. Current PALS provider or instructor

iii. Shall have a minimum of three years' experience or specialty certification, in the care of critically ill children, and currently working in the PICU

iv. Shall have education, training and demonstrated competency in pediatric critical care nursing and attend at least 14 hours of BRN-approved pediatric education every four years

v. The PMC Nurse Coordinator may hold other positions in the

hospital organization-PICU staff nurse, PICU Charge Nurse, PICU Nurse Manager or Director

b. Responsibilities:

i. Ensure the implementation and compliance of the PMC Standards in collaboration with the PMC Medical Director and PICU Nurse Manager/Director

ii. Serve as co-chair of the PMC Committee with the PMC Medical Director

iii. Direct involvement in the development, implementation, and maintenance of comprehensive multidisciplinary QI program

iv. Liaison with other hospital multidisciplinary committees.

v. Ensure appropriate pediatric critical care education programs are provided to the staff

vi. Liaison with other PMCs, base hospitals, community hospitals, and prehospital care providers

vii. Serve as the contact person for the EMS Agency and be available upon request to respond to County business

viii. Participate in EMS Agency activities and meetings

ix. Maintain joint responsibility with the PICU Medical Director and PICU Nurse Manager/Director for the development and review of policies, procedures and QI activities in the PICU

3. PICU Nurse Manager/Director

Shall serve as a member of the PMC committee if not the PMC Coordinator.

C. Physician Staffing And Specialty Requirements

1. Pediatric Intensivist who is a qualified specialist in pediatric critical care medicine.

Responsibilities:

a. Shall be on-call and promptly available

b. Shall not be on-call for more than one facility at the same time

c. Participate in all major therapeutic decisions and interventions during on-call periods

2. Anesthesiologist with pediatric experience

   Responsibilities:

   a. Shall be on-call and promptly available

   b. Provide oversight for all patients requiring interventions by the senior resident or Certified Registered Nurse Anesthetist (CRNA) and be present for all surgical procedures

3. The following specialties will be on-call and promptly available:

   a. Radiologist with pediatric experience (can be achieved by off-site capabilities)

   b. Neonatologist

   c. Pediatric Cardiologist

   d. General Surgeon with pediatric experience

   e. Otolaryngologist with pediatric experience

   f. Obstetrics/Gynecologist with pediatric experience

4. The following qualified specialists should be available for consultation and/or through a transfer agreement:

   a. Pediatric Gastroenterologist

   b. Pediatric Hematologist/Oncologist

   c. Pediatric Infectious Disease

   d. Pediatric Nephrologist

   e. Pediatric Neurologist

   f. Pediatric Surgeon

   g. Cardiac surgeon with pediatric experience

   h. Neurosurgeon with pediatric experience

D. Special Services/Resources Appropriate For Pediatric Patients

The following services may be met by contractual or written transfer agreements:

1. Critical Care Transport Team

2. Acute burn care management

3. Hemodialysis

4. Peritoneal dialysis

5. Pediatric rehabilitation

6. Organ transplantation

7. Home health

8. Reimplantation

9. Hospice

E. Nursing Services On The Pediatric Unit:

General Requirements for the Nursing personnel:

1. Licensed as Registered Nurses (RN) in the State of California

2. Current PALS Provider or Instructor

3. Shall be staffed by qualified nurses with education, experience and demonstrated pediatric clinical competence

4. A method of documenting clinical competency shall exist

F. Pediatric Intensive Care Unit:

1. General Requirements for the PICU:

   a. Shall be a distinct, separate unit within the hospital

   b. Provide at minimum, eight licensed beds

   c. Admit a minimum of 350 patients a year, with 50 of these patients requiring mechanical ventilation

2. PICU Medical Director shall:

   a. Serve as a member of the PMC Committee, and may hold PMC Medical Director position

   b. Work with the PMC Medical Director to ensure PMC Standards are met

3. PICU Clinical Nurse Specialist/Clinical Educator shall:

   a. Collaborate with the PMC Nurse Coordinator to ensure the PMC Standards are met

b. Develop and oversee critical care educational programs for the nursing staff in the PICU

c. Oversee provision of educational needs of parents and/or caregivers

4. PICU Staff Nurse shall:

a. Be a Registered Nurse (RN) or Licensed Vocational Nurse (LVN) with current license in the State of California

b. Be a current PALS provider or instructor

c. Have education, training, demonstrated competency in pediatric critical care nursing and have attended at least 14 hours of BRN-approved pediatric education every four years

5. Social Worker shall:

a. Be licensed as a Medical Social Worker (MSW)

b. Have pediatric experience in psychosocial issues affecting seriously ill children and their families, including management of child abuse and neglect cases

c. Shall have education, training and demonstrated competency in management of child abuse and neglect cases

6. Other professional services with minimum one year pediatric experience shall be available to the PICU:

a. Pharmacist

b. Clinical Registered Dietician

c. Occupational Therapist

d. Physical Therapist

G. Policies and Procedures

The PICU policies and procedures, shall be reviewed and approved by the hospital CEO/administrator, Medical Director, and/or Nurse Manager/Director of the PICU. The policies listed below are in addition to those required in Reference No. 316, Emergency Department Approved for Pediatrics (EDAP) Standards, and shall be easily accessible in the PICU.

1. The PMC/PICU shall establish specific policies and procedures which address, but are not limited to, the following:

a. Patient care, which should include nursing and respiratory management of infants, children, and adolescents

b. Criteria for appropriate use and monitoring of equipment

c. Mechanism and guidelines for bioethical review to include an Ethics Committee

d. Method for infection surveillance and prevention

e. Family Centered Care

f. Method for contacting appropriate clergy per the request of the parents or primary caregiver

g. Psychosocial issues

h. Age appropriate physical environment

i. PICU admission, transfer and discharge process and criteria

j. Do Not Resuscitate

k. Pain management guidelines which include utilization of developmentally appropriate pain tools

l. Care of grieving families and caregivers

m. Procedural sedation

n. Referral for rehabilitation

H. PICU Equipment, Supplies and Medications:

1. Pediatric equipment, supplies, and medications shall be easily accessible, labeled, and logically organized. A mobile pediatric crash cart shall be utilized.

2. Staff shall be able to identify the locations of all items. A locator chart of the locations of all items (e.g., a locator grid identifying the required equipment and supplies) shall be maintained.

3. The following are the required PICU equipment, supplies, and medications:

a. General Equipment

i. Weight scale measuring only in kilograms for both infants and children, including bed scales

ii. Standardized length-base resuscitation tape (most recent edition) or other standardized method to estimate pediatric weights in kilograms

iii. PICU drug dosage reference material (pediatric) with dosages calculated in milligrams per kilogram – either posted, or readily available

iv. Developmentally appropriate pain scale assessment tools for infants and children

v. Blood and IV fluid warmer (Rapid infuser)

vi. Warming and cooling system with appropriate disposable blankets

vii. Ophthalmoscope

viii. Otoscope

ix. Thermometer with hypothermia capability

b. Monitoring Equipment

i. Heart rate with dysrhythmia monitoring

ii. Respiration and Oxygen saturation monitoring

iii. Pulse oximeter unit with sensors in the following sizes:

a) Infant
b) Pediatric
c) Adult

iv. Continuous end-tidal CO2 monitoring device for pediatric and adult

v. Arterial pressure

vi. Central venous pressure

vii. Intracranial pressure (if applicable)

viii. Pulmonary arterial pressure

ix. Automated/noninvasive blood pressure modules

x. Blood pressure cuffs in the following sizes:

a) Neonatal
b) Infant
c) Child
d) Adult arm
e) Adult thigh

xi. Vascular Doppler device (handheld)

xii. ECG monitor/Defibrillator/Pacing: (Crash cart unit and portable unit)

a) ECG electrodes in pediatric and adult sizes
b) Defibrillator paddles in pediatric and adult sizes, and/or;
c) Hands-free defibrillation device
d) External pacing capability
e) Multifunction pads in pediatric and adult

c. Airway Management

i. Bag-Valve-Mask (BVM) device with self-inflating bag in the following sizes:

a) Infant (minimum 450ml)
b) Child
c) Adult

ii. BVM clear masks in the following sizes:

a) Neonate
b) Infant
c) Child
d) Adult

iii. Laryngoscope handle:

a) Pediatric
b) Adult

iv. Laryngoscope Blades:

a) Macintosh/curved: 2, 3
b) Miller/straight: 0, 1, 2, 3

v. Endotracheal Tubes:

a) Uncuffed: size mm 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5
b) Cuffed: size mm 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0

vi. Stylets for endotracheal tubes:

a) Pediatric
b) Adult

vii. Magill Forceps:

a) Pediatric
b) Adult

viii. Nasopharyngeal Airways:

Sizes 12, 14, 18, 20, 22, 24, 26, 30 Fr

ix. Oropharyngeal Airways:

a) Neonatal: size 00 / 40 mm
b) Infant: size 0 / 50 mm
c) Child: size 1 / 60 mm
d) Small child: size 2 / 70 mm
e) Small adult: size 3 / 80 mm
f) Medium adult: size 4 / 90 mm
g) Large adult: size 5 / 100 mm

x. Clear oxygen masks in the following sizes:

a) Infant
b) Child
c) Adult

xi. Non-rebreather masks in the following sizes:

a) Infant
b) Child
c) Adult

xii. Nasal cannulas in the following sizes:

a) Infant
b) Child
c) Adult

xiii. Oxygen capability

xiv. Suction capability

xv. Suction catheters in the following sizes:

6, 8, 10, 12 Fr

xvi. Yankauer suction tips

xvii. Feeding tubes:

5, 8 Fr

xviii. Nasogastric Tubes:

Sizes 5, 8, 10, 12, 14, 16, 18 Fr

xix. Laryngeal Mask Airways (LMA):

Sizes 1, 1.5, 2, 2.5, 3, 4, 5

xx. Cricothyrotomy Catheter set (pediatric)

xxi. Tracheostomy trays:

a) Pediatric
b) Adult

xxii. Tracheostomy Tubes:

a) Neonatal: size mm 2.0, 2.5, 3.0, 3.5, 4.0, 4.5
b) Pediatric: size mm 3.0, 3.5, 4.0, 5.0, 5.5, 6.0

d. Vascular Access Equipment

i. Arm boards in the following sizes:

a) Infant
b) Child
c) Adult

ii. IV administration sets with calibrated chambers

iii. IV catheters in the following sizes:

16, 18, 20, 22, 24 gauge

iv. 3-way stopcocks

v. Device or needle to achieve intraosseous (IO) vascular access, to include needles in the appropriate sizes for pediatric and adult patients

vi. IV solutions, to include the following in 250ml and/or 500ml bags:

a) 0.9 NS
b) D5.45NS
c) D5NS
d) D10W

e. Fracture Management Devices

i. Splinting supplies for long bone fractures

ii. Spinal motion restriction devices in the following sizes:

a) Infant
b) Child

c) Adult

iii. Spinal board with the appropriate straps

f. Specialized Trays or Kits

i. Thoracostomy tray:

a) Pediatric
b) Adult

ii. Chest drainage system

iii. Chest tubes one in each size:

8, 12, 16, 20, 24, 28 Fr

iv. Lumbar Puncture trays and spinal needles:

a) 22 g, 3 inch
b) 22-25 g, 1½ inch

v. Urinary catheterization sets and urinary (indwelling) catheters in a selection of sizes:

5, 6, 8, 10, 12, 14, 16 Fr

vi. Central line trays (pediatric and adult catheter sizes)

a) 4.0 Fr
b) 5.0 Fr
c) 7.0 Fr

vii. Tray for insertion of ICP monitor (if applicable)

viii. Arterial Line Trays:

a) 2.5 Fr
b) 4.0 Fr

ix. Paracentesis tray

g. Pediatric-Specific Resuscitation

i. Immediately available drug calculation resources

ii. The following medications must be immediately available:

a) Adenosine
b) Albuterol
c) Amiodarone

d) Atropine
e) Atrovent
f) Calcium chloride
g) Dobutamine
h) Dopamine
i) Epinephrine 0.1mg/mL **(IV administration)**
j) Epinephrine 1mg/mL **(IM administration)**
k) Epinephrine for inhalation
l) Lidocaine
m) Mannitol or hypertonic saline
n) Milrinone
o) Naloxone
p) Norepinephrine
q) Procainamide
r) Prostaglandin E_1
s) Neuromuscular blocking agents
t) Sedative agents
u) Sodium Bicarbonate 4.2% (or a process to obtain the drug in an emergency situation)
v) Sodium Bicarbonate 8.4%
w) Vasopressin

h. Portable Equipment (promptly available)

i. Air-oxygen blenders (21-100%)
ii. Air Compressor
iii. Bilirubin lights
iv. Cribs
v. Electrocardiogram (ECG 12lead)
vi. Electroencephalogram(EEG)
vii. Echocardiograph (ECG)
viii. Oxygen tank
ix. Radiant warmer
x. Servo-controlled heating units (with or without open crib)
xi. Suction unit
xii. Transcutaneous pCO2 monitor
xiii. Transcutaneous pO2 monitor
xiv. ECG monitor/Defibrillator/Pacing transport unit
xv. Ultrasound
xvi. Ventilator - pediatric capability

I. Data Requirement:

Completing all the data elements in the 9-1-1 Receiving Hospital Data Dictionary.

J. Outreach And Family Education Programs

The PMC shall:

1. Establish outreach with surrounding facilities to facilitate transfer of pediatric patients.

2. Inform and provide educational programs to prehospital care providers about pediatric patients discharged with special health care needs in their jurisdiction.

3. Complete the Emergency Information Form (EIF) to assure prompt and appropriate care for Children with Special Health Care Needs (CSHCN). Documentation of the child's complicated medical history is summarized and may be presented to health care providers.

K. Ancillary Services:

Ancillary services shall have the capabilities and technologist appropriately trained to manage a critically ill pediatric patient. These services shall be in-house and available twenty-four hours per day.

1. Respiratory Care Practitioner:

   a. Licensed as Respiratory Care Practitioner (RCP) in the State of California

   b. All RCPs shall be a current PALS provider or instructor

   c. At least one RCP with pediatric experience shall be in-house twenty-four hours per day to be immediately available to the PICU

   d. Successfully complete additional training in pediatric critical care and a minimum of 4 hours of pediatric specific education annually

2. Radiology

   a. Shall have pediatric-specific policies and procedures pertaining to imaging studies of children

   b. Radiology technicians must be in-house twenty-four hours per day, with a back-up technician on-call and promptly available

   c. Provide the following services 24-hours a day/seven days a week:

      i. Nuclear medicine on-call and promptly available

      ii. Computerized Tomography (CT)

      iii. Ultrasound

      iv. Magnetic Resonance Imaging (MRI) on-call and promptly available

      v. Angiography (may be provided through a transfer

agreement)

3. Clinical Laboratory shall have pediatric-specific policies and procedures pertaining to laboratory studies of children, including, but not limited to, obtaining samples by trained phlebotomists, microtechnique for small or limited sample sizes, and ability to provide autologous and designated donor transfusions.

L. Pediatric Medical Center Committee

1. The Pediatric Medical Center (PMC) committee shall include interdepartmental and multidisciplinary representatives from, emergency department, pediatric critical care, pediatrics, nursing, social services, respiratory services, discharge planning, SCAN team, and other relevant services as applicable, such as: prehospital care, pediatric sub-specialties, and pediatric interfacility transport team.

2. Responsibilities:

To monitor and ensure the compliance with PMC standards to include:

a. Development and implementation of all policies and procedures

b. A comprehensive, multidisciplinary quality improvement (QI) program that should meet at minimum on a quarterly basis or more frequently as needed to review system-related performance issues. The meeting minutes shall reflect the attendees and include the QI findings, analysis and if applicable the proposed corrective actions.

III. Suspected Child Abuse And Neglect:

A. General Requirements for the Suspected Child Abuse and Neglect (SCAN) Team

1. The team should consist of individuals who are specialists in diagnosing and treating suspected child abuse, neglect and sexual assault. The team shall consist of a medical director, coordinator, social worker, physician and/or nurse consultants as applicable.

2. The SCAN Team shall:

a. Assist nursing and medical staff in the evaluation of pediatric patients who have alleged to have been abused or neglected

b. Have a member on-call and available to all areas of the hospital twenty-four hours per day

c. Review cases of suspected child abuse/neglect to verify adequacy of care, reporting and follow-up

B. SCAN Team Medical Director

Shall be Board-Certified in Pediatrics and/or Child Abuse Pediatrics

Responsibilities:

1. Collaborates with the SCAN Team Coordinator:

   a. To monitor the SCAN Team's activities

   b. In the development of education for nursing and medical staff in the evaluation of children with suspected child abuse and neglect

2. Serves as a member of the PMC Committee

3. Oversees review of cases of suspected child abuse, neglect and sexual assault for appropriateness of care, mandated reporting, and follow-up

C. SCAN Team Coordinator

Shall have experience and training in child abuse, neglect and sexual assault

Responsibilities:

1. Oversees scheduling to ensure a SCAN Team member is available 24 hours a day/7 days a week

2. Serve as a member of the PMC committee

3. Review cases of suspected child abuse, neglect and sexual assault in consultation with the SCAN Team Medical Director for appropriateness of care, mandated reporting, documentation, and follow-up

4. Assist nursing and medical staff in the evaluation of children who have been alleged to have been abused, neglected or sexually assaulted

5. Develop educational training for medical and nursing staff in the evaluation of children with suspected child abuse, neglect and sexual assault

D. Social Worker

1. Qualifications:

   a. Licensed as a Medical Social Worker (MSW) by the State of California

   b. Must have experience and training in child abuse, neglect and sexual assault

2. Responsibilities:

a. Assist nursing and medical staff in the evaluation of children alleged to have been abused, neglected, or sexually assaulted

b. Provide support and resources for patients of abuse, neglect or sexual assault and their families

E. SCAN Team Physician and/or Nurse Consultants

1. Qualifications:

a. Physicians shall be Board Certified in Pediatrics, Child Abuse Pediatrics or Emergency Medicine with medical experience in diagnosing and managing suspected child abuse, neglect, and sexual assault

b. Qualified Nurse shall have experience in evaluating and managing suspected child abuse, neglect and sexual assault

2. Responsibilities:

Provide guidance or consultation, as needed, in cases of suspected child abuse, neglect or sexual assault

F. Pediatric Forensic Examination

1. The PMC shall ensure that an in-depth forensic examination and interview process for a case of acute sexual assault/abuse event (defined as occurring within 72 hours) or appropriate referral for such examination, if over 72 hours, is completed.

2. If the PMC cannot provide the necessary forensic examination, a written consultation and transfer agreement shall exist between a SART Center, that has the capabilities of providing a comprehensive medical and psychological examination for the sexually abused pediatric patient

IV. Pediatric Interfacility Transport Program

A. PMCs with a pediatric interfacility transport (PIFT) program shall have program policies and procedures and composition of PIFT as determined by the level of care needed.

B. If the PMC does not have a PIFT program, a written agreement shall exist with agencies or other programs that will provide timely transportation of critically ill pediatric patients to and from the PMC.

C. Affiliated Hospital Agreements

1. The hospital maintaining the PIFT program shall have written agreements with referring and receiving hospitals that utilize the program

2. Agreements should specify the role and responsibilities of the transport program and the hospitals to include the following:

a. Agreement to transfer and receive appropriate pediatric patients when indicated.

b. Responsibilities for patient care before, during and after transport.

c. Documentation and transferring appropriate information/records.

V. Quality Improvement (QI) Program

a. Shall be an organized multidisciplinary program for the purpose of improving patient outcomes of critically ill or injured children. A written QI plan, trending and analysis reports, agenda, minutes and attendance rosters to be readily available to the EMS Agency for the review process

b. Shall be developed, monitored, and reviewed annually by the PMC Medical Director and Nurse Coordinator

c. The PMC Medical Director and Nurse Coordinator shall be responsible for the development and review of policies and procedures regarding the QI process as they pertain to the care of the pediatric patients transported to the PMC

d. The QI program shall interface with the PICU, NICU, pediatric unit, SCAN Team, hospital wide and emergency department's EDAP QI activities and, if applicable, PIFT program

e. The QI review process shall include, at a minimum, tracking and trending of the following cases with a detailed physician review:

1. Unexpected deaths
2. Unexpected resuscitations
3. Unexpected transfers for a higher level of care
4. Sentinel events
5. Suspected child abuse, neglect, and sexual assault
6. Readmissions to the PICU within 72 hours

f. The QI process shall include identification of the indicators, methods to collect data, written results and conclusions, recognition of improvement, action(s) taken, and assessment of effectiveness of above actions and dissemination to stakeholder(s).

CROSS REFERENCE:

Prehospital Care Policy Manual:
Reference No. 316, **Emergency Departments Approved for Pediatrics (EDAP) Standards**
Reference No. 506, **Trauma Triage**
Reference No. 510, **Pediatric Patient Destination**
Reference No. 610, **9-1-1 Receiving Hospital Data Dictionary**
Reference No. 621, **Notification of Personnel Change**

Reference No. 621.1, **Notification of Personnel Change Form**
Pediatric Advisory Committee Bylaws

California Children's Services: Provider Standards
http://www.dhcs.ca.gov/services/ccs/Pages/ProviderStandards.aspx
ACEP: Emergency Information Form, https://www.acep.org/content.aspx?id=26276
AAP: Emergency Information Form,
http://pediatriccare.solutions.aap.org/data/Multimedia/Emergency Information Form-Special Needs.pdf

ACKNOWLEDGEMENTS:

The EMS Agency Pediatric Medical Center Standards were first developed by the Committee on Pediatric Emergency Medicine (COPEM), Los Angeles County Pediatric Society, Pediatric Liaison Nurses of Los Angeles County, California Chapter of the American College of Emergency Physicians (ACEP), National Emergency Medical Services for Children (EMSC) Resource Alliance, American Academy of Pediatrics California Chapter 2, Emergency Nurses Association, and the EMS Agency.

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

(EMS, PARAMEDIC, MICN)

SUBJECT: **TREATMENT/TRANSPORT OF MINORS** REFERENCE NO. 832

PURPOSE: To describe the guidelines for treatment and/or transport of a patient under the age of eighteen.

AUTHORITY: Health and Safety Code Section 124260
California Family Code 6922, 6925, 6926, 6927, 6929(, 7002, 7050, 7122, 7140
Business and Professions Code 2397

DEFINITIONS:

Emergency Medical Condition: A condition or situation in which an individual has an immediate need for medical attention. The presence of abnormal vital signs (heart rate and rhythm, respiratory rate, blood pressure – except isolated asymptomatic hypertension, oxygen saturation) are also indications of an emergency condition. Patients who meet any criteria for Base Contact or Receiving Hospital Notification are also considered to have an emergency medical condition.

Implied Consent: In the absence of a parent or legal representative, emergency treatment and/or transport of a minor may be initiated without consent.

Legal Representative: A person who is granted custody or conservatorship of another person by a court of law.

Minor: A person less than eighteen years of age.

Minor not requiring parental consent is a person who is:

1. Married or was previously married.
2. Not married, has an emergency medical condition, and parent is not available.
3. On active duty with the Armed Forces.
4. Self-sufficient 15 years of age or older, living separate and apart from his/her parents, and managing his/her own financial affairs.
5. An emancipated minor with a declaration by the court or an identification card from the Department of Motor Vehicles.
6. Seeking care related to the treatment or prevention of pregnancy.
7. In need of care for sexual assault or rape.
8. Seeking care related to an abortion.

APPROVED: Cathy Chidester
Director, EMS Agency

Marianne Gausche-Hill, MD
Medical Director, EMS Agency

9. 12 years of age or older and in need of care for communicable reportable disease, prevention of a sexually transmitted infection (STI), alcohol or substance abuse, or mental health.

Voluntary Consent: Treatment or transport of a minor child shall be with the verbal or written consent of the parents or legal representative.

PROCEDURES:

I. Treatment/Transport of Minors

A. In the absence of a parent or legal representative, minors with an emergency medical condition shall be treated and transported to the appropriate receiving facility or a specialty care center (e.g. EDAP, PMC, PTC, SART Center, Trauma Center, etc.).

B. Hospital or provider agency personnel shall make every effort to inform a parent or legal representative where their child has been transported.

C. If prehospital care personnel believe a parent or other legal representative of a minor is making a decision which appears to be endangering the health and welfare of the minor by refusing indicated immediate care or transport, law enforcement authorities should be involved.

D. Infants ≤12 months of age shall be transported, regardless of chief complaint and/or mechanism of injury.

II. Minors **Not** Requiring Transport

A. A minor child (excluding infants ≤ twelve (12) months of age) who is evaluated by EMS personnel and determined not to be injured, to have sustained only minor injuries, or to have illnesses or injuries not requiring immediate treatment or transportation, may be released to:

1. Self (consideration should be given to age, maturity, environment and other factors that may be pertinent to the situation)

2. Parent or legal representative

3. A responsible adult at the scene

4. Designated care giver

5. Law enforcement

B. Children 13 - 36 months of age require base hospital contact and/or transport, except isolated minor extremity injury.

C Prehospital care personnel shall document on the Patient Care Record to whom the patient was released.

CROSS REFERENCE:

Prehospital Care Manual
Ref. No. 506 **Trauma Triage**
Ref. No. 508, **Sexual Assault Patient Destination**
Ref. No. 508.1, **SART Center Roster**
Ref. No. 510, **Pediatric Patient Destination**
Ref. No. 822, **Suspected Child Abuse Reporting Guidelines**
Ref. No. 834, **Patient Refusal of Treatment or Transport**

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

(EMT-I/PARAMEDIC/MICN)

SUBJECT: **PEDIATRIC PATIENT DESTINATION** REFERENCE NO. 510

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

AUTHORITY: Health and Safety Code, Division 2.5, Section 1797.220
California Code of Regulations, Title 13, Section 1105 C

DEFINITIONS:

Pediatric Patient: Children 14 years of age or younger.

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

Pediatric Medical Center (PMC): A licensed acute care hospital that is approved by the County of Los Angeles EMS Agency to receive critically **ill** 9-1-1 pediatric patients based on guidelines outlined in this policy. These centers also provide referral services for critically ill pediatric patients.

Pediatric Trauma Center (PTC): A licensed acute care hospital that is approved by the County of Los Angeles EMS Agency to receive **injured** 9-1-1 pediatric patients based on guidelines outlined in this policy. These centers provide tertiary-level pediatric care and serve as referral centers for critically injured pediatric patients.

Brief Resolved Unexplained Event (BRUE): an event occurring in an infant <1 year of age when the observer reports a sudden, brief, and now resolved episode of ≥1 of the following: cyanosis or pallor, absent, decreased, or irregular breathing, marked change in tone (hypertonia or hypotonia), and altered level of responsiveness.

PRINCIPLE:

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

APPROVED:

Director, EMS Agency

Medical Director, EMS Agency

DEPARTMENT OF HEALTH SERVICES

COUNTY OF LOS ANGELES

(EMT-1/PARAMEDIC/MICN)

SUBJECT: **PEDIATRIC PATIENT DESTINATION** REFERENCE NO. 510

POLICY:

I. Guidelines for transporting pediatric patients to a specialty care center (i.e., EDAP, PMC, PTC, Perinatal, Sexual Assault Response Team Center, or Trauma Center):

A. Patients who require transport, and do not meet guidelines for transport to a PMC or PTC shall be transported to the most accessible EDAP.

B. BLS units shall call for an ALS unit or transport pediatric patients to the most accessible EDAP as outlined in Ref. No. 808, Base Hospital Contact and Transport Criteria.

C. Patients meeting medical guidelines for transport to a PMC:

1. Shall be transported to the most accessible PMC if ground transport is 30 minutes or less.

2. If ground transport time to a PMC is greater than 30 minutes, the patient may be transported to the most accessible EDAP.

D. Patients meeting trauma criteria/guidelines for transport to a PTC:

1. Shall be transported to the most accessible PTC if the transport time does not exceed 30 minutes.

2. If a PTC cannot be accessed but a trauma center can be accessed under the parameter in (D.1), the patient may be transported to the trauma center.

3. If a PTC or trauma center cannot be accessed as specified above, the patient may be transported to the most accessible PMC, or if >30 minutes to the closet EDAP.

E. Pediatric patients who have an uncontrollable, life-threatening situation (e.g., unmanageable airway or uncontrollable hemorrhage) shall be transported to the most accessible EDAP.

F. Pediatric patients may be transported to a non-EDAP provided all of the following are met:

1. The patient, family, or private physician requests transport to a non-EDAP facility.

2. The patient, family, or private physician is made aware that the receiving facility is not an EDAP and may not meet current EDAP standards.

3. The base hospital concurs and contacts the requested facility and

---

ensures that the facility has agreed to accept the patient. This includes those providers functioning under SFTPs.

4. All of the above shall be documented on the EMS Report Form.

II. Guidelines for identifying critically **ill** pediatric patients who require transport to a PMC:

A. Cardiac dysrhythmia

B. Severe respiratory distress

C. Cyanosis

D. Persistent altered mental status

E. Status epilepticus

F. Brief Resolved Unexplained Event (BRUE) (and the previously called Apparent Life Threatening Event (ALTE)) $\leq$ 12 months of age

G. Focal neurologic signs not associated with trauma (e.g.; pediatric stroke, atypical migraine, petit mal seizures)

H. Choking associated with cyanosis, loss of tone or apnea

III. Guidelines for identifying critically **injured** pediatric patients who require transport to a PTC:

Trauma triage criteria and/or guidelines identified in Ref. No. 506, Trauma Triage

CROSS REFERENCE:

Prehospital Care Manual:
Ref. No. 502, **Patient Destination**
Ref. No. 504, **Trauma Patient Destination**
Ref. No. 506, **Trauma Triage**
Ref. No. 508, **Sexual Assault Patient Destination**
Ref. No. 508.1, **SART Center Roster**
Ref. No. 511, **Perinatal Patient Destination**
Ref. No. 512, **Burn Patient Destination**
Ref. No. 519, **Management of Multiple Casualty Incidents**
Ref. No. 808, **Base Hospital Contact and Transport Criteria**
Ref. No. 816, **Physician at Scene**
Ref. No. 832, **Treatment/Transport of Minors**
Ref. No. 834, **Patient Refusal of Treatment or Transport**

Los Angeles County EDAP Standards
Los Angeles County PMC Standards
Los Angeles County SART Standards
California Emergency Medical Services Authority (EMSA) # 182: Administration, Personnel and Policy for the Care of Pediatric Patients in the Emergency Department

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

(EMT, PARAMEDIC, MICN)

SUBJECT: **TRAUMA TRIAGE** REFERENCE NO. 506

PURPOSE: To establish criteria and standards which ensure that patients requiring the care of a trauma center are appropriately triaged and transported.

AUTHORITY: California Code of Regulations, Title 13, Section 1105(c) California Code of Regulations, Title 22, Section 100236 et seq. Health and Safety Code, Div. 2.5, Section 1797 et seq., and 1317.

PRINCIPLES:

1. Trauma patients should be secured and transported from the scene as quickly as possible, consistent with optimal trauma care.

2. Paramedics shall make base hospital contact or Standing Field Treatment Protocol (SFTP) notification for approved provider agencies with the receiving trauma center, when it is also a base hospital, on all injured patients who meet Base Contact and Transport Criteria (Prehospital Care Policy, Ref. No. 808), trauma triage criteria and/or guidelines, or if in the paramedic's judgment it is in the patient's best interest to be transported to a trauma center. Contact shall be accomplished in such a way as not to delay transport.

3. Do not delay transport of hypotensive patients with penetrating torso trauma in order to apply spinal motion restriction.

4. EMT personnel may immediately transport hypotensive patients with life-threatening, penetrating injuries to the torso to the closest trauma center, not the Most Accessible Receiving (MAR), when the transport time is less than the estimated time of paramedic arrival. The transporting unit should make every effort to contact the receiving trauma center.

5. When pediatric and adult trauma patients are transported together in one aircraft, the receiving trauma center shall be both a trauma center and a pediatric trauma center.

6. Patients in blunt traumatic full arrest, not meeting Reference No. 814, should be transported to the most accessible medical facility appropriate to their needs.

POLICY:

I. Trauma Criteria – Requires immediate transportation to a designated trauma center

Patients who fall into one or more of the following categories are to be transported directly to the designated trauma center, if transport time does not exceed 30 minutes.

APPROVED: Cathy Chidester
Director, EMS Agency

Marianne Gausche-Hill, MD
Medical Director, EMS Agency

A. Systolic blood pressure less than 90 mmHg, or less than 70 mmHg in infants age less than one year

B. Respiratory rate greater than 29 breaths/minute (sustained), less than 10 breaths/minute, less than 20 breaths/minute in infants age less than one year, or requiring ventilatory support

C. Cardiopulmonary arrest with penetrating torso trauma unless based upon the paramedic's thorough assessment is found apneic, pulseless, asystolic, and without pupillary reflexes upon arrival of EMS personnel at the scene

D. All penetrating injuries to head, neck, torso, and extremities proximal to the elbow or knee

E. Blunt head injury associated with a suspected skull fracture, altered level of consciousness (Glasgow Coma Score less than or equal to 14), seizures, unequal pupils, or focal neurological deficit

F. Injury to the spinal column associated with acute sensory or motor deficit

G. Blunt injury to chest with unstable chest wall (flail chest)

H. Diffuse abdominal tenderness

I. Suspected pelvic fracture (excluding isolated hip fracture from a ground level fall)

J. Extremity injuries with:
   1. Neurological/vascular compromise and/or crushed, degloved, or mangled extremity
   2. Amputation proximal to the wrist or ankle
   3. Fractures of two or more proximal (humerus/femur) long-bones

K. Falls:
   1. Adult patients from heights greater than 15 feet
   2. Pediatric patients from heights greater than 10 feet, or greater than 3 times the height of the child

L. Passenger space intrusion of greater than 12 inches into an occupied passenger space

M. Ejected from vehicles (partial or complete)

N. Auto versus pedestrian/bicyclist/motorcyclist thrown, run over, or with significant (greater than 20 mph) impact

O. Unenclosed transport crash with significant (greater than 20 mph) impact

II. Trauma Guidelines – Mechanism of injury and patient history are the most effective methods of selecting critically injured patients before unstable vital signs develop. Paramedics and base hospital personnel should consider mechanism of injury and

patient history when determining patient destination. At the discretion of the base hospital or approved SFTP provider agency, transportation to a trauma center is advisable for:

A. Passenger space intrusion of greater than 18 inches into any unoccupied passenger space

B. Automobile versus pedestrian/bicyclist/motorcyclist (impact equal to or less than 20 mph)

C. Injured victims of vehicular crashes in which a fatality occurred in the same vehicle

D. Patients requiring extrication

E. Vehicle telemetry data consistent with high risk of injury

F. Injured patients (excluding isolated minor extremity injuries):
   1. On anticoagulation therapy other than aspirin-only
   2. With bleeding disorders

III. Special Considerations – Consider transporting injured patients with the following to a trauma center:

A. Adults age greater than 55 years

B. Systolic blood pressure less than 110 mmHg may represent shock after age 65 years

C. Pregnancy greater than 20 weeks gestation

D. Prehospital judgment

IV. Extremis Patients - Requires immediate transportation to the MAR:

A. Patients with an obstructed airway

B. Patients, as determined by the base hospital personnel, whose lives would be jeopardized by transportation to any destination but the MAR

V. When, for whatever reason, base hospital contact cannot be made, the destination decision for injured patients will be made by paramedics using the principles set forth above.

VI. 9-1-1 Trauma Re-Triage – This section applies to injured patients in emergency departments of non-trauma centers whose injuries were initially estimated by EMS to be less serious (under triaged) or patients who self-transported (walk-in) to a non-trauma center, and subsequently assessed by the non-trauma center physician to require immediate trauma center care. The referring facility shall utilize the procedure outlined below to expedite transfer arrangements and rapid transport to the trauma center. This

process should be reserved for patients with life-threatening traumatic injuries requiring emergent surgical intervention.

A. Determine if the injured patient meets any of the following 9-1-1 Trauma Re-Triage criteria:
   1. Persistent signs of poor perfusion
   2. Need for immediate blood replacement therapy
   3. Intubation required
   4. Glasgow Coma Score less than 9
   5. Glasgow Coma Score deteriorating by 2 or more points during observation
   6. Penetrating injuries to head, neck and torso
   7. Extremity injury with neurovascular compromise or loss of pulses
   8. Patients, who in the judgement of the evaluating emergency physician, have high likelihood of requiring emergent life- or limb-saving intervention within two (2) hours.

B. Contact the designated receiving trauma center or pediatric trauma center if the patient is less than or equal to 14 years of age and transport does not exceed 30 min. Do not delay transfer by initiating any diagnostic procedures that do not have direct impact on immediate resuscitative measures.

C. Contact 9-1-1 for transportation. The paramedic scope of practice (Ref. No. 803) does not include paralyzing agents and blood products.

D. Prepare patient and available medical records for immediate transport. Do not delay transport for medical records which could be sent at a later time.

CROSS REFERENCE:

Prehospital Care Manual:
Ref. No. 501, **Hospital Directory**
Ref. No. 502, **Patient Destination**
Ref. No. 503, **Guidelines for Hospitals Requesting Diversion of ALS Units**
Ref. No. 504, **Trauma Patient Destination**
Ref. No. 510, **Pediatric Patient Destination**
Ref. No. 803, **Paramedic Scope of Practice**
Ref. No. 808, **Base Hospital Contact and Transport Criteria**
Ref. No. 814, **Determination/Pronouncement of Death in the Field**

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: **ALS UNIT INVENTORY**

(PARAMEDIC/MICN)
REFERENCE NO. 703

PURPOSE: To provide a standardized minimum inventory on all Advanced Life Support (ALS) Units.

PRINCIPLE: Any equipment or supplies carried for use in providing emergency medical care must be maintained in good working order. Providers may only carry one narcotic analgesic on the ALS units. Provider Agency Medical Directors may request approval from the EMS Agency's Medical Director to carry Fentanyl.

POLICY: ALS Units shall carry the following equipment. Reasonable variations may occur; however, any exceptions must have prior approval of the EMS Agency. Transport vehicles shall also be equipped and supplied according to the Department of the California Highway Patrol, California Administrative Code, Title 13.

MEDICATIONS*
(minimum required amounts)

Albuterol (pre-mixed with NS)	20 mgs	Epinephrine (0.1mg/mL)	10 mgs
Adenosine	24 mgs	Fentanyl [2]	500 mcgs
Amiodarone	900 mgs	Glucagon	1 mg
Aspirin (chewable 81 mg)	648 mgs	Midazolam [3]	20 mgs
Atropine sulfate (1 mg/10 ml)	4 mgs	Morphine sulfate [4]	32 mgs
Calcium chloride	1 gm	Naloxone	4 mgs
Dextrose 10% / Water 250 mL	3	Normal saline (for injection)	2 vials
Dextrose solution (glucose paste may be substituted)	100 gms	Nitroglycerin (SL) spray, tablets, or single dose powder packets	1 pump or bottle 36 packets
Diphenhydramine	100 mgs	Ondansetron 4mg ODT	16 mgs
Disaster Cache (mandatory for 9-1-1 responders) [5]		Ondansetron 4mg IV	16 mgs
Epinephrine (1mg/mL)	7 mgs	Sodium bicarbonate	50 mls

*** All sharps must comply with CCR, Title 8, Section 5193, Bloodborne Pathogens**
[2] Fentanyl carried on ALS Unit is not to exceed 1500 mcgs.
[3] Midazolam carried on ALS Unit is not to exceed 40 mgs.
[4] Morphine sulfate carried on ALS Unit is not to exceed 60 mgs.
[5] Disaster Cache minimum contents include:
(30) DuoDote kits or equivalent;
and when available: (12) AtroPen Auto Injector 1.0 mg
(12) AtroPen Auto Injector 0.5 mg – Pediatric Use

EFFECTIVE: 01-1-78
REVISED: 08-10-17
SUPERSEDES: 07-01-17

APPROVED: Director, EMS Agency

Medical Director, EMS Agency

INTRAVENOUS FLUIDS
(minimum required amounts)

1000 ml normal saline	**8 bags**	250 or 500 ml normal saline	**2 bags**

SUPPLIES*
(minimum required amounts)

Adhesive dressing (Band-Aids®)	**1 box**	End Tidal CO_2 Detector / Aspirator (Adult)	**1**
Airways – Nasopharyngeal Large, medium, small (34-36, 26-28, 20-22)	**1 each**	Extrication device or short board	**1**
		Flashlight or Penlight	**1**
Airways – Oropharyngeal Large	**1**	Gauze sponges 4x4 (sterile)	**12**
Medium	**1**	Gauze bandages	**5**
Small Adult/Child	**1**	Gloves Sterile	**2 pairs**
Infant	**1**	Gloves Unsterile	**1 box**
Neonate	**1**	Glucometer with strips	**1**
Alcohol swabs	**1 box**	Hand-held nebulizer pack	**2**
Backboards	**2**	Hemostats, padded	**1**
Bag-valve device with O_2 inlet and reservoir Adult and Pediatric	**1 each**	Intravenous catheters (16G-22G)	**5 each**
Bag-valve mask Large	**1**	Intravenous Tubing	
Medium	**1**	Macrodrip	**12**
Small Adult/Child	**1**	Intraosseous Device [7,8] Adult Pediatric	**1** **1**
Toddler	**1**	**9-1-1 paramedic provider agencies only**	
Infant	**1**	King LTS-D (Disposable Supraglottic Airway w/ 60mL Syringe) Small Adult (Size 3)	**1**
Neonate	**1**	Adult (Size 4)	**1**
Burn pack or burn sheets	**1**	Large Adult (Size 5)	**1**
Cervical collars (rigid) Adult (adjustable)	**4**	Lancets (automatic retractable)	**5**
Pediatric	**2**	Laryngoscope Handle Adult (compatible with pediatric blades)	**1**
Commercial Catheter-Over-Needle Chest Decompression Needles 3.0-3.5" 14G	**2**	Laryngoscope Blades Adult, curved and straight	**1 each**
Color Code Drug Doses LA County Kids Reference No. 1309	**1**	Pediatric, Miller #1 & #2	**1 each**
Contaminated needle container	**1**	Magill Forceps Adult and Pediatric	**1 each**
Continuous Positive Airway Pressure (CPAP) Device [7, 8] **9-1-1 paramedic provider agencies only**	**1**	Mucosal Atomization Device (MAD)	**2**
Cardiac Monitor-Defibrillator with oscilloscope	**1**	Normal saline for irrigation	**1 bottle**
Defibrillator pads or paste (including pediatric)	**2 each**	Needle, filtered-5micron [11]	**2**
ECG Electrodes Adult and Pediatric	**6 each**	OB pack and bulb syringe[10]	**1**
ECG, 12-lead capable & transmission capable **9-1-1 paramedic provider agencies only**	**1**	Oxygen cannulas	**3**

Endotracheal tubes with stylets Sizes 6.0-8.0	**2 each**	Oxygen Masks (non-rebreather) Adult and Pediatric	**3 each**
Pediatric Length-Based Resuscitation Tape (Broselow 2011A or newer)	**1**	Suction Unit (portable)	**1**
Personal Protective Equipment/ Body Substance Isolation Equipment mask, gown, eye protection	**1 each per provider**	Suction Instruments (8Fr.-12Fr. Catheters)	**1 each**
		Tonsillar tip	**1**
Procedures Prior to Base Contact Field Reference No. 806.1	**1**	Syringes 1ml – 60ml	**assorted**
Pulse Oximeter	**1**	Tape (various types, must include cloth)	**1**
Radio transmitter receiver (Hand-Held) [6]	**1**	Tourniquets	**2**
Saline locks	**4**	Tourniquets (commercial, for bleeding control)	**2**
Scissors	**1**	Transcutaneous Pacing [7,8]	**1**
Sphygmomanometer Adult/pediatric/thigh cuff	**1 each**	Tube Introducer	**2**
Splints – (long and short)	**2 each**	Vaseline gauze	**2**
Splints – traction (adult and pediatric)	**1 each**	Waveform Capnography [7]	
Stethoscope	**1**		

SUPPLIES* (approved optional equipment)	
Lidocaine 2% [8,9]	Pediatric Laryngoscope Handle FDA-Approved
Hemostatic Dressings [8]	Resuscitator with positive pressure demand valve (flow rate not to exceed 40L/min)
Intravenous Tubing Blood/Shock	Vacutainer Tubes

*** All sharps must comply with CCR, Title 8, Section 5193, Bloodborne Pathogens.**
[6] Los Angeles County Department of Communications, Spec. No. 2029/2031/2033
[7] Mandatory for providers that respond to medical emergencies via the 9-1-1 system
[8] Requires EMS Agency approval, which includes an approved training program and QI method prior to implementation
[9] Utilized with infusions through IO access
[10] OB Kits with clamps / scissors (no scalpels)
[11] Optional, if not utilizing glass ampules

This policy is intended as an ALS Unit inventory only. Supply and resupply shall be in accordance with Reference No. 701, Supply and Resupply of Designated EMS Provider Units/Vehicles.

CROSS REFERENCES:

Prehospital Care Manual:
Ref. No. 701, **Supply and Resupply of Designated EMS Provider Units/Vehicles**
Ref. No. 702, **Controlled Drugs Carried on ALS Units**
Ref. No. 710, **Basic Life Support Ambulance Equipment**
Ref. No. 712, **Nurse Staffed Critical Care Inventory**
Ref. No. 1104, **Disaster Pharmaceutical Caches Carried by First Responders**

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

(PARAMEDIC, MICN)

SUBJECT: **PRIVATE PROVIDER NON 9-1-1 ALS UNIT INVENTORY**

REFERENCE NO. 703.1

PURPOSE: To provide a standardized minimum inventory for private provider agencies approved for Advanced Life Support (ALS) interfacility transfers.

PRINCIPLE: Any equipment or supplies carried for use in providing emergency medical care must be maintained in good working order.

POLICY:

I. Providers may only carry one narcotic analgesic on the ALS units. Provider Agency Medical Directors may request approval from the EMS Agency's Medical Director to carry Fentanyl.

II. ALS Units shall carry the following equipment. Reasonable variations may occur; however, any exceptions must have prior approval of the EMS Agency. Transport vehicles shall also be equipped and supplied according to the Department of the California Highway Patrol, California Administrative Code, Title 13.

III. All sharps must comply with CCR, Title 8, Section 5193, Bloodborne Pathogens.

MEDICATIONS* (minimum required amounts)			
Adenosine	**24mgs**	Epinephrine (0.1mg/mL)	**5mgs**
Albuterol (pre-mixed with NS)	**10mgs**	Fentanyl [1, 2]	**500mcgs**
Amiodarone	**450mgs**	Midazolam [3]	**20mgs**
Aspirin (chewable 81 mg)	**648mgs**	Morphine sulfate [4]	**20mgs**
Atropine sulfate (1 mg/10 ml)	**3mgs**	Naloxone	**4mgs**
Calcium Chloride	**1gm**	Normal saline (for injection)	**2 vials**
Dextrose solution (glucose paste may be substituted)	**45gms**	Nitroglycerin (SL) spray, tablets, or single dose powder packets	**1 pump/ bottle/ or 10 DOSE packets**
Dextrose 10% / Water 250 mL	**2**	Ondansetron 4mg ODT	**16mgs**
Diphenhydramine	**50mgs**	Ondansetron 4mg IV	**16mgs**
Epinephrine (1mg/mL)	**5mgs**		
INTRAVENOUS FLUIDS (minimum required amounts)			
1000 ml normal saline	**4 bags**	250 or 500 ml normal saline	**2 bags**

APPROVED: Cathy Chidester
Director, EMS Agency

Marianne Gausche-Hill, MD
Medical Director, EMS Agency

SUPPLIES* (minimum required amounts)			
Adhesive dressing (Band-Aids®)	**1 box**	Hemostats, padded	**1**
Airways – Nasopharyngeal		Intravenous catheters Sizes 16G-22G	**5 each**
Large (34-36)	**1**	Intravenous Tubing, Macrodrip	**6**
Medium (26-28)	**1**	King LTS-D (Disposable Supraglottic Airway w/ 60mL Syringe)	
Small (20-22)	**1**	Small Adult (Size 3)	**1**
Airways – Oropharyngeal		Adult (Size 4)	**1**
Large	**1**	Large Adult (Size 5)	**1**
Medium	**1**	Lancets (automatic retractable)	**5**
Small Adult/Child	**1**	Laryngoscope Handle Adult (compatible w/ pediatric blades)	**1**
Infant	**1**	Laryngoscope Blades	
Neonate	**1**	Adult, curved and straight	**1 each**
Alcohol prep pads	**1 box**	Pediatric, Miller #1 & #2	**1 each**
Backboards	**2**	Magill Forceps Adult & Pediatric	**1 each**
Bag-valve device with O_2 inlet and reservoir Adult & Pediatric	**1 each**	Mucosal Atomization Device (MAD)	**2**
Bag-valve mask		Needle, filtered-5micron [6]	**2**
Large	**1**	Normal saline for irrigation	**1 bottle**
Medium	**1**	OB pack and bulb syringe [7]	**1**
Small Adult/Child	**1**	Oxygen cannulas	**3**
Infant	**1**	Oxygen Masks (non-rebreather) Adult & Pediatric	**3 each**
Neonate	**1**	Pediatric Length-Based Resuscitation Tape (Broselow 2011A or newer)	**1**
Burn pack or burn sheets	**1**	Personal Protective Equipment - mask, gown, eye protection	**1 each per provider**
Cervical collars (rigid)		Pulse Oximeter	**1**
Adult (adjustable)	**4**	Radio transmitter receiver (Hand-Held) [8]	**1**
Pediatric	**2**	Saline locks	**4**
Cardiac Monitor-Defibrillator with oscilloscope	**1**	Scissors	**1**
Color Code Drug Doses LA County Kids Reference No. 1309	**1**	Sphygmomanometer Adult, Pediatric, & Thigh	**1 each**
Commercial Catheter-Over-Needle Chest Decompression Needles 3.0-3.5” 14G	**1**	Splints – (long and short)	**2 each**
Contaminated needle container	**1**	Splints – traction Adult & Pediatric	**1 each**
Defibrillator pads or paste (including pediatric)	**2 each**	Stethoscope	**1**
ECG Electrodes Adult & Pediatric	**6 each**	Suction Unit (portable) w/adapter	**1**
Endotracheal tubes with stylets Sizes 6.0-8.0	**1 each**	Suction Instruments Sizes 8Fr.-12Fr. Catheters	**1 each**
End Tidal CO_2 Detector or Aspirator (Adult)	**1**	Tonsillar Tip	**1**
Extrication device or short board	**1**	Syringes 1ml – 60ml w/luer adapter	**assorted**

SUPPLIES* (minimum required amounts)			
Flashlight or Penlight	**1**	Hand-held nebulizer pack	**2**
Gauze bandages	**5**	Tape (various types, must include cloth)	**1**
Gauze sponges 4x4 (sterile)	**12**	Tourniquets	**2**
Gloves Sterile	**2 pair**	Tourniquets (commercial for bleeding control)	**2**
Gloves Unsterile	**1 box**	Tube Introducer	**2**
Glucometer with strips	**1**	Vaseline gauze	**2**

SUPPLIES* (approved optional equipment)	
Continuous Positive Airway Pressure (CPAP) Device [2]	Mechanical CPR device [2]
Glucagon	Pediatric Laryngoscope Handle FDA-Approved
Hemostatic Dressings [2]	Resuscitator with positive pressure demand valve (flow rate not to exceed 40L/min)
Impedance Threshold Device [2]	Sodium Bicarbonate
Lidocaine 2% [2, 9]	Transcutaneous Pacing [2]
Intraosseous Device [2]	Waveform Capnography

[1] Fentanyl carried on ALS Unit is not to exceed 1500mcgs.
[2] Requires EMS Agency approval, which includes an approved training program and QI method prior to implementation
[3] Midazolam carried on ALS Unit is not to exceed 40mgs.
[4] Morphine sulfate carried on ALS Unit is not to exceed 60mgs.
[6] Optional, if not utilizing glass ampules
[7] OB Kits with clamps / scissors (no scalpels)
[8] Los Angeles County Department of Communications, Spec. No. 2029/2031/2033
[9] Utilized with infusions through IO access

This policy is intended as a Private Provider ALS Unit inventory only. Supply and resupply shall be in accordance with Ref. No. 701, Supply and Resupply of Designated EMS Provider Units/Vehicles.

CROSS REFERENCES:

Prehospital Care Manual:
Ref. No. 701, **Supply and Resupply of Designated EMS Provider Units/Vehicles**
Ref. No. 702, **Controlled Drugs Carried on ALS Units**
Ref. No. 710, **Basic Life Support Ambulance Equipment**
Ref. No. 712, **Nurse Staffed Critical Care Transport (CCT) Unit Inventory**

SUBJECT: **ASSESSMENT UNIT INVENTORY** REFERENCE NO. 704

PURPOSE: To provide a standardized minimum inventory on all Assessment Units.

PRINCIPLE:

1. Any equipment or supplies carried for use in providing emergency medical care must be maintained in good working order.

2. The minimum required amounts may be augmented according to anticipated needs in consultation with the Medical Advisor of the Provider Agency or the Medical Director of the EMS Agency.

POLICY: Assessment Units shall carry the following equipment. Reasonable variations may occur.

MEDICATIONS* (minimum required amounts)			
Albuterol (pre-mixed with NS)	**5 mg**	Epinephrine (0.1mg/ml)	**2 mgs**
Aspirin (81 mg chewable)	**648 mgs**	Glucagon	**1 mg**
Atropine Sulfate (1mg/10 ml)	**1 mg**	Naloxone	**2 mgs**
Adenosine	**6mg**	Nitroglycerin (SL) spray, tablets or single dose powder packets	**1 pump or bottle 36 packets**
Dextrose 10%/water 250 mL	**1**	Normal Saline (for injection)	**1 vial**
Epinephrine (1mg/mL)	**1 mg**	Ondansetron 4mg ODT and IV	**16 mgs**

INTRAVENOUS FLUIDS (minimum required amounts)	
250 or 500 ml normal saline	**1**

SUPPLIES* (minimum required amounts)			
Airways – Oropharyngeal Large	**1**	Medium	**1**
Medium	**1**	Small Adult/Child	**1**
Small Adult/Child	**1**	Toddler	**1**
Infant	**1**	Infant & neonate	**1 each**
Alcohol prep pads	**5**	Burn pack or burn sheets	**1**
Adhesive dressing (Band-Aids®)	**5**	Cardiac Monitor/Defibrillator oscilloscope	**1**
Bag-valve device with O_2 inlet & reservoir Adult & Pediatric	**1 each**	Cervical collars (rigid) Adult (adjustable)	**1**
Bag-valve mask Large	**1**	Pediatric	**1**

EFFECTIVE: 01-05-88
REVISED: 07-01-17
SUPERSEDES: 04-01-17

APPROVED: _____ Director, EMS Agency

_____ Medical Director, EMS Agency

SUPPLIES*
(minimum required amounts)

Contaminated needle container	1	Mucosal Atomization Device (MAD)	1
Commercial Catheter-Over-Needle Chest Decompression Needles 3.0-3.5" 14G	2	Needle, filtered 5-micron[3]	1
Color Code Drug Doses LA County Kids Ref. No 1309	1	Normal saline for irrigation	1 bottle
Defibrillator pads or paste (including pediatric)	2 each	OB pack & bulb syringe	1
ECG electrodes	6 each	Oxygen cannulas	1
Endotracheal tubes with stylets Sizes 6.5-7.5	1 each	Oxygen non-rebreather masks Adult and Pediatric	1 each
End Tidal CO_2 Detector/Aspirator (adult)	1	Pediatric Length-Based Resuscitation Tape (Broselow 2011A or newer)	1
Flashlight/Penlight	1	Personal Protective Equipment mask, gown, eye protection	1 each per provider
Gauze pads 4x4 (sterile)	4 packages	Procedures Prior to Base Contact Field Reference No. 806.1	1
Gauze Bandages	2	Saline locks	2
Gloves, unsterile	6 pairs	Scissors	1
Glucometer with strips	1	Sphygmomanometer Adult, pediatric, thigh cuff	1 each
Hand-held nebulizer pack	1	Stethoscope	1
Intravenous Tubing (macrodrip)	2	Suction Unit (portable)	1
Intravenous catheters 16G-22G	2 each	Suction Instruments 8 Fr.; 10 Fr.; 12 Fr. catheters	1 each
King LTS-D (Disposable Supraglottic Airway device)[1] Small Adult (Size 3) with 60mL syringe	1	Tonsillar Tip	1
Adult (Size 4)	1	Syringes: 1ml – 60ml	assorted
Lancets (automatic retractable)	2	Tape, porous and cloth	1 each
Laryngoscope blades Adult	1	Tourniquets	2
Pediatric, Miller #1 & #2	1 each	Tourniquets (commercial, for bleeding control)	2
Laryngoscope handle Adult (compatible with pediatric blades)	1	Tube introducer	2
Length Based Resuscitation tape	1	Vaseline gauze	2
Magill Forceps, Adult & Pediatric	1 each		

SUPPLIES*
(approved optional equipment)

Radio transmitter receiver**	Splints, traction
Intraosseous device Adult 1 each Pediatric 1 each (requires EMS Agency approved training program and QI method prior to implementation)	Splints, long and short
Continuous Positive Airway Pressure (CPAP) Device (requires EMS Agency approved training program and QI method prior to implementation).	Lidocaine 2%[2]

*** All sharps must comply with CCR, Title 8, Section 5193, Bloodborne Pathogens**

****Los Angeles County Department of Communications, Spec. No. 2029/2031/2033**
[1] Providers are to have one type of airway adjunct only.
[2] Utilized with infusions through IO access
[3] Optional, if not utilizing glass ampules

This policy is intended as an Assessment Unit inventory only, supply and resupply shall be in accordance with Ref. No. 701, Supply and Resupply of Designated EMS Provider Units/Vehicles.

CROSS REFERENCE:

Prehospital Care Manual:
Ref. No. 416, **Assessment Units**
Ref. No. 701, **Supply and Resupply of Designated EMS Provider Units/Vehicles**

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: **ALS EMS AIRCRAFT INVENTORY**

(PARAMEDIC/MICN)
REFERENCE NO. 706

PURPOSE: To provide a standardized minimum inventory on all Advanced Life Support (ALS) EMS aircraft.

POLICY: Each EMS aircraft shall have on board equipment and supplies commensurate with the scope of practice of the medical flight crew. This requirement may be fulfilled through the utilization of appropriate kits (cases/packs) which can be carried aboard a given flight. ALS EMS aircraft shall have sufficient space to carry the following minimum medical equipment and supplies. Reasonable variations may occur; however, any exceptions must have prior approval of the EMS Agency. Controlled drugs shall be secured on the EMS aircraft in accordance with Reference No. 702, Controlled Drugs Carried on ALS Units.

MEDICATIONS* (minimum required amounts)			
Albuterol (pre-mixed with NS)	**20 mgs**	Fentanyl [1]	**500 mcgs**
Adenosine	**18 mgs**	Glucagon	**1 mg**
Amiodarone	**600 mgs**	Midazolam [2]	**15 mgs**
Aspirin (chewable 81 mg)	**648 mgs**	Morphine sulfate [3]	**20 mgs**
Atropine sulfate (1 mg/10 ml)	**3 mgs**	Naloxone	**2 mgs**
Calcium chloride	**2 gm**	Normal saline (for injection)	**3 vials**
Dextrose 10%/water 250mL	**2**	Nitroglycerin spray (SL) tablets, spray or single dose powder packets	**1 pump or bottle 36 packets**
Dextrose solution (glucose paste may be substituted)	**100 gms**	Ondansetron 4mg ODT	**16 mgs**
Diphenhydramine	**100 mgs**	Ondansetron 4mg IV	**16 mgs**
Epinephrine (1mg/mL)	**7 mgs**	Sodium bicarbonate	**100 mls**
Epinephrine (0.1mg/mL)	**6 mgs**		

*** All sharps must comply with CCR, Title 8, Section 5193, Bloodborne Pathogens**
[1] Fentanyl carried on ALS EMS Aircraft is not to exceed 1500 mcgs.
[2] Midazolam carried on ALS EMS Aircraft is not to exceed 40 mgs.
[3] Morphine sulfate carried on ALS EMS Aircraft is not to exceed 60 mgs.

INTRAVENOUS FLUIDS (minimum required amounts)			
1000 ml Normal Saline	**4**	250 or 500 ml Normal Saline	**1**

EFFECTIVE: 9-1-99
REVISED: 07-01-17
SUPERSEDES: 04-01-17

APPROVED:

Director, EMS Agency

Medical Director, EMS Agency

SUPPLIES* (minimum required amounts)			
Adhesive dressing (Band-Aids®)	10	Flashlight/Penlight	1
Airways – Nasopharyngeal 4.5 – 9.0	1 each	Gauze sponges (sterile)	12
Airways – Oropharyngeal Large	1	Gauze bandages	5
Medium	1	Gloves Sterile	2 Pairs
Small Adult/Child	1	Gloves Unsterile	1 Box
Infant	1	Glucometer with strips	1
Neonate	1	Hand-held nebulizer pack	2
Alcohol swabs	20	Intravenous catheters 16G-22G	4 each
Backboards	1	Intravenous Tubing	
Bag-valve device with O_2 inlet and reservoir Adult and Pediatric	1 each	Macrodrip	5
Bag-valve mask Large	1	Intraosseous Device FDA-Approved [7] Adult	1
Medium	1	Pediatric	1
Small Adult/Child	1	King LTS-D (Disposable Supraglottic Airway device) Small Adult (Size 3) with 60mL syringe	1
Toddler	1	Adult (Size 4)	1
Infant	1	Large Adult (Size 5)	1
Neonate	1	Lancets, automatic retractable	5
Burn pack or burn sheets	1	Laryngoscope Handle Adult (compatible with pediatric blades)	1 each
Cervical collars (rigid) Adult (various sizes)	2	Laryngoscope Blades Adult, curved and straight	1 each
Pediatric	2	Pediatric, Miller #1 & #2	1 each
Commercial Catheter-Over-Needle Chest Decompression Needles 3.0-3.5" 14G	2	Magill Forceps Adult and Pediatric	1 each
Color Code Drug Doses LA County Kids Ref. No. 1309	1	Mucosal Atomization Device (MAD)	2
Contaminated needle container	1	Needle, filtered-5micron[8]	2
Continuous Positive Airway Pressure (CPAP) Device	1	Noninvasive blood pressure monitor	1
Defibrillator with oscilloscope	1	Normal saline for irrigation (may stock the smaller 100ml bottle)	1 bottle
Defibrillator pads or paste	2	OB pack and bulb syringe	1
ECG, 12-lead capable	1	Oxygen cannulas	2
ECG Electrodes Adult and Pediatric	8-10 multi-use	Oxygen non-rebreather masks Adult and Pediatric	2 each
Endotracheal tubes with stylets Sizes 6.0-8.0	2 each	Pediatric Length-Based Resuscitation Tape (Broselow 2011A or newer)	1
End Tidal CO_2 Detector and Aspirator Adult	1	Personal Protective Equipment/ Body Substance Isolation Equipment	

SUPPLIES* (minimum required amounts)			
End Tidal CO_2 Monitor Adult	1	mask, gown, eye protection	1 each per provider
Extrication device or short board	1	Pulse Oximeter	1
Procedures Prior to Base Contact Field Reference No. 806.1	1	Syringes 1ml – 60 ml	assorted
Radio transmitter receiver [4] (Hand Held)	1	Sphygmomanometer Adult/pediatric/thigh cuff	1 each
Saline locks	4	Stethoscope	1
Scissors	1	Tape (various types, must include cloth)	assorted
Splints – cardboard (long and short) (or air splints for 4 extremities)	2 each	Tourniquets	2
Splints – traction (adult and pediatric) [5]	1 each	Tourniquets (commercial, for control of bleeding)	2
Suction unit (portable)	1	Transcutaneous Pacing [6,7]	1
Suction Instruments 8Fr.-12Fr. Catheters	1 each	Tube Introducer	2
Tonsillar tip	1	Waveform Capnography	
Suction Unit (portable)	1		

SUPPLIES* (approved optional equipment)	
Dextrose 25%	Resuscitator with positive pressure demand valve (flow rate not to exceed 40L/min)
Dopamine	Transcutaneous Pacing [7]
Hemostatic Dressings [7]	Vacutainer Tubes

*** All sharps must comply with CCR, Title 8, Section 5193, Bloodborne Pathogens.**
[4] Los Angeles County Department of Communications, Spec. No. 2029/2031/2033
[5] One Sager splint may be used for both adult and pediatric
[6] Only for providers that respond to medical emergencies via the 9-1-1 system
[7] Requires EMS Agency approval, which includes an approved training program and QI method prior to implementation
[8] Optional, if not utilizing glass ampules

This policy is intended as an ALS EMS aircraft inventory only. Supply and resupply shall be in accordance with Reference No. 701, Supply and Resupply of Designated EMS Provider Units/Vehicles.

CROSS REFERENCES:

Prehospital Care Manual:
Ref. No. 701, **Supply and Resupply of Designated EMS Provider Units/Vehicles**
Ref. No. 702, **Controlled Drugs Carried on ALS Units**
Ref. No. 710, **Basic Life Support Ambulance Equipment**

Title 22, Chapter 8, Prehospital EMS Aircraft Regulations
Los Angeles County, Code of Ordinances, Title 7, Business Licenses, Division 2, Chapter 7.16, Ambulances

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: **BASIC LIFE SUPPORT AMBULANCE EQUIPMENT** (EMT, PARAMEDIC) REFERENCE NO. 710

PURPOSE: To provide minimum equipment standards for private basic life support (BLS) ambulance providers and to ensure a system wide standardized inventory of supplies and equipment to promote safety, readiness, and the ability to meet the requirements of an "all hazards" disaster response in the event of a declared emergency

AUTHORITY: California Administrative Code, Title 13, Section 1103
California Highway Patrol (CHP) Handbook 82.4, Chapter 4.5: Recommended Ambulance Equipment
California Vehicle Code Section 2418.5
Health and Safety Code 1797.220 and 1798
Senate Bill 409

DEFINITIONS:

PPE: For the purpose of this policy, personal protective equipment is garments/equipment designed to protect/minimize hazardous exposure to prehospital care responders.

PRINCIPLES:

1. Ambulances shall be maintained in good mechanical repair and sanitary condition.

2. Any equipment carried for use in providing emergency medical care must be maintained in clean condition and good working order. Medical supplies and solutions shall be replaced prior to expiration date.

3. All reusable medical supplies and equipment should be maintained in clean, ready-to-use condition and be disinfected or sterilized per manufacturer's recommendations.

4. Whenever a patient with a known or suspected communicable disease has been transported, the patient compartment and all interior surfaces, including fixed equipment, should be thoroughly cleansed with soap, water and disinfectant. Supplies such as pillows, blankets and linens should be disposable or autoclaved.* (* indicates language specific to the CHP Handbook)

5. All ambulance providers must be integrated into the disaster medical response system in order to participate in state and local disaster response or a declared emergency.

6. Ambulance personnel should not function within an operational area requiring PPE beyond their level of provision and training.

7. In any workplace where N95, or equivalent masks are necessary to protect the health of employees or whenever such masks are required by the employer, the employer shall have a written policy and provide training in the proper use and operation of the device.

EFFECTIVE: 6-30-78
REVISED: 09-01-13
SUPERSEDES: 7-1-11

APPROVED: Director, EMS Agency; Medical Director, EMS Agency

NOTE: Ambulances dedicated for infant transportation or when staffed and equipped for use in conjunction with newborn intensive care nursery services as specified in Title 22, CAC, Sections 70481 – 70487, need not concurrently carry items of emergency care equipment or supplies as specified herein that would interfere with the specialized care and transportation of an infant in an incubator or isolette.

POLICY:

I. Required Vehicle Safety Equipment:

A. A siren and steady burning red warning lamp that meet requirements established by the CHP Handbook, Section 818.

B. Seat belts or equivalent restraints for every sitting position. A child or infant not secured to a gurney should be secured in an appropriate child/infant restraint device.

C. A fire extinguisher of the dry chemical or the carbon dioxide type, with a minimum 4-B:C rating, maintained as prescribed by the State Fire Marshal in Title 19, CAC, Section 597. The use of vaporizing liquid extinguishers is prohibited.

D. A portable, battery-operated light.

E. A spare wheel with inflated tire of the appropriate load rating.

F. A jack and tools for wheel changes.

G. Maps or electronic mapping device covering the areas in which the ambulance provides service.

H. Patient compartment door latches operable from inside and outside the vehicle on all emergency ambulances manufactured and first registered after January 1, 1980.

II. Personnel PPE Training

Prior to use, all personnel who may be required to utilize PPE shall receive training in accordance with OSHA requirements (Ref. 26 CFR 1910.132 [f]. At minimum, training shall consist of:

A. Identification of when and what type of PPE is necessary; how to properly don, doff, adjust and wear PPE; the limitations of the PPE; and the proper care, maintenance, useful life and disposal of the PPE (Ref. 29 CFR 1910.132 [f] [1] [1-5]).

B. Demonstration of the ability to use PPE properly before being allowed to perform work requiring the use of PPE (Ref. 29 CFR 1910.132 [f] [2].

C. Verification that each employee has received and understands the required training through a written certification that contains the course title, date of the training and the name of the employee trained.

D. Proper fit testing for any respiratory protection in accordance with OSHA requirements (Ref. 29 CFR 1910.134

III. Minimum Levels of Recommended Emergency Care Equipment and Supplies

MINIMUM INVENTORY	QUANTITIES
Adhesive tape, rolls of 1 in., 2 in. and, 3 in.	2 each
Ankle and wrist restraints. • If soft ties are used, they should be at least three inches wide (before tying) to maintain a two inch width while in use.	1 set
Bandages, 4 in. sterile compresses or equivalent	12
Bag-valve device with 0_2 inlet and reservoir • Adult • Pediatric	1 each
Bag-valve mask • Large • Medium • Small adult/child • Toddler • Infant • Neonate	1 each
Bandages, 2 in. or 3 in. soft, rolled stretch (Kerlix or Kling type)	6
Bandages, 3 in. X 3 in. sterile gauze pads	4
Bandages, universal dressings (trauma dressings), 10 in. by 30 in or larger	2
Bandage scissors	1
Bedpan/fracture pan	1
Blood pressure manometer, cuff and stethoscope: • Thigh • Adult • Child • Infant	1 each
Cervical Collars, rigid: • Adult • Child • Infant	2 each
Emesis basin, disposable bags or covered containers	1
Immobilizer, Head: • Disposable or Reusable	2
Obstetrical supplies, sterile, including: • Gloves • Umbilical cord clamps	1 kit or supplies as indicated

MINIMUM INVENTORY	QUANTITIES
• Dressings, towels • Scissors • Bulb syringe • Clear plastic bag	
Oropharyngeal airways: • Two adult • Two children • One infant • One newborn	6
Oxygen cannulas • Adult • Child	1each
Oxygen masks, transparent • Adult • Child • Infant	1 each
Oxygen, portable • (USP) regulator with oxygen supply that at maximum capacity is sufficient to provide a patient with not less than 10 liters per minute for 45 minutes (equivalent to a "D" cylinder)	2
Oxygen, vehicle (house) • (USP) regulator with oxygen supply that at maximum capacity is sufficient to provide a patient with not less than 10 liters per minute for a minimum of 3 hours (equivalent to an "M" cylinder)	1
Personal Protective Equipment (Body Substance Isolation Equipment) • mask • gown • eye protection	2 each
Saline, sterile isotonic, in clearly labeled plastic liter (quart) containers	2
Spine boards, rigid, approximately 14 inches in width • One 32 in. or more in length • One approximately 72 inches in length with straps for immobilization of suspected spinal or back injuries.	2
Splints, short, medium and long • Cardboard splints (recommended for general use) • Inflatable air splints (recommended to immobilize lower arms and lower legs) (**Optional**)	4 each
Splints, traction	1

MINIMUM INVENTORY	QUANTITIES
Stretchers • Stretchers with wheels and the following: o mattresses should be covered with impervious plastic material or the equivalent o have the capability to elevate both the head and foot o straps to secure the patient to the stretcher and a means of securing the stretcher in the vehicle o be adjustable to four different levels • Collapsible stretcher and the following: • straps to secure the patient to the stretcher and a means of securing the stretcher in the vehicle. • Straps or other approved device to secure a child or infant to the stretcher	1 1 1
Suction equipment, portable, capable of at least: • a negative pressure equivalent to 300mm of mercury • 30 liter per minute air flow rate for 30 minutes of operation.	1
Suction equipment, vehicle (house), capable of at least: • a negative pressure equivalent to 300mm of mercury • 30 liter per minute air flow rate for 30 minutes of operation	1
Suction Tubing: • Non-collapsible, plastic, semi-rigid, whistle-tipped, finger controlled type is preferred.* • Flexible catheters for tracheostomy suctioning (8Fr.-12Fr.)	1 each
Tongue depressors	6
Tourniquets (commercial, for control of bleeding)	2
Water (clean, potable), one gallon	1
Water, sterile, liters (quarts)	2
Urinal	1
Chemotherapy spill kit **(Optional)**	1

PERSONAL PROTECTION EQUIPMENT (PPE)*	QUANTITIES
Escape hood **(Optional)**	2
Gloves, work (multiple use, leather)	2 pairs
Hearing protection	2 sets
Jacket, EMS, with reflective stripes	2
Rescue helmet	2
Respiratory protection mask (N95) and general purpose mask	2 each
Safety vest meeting ANSI standards or equivalent	2

* OSHA Safety & Health Information Bulletin: "CBRN Escape Respirator", provides guidance on use, selection, and training. The minimum PPE is Level D, if applicable.

AMBULANCE STRIKE TEAM ADDITIONAL SUPPLIES*	QUANTITIES
Ballistic vest, protective **(Optional – risk dependent**)**	2
Field Operations Guide (FOG)	1
Footwear covers, single use	2 pairs
Duodote (atropine 2.1mg and pralidoxime chloride 600mg) or equivalent **(Optional)**	1/person
MRE (meal ready to eat) (3 meals/day/member for 3 days)	18

*Maintained at deployment location, not required in vehicle unless deployed.
**Mandatory for deployment to areas of civil unrest.

CROSS REFERENCES:

OSHA Regulations:
Ref. No. 29 CFR 1910.132
Ref. No. 29 CFR 1910.134
OSHA Safety & Health Information Bulletin: "CBRN Escape Respirator"

Emergency Medical Services Authority (EMSA):
EMSA Guidelines #216

California Highway Patrol:
Ref. 299, Ambulance Inventory

Prehospital Care Manual:
Ref. No. 703, **ALS Unit Inventory**
Ref. No. 704, **Assessment Unit Inventory**

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: **NURSE STAFFED CRITICAL CARE TRANSPORT (CCT) UNIT INVENTORY** REFERENCE NO. 712

PURPOSE: To provide a standardized minimum inventory on all Nurse Staffed Critical Care Transport (CCT) Units.

PRINCIPLE: Any equipment or supplies carried for use in providing emergency medical care must be maintained in good working order.

POLICY: Nurse staffed CCT vehicles shall carry the following equipment. Reasonable variations may occur; however, any exceptions must have prior approval of the EMS Agency. Transport vehicles shall also be equipped and supplied according to Reference No. 710, Basic Life Support Ambulance Equipment.

Nurse staffed vehicles performing advanced life support (ALS) level transports do not require the addition of the ALS inventory; however, if nurses are utilized in lieu of respiratory care practitioners (RCPs) for the transport of ventilator patients, all medications and equipment on Reference No. 713, Respiratory Care Practitioner (RCP) Unit Inventory and not included herein, must be added to the CCT unit.

MEDICATIONS* (minimum required amounts)			
Albuterol (pre-mixed with NS)	20 mgs	Dextrose solution (glucose paste may be substituted)	100 gms
Adenosine	24 mgs	Diphenhydramine	100 mgs
Amiodarone	450 mgs	Dopamine (premix or vials)	800 mgs
Aspirin (chewable 81 mg)	640 mgs	Epinephrine (1mg/mL)	1 mgs
Atropine sulfate (1 mg/10 mL)	4 mgs	Epinephrine (0.1mg/mL)	5 mgs
Calcium chloride	1 gm	Lidocaine	200 mgs
Dextrose 10% / Water 250 mL	3	Naloxone	2 mgs
		Nitroglycerin (SL) spray, tablets or single dose powder packets	1 pump or bottle 36 packets

***All sharps must comply with CCR, Title 8, Section 5193, Bloodborne Pathogens**

INTRAVENOUS FLUIDS (minimum required amounts)			
1000 mL normal saline	2	250 mL normal saline	2

EFFECTIVE: 3-31-08
REVISED: 7-1-17
SUPERSEDES: 4-1-17

APPROVED: Director, EMS Agency

Medical Director, EMS Agency

Adhesive dressing (Band-Aids®)	1 box	Gloves Sterile	2 pairs
Airways – Nasopharyngeal Large, medium, small (34-36, 26-28, 20-22)	1 each	Gloves Unsterile	1 box
		Glucometer, strips and lancets, Automatic retractable	1
Airways – Oropharyngeal Large	1	Hand-held nebulizer pack	2
Medium	1	Hemostats, padded	1
Small Adult/Child	1	Infusion Pump with 3 chamber drip capability	1
Infant	1	Infusion Pump tubing	2 full sets 4 half sets
Neonate	1	Intravenous catheters (14G-22G)	5 each
Alcohol swabs	1 box	Intravenous Tubing Microdrip	2
Backboards	1	Macrodrip	2
Back-up Power source/Adjunct power source (invertor batteries, etc.) Second required if transporting IABP patients	1	Normal saline for irrigation	1 bottle
Bag-valve device with O_2 inlet and reservoir Adult and Pediatric	1 each	OB pack and bulb syringe[1]	1
Bag-valve mask Large	1	Oxygen cannulas Adult and Pediatric	3 each
Medium	1	Oxygen Masks Adult and Pediatric	3 each
Small Adult/Child	1	Pediatric Length-Based Resuscitation Tape (Broselow, 2011A or newer)	1
Toddler	1	Pulse Oximeter	1
Infant	1	Saline locks	4
Neonate	1	Suction Unit (portable)	1
Cardiac Monitor/Defibrillator	1	Suction Catheters 8F-14F Tonsilar tip	2 each
End tidal CO_2 monitor/wave form capnography, external pacemaker, pulse oximeter, and 12-lead ECG capabilities		Syringes 1 ml – 10 ml	1 each
Cellular Phone (personal or company supplied)1	1	Sphygmomanometer Adult/pediatric/thigh cuff	1
Color Code Drug Doses LA County Kids – Ref. No. 1309	1	Scissors	1 each
Contaminated Sharps Container*	1	Stethoscope	1
Defibrillator pads or paste and electrodes (including pediatric electrodes and pads)	2 6	Tape (various types, must include cloth)	1
Gauze bandages	2		
Gauze sponges 4x4 (sterile)	4 pkgs		

OPTIONAL EQUIPMENT

Filter Needles[2]	2	Ondansetron (orally disintegrating tablets)	12 mgs
Flumazenil	1 mg	Ondansetron (intravenous) 4mgs/2cc	12 mgs
Furosemide	100 mgs	Sodium Bicarbonate	50 mls
Levalbuterol HCL	7.5 mgs	Mucosal Atomization Device (MAD)	2
Lidocaine (1 gm/250 ml)	1 bag	Respiratory Ventilator	1
Lopressor	20 mgs	Impedance Threshold Device	1
Lorazepam	4 mgs	Vasostrict®	20 units
Midazolam	20 mgs		
Morphine sulfate	20 mgs		

*** All sharps must comply with CCR, Title 8, Section 5193, Bloodborne Pathogens.**
[1] OB Kits with clamps / scissors (no scalpels)
[2] Optional, if not utilizing glass ampules

This policy is intended as a nurse staffed CCT unit inventory only.

CROSS REFERENCES:

Prehospital Care Manual:
Ref. No. 414, **Critical Care Transport (CCT) Provider**
Ref. No. 710, **Basic Life Support Ambulance Equipment**
Ref. No. 713, **Respiratory Care Practitioner (RCP) Staffed Critical Care Transport (CCT) Unit Inventory**

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: **RESPIRATORY CARE PRACTITIONER STAFFED CRITICAL CARE TRANSPORT UNIT INVENTORY** REFERENCE NO. 713

PURPOSE: To provide a standardized minimum inventory on all Respiratory Care Practitioner (RCP) transports.

PRINCIPLE: Any equipment or supplies carried for use in providing emergency medical care must be maintained in good working order.

POLICY: RCP transports shall carry the following equipment. Reasonable variations may occur; however, any exceptions must have prior approval of the EMS Agency. Transport vehicles shall also be equipped and supplied according to Reference No. 710, Basic Life Support Ambulance Equipment

MEDICATIONS
(minimum required amounts)

Albuterol (pre-mixed with NS)	30mgs	Atrovent	2mgs

SUPPLIES*
(minimum required amounts)

Airways-Nasopharyngeal Large, medium, small (34-36, 26-28, 20-22)	1 each	Cellular Phone (personal or company)	1
Airways-Oropharyngeal Large	1 each	Color Code Drug Doses LA County Kids Reference No. 1309	1
Medium	1	Coupler/Quick Connect (oxygen connection)	2
Small Adult/Child	1	End tidal CO_2 detector (portable)	2
Infant/Neonate	1 each	$ETCO_2$ Filterline	6
Airway Guard (bite blocker)	2	Endotracheal tubes with stylets Sizes 2.0-8.0	2 each
Bag-Valve device with O_2 inlet and reservoir Adult and Pediatric	1 each	Gloves (Sterile)	2 pairs
Bag Valve Mask Large	1 each	HME Heat/Moisture Exchange Ventilator Filters	4 adults 2 peds
Medium	1	King LTS-D (Disposable Supraglottic Airway Device) (Size 3, 4 and 5)	1 each
Small Adult/Child	1	Laryngoscope Handle Adult and Pediatric	1 each
Toddler	1	Laryngoscope Blades Adult curved and straight	1 each
Infant	1	Magill Forceps Adult and Pediatric	1 each
Neonate	1	Non-sterile gloves	1 box

EFFECTIVE: 2-01-12
REVISED: 04-01-17
SUPERSEDES: 02-28-15

APPROVED: Cathy Chidester
Director, EMS Agency

Marianne Gausche-Hill, MD
Medical Director, EMS Agency

SUPPLIES* (minimum required amounts)			
Nasal Cannulas Adult/Pediatric	3 each	Scissors	1
Normal Saline Pillows (ampoules/inhalant)	10	Sphygmomanometer	
Hand Held Nebulizer Pack	2	Adult, pediatric and thigh	1 each
Oxygen Mask Adult and Pediatric	3 each	Suction Catheters 8F-14F	1 each
Oxygen Hose	1	Stethoscope	1
Oxygen Regulator	2		
Oxygen Tree	2		
Oxygen Key	2	Syringes 10ml	2
Pediatric Length-Based Resuscitation Tape (Broselow 2011A or newer)	1	Tape (various types, must include cloth)	1 each
Pediatric Blades Miller 0, 1 and 2	1 each	Tracheostomy Mask Adult and Pediatric	2 each
PEEP Valve Adult and peds	1 each	Ventilator filters	6
		Ventilator Circuits (disposable)	4 adult
Penlight	1	Adult and Pediatric	2 peds
Portable Suction	1	Ventilator (non-pneumatic)	1
Personal Protective Equipment /Body Substance Isolation Equipment Mask, gown, eye protection	2 each	Venturi Mask	3
Pulse Oximeter Adult and Pediatric probes	2	Waveform Capnography	
SUPPLIES (approved optional equipment)			
Levalbuterol	7.5 mgs		

*** All sharps must comply with CCR, Title 8, Section 5193, Bloodborne Pathogens.**

This policy is intended as a RCP Inventory only.

CROSS REFERENCES:

Prehospital Care Manual:
Ref. No. 414, **Registered Nurse/Respiratory Specialty Care Transport Provider**
Ref. No. 710, **Basic Life Support Ambulance Equipment**
Ref. No. 712, **Nurse Staffed Critical Care Unit Inventory**

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: **EMS QUALITY IMPROVEMENT PROGRAM COMMITTEES** REFERENCE NO. 618

PURPOSE: To monitor and evaluate the quality of prehospital care within Los Angeles County. The EMS Quality Improvement Program (EQIP) Committee(s) will review and make recommendations to the Medical Director concerning system prehospital emergency medical care.

AUTHORITY: California Code of Regulations, Title 22, Division 9
Health and Safety Code Division 2.5
California Evidence Code, Section 1157
California Civil Code Part 2.6, Section 56

PRINCIPLE: The proceedings of the EQIP Committees are confidential; any information received during these proceedings shall be considered confidential and/or privileged by the committees. Anyone providing any evidence or information to these committees shall be assured that the information is being received in confidence.

POLICY:

I. The EQIP Committees include the following:

A. EMS Agency Technical Advisory Group (TAG)
B. Base Hospital/911 Provider Agency QI Committee
C. Private Non-911 Provider Agency QI Committee
D. Specialty Center QI Committees:
   1. Trauma System QI Committee
   2. Trauma Hospital Advisory Committee-QI Subcommittee (THAC-QI)
   3. Trauma Hospital Regional QI Program
   4. STEMI Receiving Center Advisory
   5. STEMI Receiving Quality Improvement Subcommittee
   6. Standing Field Treatment Protocol (SFTP) QI
   7. Pediatric Advisory Committee (PedAC)
   8. Stroke Advisory Committee (SAC)

II. Committee member or designee responsibilities include:

A. Participate in scheduled QI committee meetings.

B. In collaboration with the Los Angeles County EMS Agency, identify prehospital care issues, provide recommendations, develop a plan for improvement, and monitor results.

C. Develop and validate system QI indicators and/or studies.

APPROVED: Cathy Chidester
Director, EMS Agency

Marianne Gausche-Hill, MD
Medical Director, EMS Agency

D. Participate in systemwide data collection and reporting. Each QI Committee member shall submit data to the EMS Agency on systemwide indicators, when applicable.

E. Coordinate focused studies and compile data on selected issues.

III. QI Committee membership shall include, but is not limited to, the following representative(s) or designee(s):

A. EMS Agency TAG

1. EMS Agency Medical Director
2. EMS Agency Director/Assistant Director(s)
3. Designated EMS Agency staff
4. 9-1-1 Receiving Hospital
5. Public Provider Agency Medical Director
6. Paramedic Coordinator
7. Provider Agency Nurse Educator
8. Paramedic Training Program Director
9. Representative from an approved EMT Training Program
10. Representative from the Los Angeles County Ambulance Association
11. Representative from an Emergency Medical Dispatch Agency
12. Ad hoc members, as needed

B. Base Hospital/9-1-1 Provider Agency QI:

1. EMS Agency Medical Director
2. EMS Agency System QI Coordinator
3. Designated EMS Agency staff
4. Prehospital Care Coordinators from each Base Hospital
5. Paramedic Coordinator and/or Fire Department Nurse Educator from each 9-1-1 Provider Agency
6. Air Operations Provider Agency, ad hoc
7. Emergency Medical Dispatch, ad hoc
8. Ad hoc members, as needed

C. Private/Non-9-1-1 Provider Agency QI:

1. EMS Agency Medical Director
2. EMS Agency System QI Coordinator
3. Designated EMS Agency staff
4. QI Coordinator from Non 9-1-1 BLS/ALS/CCT provider agencies
5. Representative(s) from approved Paramedic Training Programs
6. Representative(s) from approved EMT Training Programs
7. 9-1-1 Provider Agency member, ad hoc
8. Emergency Medical Dispatch representative, ad hoc
9. Ad hoc members, as needed

D. Specialty Center QI – see applicable policies and bylaws:

1. Trauma Program
2. STEMI Program
3. SFTP
4. PedAC
5. SAC

IV. EQIP Committee Responsibilities:

A. The EQIP Committees shall meet quarterly unless otherwise specified by the EMS Agency Medical Director, policy or committee bylaws.

B. The EMS Agency is responsible for arranging the meeting location, maintaining a membership attendance roster, meeting agenda, and recording/distributing meeting minutes.

C. Significant unresolved systems issues shall be forwarded, with written recommendations, to the EMS Agency Director and/or Medical Director for further review.

CROSS REFERENCES:

Prehospital Care Policy Manual:
Ref. No. 813, **Standing Field Treatment Protocols**
Ref. No. 614, **Trauma System Quality Improvement Committee**
Ref. No. 615, **Trauma Hospital Advisory Committee - Quality Improvement Subcommittee - (THAC-QI)**
Ref. No. 616, **Trauma Hospital Regional Quality Improvement Program**
Ref. No. 620, **EMS Quality Improvement Program**
Ref. No. 620.1 **EMS Quality Improvement Program Plan**

California EMS Authority, **Quality Improvement Program Model Guidelines, 2005**
LA County EMS Agency, **Quality Improvement Plan**
LA County EMS Agency, **SRC Standards**
LA County EMS Agency, **PedAC Bylaws**
LA County EMS Agency, **Stroke Standards**

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: **EMS QUALITY IMPROVEMENT PROGRAM** REFERENCE NO. 620

PURPOSE: To establish a process for the Los Angeles County Emergency Medical Services (EMS) Agency and system participants to evaluate the EMS system to ensure safety and continued improvement in prehospital patient care delivery.

AUTHORITY: California Code of Regulations, Title 22, Chapter 12
Health and Safety Code Division 2.5
California Evidence Code, Section 1157.7
California Civil Code Part 2.6, Section 56

DEFINITIONS:

Indicator: A well-defined, objective, measurable, and important aspect of care.

Important Aspects of Care: Patient care activities that are of greatest significance to the quality of patient care. These include activities that are high in volume, high risk, and/or problem prone for patients and/or healthcare providers.

Periodic Review: A re-evaluation of a discontinued indicator within a predetermined time frame after achievement of threshold to ensure ongoing compliance.

Quality Improvement (QI): The analysis of performance and systematic effort to improve it.

System Participant: For the purposes of this policy, a system participant is any prehospital care provider or entity required by law, regulation, agreement, or policy to develop and maintain a QI program consistent with state and local requirements.

Threshold: A pre-established level of performance related to a specific indicator.

Technical Advisory Group (TAG): A group of EMS system participants (stakeholders) that assist in the implementation of the QI process.

Unusual Occurrence: An unexpected event that has impacted or could potentially impact the routine safe delivery of care.

PRINCIPLES:

1. An EMS QI program is an essential component of an effective EMS system capable of providing quality patient care and achieving system performance goals.

2. Key components of an EMS QI program include:
   a. Personnel
   b. Equipment and Supplies
   c. Documentation
   d. Clinical Care/Patient Outcome

APPROVED:

Director, EMS Agency

Medical Director, EMS Agency

e. Skills Maintenance/Competency
f. Transportation/Facilities
g. Risk Management
h. Public Education/Prevention

3. EMS organizations become valuable stakeholders in the State QI program by participating in the local EMS Agency QI program.

4. Randomized data sampling may be utilized to measure an indicator or monitor performance. However, to obtain meaningful data that is representative of the study population, factors such as the population affected, the frequency of the activity, and the severity of consequence when thresholds are not met, must all be considered when determining the size and population of data samples.

POLICY:

I. EMS Agency Responsibilities:

A. Implement a state-approved EMS QI plan consistent with all regulatory requirements.

B. Review QI programs and approve QI plans of local EMS system participants.

C. Maintain a systemwide QI program.

II. System Participant Responsibilities:

A. Implement and maintain a QI program approved by the EMS Agency that reflects the organization's current QI process(es).

B. Demonstrate how EMS QI is integrated within the organization.

C. Designate a representative to attend the relevant EMS Agency QI Committee meeting(s).

D. Participate in systemwide QI studies, to include timely submission of requested data to the EMS Agency.

E. Provide education, training, or other methods utilized to disseminate information (i.e., newsletters or posters) specific to findings identified in the QI process.

F. Establish and maintain relationships with stakeholders (e.g., Technical Advisory Group) and, as needed, convene meetings to facilitate the QI process.

G. Review the QI plan annually and update as needed. If there are no revisions, a signed copy of the QI plan signature page or written statement to that effect, along with a copy of the current QI indicators, may be submitted in lieu of the entire plan.

III. Other Specified Specialty Care Center Responsibilities:

A. Participate in the EMS QI Program, to include collection and submission of data to the EMS Agency.

IV. QI Plan Requirements:

Each QI plan shall include a description, at a minimum, of the following components:

A. Organizational Structure

1. Mission statement and/or philosophy of the organization.

2. Goals and objectives.

3. Organizational chart or narrative description of how the QI program is integrated within the organization (include local stakeholder participation), EMS Agency QI Program, and State EMS QI Program.

4. Organizational chart or narrative description of how the organization's QI program is integrated with local and State QI programs

B. Methodology, processes and tools used to facilitate the QI Process (i.e., FOCUS-PDSA)

F Find a process to improve
O Organize an effort to work on improvement
C Clarify current knowledge of the process
U Understand process variation and capability
S Select a strategy for further improvement

P Plan a change or test aimed at improvement
D Do – carry out the change or the test
S Study the results, what was learned, what went wrong
A Act – adopt the change, or abandon it, or run through the cycle again

C. Data Collection and Reporting

1. All reliable sources of information utilized in the QI process; including EMS databases, prehospital care records, checklists, customer input, direct observations, and skills simulation.

2. Flow of information.

3. Methods used to document QI findings.

4. Process used to submit data to the EMS Agency.

D. Training, education or methods that will be used to communicate relevant information among stakeholders.

V. QI Program Requirements:

Each QI Program shall include, at minimum, the following:

A. An approved QI Plan

B. Develop a minimum of two QI indicators that relate to important aspects of care, to include the following:

1. Well-defined description of the important aspect of care being measured.

2. Threshold for compliance.

3. Timeline for tracking indicator once the threshold has been achieved.

4. Data source.

C. Methods for tracking compliance and identifying trends.

D. Written analysis that summarizes the QI findings.

E. Corrective actions that may be taken to improve processes.

F. Written trending report that includes effectiveness of performance improvement action plans.

G. Education and training specific to findings identified in the QI process.

H. Methods utilized for dissemination of the QI findings to stakeholders.

I. Recognition and acknowledgment of performance improvement.

J. Periodic review or a re-evaluation of a discontinued indicator within a predetermined time frame after achievement of threshold to ensure ongoing compliance.

K. Methods for identifying, tracking, documenting and addressing non-indicator issues and unusual occurrences.

L. Record Keeping

1. All QI records shall be maintained in accordance with Health Insurance Portability and Accountability Act (HIPAA) regulations.

2. The following records shall be maintained and available for review until the EMS Agency Program Review is concluded:

a. QI meeting minutes and attendance rosters/sign-in sheets.

b. Attendance rosters/sign-in sheets for activities where QI findings and/or actions are discussed.

c. QI indicator(s) data collection tools.

d. Written summaries of the trending/analysis.

e. Documentation of dissemination of QI findings to stakeholders.

f. Dates and times of continuing education and skill training based on QI findings.

g. Dates and times of remedial education or skills training, when provided.

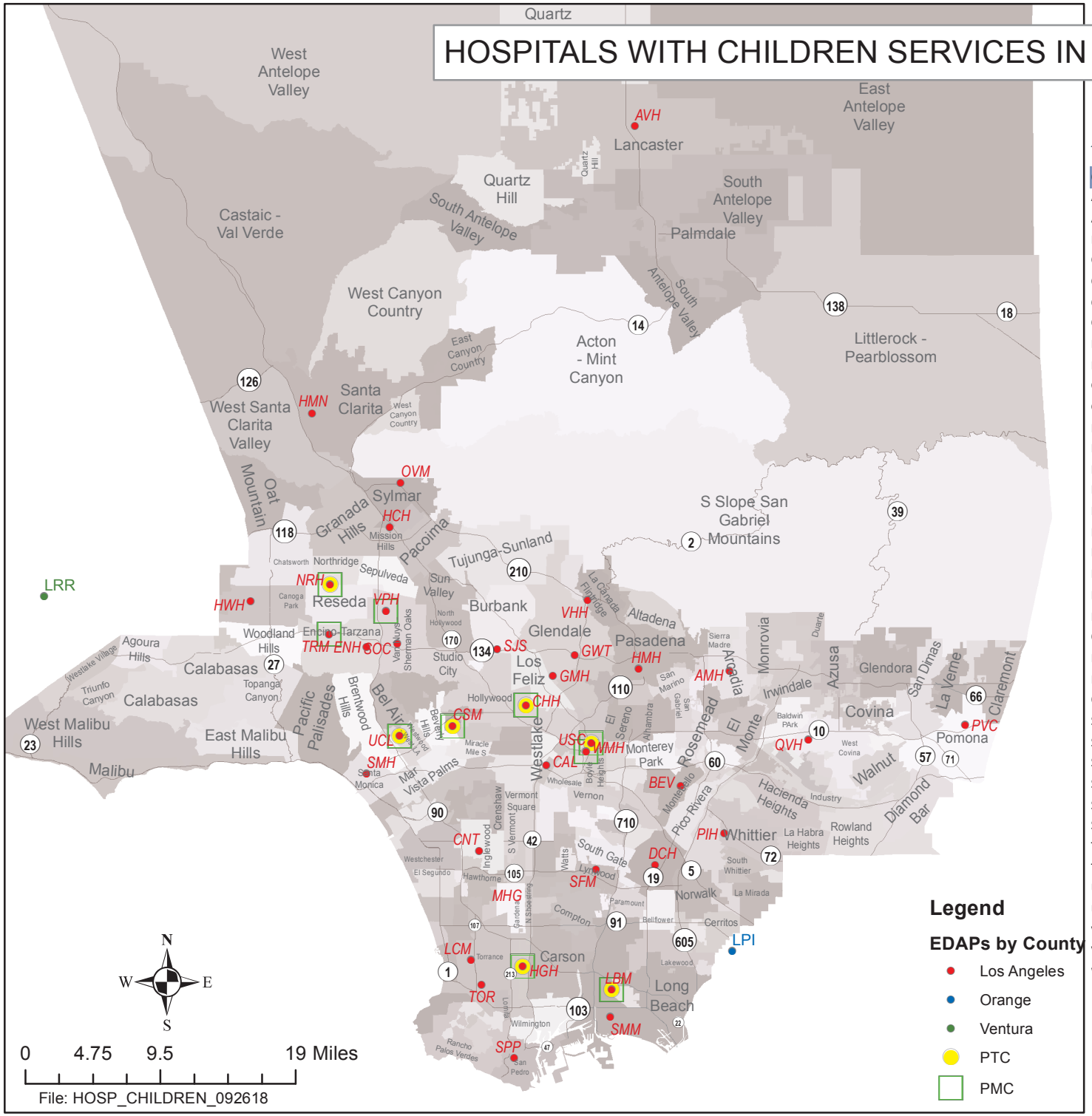
h. Non-indicator tracking tool for monitoring performance excellence, unusual occurrences or issues regarding non-compliance with current policies and procedures outside of QI activities.

CROSS REFERENCES:

Prehospital Care Manual:
Ref. No. 602, **Confidentiality of Patient Information**
Ref. No. 618, **EMS Quality Improvement Program Committees**

California EMS Authority, Quality Improvement Program Model Guidelines, 2005
Los Angeles County EMS Agency Quality Improvement Plan: ems.dhs.lacounty.gov/QI/QI

HOSPITALS WITH CHILDREN SERVICES IN LOS ANGELES COUNTY



File: HOSP_CHILDREN_092618

As of 10/01/2018

Code	Name
AMH	Methodist Hospital of Southern California
AVH	Antelope Valley Hospital
BEV	Beverly Hospital
CAL	Dignity Health-California Hospital Medical Center
CHH	Children's Hospital Los Angeles
CNT	Centinela Hospital Medical Center
CSM	Cedars Sinai Medical Center
DCH	PIH Health Hospital - Downey
ENH	Encino Hospital Medical Center
GMH	Dignity Health-Glendale Memorial Hospital and Health Center
GWT	Glendale Adventist Medical Center
HCH	Providence Holy Cross Medical Center
HGH	LAC Harbor-UCLA Medical Center
HMH	Huntington Hospital
HMN	Henry Mayo Newhall Hospital
HWH	West Hills Hospital and Medical Center
LBM	Long Beach Memorial Medical Center
LCM	Providence Little Company of Mary Medical Center-Torrance
LPI	La Palma Intercommunity Hospital
LRR	Los Robles Hospital & Medical Center
NRH	Dignity Health-Northridge Hospital Medical Center
OVM	LAC Olive View-UCLA Medical Center
PIH	PIH Health Hospital - Whittier
PVC	Pomona Valley Hospital Medical Center
QVH	Citrus Valley Medical Center - Queen of the Valley Campus
SFM	St. Francis Medical Center
SJS	Providence Saint Joseph Medical Center
SMH	Santa Monica-UCLA Medical Center
SMM	Dignity Health-St. Mary Medical Center
SOC	Sherman Oaks Hospital
SPP	Providence Little Company of Mary Medical Center-San Pedro
TOR	Torrance Memorial Medical Center
TRM	Providence Tarzana Medical Center
UCL	Ronald Reagan UCLA Medical Center
USC	LAC+USC Medical Center
VHH	USC Verdugo Hills Hospital
VPH	Valley Presbyterian Hospital
WMH	Adventist Health - White Memorial

EMERGENCY MEDICAL SERVICES AGENCY
LOS ANGELES COUNTY

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: **ELECTRONIC SUBMISSION OF PREHOSPITAL DATA** (EMT, PARAMEDIC, MICN) REFERENCE NO. 607

PURPOSE: To establish procedures for the submission of electronic data by prehospital care providers.

AUTHORITY: California Assembly Bill No. 1129
California Code of Regulations, Title 22, Chapter 4, Sections 100169, 100170
Health Insurance Portability and Accountability Act (HIPAA), 2009
Health and Safety Code, Section 130202
Health Information Technology for Economic and Clinical Health Act (HITECH)

DEFINITION:

Electronic Data: Patient Care Records submitted in electronic format (as per LA-EMS Data Dictionary) or field electronic Patient Care Records (ePCRs).

PRINCIPLES:

1. All submission of electronic personal health information (PHI) shall be in compliance with HIPAA regulations.

2. PCRs require redundant back up and emergency down time procedures.

3. The provider agency will ensure that the electronic data is compliant with the EMS Agency's data system requirement.

4. All public and private advanced life support (ALS), specialty care transport (SCT), and exclusive operating area (EOA) provider agencies shall submit data electronically, which meets the LA-EMS or LA-EOA Data Dictionary requirements, to the EMS Agency.

5. Provider agencies cannot utilize an ePCR until their selected vendor has been approved to submit data electronically to the EMS Agency.

POLICY:

I. Provider Agency Responsibilities

A. Prior to implementation of an Electronic Data System

1. Electronic Data Submission Plan

Submit a plan, approved by the department's Fire Chief or private provider agency's Chief Executive Officer, to the EMS Agency for approval which includes:

APPROVED: Cathy Chidester
Director, EMS Agency

Marianne Gausche-Hill, MD
Medical Director, EMS Agency

a. Ability to transmit data to the EMS Agency which meets the LA-EMS or LA-EOA Data Dictionary requirements.

b. A successful mechanism to provide immediate transfer of patient information to additional providers, including transporting agency (if necessary).

c. System to ensure only one Patient Care Record per patient is created, per provider agency, regardless of the number of units an individual provider responds with.

d. Processing for confirming that an ePCR has been successfully generated for each patient.

e. A successful mechanism for receiving facilities to have the electronic record available upon the patient's transfer of care and any patient care related revisions made after leaving the receiving facility.

f. Back-up system available in case of system failure.

g. Staff members assigned to act as a liaison between the vendor and the EMS Agency to identify and correct data issues.

2. Notify the EMS Agency's Data Management Division Chief once a vendor has been selected and provide an estimated filed implementation date.

3. Notify all hospitals that provider transports to, of the intent to convert to an ePCR system and the tentative start date.

B. Implementation

1. Ensure the selected vendor contacts the EMS Agency's Data System Management Division Chief to discuss the data format, transmission procedures and obtain sequence number format.

2. Maintain a staff member to act as liaison between the vendor and the EMS Agency to identify and correct data issues.

3. Submit validated test files, meeting the LA-EMS Data Dictionary and Extensible Markup Language (XML) Schema Definition (XSD) standard, and the corresponding copies of the ePCRs in PDF format, that accurately reflect the documentation in the electronic record upon import.

C. Ongoing

1. Transmit validated data to the EMS Agency for import into the Trauma Emergency Medicine Information System (TEMIS) database within 30 days of the last day of the preceding month. Files with validation errors will be rejected and must be corrected and re-transmitted prior to import.

2. Address and correct data related issues as they arise.

3. Implement annual data field and export program changes within three months of publication.

II. EMS Agency Responsibilities

A. Review and approve the electronic data submission plan.

B. Liaison with the provider agency and receiving hospital(s) to establish a mutually agreed upon method by which the receiving hospital(s) will obtain the ePCR.

C. Meet with the provider agency and vendor to review electronic data submission plan and provide the Sequence Number formatting, LA-EMS Data Dictionary, LA-EMS XSD, LA-EMS XSD validator and LA-EMS sample XML.

D. Review validated test files, and the corresponding copies of the ePCR in PDF format, for completeness and accuracy and provides a report to the provider agency and vendor with noted deficiencies.

E. Ongoing

1. Monitor incoming data and notify the provider as issues arise and follow up with provider as needed to ensure data issues are addressed and resolved.

2. Present data field changes annually to the Provider Agency Advisory Committee.

CROSS REFERENCE:

Prehospital Care Manual:

Ref. No. 604, **Confidentiality of Patient Information**
Ref. No. 606, **Documentation of Prehospital Care**
Ref. No. 608, **Disposition of Copies of the EMS Report Form**
Ref. No. 702, **Controlled Drugs Carried on ALS Units**

LA-EMS Data Dictionary
LA-EMS Extensible Markup Language (XML) Schema Definition (XSD) LA-EMS XSD Validator
LA-EMS Sample XML

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBECT: **PARAMEDIC COMMUNICATIONS SYSTEM** REFERENCE NO. 716

PURPOSE: To provide base hospitals and paramedic provider agencies with the operational requirements for the Los Angeles County Paramedic Communications System.

AUTHORITY: Health and Safety Code, Division 2.5 Section 1798 (a). California Code of Regulations Title 22, Sections 100168 (b) (4) and 100169 (b).

SYSTEM MANAGEMENT:

I. The Department of Health Services shall be responsible for:

A. Designating one individual within DHS as the Paramedic Communication Systems (PCS) Manager to provide administration and direction of the PCS.

B. Utilizing the Los Angeles County Internal Services Department (ISD) for technical consultation and ongoing design, installation and maintenance of the County-owned portion of the PCS.

C. Assigning base hospital MED channels and continuous tone-controlled squelch systems (CTCSS) tones in consultations with ISD.

D. Notifying affected base hospitals and provider agencies of any proposals for operational or structural changes in the components of the PCS. (No substantial operational or structural changes in the components of the PCS will be made without prior notification of base hospital or provider, or until base hospital, if it wishes, has exhausted administrative due process remedies outlined in the Paramedic Base Hospital Agreement.)

E. Promulgating PCS operational procedures and maintenance standards in cooperation with ISD. Changes shall be approved by the communications Management Committee. (See Section V.)

F. Establishing and maintaining a communications system, which at minimum, provides radio coverage for 90% of the populated geographical areas 90% of the time.

II. The Los Angeles County Internal Services Department (ISD) shall be responsible for:

A. Assuming ongoing responsibility for the design, development, timely implementation and technical integrity of PCS. (To the extent feasible, ISD shall solicit input from the PCS Manager.)

B. Maintaining and repairing County-owned equipment.

APPROVED:

Director, EMS Agency

Medical Director, EMS Agency

C. Preparing PCS communications equipment specifications, operating procedures and maintenance standards.

III. Base Hospitals shall be responsible for:

A. Providing the specific PCS base hospital communications meeting technical requirements outlines in the Los Angeles County's Specification 2027 and operating in accordance with the transmitter power output and antenna specifications as set forth in the Paramedic Base Hospital Agreement.

B. Acquiring, operating and maintaining communications equipment in accordance with applicable FCC Rules and Regulations and California Public-Safety Radio Association (CPRA) procedures and guidelines.

C. Operating, maintaining and repairing hospital-owned PCS equipment in accordance with the Paramedic Base Hospital Agreement, including:

1. Emergency repair of PCS equipment
2. Quarterly preventative maintenance inspections (PMIs).
3. Annual FCC frequency and deviation test for all radios, and visual inspection of antenna structures.

D. Solicitation of annual reports from assigned field provider units about any chronic communication problems to include, but not be limited to, field equipment, dead space, radio failure and co-channel interference, and submit a written report to the EMS Agency (Attention PCS Manager).

E. Obtaining and maintaining leased circuits to current or new remote control stations or to the closer termination point for new or current stations jointly determined by Hospital, EMS and ISD if hospital is afforded capability of remote control of radio stations location at a County site or other remotely located site.

F. Paying for all costs associate with maintenance and repair of remote radio stations, including costs of AC power, owned by hospital and located at non-county sites. Requests for new sites or changes to current site configurations must be submitted in writing to the PCS Manager.

G. Complying with system design, operating and maintenance standards for communications equipment as set forth in the Paramedic Base Hospital Agreement. Request for changes must be submitted in writing to the PCS Manager.

H. Complying with channel/tone assignments for communication with paramedics. Requests for changes must be submitted in writing to the PCS Manager.

I. Providing training of personnel assigned to use PCS equipment.

J. Complying with Paramedic System Trouble Control Procedures set forth in the Base Hospital Agreement.

IV. Provider Agencies shall be responsible for:

A. Equipping each approved Advanced Life Support (ALS) unit with at least one portable radio capable of voice communications with base hospitals and transportable to the patient's side. Radio shall meet technical requirements outlined in the Los Angeles County's Specification 2029. Optional permanently mounted mobile radios meeting Specification 2033 may be used, but do not replace portable radio equipment.

Provider agencies may substitute above portable equipment with "hand-held", half-duplex radios described in Specification 2031. This requires written approval by the EMS Agency. Provider agencies must submit field test reports that verify satisfactory communications with the hand-held units in the geographic area they are intended for use. Reasonable measures shall be taken to ensure base hospital voice communications during transport.

B. Acquiring and maintaining communications equipment in accordance with FCC Rules and Regulations and California Public Safety Radio Association (CPRA) procedures.

C. Operating, maintaining and repairing provider-owned PCS equipment on a routine and emergency basis.

D. Operating PCS equipment in compliance with the Effective Radiated Power (ERP) and antenna specification set forth by ISD.

E. Complying with channel assignments and communications protocols with Base Hospitals.

F. Using the public telephone or cellular telephone systems to **augment**, but **not replace**, the above-defined communications equipment.

G. Obtaining written approval from the PCS Manager for field-testing of equipment not currently approved for use by the EMS Agency prior to the tests.

V. Communications Management Committee

A. Organized to provide technical and administrative assistance to the PCS Manager in the design, maintenance and operation of PCS.

B. The committee shall be composed of the following representatives for their designees:

1. PCS Manager appointed by the Director of DHS.

2. Chief Deputy Director, Internal Services Department

3. Executive Director, Hospital Association of Southern California.

4. Representative nominated by the Emergency Medical Services Commission.

5. Representative nominated by the Los Angeles County Ambulance Association.

6. Representative nominated by the Los Angeles County Chapter of the California Fire Chiefs Association.

C. Failure of the listed non-County agencies to appoint representatives to the CMC shall not invalidate the formation of the CMC. Alternative arrangements which fulfill the purposes of this committee may also be utilized with the approval of the EMS Agency.

D. Committee responsibilities include:

1. Assessing current operations of PCS.

2. Identifying new and ongoing problems.

3. Developing solutions and schedules for resolving problems.

4. Reporting status to participants of PCS on a regular basis.

5. Bringing major problems to the attention of the directors of EMS and ISD.

E. Committee shall meet on an “as-needed” basis.

V. Reporting Communication Problems

A. Provider agencies and base hospitals shall attempt to identify the source of a communication problem (e.g., equipment failure) and take internal steps to resolve the identified problem. If it is determined that the problem involves a County remote site, the base hospital may call the 24 hours/day County ISD Dispatcher at (562) 401-9349.

B. Ongoing system problems or problems involving County-owned equipment or sites should be reported in writing to the EMS Agency (Attention: PCS Manager).

CROSS REFERENCES:

Los Angeles County Specification 2027
Los Angeles County Specification 2029
Los Angeles County Specification 2031
Los Angeles County Specification 2032
Paramedic Base Hospital Agreement