Fire Commission Report – March 2025

EMS Division

April 9, 2025

Assistant Deputy Chief Tony Molloy

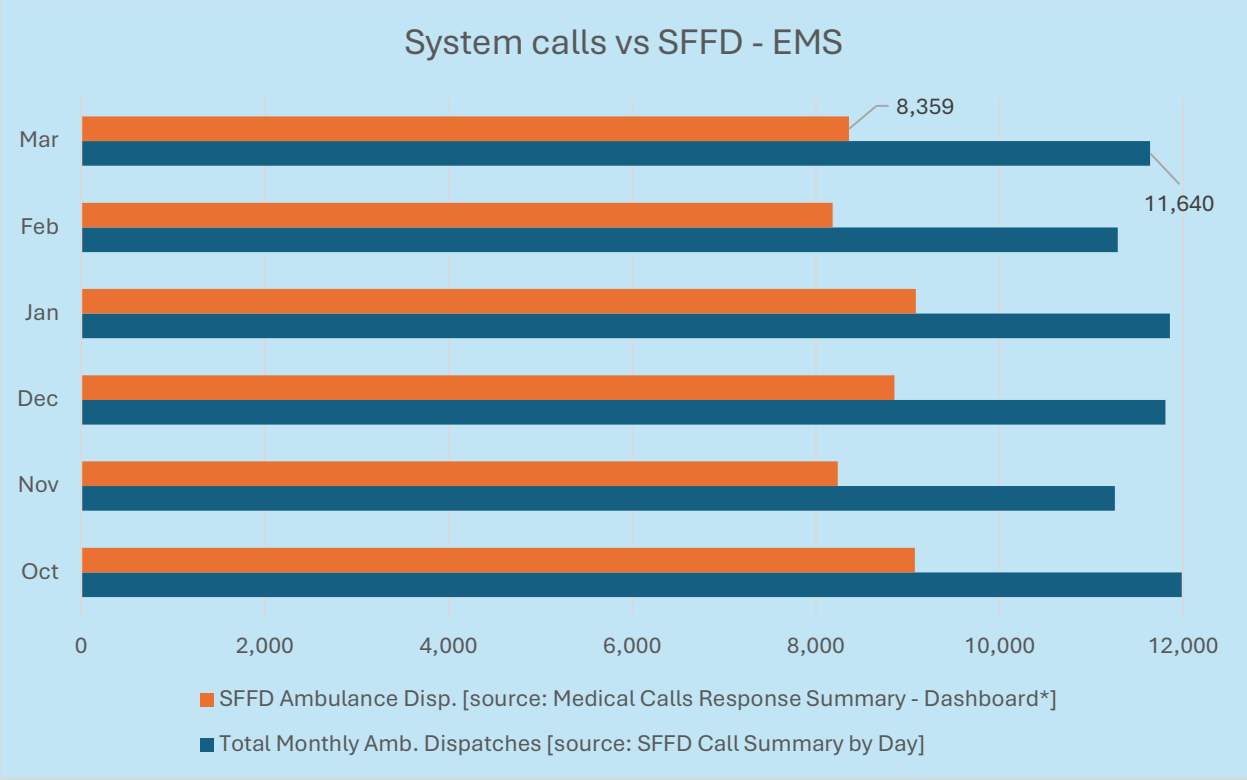
Operations

Monthly Call Volume

We are continuing with our review of the data presentation for our Fire Commissions. The goal is to give you the historical context and a graphical presentation to easier recognize trends. We are experimenting in this report using a six-month review to make the presentation uniform. We may provide more information to compare yearly figures as we move forward.

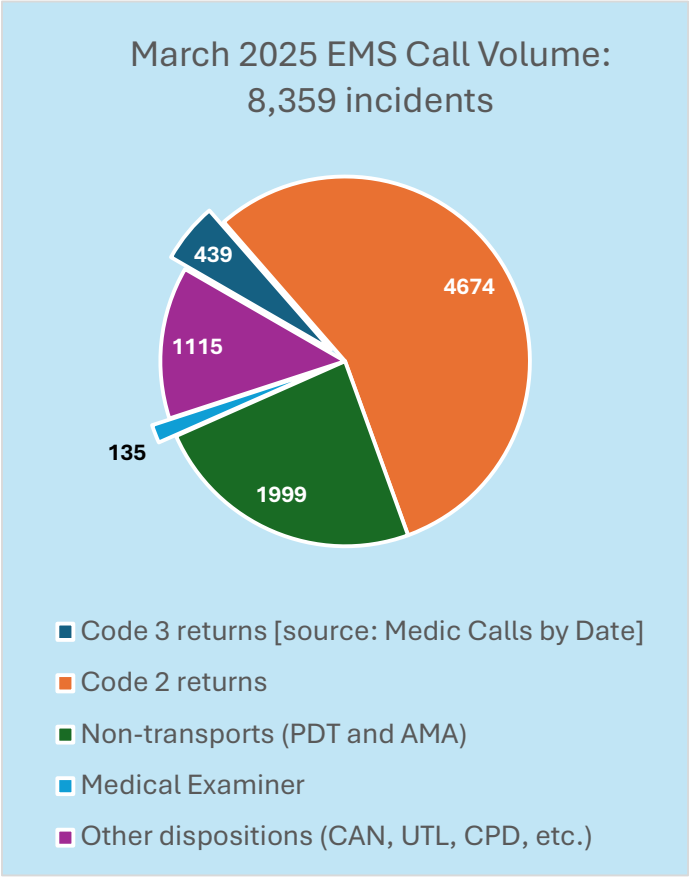
	Oct	Nov	Dec	Jan	Feb	Mar
Total Monthly Amb. Dispatches [source: SFFD Call Summary by Day]	11,986	11,257	11,806	11,856	11,286	11,640
SFFD Ambulance Disp. [source: Medical Calls Response Summary - Dashboard*]	9,079	8,239	8,857	9,089	8,184	8,359
RC total calls [source: Medic Calls by Date]	1,149	981	1,119	1,147	1,060	1,150

Over the past six months, system volume varies between 11 and 12 thousand calls a month. Recently, we started identifying SFFD runs as a portion of the system calls, both of which are noted on the chart above and graph below. The total includes SFFD and all private ambulances in the system.



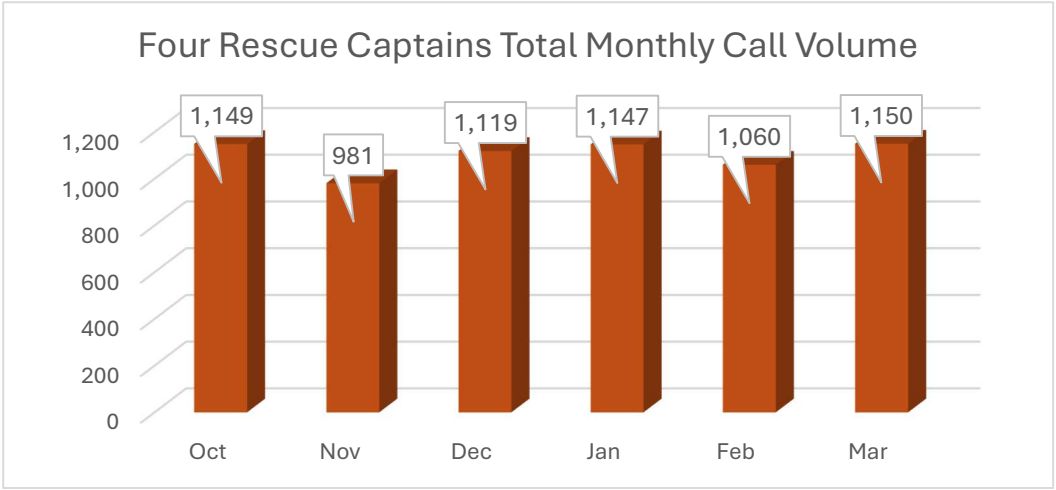
EMS Call Outcomes

Referring to those 8,359 SFFD EMS calls, here are the outcomes to the right for this month. Code 3 calls are lights and sirens to the hospital and Code 2 calls are non-emergent transports. Non-transports are when a person with capacity decides not to go the hospital. We call them "Patient Declines Transport" or "Against Medical Advice." AMA is where we really think you should go, but the patient still declines. Medical Examiner outcomes are anytime we pronounce a person dead at the scene. This could be from someone who we do CPR on or those who are deceased and cannot be resuscitated when we arrive. Last are the remainder, which include those where we are canceled by an earlier unit, we cannot locate a patient, PD cancels us, multiple patient transfers, and a few other very small outcomes.



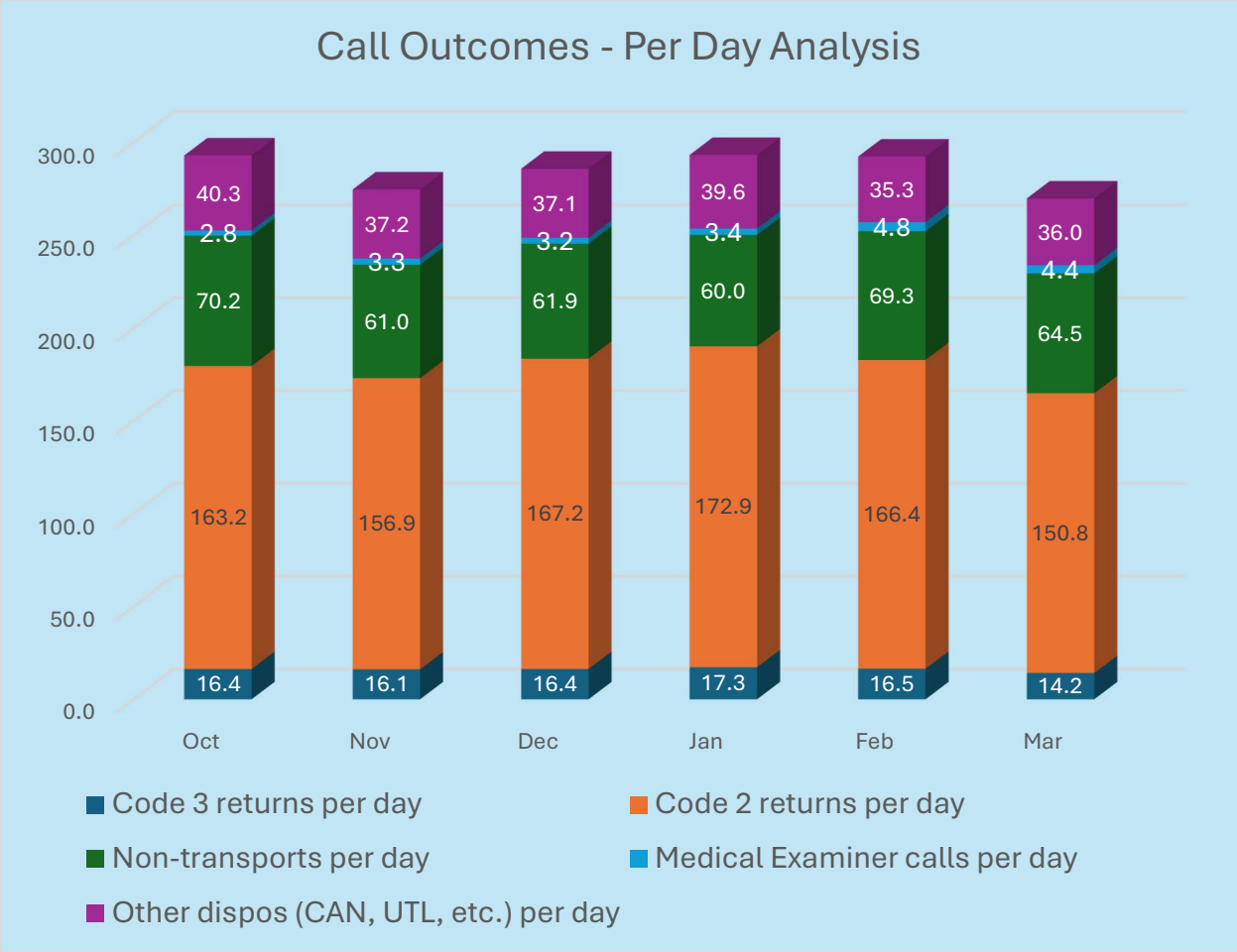
San Francisco Fire Department EMS Rescue Captains

The following chart shows the total calls for all four field Rescue Captain units. Last month, our four rescue captains ran approximately nine calls per day, with our downtown RC1 running many more each watch. Our EMS Captains run on all high acuity calls such as cardiac arrests, serious pediatric calls, and multiple casualty incidents, just to name a few.



Trend Analysis for Call Outcomes

These data are necessarily presented as monthly reports, but the difference in length of the months can skew the data up or down. This month, we are presenting the calls per day to make it easier to compare months of data. The stacked bar in each month shows the same categories as the pie chart on the previous page, starting from the bottom: Code 3 returns to the hospital, Code 2 returns to the hospital, non-transports like AMAs and PDTs, Medical Examiner calls where we pronounce in the field, and remaining assorted dispositions. For example, in March, we had 14.2 Code 3 returns to the hospital per day with emergent patients on board.

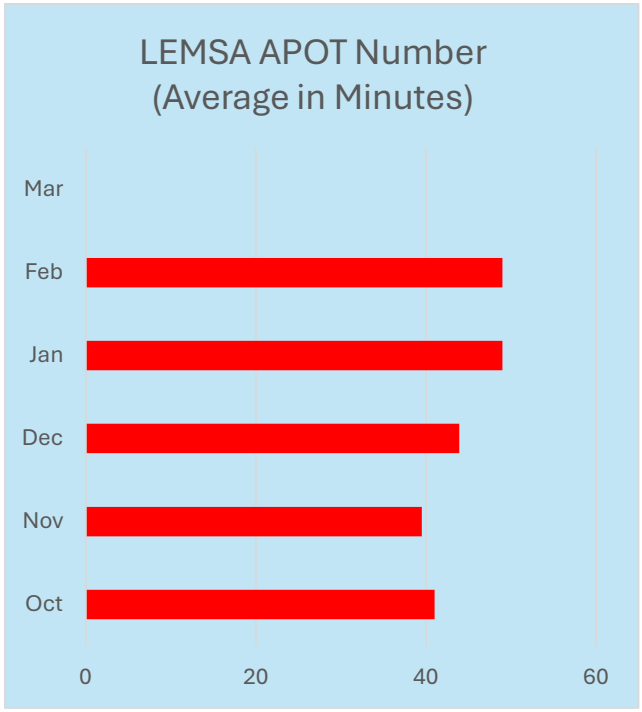


/

Ambulance Patient Offload Times

Ambulance Patient Offload Time (APOT) is an industry standard that measures the time from arrival at hospital to transfer of patient care. Transfer of care includes the physical moving of a patient to a hospital bed or chair, and a turnover report given to a nurse or doctor.

We delved into this in our last two reports and for the Fire Commission presentation. A recent article in the Chronicle spotlighted this issue. (*See* Mishanec, Nora. "Delays at S.F. hospitals keep patients waiting in ambulances and cost taxpayers thousands." San Francisco Chronicle, March 15, 2025)[1].



Note: LEMSA is still in process of preparing its March data. We will be sure to include the results in the Fire Commission presentation on April 9.

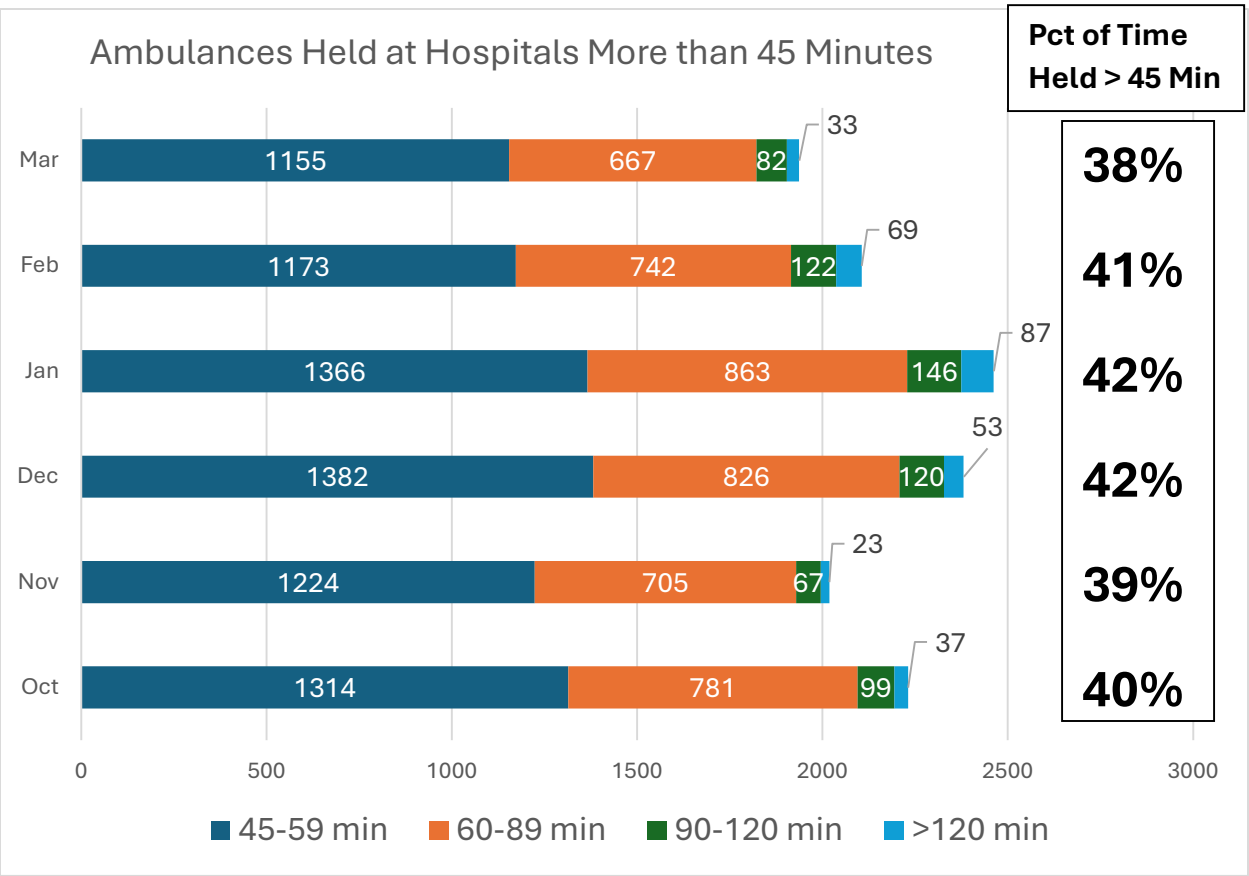
Assistant Deputy Chief Molloy attended the multi-organization workgroup in March for our Department. The good news is that APOT numbers are down in March. UCSF has reported some successes and is actively working to improve the offload times for our ambulances by staffing an additional nurse to redirect patients to the waiting room. San Francisco General has been able to reduce emergency department boarding of patients waiting for transfer to an upstairs or offsite bed, which allows for faster triage and offload times for our patients. Last, there are plans in place to bring some technological solutions to bear, allowing hospitals to see the wait times the ambulances are experiencing.

As we are significantly affected by APOT delays, we will continue to report back to the Commission as we help to find solutions to this problem.

/

[1] https://www.sfchronicle.com/sf/article/hospital-patient-transfer-ambulance-times-20187834.php

This next chart demonstrates how many ambulances are at hospitals for different periods of time after a Code 2 return to the hospital. Our target for clearing the hospital for Code 2 transports (i.e., non-emergent) is 30 minutes. For purposes of our analysis, this chart starts at 45 minutes to allow our crews time to clean up and prepare for the next call. Even with this extra buffer, we have too many ambulances held at the hospital beyond a reasonable time. We recognize that this is not the fault of the nurses' or doctors' in the emergency departments. This is a systemic problem, which will call for a systems approach and collaboration to solve.

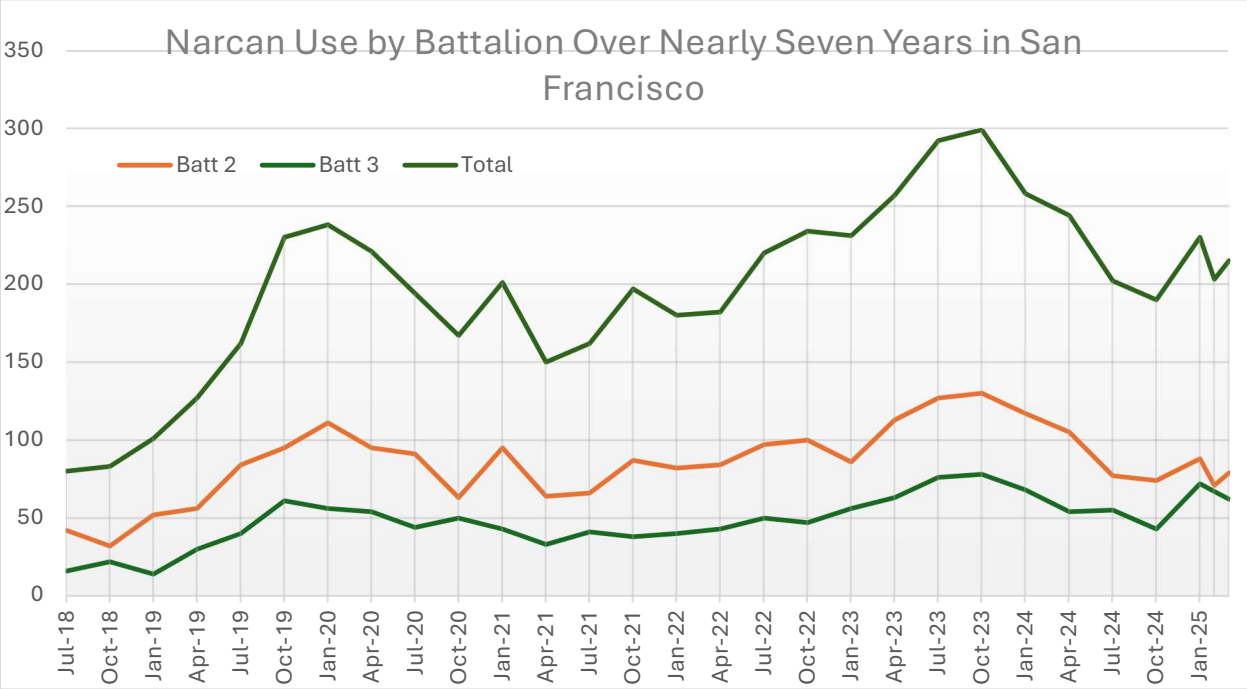


/

Narcan Administration for Opioid Overdoses

We have been tracking the use of Narcan over the past several years. This shows the total number of doses administered that are documented on the PCR. This is not a measurement of dosage. This administration could be bystander, first response engine or QRV, police, or ambulance. Batt 2 and 3 (TL and SOMA) account for the majority of administrations.

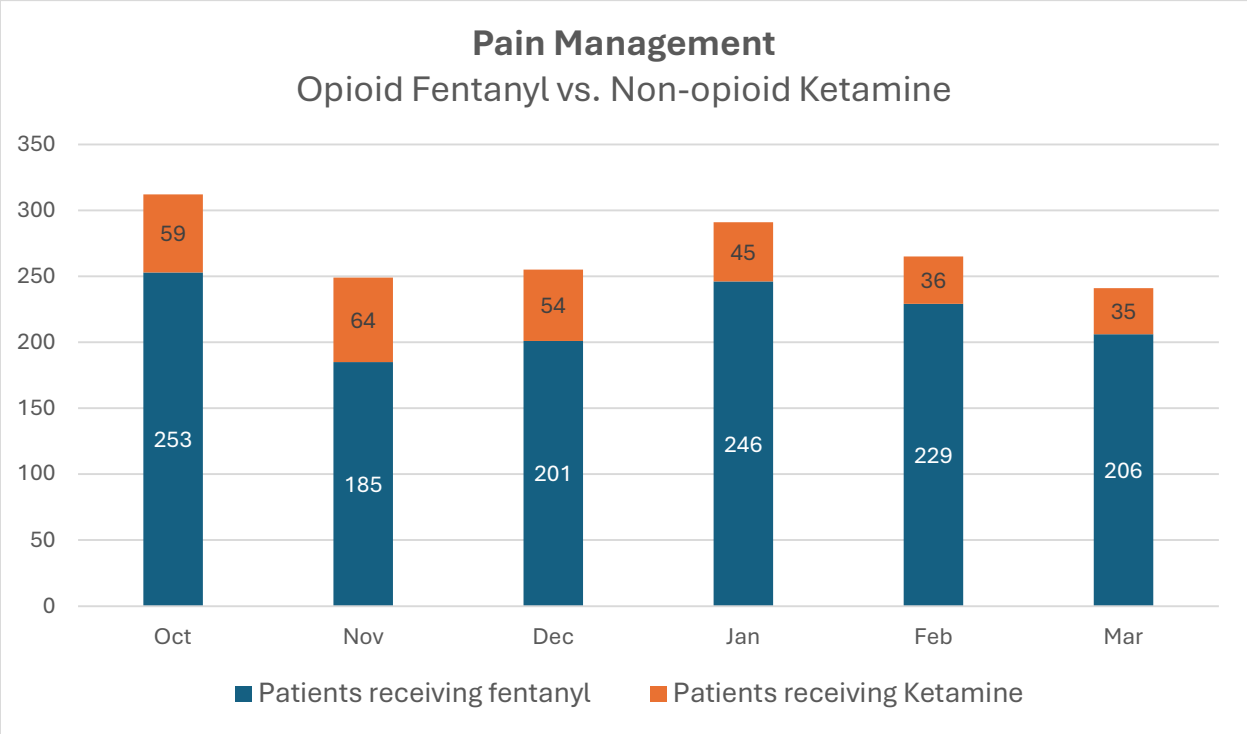
In this month's presentation, we limited the data set to just show the plot each three months, plus the most recent quarter of data that we are currently reviewing (February and March 2025). This will smooth out the graph and may provide a more overall trend for the information.



/

Ketamine for Pain Management

We introduced Ketamine, a non-opioid option for pain management, in the second week of October. We manage pain for many reasons, but sometimes, patients are allergic to fentanyl or other related medications, or do not want opioids for other reasons. Ketamine is an additional tool in the medics' toolbox for these situations.



While total patients receiving pain management was down in March, this is indicative of the clinical needs of our patients determined by our paramedics in the field. Regarding the use of Ketamine versus fentanyl, we have leveled off to the use of Ketamine around 13-16% of the time we treat patients for pain.

Coming in the next quarter, the Department will be participating in a clinical study to compare the efficacy of Ketamine and fentanyl in patients experiencing traumatic pain. This study, run out of the University of Pittsburg and sponsored by the Department of Defense, will attempt to demonstrate if Ketamine is as effective as opioid analgesics for management of traumatic pain. As we start our participation, we will advise the Commission. Even though it may be many years before we see the final results, we are confident the researched outcome will advance EMS treatment for everyone in the country.

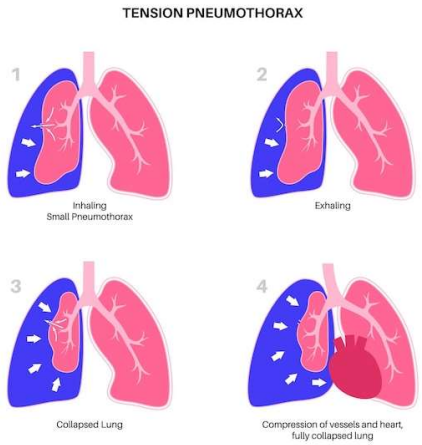
/

Advanced Paramedic Skills for Critical Patients

As part of our continuing spotlight for advanced skills performance indicators, we are highlighting pleural decompression in this month's Fire Commission report.

Key Performance Indicators EMS / Advanced Skills [source:ESO]	Oct	Nov	Dec	Jan	Feb	Mar
Intubation: Direct Laryngoscopy	0	2	5	4	4	9
Intubation: Video Laryngoscopy	15	24	18	28	15	20
Continuous Positive Airway Pressure (CPAP)	30	42	50	45	41	30
Pleural Decompression	1	0	2	1	0	1
Needle Cricothyrotomy	0	0	0	0	0	0
Cardioversion	2	5	3	4	2	1
Transcutaneous Pacing	2	3	3	4	2	3
Intraosseous Infusion Adult	46	31	33	47	24	36
Intraosseous Infusion Pediatric	0	1	1	2	0	1

Pleural decompression—also called needle decompression—is a paramedic skill where the practitioner inserts a needle into the patient's chest wall to allow for the expelling of air or blood that may be accumulating between the chest wall and the lung. This condition is called a pneumo-thorax (air) or hemo-thorax (blood). If too much blood or air builds up, it puts pressure on the heart or blood vessels; this is called a tension pneumo/hemo-thorax. Left untreated, air or blood in this space can cause rapid deterioration and death. Quick recognition of the need for decompression and accurate implementation often makes the difference.



Medics use a large gauge needle, like pictured left, to make the insertion into the chest wall. Once the patient is brought to the emergency room, a chest tube is normally inserted as definitive care. Note the photograph below in the write up about ALS Training. The instructors are going over needle decompression landmarks and implementation.

Cardiac Arrest Data

In out-of-hospital cardiac arrest, the Utstein Scale is the uniform template for comparing cardiac arrest data. It has been around since 1991 and has been revised to adjust for new areas of information collected and other reasons. The Utstein template is the source of some of the headings on our chart below. It is this template that led to the development of the chain of survival in cardiac arrest, which include early recognition of the event, early CPR (i.e., bystander CPR), early defibrillation (i.e., shockable rhythm), and post resuscitation care.

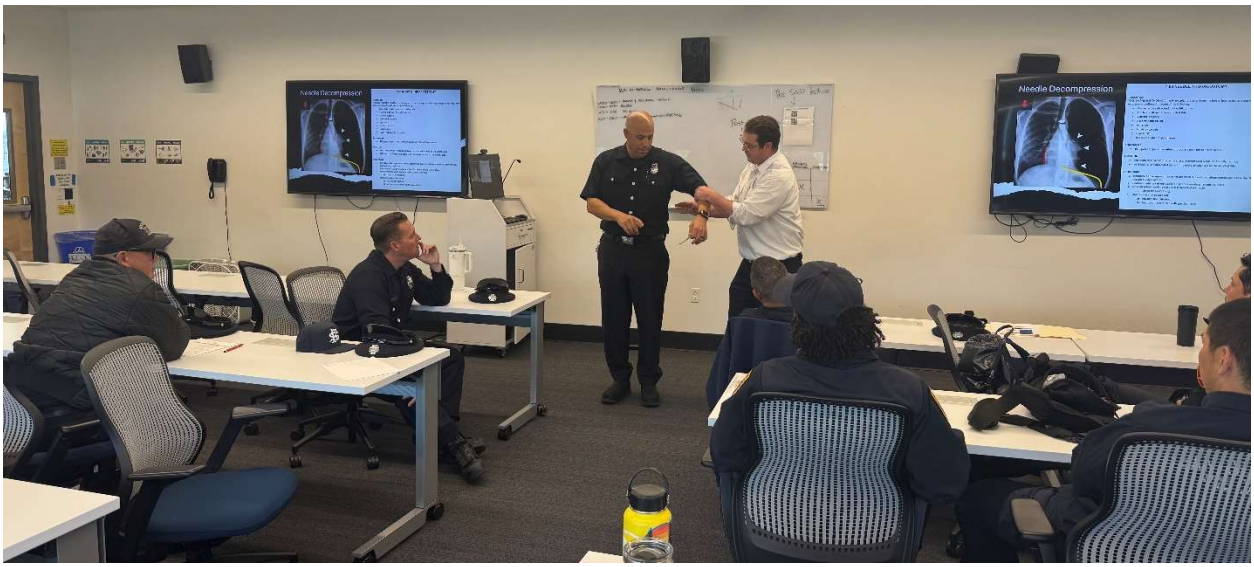
Month	Total	Resus Attempted	Witnessed	Shockable Rhythm	Bystander CPR/AED	ROSC at ED	% survival at ED
June	137	42	23	6	10	10	26%
July	121	31	28	9	14	11	35%
August	125	36	21	9	11	12	33%
September	101	23	15	5	9	8	35%
October	126	36	24	4	13	11	31%
November	132	40	24	9	7	13	33%
December	116	32	20	3	10	4	13%
January	147	43	26	6	7	11	26%
February	144	26	17	2	14	12	46%
March	152	36	20	1	8	13	36%

We began CPR on 36 of the 152 cardiac arrests we responded to this month. Of those 36, we transported 25 and maintained pulses at hospital for 13 of them. We calculate the percent survival by taking the number of patients at hospital with pulses over the number of patients we tried to resuscitate. This month is good considering that we had only one patient with a shockable rhythm and eight with bystander CPR.

Notable Events

ALS In-service Training

Conducted throughout the month of March, our Division of Training staff completed its in-service training for all paramedics in the Department. Captains Gutierrez and Barnekoff and Lieutenants MacPhee, Hamblen, and Golovin batted 1000 on their project to teach 100% of our FF/PMs, ambulance PMs, and paramedic officers. This virtually unheard of 100% compliance is due to the tremendous planning and follow-up throughout by these officers. This training covered new LEMSA policies, and elements on substance abuse disorder, conservatorship, needle decompression, de-escalation, pain management, and end-tidal troubleshooting.



Ambulance Patient Offload Time Townhall Meetings

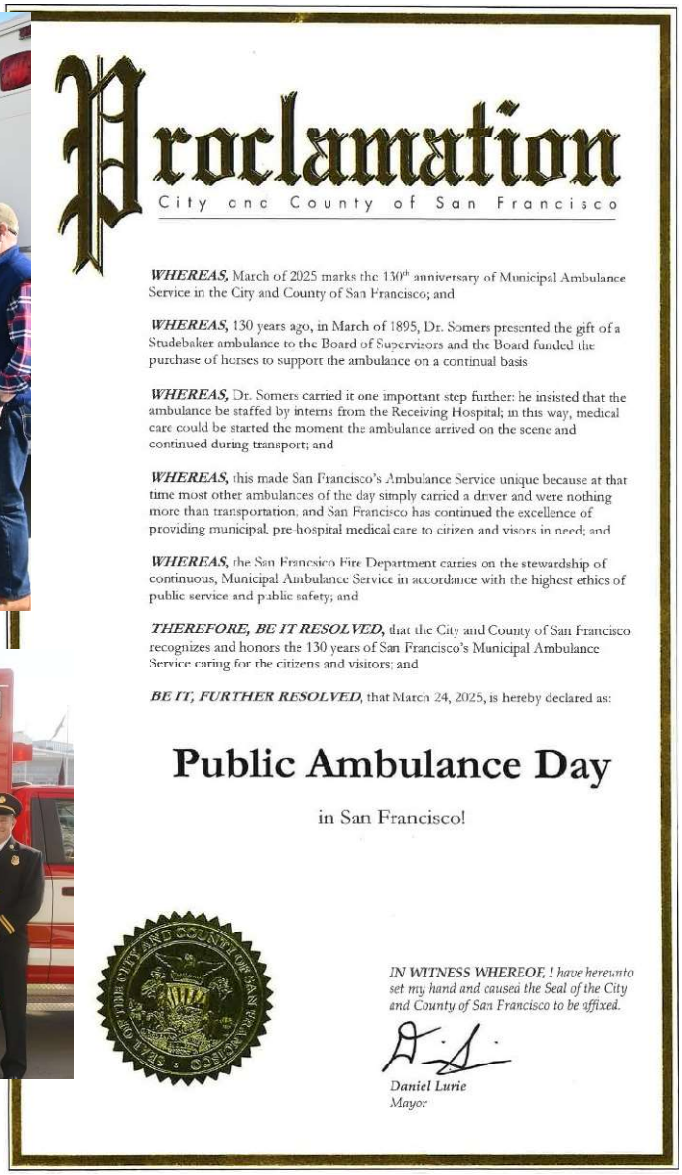
The EMS and Community Paramedicine command staff held three town hall meetings in March to discuss ambulance patient offload times (APOT) with our members and what steps the Department was taking to address it. We discussed options we could take to help alleviate hospital crowding, such as transport to alternative destinations like sobering center, as well as a higher activation of our CP teams when indicated for patients. We also discussed advancements in data collection and how our teams can help improve the situation once on site at the emergency departments.

Full-Scale Active Attacker Drill at Oracle Park

This was a two-day, multi-jurisdictional training with law enforcement, EMS, suppression, and other agencies participating. The event was designed to enhance regional preparedness and collaboration in response to active attacker events and rescue operations. Our own Tactical EMS (TEMS) group played a large role in coordinating and teaching in the scenario-based training. These photographs show Rescue Captain Thadeo and Paramedic Soong sharing their knowledge of tactical medicine and safety. Both were pivotal in creating our recent Operations at Active Attacker Incidents manual. Our TEMS unit includes nine EMS and CP members who receive specialized training in responding to high-risk situations with advanced integration with law enforcement and operating in dangerous environments. We plan to expand this team soon with new recruitment and training. The feedback from our teams and other agencies involved for the two-day drill was excellent.

130 Years of Continuous Municipal Ambulance Service in San Francisco

On March 11, we were proud to stand side by side with Mayor Lurie, dozens of former ambulance medics, and other City dignitaries to celebrate 130 years of continuous ambulance services provided by the City to its citizens. In 1895, San Francisco started its municipal ambulance service. Mayor Lurie's proclamation declared that March 24 would be designated as "Public Ambulance Day."



Proclamation

City and County of San Francisco

WHEREAS, March of 2025 marks the 130th anniversary of Municipal Ambulance Service in the City and County of San Francisco; and

WHEREAS, 130 years ago, in March of 1895, Dr. Somers presented the gift of a Studebaker ambulance to the Board of Supervisors and the Board funded the purchase of horses to support the ambulance on a continual basis

WHEREAS, Dr. Somers carried it one important step further: he insisted that the ambulance be staffed by interns from the Receiving Hospital; in this way, medical care could be started the moment the ambulance arrived on the scene and continued during transport; and

WHEREAS, this made San Francisco's Ambulance Service unique because at that time most other ambulances of the day simply carried a driver and were nothing more than transportation; and San Francisco has continued the excellence of providing municipal pre-hospital medical care to citizen and visors in need; and

WHEREAS, the San Francisco Fire Department carries on the stewardship of continuous, Municipal Ambulance Service in accordance with the highest ethics of public service and public safety; and

THEREFORE, BE IT RESOLVED, that the City and County of San Francisco recognizes and honors the 130 years of San Francisco's Municipal Ambulance Service caring for the citizens and visitors; and

BE IT, FURTHER RESOLVED, that March 24, 2025, is hereby declared as:

Public Ambulance Day

in San Francisco!

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the City and County of San Francisco to be affixed.

Daniel Lurie
Mayor

EMS Mural at Headquarters In Progress

Our Fire Department mural at headquarters was a tremendous success. The San Francisco Academy of Art students have begun to create a wonderful partner scene in the headquarters lobby depicting our EMS and CP Divisions. The goal is to have it completed by the end of the school year. We'll be sure to invite all of you to the unveiling ceremony.

/

Notable Calls

Excellent ACLS with Complicated Treatment

Engine 17- FF Christopher Spear, FF/PM Christian Dunagan, FF Braelan Mamaradlo
Medic 552- Paramedic Michael Gordon, EMT Pierce Cavanaugh
RC4- Paramedic Captain Nash Quinto

On March 9, 2025, Engine 17, Medic 552, and RC4 responded to a 911 call for cardiac arrest.

Our crews arrived on scene to find a 70-year-old male in cardiac arrest. They started CPR and secured the airway with a supraglottic iGel device. Following the ACLS and SF protocols, they inserted an IO and gave epinephrine. When RC4 arrived, the team applied the LUCAS mechanical CPR device. The patient had a return of spontaneous circulation (ROSC) and the crew performed a 12-lead EKG. The patient's heart was unusually slow (*i.e.*, bradycardia) and Paramedic Gordon successfully paced the patient to bring the blood pressure to an acceptable level. The patient was rushed to San Francisco General Hospital Emergency Department and transferred to the ED staff.

Our personnel displayed a high level of knowledge and expertise in advanced cardiac life support. Transcutaneous pacing after ROSC is not very common and requires tremendous precision and coordination to be successful.

//