

# EMS System Annual Report 2020



## Kern County Emergency Medical Services Program

---



1800 Mount Vernon Ave

Bakersfield, CA 93306

Tel: 661-321-3000

Website: <https://www.kernpublichealth.com>

Email: [publichealth@kerncounty.com](mailto:publichealth@kerncounty.com)

# 2020 HIGHLIGHTS

3. A Message From Our EMS Manager
4. Implementation of Image Trend LMS and Elite Field
5. All Providers Protocols
6. New Policies Implemented in 2020
7. COVID 19 Response
8. PPE Distribution
9. ACS Set Up
10. Strike Teams
11. New Additions to EMS
12. Moving Forward
13. Thank You to our Providers

# A MESSAGE FROM OUR EMS MANAGER

2020 was a year that tested our courage, empathy, resilience, patience and our resolve.

In many ways, 2020 proved to be a test of our mission to assure the safety and health of all Kern County residents. Despite the countless obstacles involved with rapidly changing policies, procedures and protocols, our stakeholders rallied around the clear purpose of serving our community and rose to the occasion. I could not be more proud of all of the EMT's, paramedics, emergency medical dispatchers, nurses and physicians that fought through the pandemic and made a difference in our community. It was incredible for me to see how quickly all of you adapted to and overcame the rapidly changing environment brought about by COVID-19.



In 2020, the EMS agencies focus shifted solely to COVID-19. Working under Public Health, EMS staff developed and stocked the Alternative Care Site, received and distributed millions of pieces of Personal Protective Equipment, delivered vaccines to all corners of the county, assisted in the vaccination of community members, managed hundreds of resource requests, assisted in the development of the vaccination site at the fair grounds and have been continuously staffing that site to provide our community members with a paramedic presence in the event of an adverse reaction. In 2020 EMS staff worked to provide a constant presence for our stakeholders and our community and I am proud to be counted among these amazing people.

Moving forward EMS is dedicated to continuing to work tirelessly along side our stakeholders to assure Kern County residents receive the best possible care in the field as well as in our hospitals.

I truly feel privileged to be a part of the Kern County Public Health, Emergency Medical Services Program and I am amazed at the dedication this team displays for Public Health and for our community on a daily basis.

Thank you to all of you for your support and I look forward to working hard in 2021 to make sure our community continues to receive the best possible care.

Sincerely,

Jeff Fariss  
EMS Program Manager

# Implementation of Image Trend LMS & Elite Field

## LMS

### (License Management System)

- On February 1st 2020 we implemented Image Trends LMS and switched from applications received on paper to receiving applications online.
- Since our change in 2020, we've successfully issued 895 accreditations through Image Trend LMS.
- This process helped during the COVID 19 pandemic by allowing individuals to submit their applications online rather than having to come into Public Health and risk a possible exposure
- In addition to submitting applications online, LMS keeps track of personnel, agencies, and vehicles in Kern County.



## Elite Field

- Elite Field gives the agencies the ability to create their own run form to fit their needs while being compliant at the national, state, and local level when collecting information in the patient care report.
- Elite Field is connected with Hospital Hub which lets hospital staff look up patient information that was completed on the PCR.
- Elite Field is NEMESIS compliant and allows for fire and EMS reporting to be combined for all incidents.



# All Providers Protocols

In 2020 kern County EMS made some changes to our protocols to better treat patients.

## **Additions of New Medications**

1. Acetaminophen: Pain reliever and fever reducer
2. Ketamine: Moderate to severe pain
3. Tranexamic Acid:
  - Trauma associated with significant hemorrhage within 3 hours of injury.
  - SBP <90 mmHg (SBP <110 mmHg for 66 and older) and or HR > 110. >120 HR with signs of hypoperfusion
  - Post Partum Hemorrhage with 500 mL blood loss within the first 24 hours
  - Epistaxis not controlled by BLS measures
4. Push Dose Epinephrine: Cardiac Arrest with asystole and PEA, Bradycardia, and Hypoperfusion.
5. Inhaled Isopropyl alcohol for nausea treatment
6. Cardiac Arrest changes PEA or Asystole to give an Epinephrine drip Ventricular fibrillation or Ventricular Tachycardia withhold epinephrine.
7. Pediatric King Airway added to paramedics scope of practice

## **What We Removed**

1. fluid administration in trauma patients
2. Amiodarone
3. Dopamine



# **New Policies Implemented in 2020**

In 2020 we implemented multiple policies to improve the EMS

## EMS System Surge Plan

This allowed the providers to evaluate the system and engage in the assess and refer policy if deemed necessary

## Assess and Refer Directive

To establish standards for the identification of patients whose condition does not require transport by 9-1-1 emergency ambulance

## 911 Inappropriate User

This policy outlines the identification and management of inappropriate system users.

## Offload to Triage

This policy provides an alternative destination for patients that are not seriously or critically ill and are able to be triaged through the emergency department patient entrance.

## Special Event Policy

This policy establishes minimum standards for emergency medical services at public gatherings and special events.

# COVID 19 Response Timeline

**March 2020:** As COVID-19 arrived Kern County EMS began coordinating distribution of PPE (Personnel Protective Equipment) and tests kits to those on the frontline. As call volumes, offload times and staffing issues increase response compliance was waived in the face of this pandemic.

**April 2020:** On a weekly basis EMS received Semi trucks filled with PPE for distribution to local hospitals, Law Enforcement, Fire Departments, EMS agencies, clinics, urgent cares, SNFs, doctors and dentist offices to help protect those who were most involved with daily interactions. EMS applied for and received authorization for EMTs and Paramedics to conduct specimen collection through nasal swab. Applied for and received authorization for expanded optional scope of practice for EMTs and paramedics while working in a static environment.

**May 2020:** As COVID 19 started to have a major impact on SNFs, Strike Teams were assembled to help assist with the burden of working endless hours to care for those in the facilities. The ACS was set up for the possibility of being activated should hospitals become overwhelmed and need to decompress.

**June 2020:** EMS began distributing Remdesivir to various hospitals in an attempt to reduce the recovery time for COVID positive patients that had been admitted. We also continued the distribution of PPE through out Kern County while also assisting with SNF audits to improve their continued response in reducing the COVID outbreaks in the facilities.

**July 2020:** EMS teamed up with CDPH and began daily SNF calls to obtain accurate numbers of staff and residence who were positive for COVID 19. We continued our audits at the SNFs while distributing supplies to local hospitals, Law Enforcement, Fire Departments, EMS agencies, clinics, urgent cares, SNFs, doctors and dentist offices. Two Ambulance strike teams were requested to assist Hall Ambulance due to increased call volumes and ambulance decontamination times. Applied for and received authorization for an alternate destination policy.

# COVID 19 Response Timeline

**August 2020:** We distributed well over 100,000 test kits to various agencies to help track those who were positive for COVID 19. EMS began the development of the Assess and Refer Policy.

**September 2020:** Kern County EMS implemented the Assess and Refer Policy to provide for COVID 19 patients. Applied for and received authorization for paramedics to administer influenza and COVID vaccines.

**October 2020:** Kern County EMS Began working with various agencies to start the process of implementing Image Trends Elite Patient Care Reporting software throughout the county.

**November 2020:** In the face of another surge, Kern County EMS began the process of developing the EMS System Surge Plan. Assess and refer plan was edited to include all patients to aid in decreasing unnecessary ambulance traffic to already overloaded hospitals.

**December 2020:** As the second Covid surge struck Kern County, the EMS system surge plan was implemented. While the Surge Plan was in effect at the yellow tier or higher, alpha or omega calls were not dispatch. In addition, field crews could assess and refer patients to seek care with their regular healthcare provider, urgent care, or clinic. We began staging equipment at the Kern County Fairgrounds for the vaccination site that would be in place the following months. EMS applied for and received authorization for EMTs to administer IM influenza and COVID-19 vaccines.



# COVID 19 Response Supplies

Face Shields/Goggles:  
**180,000**



Gloves:  
**300,000**



Gowns:  
**400,000**



Hand Sanitizer:  
**15,000 Gallons**



N95 Masks:  
**700,000**



Surgical  
Masks:  
**500,000**



# ACS Set Up

In the event that the hospitals were to reach maximum capacity due to the COVID-19 pandemic, Kern County EMS set up an ACS (alternate Care Site) to help decompress the hospitals workload. The site was located at the Kern County Fairgrounds, which housed all of the proper equipment required to assist with the care of sub-acute patients affected by COVID-19. The ACS was fitted to house 180 patients who would need to be observed due to their effects from COVID-19 before being discharged. This would help free up hospital beds for more acute patients. In the event that the ACS needed to be activated, Kern County EMS would be able to have the site fully staffed and operational within a 24 hour period.



# Strike Teams

## Hall Ambulance Strike Team

On August 5th 2020, Hall Ambulance sent a strike team of 5 ambulances and 1 DMSU (Disaster Medical Services Unit) to assist with CZU Lightning Complex Fire.



## Liberty Ambulance Strike Team



On May 27th 2020, Liberty Ambulance sent a strike team of 5 staff members (1 Supervisor and 4 field personnel) to Valley Convalescent SNF to help assist the facility during an out brake to provide enough staffing to help assist with the pandemic.

# New Additions to EMS

Through out 2020, Kern County EMS expanded its program by adding an additional EMS Coordinator and an additional response vehicle to help assist in the workload and responsibilities.

Anabel Beltran was hired on June 2, 2020. Anabel was given the responsibility to handle Trauma policies, protocol updates and revisions, education, trainings, and EMD. Anabel has gone above and beyond assisting with the COVID-19 Response.



The EMS Command Vehicle was put into service in June 2020. It's main role is to provide an all hazards capable command center for large incidents and events through out Kern County. It is currently being outfitted with emergency response equipment.

# Moving Forward

1. Handtevy: Handtevy is a customized app that rapidly calculates medication dosages and equipment sizes for pediatric and adults. Handtevy also records and timestamps the date and time the medication was delivered. This information can be transferred to the ePCR for documentation as well. Handtevy is a pediatric resuscitation system that is proven to save lives and reduce errors.



2. Target Solutions: Target Solution Courses allow first responders of all levels to complete EMS certification in an engaging format featuring scenario-based learning exercises. Target Solutions' Online EMS continuing education meets federal, state and local mandates.



3. Reddinet will be updating their website to give dispatch up to date statuses on all hospital bed counts in kern county that are logged in. This



will be replacing the ED Status website. In addition, we will have a real time feed of all ambulance offload times that will be shared with the hospitals. This will give the hospitals a better way to identify those who have been waiting for a bed the longest. This upgrade will

# Thank You to Our Providers

Adventist Health Bakersfield  
Adventist Health Delano  
Adventist Health Tehachapi  
Bakersfield Heart Hospital  
Bakersfield Memorial Hospital  
Kern Medical  
Kern Valley Healthcare District  
Mercy Hospital  
Mercy Southwest Hospital  
Ridgecrest Regional Hospital  
Pro Safety  
Trinity Safety Group

Bakersfield City Fire Department  
California City Fire  
China Lake Naval Weapons Station  
Delano Ambulance Service  
Edwards Air Force Base  
Hall Ambulance Services, Inc  
Kern County Fire Department  
Kern County Sheriff Office  
Liberty Ambulance Service  
Mercy Air Service  
US Borax

## Kern County Emergency Medical Services Program



1800 Mount Vernon Ave

Bakersfield, CA 93306

Tel: 661-321-3000

Website: <https://www.kernpublichealth.com>

Email: [publichealth@kerncounty.com](mailto:publichealth@kerncounty.com)