

San Francisco Emergency Medical Services Agency

EMS for Children (EMSC) Plan



Goals and Objectives

The City and County of San Francisco has a long-standing commitment to our pediatric population with a primary goal of providing the best possible emergency medical care at the right time, every time.

To meet this goal, San Francisco Emergency Medical Services Agency (SFEMSA) assembled stakeholders across the system including first responders, 9-1-1 dispatch, EMS Providers, and hospitals to align our commitment to the best possible care for San Francisco's pediatric population.

This EMS for Children plan has been written in accordance with California Code of Regulations, Title 22, Division 9, Chapter 6.4.

SFEMSA EMSC Agency Staff

Title	Name	Role Related to Program	Frequent or Occasional
EMS Medical Director	Dr. Amelia Breyre	Medical Direction, strategic planning, clinical evaluation, research	Frequent
EMS Director	Andrew Holcomb	Policy decisions, strategic planning, plan submission, agreements/contracts	Frequent
EMS Deputy Director, Operations	Kayleigh Hillcoat	Operational issues, adverse outcome review	Occasional
EMS Deputy Director, QI	Elaina Gunn	Program Manager: Quality Improvement, policy development, public outreach	Frequent
EMS Specialist (QI)	TBD	Program specialist: Quality Improvement, policy development, committee representative	Frequent
EMS Specialist (Training)	Ron Pike	Training development and delivery	Occasional
Epidemiologist	Will Godwin	Quality Improvement data analysis and dashboard development	Occasional
EMS Info and Guidance Specialist	Erin Bachus	Training development and delivery	Occasional

Hospital and Prehospital Information

The City and County of San Francisco has a population of 808,000 residents and a mean age of 40.4 years. Of these residents, 8% are between the age of 0 and 9 years and 7% between the age of 10 and 19 years*. Source: U.S. Census Bureau, Vintage 2020 Population Estimates. Figure prepared by MCAH Epidemiology.

San Francisco has ten Receiving Facilities, which are designated to all receive EMS pediatric patients. Of the ten Receiving Facilities, two are identified by SFEMSA as Pediatric Critical Medical Receiving Facilities (CPMC Van Ness and UCSF Mission Bay) and one Level 1 Trauma Center (ZSFG). Both UCSF and CPMC have pediatric rehabilitation and physical therapy resources available for both inpatient and outpatient.

SFEMSA is currently revising policies pertaining to EMSC to align hospital designation with current state regulations for Basic, Advanced, and Comprehensive Pediatric Receiving Centers standards. Site reviews have a goal of completion by mid-to-end of 2026. At that time, SFEMSA anticipates having at least one Advanced Pediatric Receiving Center and one Comprehensive Center designated in San Francisco.

Pediatric transports in San Francisco remain between 1.5 and 2% of all 9-1-1 transports annually. This percentage remains consistent with overall volume trends. In 2024, there were a total of 2,137 pediatric transports that made up 1.89% of overall transports in SF.

All 9-1-1 calls are routed through the Department of Emergency Management's 9-1-1 call center, where a call taker directs it to the appropriate dispatcher based on location of emergency and then dispatches nearest available unit to the call. Patients under age 18 with 1 or more of the following medical conditions are transported to the closest Pediatric Critical Medical Receiving Facility:

- Cardiopulmonary arrest or post-arrest
- Hypotension with shock
- Status epilepticus
- Acute deteriorating level of consciousness without trauma

Under [Policy 3020](#) (Field to Hospital Communications), any patient meeting Pediatric Critical Care Destination Criteria, receiving critical care centers will receive a Pediatric Critical Alert from EMS field personnel prior to arrival.

Pediatric patient meeting [Trauma Triage Criteria](#) are transported to ZSFG for initial stabilization and potential referral to a pediatric trauma center, case dependent. For Pediatric Mass Casualty Incident Triage, SFEMSA uses the Jump START Pediatric MCI Triage Algorithm as the first triage system, followed by additional applicable scoring systems (such as Trauma Triage Criteria, GCS, Burn Rule of Nines, etc.), all of which are clearly outlined in the SFEMSA MCI [Policy 8000 Section 3.9](#). Additionally, Policy 8000 [Section 3.10](#) outlines that the assigned distribution of pediatric patients and when pediatric patients are distributed out-of-county.

San Francisco has three 9-1-1 EMS providers: SFFD, AMR and King American. EMS Providers utilize SFEMSA's [policies and protocols](#) to assess stability and initiate treatment of pediatric patients. All 9-1-1 EMS Providers have representation on the SFEMSA EMSC Subcommittee.

EMSC Data Management and Quality Improvement

In 2021, SFEMSA re-established the EMSC Subcommittee, a multidisciplinary subcommittee of the EMS Advisory Committee that advises on pediatric prehospital care. Membership of this subcommittee includes representation from each of the Pediatric Critical Medical Facilities, 911 EMS Providers, ZSFG trauma center, and EMS for Children advisor, Dr. Efrat Rosenthal. The subcommittee's goals are the evaluation of pediatric policies and protocols for the EMS system with the responsibility for addressing system vulnerabilities. The subcommittee assists the SFEMSA Medical Director by evaluating topics and data about pediatric-specific issues such as clinical research on prehospital pediatric care, clinical outcomes, community education, interfacility transfers, repatriation, and long-term outcomes. This

subcommittee reviews all cardiopulmonary or respiratory arrests, child maltreatment cases, deaths, ICU, OR and trauma admissions, and transfers.

The EMSC subcommittee meets three times per year. Over 2023 and 2024 SFEMSA was able to conduct a complete review and revision of all pediatric-related clinical protocols to align them with current clinical practice guidelines. Revised protocols were distributed for training to EMS Providers in early 2024 and are currently in effect.

Prehospital data elements are collected through submission to CEMSIS by all 9-1-1 EMS providers and include (but are not limited to):

- Arrival time/date to the ED
- Date of Birth
- Mode of arrival
- Gender
- Primary Impression
- Residence zip code

Additionally, the EMSC Subcommittee established a baseline data set with a data collection process to close the gap on patient outcomes from hospitals. Beginning in early 2025, each hospital will submit the following elements monthly to SFEMSA. These elements will be integrated into the existing prehospital data collection to present a complete picture of patient care and outcomes. These elements include:

- Age
- Mode of arrival
- Time/date of arrival
- Admitting Hospital
- Discharge or Transfer Diagnosis
- Time/date of discharge or transfer from ED
- Disposition from ED
- External cause of injury
- Injury location
- Additional notes/narrative as appropriate

Policy and Protocol Process

All policies and protocols are vetted and reviewed by stakeholders, including members of the public, in an open and transparent process. Anyone can recommend review and propose changes to a given protocol or policy. These recommendations are then escalated through the respective committees or subcommittees and reviewed by specialty advisors when appropriate. All protocols are put forward for public comment on the SFEMSA website prior to being submitted for final review.

New or revised protocols are released on scheduled dates twice per year (with rare exception), and all revisions and changes are made available to EMS providers 3 to 9 months prior to release. EMS Providers are responsible for ensuring their members are educated and trained on all changes at or before the “go live” release dates. The review and revision of all [pediatric clinical protocols](#) followed the above process.

Personnel Training and Education

All EMS Providers in San Francisco are responsible for providing prehospital pediatric training and education while being subject to oversight by the SFEMSA Medical Director. Requirements for training are supported by SFEMSA policies and protocols, pediatric-specific equipment requirements, and collaboration with the SFEMSA Medical Director.

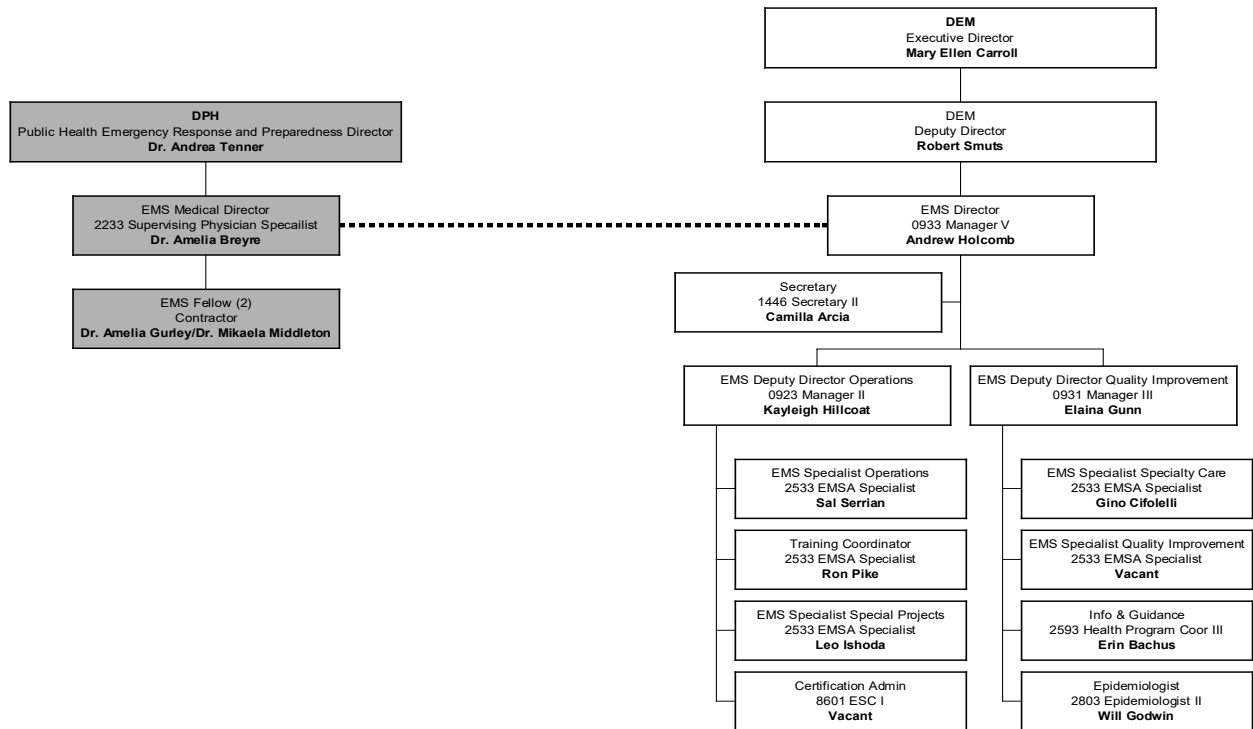
Injury and Illness Prevention

Since 2021, SFEMSA has been working with ZSFG Level 1 Trauma Center staff as well as community organizations within San Francisco to identify and provide public education centering on injury prevention and child safety. Events include participating in the annual San Francisco Bike Rodeo, which is a bike safety event sponsored by the Boy Scouts. Our goal in the coming year is increase partnerships with community organizations for illness and injury prevention public outreach as well as data collection. Through social media, SFEMSA routinely posts safety-specific content pertinent to the pediatric population and has recognized EMTs and Paramedics for their high-quality EMS care in the field at an annual EMS awards event.

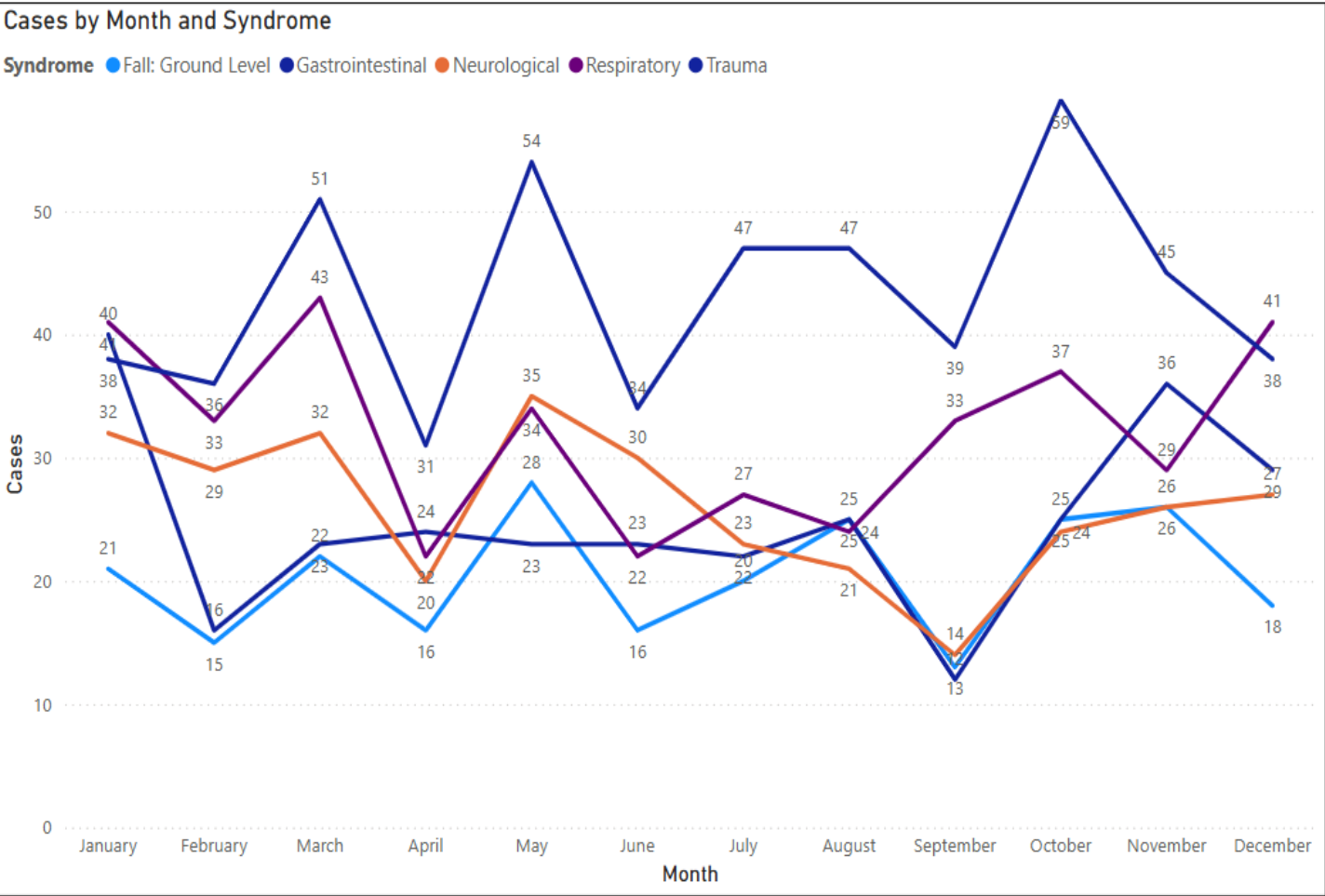
Receiving Facilities Agreements

Receiving Facility	Agreement Expiration Date	Type of Pediatric Services
Zuckerberg San Francisco General	June 30, 2028	Pediatric Emergency, Trauma
UCSF – Parnassus Campus	September 30, 2028	Pediatric Emergency
UCSF-Mission Bay Campus	September 30, 2028	Pediatric Critical Care
St. Mary’s Medical Center	November 30, 2028	Pediatric Emergency
St. Francis Memorial Hospital	November 30, 2028	Pediatric Emergency
Kaiser San Francisco	March 30, 2028	Pediatric Emergency
CPMC – Van Ness Campus	February 5, 2028	Pediatric Critical Care
CPMC – Davies Campus	February 5, 2028	Pediatric Emergency
CPMC – Mission Bernal Campus	February 5, 2028	Pediatric Emergency
Chinese Hospital	March 12, 2028	Pediatric Emergency
Kaiser South San Francisco	October 15, 2029	Pediatric Emergency

San Francisco Emergency Medical Services Agency Organizational Chart



Data from January 1, 2024 to December 31, 2024



TOP Pediatric Syndromes- CY 2024

Syndrome	Cases
Trauma	519
Respiratory	386
Neurological	313
Gastrointestinal	298
Constitutional	281
Fall: Ground Level	245
Mental Health	231
MVC Non-Severe	168
Influenza-like Illness	107
Fall: From Height	103
Substance Use Disorder	92
MVC Severe	65
Self-Harm	52
Chest Pain	49
Cardiovascular	46
Overdose (DOSE) - EMS Pilot	46
Suicide Ideation	45
Alcohol	42

Pediatric Equipment List

Nasal Cannulas - Pedi
Simple Oxygen Masks - Infant
Non-Rebreather Masks - Pedi
Bag Valve Masks - Pedi
Bag Valve Masks - Infant
Oral Airway Set With Sizes 0 - 6
Pediatric Suction Bulb (Sterile)
Suction Catheters 6, 8, 10, 12, & 14 Fr
Supra-Glottic Laryngeal Airway (iGel), Pedi/Infant, Sizes 1, 1.5, 2, & 2.5
Uncuffed Endotracheal Tubes, Sizes 2, 2.5, & 3
Meconium Aspirator
Laryngoscope Blades w/ Extra Bulbs, Miller Type: 0, 1, 2, 3, & 4
Laryngoscope Blades w/ Extra Bulbs, Macintosh Type: 1, 2, 3, & 4
(Optional) Video Laryngoscope Blades (Approved by EMSA), Adult and Child Sizes
Small Laryngoscope Handle
Magill Forceps, Pedi
Pediatric Finger Probes For Pulse Oximetry
Infant Finger Probes For Pulse Oximetry
Semi-automatic defibrillator pads - Pedi
Blood Pressure Cuff - Pedi
Blood Pressure Cuff - Infant
Multi-function defibrillation pads - Pedi, Compatible With Monitor With Compression
Feedback Puck
Cervical Collars: Pedi
Traction Splints: Sager or HARE (adult and pedi size) OR Kendrick Traction Device (one size)
Pediatric Spinal Immobilization Device
Pediatric Gurney Restraint/Seatbelt Device
Pediatric Length-Based Resuscitation Tape
Stuffed toy for children
Obstetrical Kit w/ umbilical cord clamps; receiving blanket; infant bunting blanket; infant warming cap; sterile scissors or scalpel; suction bulb; OB pad; plastic bag for placenta
Pediatric Fluid Volume Limiter
3-way stopcock
EZ-IO Needles, small, medium, & large (or other approved mechanical insertion needles)
EZ-IO Driver (or other approved insertion device)
Oral Airways, sizes 0, 1, 2, & 3

Pediatric Data Collection Form for Hospitals

Admitting Hospital	Discharge or Transfer Diagnosis	Time/Date of Discharge or Transfer from ED	Disposition from ED	External Cause of Injury	Injury Location	Residence ZIP Code	Notes/Narrative