

Alameda County EMS Agency

EMERGENCY MEDICAL SERVICES FOR CHILDREN SYSTEM PLAN



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Goals and Objectives

The primary goal of Alameda County’s EMS for Children (EMSC) Plan is to develop a program focusing on reducing pediatric disability and death through injury prevention efforts as well as ensuring that prehospital providers and 911 receiving facilities are adequately prepared to receive and care for pediatric patients for both day-to-day operations as well as in a disaster or surge events. Alameda County EMS believes that all children – no matter where they live, attend school, or travel in Alameda County – should receive the best care possible in any emergent situation. Should an emergency or disaster occur, our goal is to ensure that emergency personnel are properly trained in pediatrics, that ambulances and emergency departments have the equipment, supplies, and medications needed to treat children of all sizes, and that well-defined and evidence-based pediatric treatment protocols and procedures are in place.

To deliver the best possible pediatric care, we must routinely evaluate our training and knowledge to identify our strengths and weaknesses using appropriate and measurable indicators. By doing so, we can systematically evaluate and improve our key processes and foster our organizational learning and knowledge sharing.

The Alameda County EMS for Children System Plan has been written in accordance with Title 22, Division 9, Chapter 14 of the California Code of Regulations.

EMSC Program – Prevention, Prehospital, and Facility Information

Alameda County has thirteen acute care receiving facilities to serve our community as noted in the table below:

Receiving Facilities	Pediatric Trauma	Pediatric Psych	Adolescent Psych	NICU	PICU
Alameda Hospital (Alameda Health System)					
Alta Bates Summit – Berkeley				✓	
UCSF Benioff Children’s Hospital Oakland	✓	✓		✓	✓
Eden Medical Center					
Highland Hospital (Alameda Health System)				✓	
Kaiser – Fremont					
Kaiser – Oakland				✓	✓
Kaiser – San Leandro				✓	
San Leandro Hospital (Alameda Health System)				✓	
St. Rose Hospital					
Stanford Health Care Tri-Valley Hospital				✓	
Alta Bates Summit – Oakland					
Washington Hospital				✓	

All of the facilities, have emergency departments which routinely care for pediatric patients. Two facilities – UCSF Benioff Children’s Hospital-Oakland and Willow Rock – are pediatric specific receiving centers – seeing no adult patients – and one of the facilities, John George Psychiatric

Pavilion, does not accept any pediatric patients.

Alameda County, with a population of just over 1.6 million residents of which, based upon the 2022 U.S. Census, has 20.1% of the population under the age of 18. Only approximately 4% of all EMS transports in Alameda County are for patients less than 18 years of age. In 2022, 4,736 pediatric patients were transported via EMS: 769 with traumatic injuries, 3,823 with medical complaints, and 144 with “unknown” reasons. With the limited exposure to pediatric patients and the rarely encountered seriously ill or injured pediatric patient, it is critical to continuously train our personnel to effectively manage this population by being prepared, organized, and knowledgeable to take care of any emergent situation that may arise.

Emergency Medical Services for Children in Alameda County has four distinct and equally important components. These components are injury prevention, prehospital care, definitive care at receiving facilities and pediatric surge preparedness. Alameda County EMS works collaboratively with our system partners to continually improve each of the four components.

Prevention

Alameda County EMS is the only EMS Agency in the State of California to have an injury prevention division. Alameda County EMS Injury Prevention (ALCO EMS IP), while also providing Senior Injury Prevention, has a significant focus on Childhood Injury and is the lead agency for Safe Kids Alameda County, a member of Safe Kids Worldwide as well as other national and community organizations. ALCO EMS IP provides education, training, and safety equipment to enhance pediatric safety and reduce potential injuries. Efforts include:

- Car Safety Seat and Booster Installation Instruction
- Car Safety Seat and Booster Distributions
- Child Bicycle Helmet Education
- Child Bicycle Helmet Distributions
- Teen Impact Driver Safety Instruction
- Child Pedestrian Safety Education
- Annual Safe Kids Day Health and Wellness Fair

Prehospital Providers

Alameda County Emergency Medical Services are provided by our fire department first response advanced life support, fire transport in the cities of Alameda, Albany, Berkeley, and Piedmont, and with a private transport provider utilized in the remaining portions of the county. The EMS Agency Medical Director and EMS Agency Coordinators oversee the system and collaborate with individual prehospital care providers. The majority of fire departments and the private provider have medical directors, educators, and liaisons responsible for overseeing their individual organizations and report to the Alameda County EMS Agency regularly. Prehospital pediatric care is supported by [written policies, protocols, plans](#), pediatric specific equipment (Exhibit B), and online medical control whenever needed. Annual EMS prehospital training is provided on pediatric policies and procedures.

Hospital Pediatric Receiving Centers – Definitive Care

California State Regulations define a Pediatric Receiving Center (PedRC) as a licensed general acute care hospital with, at a minimum, a permit for standby or basic emergency services that has been formally designated as one of four types of PedRCs pursuant to Title 22, sections 100450.218 through 100450.222, by the local EMS agency for its role in an EMS system.

Currently, Alameda County receiving facilities are all considered pediatric ED receiving centers. Formal hospital PedRC designations such as Comprehensive, Advanced, or General, per regulations, have not yet been assigned and approved. However, all hospitals have been given the EMS for Children regulation requirements and are aware of the intent to formally designate in the near future. This plan outlines the requirements for our facilities to apply for designation pursuant to the standards set forth by the above-mentioned EMS for Children regulations. It is the intention of the Alameda County EMS Agency to have all receiving facilities with emergency rooms in Alameda County to meet at least the General PedRC level requirements for designation. Additionally, we believe that UCSF Benioff Children’s Hospital would meet the Comprehensive PedRC level requirement and that Kaiser Oakland would meet the Advanced or Comprehensive PedRC level requirement.

National Pediatric Readiness Project (NPRP)

Alameda County EMS Agency will begin its efforts to assess and designate official EMSC statuses with hospital executed agreements, in alignment with regulations, for our receiving facilities in 2024. We have been actively working with our facilities through the National Pediatric Readiness Project (NPRP) initiative. All of our receiving facilities with emergency rooms have successfully completed the NPRP evidence-based survey in 2023 and identified the Pediatric Emergency Care Coordinators (PECCs). Upon receipt of their NPRP survey results, and in partnership with UCSF Benioff Children’s Hospital Oakland, Alameda County EMS schedules pediatric readiness site visits at each hospital every two years. During the EMS pediatric readiness site visit session, NPRP and surge capacities are reviewed with a robust simulation training and assessment. The goal is to identify effective pediatric capabilities and readiness strengths as well as opportunities to enhance their care for pediatric patients day to day and in a pediatric surge event. Following the Hospital Pediatric Readiness Site Visits, each hospital is provided with an executive summary and resource packet customized to their needs.

Pediatric SMEs from the Western Regional Pediatric Emergency Management Alliance (WRAP-EM) and the Pediatric Pandemic Network (PPN) including the Alameda County EMS EMSC Coordinator lead and facilitate the Pediatric Readiness Hospital Site Visits. Ongoing communication, training, and follow-up virtual calls (to provide assessment feedback, identify gaps and future resource needs) are offered to the hospital PECCs, pediatric hospitalists, and others as needed.

Prehospital Pediatric Readiness Project (NPPRP)

In 2024, Alameda County EMS is extending the pediatric readiness process to the prehospital setting by using the NPPRP evidence based prehospital assessment tools with customization as needed for our prehospital care providers and incorporating a similar review and simulation training component in partnership with UCSF Benioff Children’s Hospital Oakland. The prehospital assessments will align with the National and State EMSA EMSC

recommendations:

- <https://emscimprovement.center/domains/prehospital-care/prehospital-pediatric-readiness/>
- <https://emscimprovement.center/domains/prehospital-care/prehospital-pediatric-readiness/checklist-faq/>

EMSC – Patient Flow

Upon activation of 911, injured or ill pediatric patients are identified by communication center dispatchers. The majority of Alameda County is triaged through one of two ACE-accredited communications centers who utilize the Medical Priority Dispatch System. Dispatcher-assisted care is immediately rendered, when appropriate through pre-arrival instructions, while field personnel are en route, with the overall goal being to improve patient outcomes by reducing disability and death.

Prehospital personnel utilize Alameda County EMS Agency [policies and protocols](#) to assess stability, initiate treatment, and determine the most appropriate destination. Due to the geography of our county almost all patients, if transport is indicated, are transported by ground ambulance. Seldom are local air ambulances (e.g., REACH, CHP) utilized.

To expedite transfer at arrival and for continuity of care, EMS personnel notify the emergency department by radio as soon as possible of an incoming pediatric patient. Communication includes their unit number and transport code, age and gender of the patient, chief complaint of the illness or injury (including mechanism), treatments, vital signs, and estimated time of arrival.

Additionally, all pediatric patients transported via ambulance are measured with a color-coded length-based tape and the color is reported in the electronic health record as well as to the receiving facility prior to the patient's arrival. This allows enhanced preparation for the emergency department team.

Currently, Alameda County has not integrated the PedRCs concept in the EMS Field Policy Manual or implemented any destination changes for pediatric patients. For medical and minor injury complaints, patients may be transported to any one of our thirteen 911 receiving facilities with emergency departments. Any injured pediatric patient with anatomic or physiologic findings based on the Alameda County Trauma Triage Protocol are transported to UCSF Benioff Children's Hospital Oakland. Should a severely injured child arrive at any other facility within Alameda County, the hospitals use the trauma re-triage procedure, described in [protocol](#), to expedite transfer of care to the UCSF Benioff Children's Hospital Oakland.

The table on page 2 lists those facilities with Neonatal and Pediatric Intensive Care as well as specialized pediatric and adolescent behavioral health capabilities. Facilities lacking those capabilities are encouraged to have transfer and transport agreements in place to facilitate those needs. NICU and PICU availability is not currently factored into EMS transport destination decision making, however would likely play a role in future designation. Pediatric and adolescent behavioral health destination decisions are currently dictated by [protocol](#).

Alameda County EMS intends to recognize PedRC designations from contiguous counties. While Alameda County EMS providers are encouraged to use receiving facilities within Alameda County when making destination decisions, it is recognized that extenuating circumstances may exist where transport to a facility outside of Alameda County is the closest and most appropriate destination.

As with any specialty designation, Alameda County EMS shall review the designation made by contiguous or other LEMSAs and ensure that there is an EMSC plan that is approved by EMSA. Alameda County has the luxury of a children’s hospital and facilities with advanced pediatric capabilities in our county, so the majority of our critically ill or injured pediatric patients would be taken to those facilities. However, it is recognized that there are several circumstances, to include but not limited to parental choice or the need for specialty care not available in county such as burn care, that may lead to pediatric patients being transported out of our county, particularly in the far east and south portions of our county. We will work collaboratively with our neighboring LEMSAs to ensure that appropriate pediatric destinations are identified to meet the needs of these patient populations.

EMSC – Data Management and Quality Improvement

Both prehospital and hospital programs have several components to ensure a high level of quality care. These include:

- Structure of Programs and Oversight
- Data collection and reporting (audits, benchmarking, etc.)
- Evaluation of EMS system indicators
- Quality Improvement and Assurance Cycles
- Training and education
- Re-evaluation and iterative feedback

The Alameda County EMS Agency EMSC and Pediatric QI Committee has been established and meets biannually (and more frequently as we strengthen our program). The first meeting this year was held in May 2024 to review performance data, identify areas in need of improvement, and carry out and monitor improvement efforts. Attendees include the prospective PedRC Medical Directors, Program Managers, hospital PECCs, EMS Agency personnel including the Medical Director and EMSC Coordinator, and EMS stakeholders (fire and private providers).

EMS data is collected via our electronic medical record keeping program, ESO, and we are actively working with ESO to construct Health Data Exchanges (HDE) with our receiving facilities. Currently HDE is active with six of our receiving facilities. Tentative timelines for HDE being established with the remaining facilities is noted in the table below:

Receiving Facilities	HDE Status
Alameda Hospital (AHS)	Active
Alta Bates Summit Hospital – Berkeley	Tentative 2Q 2024
UCSF Benioff Children’s Hospital	Active 2023
Eden Medical Center	Tentative 2Q 2024

Highland Hospital (AHS)	Active
Kaiser – Fremont	Tentative 2Q 2024
Kaiser – Oakland	Tentative 2Q 2024
Kaiser – San Leandro	Tentative 2Q 2024
San Leandro Hospital (AHS)	Active
St. Rose Hospital	Active
Stanford Health Care Tri-Valley Hospital	Tentative 3Q 2024
Alta Bates Summit Hospital Oakland	Tentative 2Q 2024
Washington Hospital	Active

All such records that include Protected Health Information (PHI) as defined by the Health Insurance Portability and Accountability Act (HIPAA) are handled confidentially per the statute. If at any time a hospital or the EMS Agency identifies a need for improvement, an EMS Unusual Occurrence Form may be generated, and a performance improvement action plan will be developed by the EMS Medical Director and/or PedRC Committee recommendations.

Data elements collected through ESO, HDE, and facility follow up will include, at minimum, the following:

1. **ESO Electronic Health Record:** Baseline data from pediatric ambulance transports, including, but not limited to:
 - a. Arrival time/date to the emergency department
 - b. Date of birth
 - c. Mode of arrival
 - d. Gender
 - e. Primary impression
 - f. Race/ethnicity
 - g. Housing status

2. **HDE:** Basic outcomes for EMS quality improvement activities, including but not limited to:
 - a. Admitting hospital name, if applicable
 - b. Discharge or transfer diagnosis
 - c. Time and date of discharge or transfer from the Emergency Department
 - d. Disposition from the Emergency Department
 - e. External cause of injury
 - f. Injury location
 - g. Residence zip code

3. **HDE and Facility Follow Up:** Specific patient outcome and disposition data from receiving facilities related to:
 - a. Cardiopulmonary or respiratory arrests.
 - b. Child maltreatment cases.
 - c. Deaths.

- d. ICU Admissions.
- e. OR Admissions.
- f. Transfers.
- g. Trauma Admissions.

Additionally, specific pediatric prehospital quality performance measures may be developed, and outcome data may be requested regarding the following interventions and subset of patients:

- a. Airway Management – Assessment, Monitoring, Airway Maneuvers
- b. Allergic Reactions Treatment and Outcome
- c. Asthma (Respiratory distress with bronchospasm > = 2-year-old)
- d. Behavioral Health
- e. Bronchiolitis (Respiratory distress < 2 years old)
- f. Cardiopulmonary or respiratory arrests.
- g. Croup Treatment and Outcome
- h. Death
- i. Pain – (including Pediatric Intranasal Fentanyl for Prehospital Pain Management)
- j. Medication Safety
- k. Seizures Treatment and Outcome
- l. Shock Recognition and Treatment
- m. Spinal Care Risk Assessment and Management
- n. Trauma

Current Pediatric Data Metrics (Prehospital) – May-June 2024

Alameda County EMS Pre-Hospital Metrics _ Pediatric (≤14yrs)			
Category	Metric Name	Metric Description	Type of Metric
Cardiac	PCAR -1	Cardiac Arrest Survival - Non-Traumatic Arrest	Outcome
	PCAR-2	Cardiac Arrest Hospital Admissions - Non-Traumatic Arrest	Outcome
Respiratory / Airway	PRESP-1	Respiratory Assessment for Respiratory Distress	Process
	PRESP-2	Bronchodilator Administration for Bronchospasm (Transports Only)	Process
	PRESP-3	Supraglottic Airway Device - i-GEL Success Rates	Process
Trauma	PTRA-1	90th Percentile Scene Times for Trauma Alerts	Process
	PTRA-2	Trauma Alerts Transported to a Pediatric Trauma Receiving Center	Process
	PTRA-3	Patients Meeting Critical Trauma Criteria documented as a Trauma Alert	Process
	PTRA-4	Appropriate Use of Pediatric Trauma Re-Triage	Process
Medication Administration	PMED-1	Accuracy for all Weight-Based Pediatric Medication Administrations	Process
Seizures	PSEIZ-1	Midazolam Administration for Active Seizures	Process

Pain Management	PPAIN-1	Fentanyl Administered for Pain ≥ 7	Process
Other	PEDS-1	Treatment Administered for Hypoglycemia with Altered Mental Status	Process
	PEDS-2	Blood Pressure Assessment for Patients < 3 years of age	Process
	PEDS-3	Weight or Peditape Color for all Patients Receiving a Weight-Based Medication	Process
	PEDS-4	Blood Glucose Level Assessment for Altered Mental Status	Process
	PEDS-5	Appropriate Destination for Pediatrics on an Involuntary Psychiatric Hold (5585) [≤ 17 yrs]	Process

Alameda County has already been working collaboratively with the Pediatric Emergency Care Applied Research Network (PECARN). PECARN is a federally funded multi-institutional network for research in pediatric emergency medicine. The goal of PECARN is to conduct meaningful and rigorous multi-institutional research into the prevention and management of acute illnesses and injuries in children and youth across the continuum of emergency medicine. UCSF is a participating PECARN site with Alameda County EMS as is their prehospital affiliate. Alameda County EMS is actively involved in enrolling patients in the Pediatric Dose Optimization for Seizures in EMS (PediDOSE) study. This study is a prehospital study that is hoping to define the best method of calculating midazolam dose treatment for status epilepticus in pediatric patients.

Data collection will strive to be as consistent as possible with current National and State EMSA evidence-based metrics including:

- <https://emscimprovement.center/domains/prehospital-care/prehospital-pediatric-readiness/pprp-toolkit/quality-improvement-qi-process-improvement-pi/>
 - [Pediatric Readiness in Emergency Medical Services Systems:](#)
 - Prehospital QI
 - Education and Competencies for Providers
 - Equipment and Supplies
 - Interactions with Systems of Care
 - Coordination of Pediatric Emergency Care
 - Patient and Family-Centered Care in EMS
 - Patient and Medication Safety
 - Policies, Procedures, and Protocols
 - Quality Improvement/Performance Improvement
- <https://emscimprovement.center/programs/partnerships/performance-measures/>
- <https://emsa.ca.gov/wp-content/uploads/sites/71/2022/11/SYS-100-11-2022-2023-Data-11-8-2022-First.pdf>

EMSC – Injury and Illness Prevention Planning

Although our EMS Agency has not previously formalized an EMSC System Plan, for several years we have promoted and formally addressed pediatric injury and illness prevention, and planning activities via prehospital, hospital, and public education.

1. We have provided free public education on Hands-Only CPR and Stop the Bleed, working closely with Wilma Chan Highland Hospital and [EMS Corps](#), to bring

- education and needed tools directly to public venues such as the Oakland Zoo.
2. In 2023, Alameda County EMS Injury Prevention Division (ALCO EMS IP) became trainers for the [Impact Teen Driving](#) Program. The program has been implemented in several schools so far, with an intent to expand to other schools in the future.
 3. Community health activities are an important aspect of injury and illness prevention. Each year ALCO EMS IP orchestrates the Safe Kids Day Health and Wellness Fair which is an all-day free event typically hosted at the Oakland Arena. The event consists of bike safety education, diaper distributions, bicycle helmet and car seat distributions, and an opportunity for various local health and safety organizations to get their messages out to the community.
 4. ALCO EMS IP has had a helmet safety program for several years, assisting in providing helmets to those who cannot afford them as well as those who present without one. Helmets are free and range in size from toddler (2-4 years of age) to a large teen/adult size. Helmet distribution halted due to COVID but resumed with Safe Kids Day Health and Wellness Fair in June 2023.
 5. ALCO EMS IP conducts regular monthly child safety seat inspections at the EMS Agency office. In addition, they work with our law enforcement and community organizations to provide education and free safety inspections for child safety seats throughout our community.
 6. ALCO EMS IP regularly distributes hundreds of child safety and booster seats each year during inspection events and through community outreach groups, providing them for a significantly reduced cost or free.
 7. ALCO EMS IP is the lead agency for Safe Kids Alameda County, a member of Safe Kids Worldwide which is a nonprofit organization working to help families and communities keep kids safe from injuries. Safe Kids works with an extensive network of more than 400 coalitions in the United States and with partners in more than 30 countries to reduce traffic injuries, drownings, falls, burns, poisonings and more.

As the LEMSA, our agency provides oversight and system integration for Pediatric Receiving Center Quality Improvement activities including:

- Creating a Pediatric Receiving Center designation plan, to include specialized pediatric care, for approval by the LEMSA
- Developing or revising specific pediatric policies, procedures, and protocols
- Developing and revising Pediatric Surge Plans consistent with HPP/ASPR requirements, Western Regional Alliance for Pediatric Emergency Management (WRAP-EM), Pediatric Pandemic Network, and National Pediatric Disaster Coalition subject matter expertise.
- Developing and distributing “Pediatric Surge PLAYBOOK” educational tools and resources; participating in National and State Conferences to promote pediatric surge readiness education and partnerships
- Receiving and investigating EMS Unusual Occurrence pertaining to pediatric care
- Reviewing performance improvement plans for issues identified by CQIP
- Producing and distributing pediatric data reports
- Reviewing annual CQIP updates from designated PedRCs and EMS service providers

- Scheduling and staffing EMS stakeholder EMSC and Pediatric QI meetings
- Establishing future goals and objectives using evidence-based practice and with our stakeholders' input, we will:
 1. Support and promote our existing illness and injury prevention programs, and
 2. Focus on CQI for ensuring appropriateness and accuracy of prehospital pediatric medications.

Effectiveness of the EMSC Program can be directly related to the effectiveness of training received by all constituents. Administrative and medical oversight is heavily involved at all training levels. All paramedics accredited in Alameda County are required to maintain PALS certification to ensure readiness to respond to pediatric emergencies.

Prehospital education on pediatric care, guided by data and our process improvement activities, is provided on an on-going and as needed basis throughout the year.

EMSC – Pediatric Surge Planning

The 2022 RSV and Respiratory Illness Pediatric Surge event highlighted the significant national limitations and gaps in pediatric inpatient critical care capability, and pediatric patient transfer capacity. In order to ensure effective pediatric operational all-hazard response, the priority Pediatric Surge Planning remains an area we continue to discuss and revise with our Healthcare Preparedness Program (HPP). The [Pediatric Surge plan](#) is an Annex to our Healthcare Preparedness Program (HPP) Response Plan Summary Document. This Pediatric Surge Annex references and aligns with the Alameda County Response Plans including a summary of the Alameda County Medical Health Operational Area Coordinator (MHOAC) Program plans and procedures that would be activated to support the healthcare facility response in an emergency. The EMSC Coordinator supports the MHOAC to conduct pediatric customized polls as needed in actual events. The pediatric surge staffed bed capability is updated daily via ReddiNet.

The EMSC Coordinator leverages pediatric subject matter experts across multiple pediatric networks as needed. The EMSC Coordinator contributed to the published WRAP-EM Pediatric Surge PLAYBOOK which is an attachment to the ALCO Pediatric Surge Plan mentioned above: <https://wrap-em.org/index.php/jit-resources/pediatric-surge-playbook>. The EMSC Coordinator is also the EMS Liaison to the National Pediatric Disaster Coalition (NPDC).

Pediatric scenarios and component capabilities are routinely integrated into disaster exercises and trainings to emphasize the nuance of pediatric patient triage, movement, and surge expansion. Alameda County EMS has recommended pediatric surge expansion and decompression strategies for a catastrophic event which are included in the Pediatric Surge Annex to the HPP Response plan and tested with WRAP-EM and in annual HPP required exercises. Additional information and guidance are available in the EMS Field Guide and on the [ALCO EMS Website – EMS for Children](#).

EMSC Alameda County EMS Agency Staff

Name	Title
Lauri McFadden	EMS Director
William McClurg	EMS Deputy Director
Zita Konik, MD	EMS Medical Director
Nicole D'Arcy, MD	Deputy EMS Medical Director
Cynthia Frankel, RN	EMS Coordinator; EMSC Program Coordinator
Naila Francies, EMT-P	EMS Coordinator
Kat Woolbright	Injury Prevention Program Manager

Exhibit A – Pediatric Transport Volume – 2023 and 2022

2023

Destination Location Name 2023	Count of Transports
Children's Hospital & Research Center Oakland	1,375
Washington Hospital, Fremont	342
Stanford Health Care Tri-Valley Hospital	245
Kaiser Permanente, San Leandro Medical Center	242
Kaiser Permanente, Oakland Medical Center	211
Kaiser Permanente, Fremont	191
Eden Medical Center	157
Kaiser Permanente, Walnut Creek	104
Saint Rose Hospital	81
San Leandro Hospital	63
Alameda County Medical Center, Highland	54
Willow Rock Center	35
Stanford Health Care	28
Alta Bates Summit Medical Center, Alta Bates Campus	24
Alta Bates Summit Medical Center, Summit Campus	24
Alameda Hospital	19
Santa Clara Valley Medical Center	11
San Ramon Regional Medical Center	6
Lucille Packard Children's Hospital at Stanford	5
John Muir Medical Center, Walnut Creek	4
Kaiser Permanente, Richmond	3
UCSF Benioff Children's Hospital	2
Saint Francis Memorial Hospital	2
Alta Bates Summit Medical Center, Herrick Campus	2
Regional Medical Center of San Jose	1
Kaiser Permanente, Antioch	1
John George Psychiatric Pavilion	1
TOTAL	3,233

2023

TRANSPORTED PEDI PTS BY AGE - 2023		
Age	Number	Percent
<1	367	11%
1	408	13%
2	234	7%
3	212	6%
4	157	5%
5	122	4%
6	115	4%
7	126	4%
8	105	3%
9	101	3%
10	133	4%
11	187	6%
12	245	8%
13	360	11%
14	392	12%
TOTAL	3264	

TRANSPORTED TYPE PEDI PT. 2023	
MEDICAL	76%
TRAUMA	22%
TRAUMA & MEDICAL	2%
UNK	0%
TOTAL	3264

2022

Destination - 2022	TOTAL
Alameda Hospital	61
Alta Bates Berkeley	117
California Pacific Medical Center	2
Eden Medical Center	325
Highland Hospital	269
John George Psychiatric Pavilion	2
John Muir Medical Center, Walnut Creek	6
Kaiser Antioch	3
Kaiser Fremont	314
Kaiser Manteca	1
kaiser Modesto	1
Kaiser Oakland	333
Kaiser Richmond	8
Kaiser San Leandro	426
Kaiser Santa Clara	1
Kaiser Walnut Creek	130
Lucille Packard Children's Hospital at Stanford	5
Regional Medical Center	8
San Joaquin General Hospital	3
San Leandro Hospital	140
San Ramon Regional Medical Center	9
Santa Clara Valley Medical Center	11
SF General Hospital	1
St Francis Hospital	1
St Rose Hospital	155
Stanford Health Care Tri-Valley Hospital	309
Stanford Palo Alto Campus	21
Alta Bates Summit Hospital Oakland	65
Sutter Tracy Community Hospital	1
UCSF Benioff Children's Oakland	1416
Washington Hospital	523
Willow Rock Center	54
Other Specified Location	15
TOTAL	4736

TRANSPORTED PEDI PTS BY AGE, 2022		
Age	Number	Percent
1	472	9.97%
2	309	6.52%
3	209	4.41%
4	168	3.55%
5	154	3.25%
6	142	3.00%
7	137	2.89%
8	140	2.96%
9	141	2.98%
10	164	3.46%
11	164	3.46%
12	272	5.74%
13	340	7.18%
14	399	8.42%
15	455	9.61%
16	486	10.26%
17	584	12.33%
TOTAL	4,736	100%

TRANSPORTED TYPE PEDI PT. 2022	
MEDICAL	3,823 (80.73%)
TRAUMA	769 (16.24%)
UNK	144 (0.03%)
TOTAL	4,736

Exhibit B – Pediatric-Specific Equipment List

Minimum Supply Specifications	BLS	ALS Non- Transport	ALS Transport
AIRWAY EQUIPMENT			
Oropharyngeal Airways (Sizes 0-3)	1 each	1 each	1 each
Nasopharyngeal Airways (14, 18, 22, 26 Fr.)	1 each	1 each	1 each
McIntosh Laryngoscope Blades (#2, #1)		1 each	1 each
Miller Laryngoscope Blades (#2, #1)		1 each	1 each
Pediatric Magill Forceps		1 each	1 each
i-gel Supraglottic Airway (1.0, 1.5, 2.0, 2.5)	2 each (optional)	1 each (1.0 optional)	1 each (1.0 optional)
Pediatric/Infant Non-Rebreather Masks	1 each	1 each	1 each
Pediatric End-Tidal CO ₂ Sampling Nasal Cannula		1 each	1 each
Pediatric BVM with O ₂ reservoir and facemask	1 each	1 each	1 each
Infant BVM with O ₂ reservoir and facemask	1 each	1 each	1 each
Pediatric Suction Catheters (6, 10, 18 Fr.)	1 each	1 each	1 each
EQUIPMENT AND SUPPLIES			
AED “Hands-Off” Defib Pads	1 set		
Pediatric Blood Pressure Cuff	1 each	1 each	1 each
Infant Blood Pressure Cuff	1 each	1 each	1 each
Bulb Syringe (Optional if in Delivery Kit)	1 each	1 each	1 each
Delivery Kit Sterile, prepackaged to include: <ul style="list-style-type: none"> • Minimum of two (2) umbilical cord clamps • Scissors (may be separate) • Aspirating Bulb Syringe • Gloves • Drapes • Antiseptic Solution 	1 each	1 each	1 each
EMS Approved Length Based Resuscitation Tape (LBRT)		1 each	1 each
Monitor/Defibrillator “Hands Off” Pediatric Defib Pads		1 each	1 each
IMMOBILIZATION EQUIPMENT			
Pediatric Spine Board with Velcro Straps and Head Harness	1 each (IFT Optional)	1 each	1 each
IV EQUIPMENT/SYRINGES/NEEDLES			
Pediatric Arm Boards		1 each	1 each
IV Catheters (22G, 24G)		2 each	2 each
EZ-IO 15mm Needle Set (Pink)		1 each (optional)	2 each (optional)
EZ-IO 25mm Needle Set (Blue)		1 each	2 each
T-connector		1 each	2 each

Attachment 1: Hospital NPRP Assessment

- Link: <https://www.pedsready.org/>

Attachment 2: Prehospital Pediatric NPRP Assessment – Link <https://emspedsready.org/>

Attachment 3: EMSC and Pediatric Clinical Committees - Description

- Pediatric integration and QI occur in Alameda County EMS regularly held meetings with Alameda County EMS partners (monthly or quarterly)
 - Alameda County EMS Pediatric Clinical Monthly Meetings
 - **Alameda County EMSC and Pediatric QI Meetings (Bi-Annual) ***
 - BLS Providers
 - Medical Dispatch Review Committee
 - Receiving Hospital Meeting
 - EMS Quality Council
 - Disaster Preparedness Healthcare Coalition (DPHC) Quarterly Meetings
 - Cardiac Arrest System of Care Meeting

* Includes EMS Pediatric Receiving Hospital and Prehospital PECCs

EMSC and Pediatric QI Committee

OBJECTIVES

- A standing committee that advises on pediatric hospital and prehospital care.
- The subcommittee's goals are the evaluation of pediatric policies and protocols for the EMS system with the responsibility for addressing system vulnerabilities and needs.
- The subcommittee supports the EMS Medical Directors by evaluating topics and data related to identified issues such as clinical research on prehospital pediatric care, clinical outcomes, community education, interfacility transfers, repatriation, and long-term outcomes.

TIMEFRAME

- Scheduled: Two times per year.

LEAD AND FACILITATORS

- EMSC Coordinator supported by EMS Medical Directors, EMS Administrators, and QI Coordinator

TARGET GROUP

- Representatives from Pediatric Specialty Hospitals (including: PECCs and ED Medical/Nursing Directors from Pediatric Receiving Centers); Alameda County Pediatric Specialty Centers for Critical Care include UCSF Benioff Children's Hospital and Kaiser Oakland Medical Center.
- Representatives from each non-specialty pediatric receiving hospital ((hospital administration, PECCS, and one clinical expert) who are knowledgeable about the pediatric cases reviewed at each institution's pediatric committee
- Representatives from Prehospital EMS Provider Agencies (EMS Liaisons, QI, PECCs, and Medical Directors)

Attachment 4: Pediatric Resources, Research and Pediatric Policies – Links:

- <https://emscimprovement.center/news/pecarn-cooperative-agreements-awarded-2023/>
- <https://pecarn.org/research-nodes/>
- [Alameda County EMS Website - EMSC Resources https://wrap-em.org/](https://wrap-em.org/)