



EMS Special Memorandum - #22-003

Date: October 7, 2022

To: Sonoma County EMS Providers and System Stakeholders

From: Bryan Cleaver
Regional EMS Administrator

Mark Luoto, MD
Regional EMS Medical Director

Re: Tiered Response Development and Data Collection; Added BLS Resources

The intent of this EMS Special Memo is to provide an update to system stakeholders regarding the development process and steps toward implementation of tiered response. The Special Memo also covers the deployment of additional Basic Life Support (BLS) ambulances and the process for initiating dispatch of those resources in a timely manner when appropriate.

The Tiered Response Task Force and associated Data Subcommittee have been working for several months to retrospectively evaluate prehospital patient care data in an attempt to determine parameters for safe, phased implementation of a tiered response enhancement to the current all-Advanced Life Support (ALS) response and transportation. The data group evaluated a number of EMS responses that had been assigned low-acuity determinants at dispatch through the nationally recognized Medical Dispatch Priority Screening (MPDS) triage process. Patient Care Reports (PCRs) written by transporting paramedics for patients who had been assigned low-acuity determinants at dispatch were analyzed for indications that the triage system failed to identify acute needs that would require ALS care. While the retrospective analysis provided indications that patients with low-acuity needs could be identified by the MPDS system, the Data Subcommittee recognized limitations in the quality of data due to variables and unknown factors inherent in a retrospective analysis.

In addition to the retrospective analysis of historic data from paramedic PCRs, a smaller study was done of individual patients assessed by paramedics and turned over to BLS ambulances for transport. The study looked at assessment and treatment at Sonoma County's paramedic base hospital Emergency Department (ED). The Paramedic Liaison reviewed both patient charts from the ED and the prehospital PCRs. The method provided a level of independent assessment beyond the prehospital PCR review.

There was consensus in the tiered response task force that evaluating patient acuity on BLS turnover cases utilizing both pre-hospital and ED records was a superior and more trustworthy method over retrospective data analysis of PCRs alone.

Three Sonoma County ALS provider agencies deploy BLS ambulances within their Ambulance Service Zones for the purpose of providing BLS level transportation following paramedic assessment. This practice is outlined within CVEMSA Administrative Guideline 4008 as an appropriate use of BLS to support the availability of ALS responders for higher-acuity patients.

- Coast Life Support District provides initial ALS assessment utilizing a paramedic ambulance and, if appropriate, may transfer care to a BLS ambulance for transport to the hospital.

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- Petaluma Fire Department deploys BLS units as extra responders in support of the Department's ALS first response apparatus or ambulances. The PFD firefighter/paramedic on either a first response or transport unit may assess and turn over care to the shadowing BLS ambulance if appropriate.
- American Medical Response/Sonoma Life Support (AMR) responds an ALS ambulance to all incidents, and once on-scene the paramedic may call for a BLS ambulance if the patient meets BLS transport criteria. Due to the system volume within the AMR service zone, AMR as a provider agency has the largest number of responses potentially eligible for a BLS turnover. However present practice of delaying BLS dispatch until a paramedic ambulance arrives on scene reduces the likelihood of a turnover opportunity or potentially increases wait time on scene for patients and responders.

To support increased use of appropriate resources and to aid in the data collection and evaluation effort, CVEMSA Medical Director Dr. Mark Luoto has encouraged AMR to increase the availability of BLS ambulances within the EOA-1. This will be possible through dispatching an AMR BLS ambulance when MPDS determinant of Omega, Alpha, or Bravo is reached in the call triage process. No changes will be made at the present time in regard to ALS unit dispatch; the paramedic ambulance will be dispatched per the current practice. The AMR BLS response will wait for a determinant code. An AMR ALS transport unit will be expected to arrive on scene within the timeframe allotted by the current paramedic service provider contract between AMR and the County of Sonoma. To ensure data accuracy, only AMR BLS resources will be dispatched to Omega, Alpha, and Bravo requests with an AMR ALS resource to transfer care.

CVEMSA will continue to engage with system stakeholders in evaluating the data collected through this process and any others developed to inform and assist Dr. Luoto in developing sound evidence-based standards for medical dispatch.