Overview

The Riverside County Emergency Medical Services Agency (REMSA) oversees the medical components of the 9-1-1 system in Riverside County. Since August of 2012, CAL Fire/Riverside County Fire Department (RCFD) has been operating as a Riverside County Emergency Medical Service Agency (REMSA)-approved Emergency Medical Dispatch (EMD) Emergency Communication Center. As an approved EMD center, they have been providing pre-arrival/post-dispatch instructions and Dispatch Life Support instructions to the 9-1-1 callers.

Historically, all 9-1-1 medical calls resulted in the dispatch to the scene of both a paramedic fire engine and a paramedic ambulance responding with lights and sirens (Code 3, the highest level) regardless of patient need. Under the expanded use of EMD, the resources sent and the mode in which they are sent (Code 2 vs. Code 3) depends upon the nature and severity of the emergency. More than 30 years of evidence-based research indicates that properly using a response triage system is both safer and more effective, including the reduction of emergency vehicles using lights and sirens in public roadways for non-emergent calls.

Beginning mid-July, CALFIRE/RCFD, in coordination with American Medical Response (AMR), has been dispatching their paramedic first response engines and AMR ambulances Code 2 to all 9-1-1 calls that are categorized as Omega and Alpha response levels. This snapshot summarizes the data collected during the first 90 days of this implementation.

Non-Linear Response Levels

The response level chart below depicts the categories of EMD calls, and the relationship between the capability of the responding units vs. the response time needed for the call category. This summary focuses on Alpha (A) and Omega (Ω) categories, which are in the top-left corner (classified as BLS, and “cold”, requiring a single unit).

The pie chart below shows the breakdown of each response-level category during this 90-day period.
Monthly call distribution by response levels is shown below, yielding the combined 18% average combination of Alpha and Omega calls during this review period.

**FINDINGS**

In Riverside County, approximately 18% (approx. 2,000+/mo.) of 9-1-1 calls are categorized by Emergency Medical Dispatch as Omega and Alpha response levels, resulting in Code 2 responses. Of the approximately 2,000+ Omega and Alpha Code 2 calls in each 30 day period reviewed, approximately 5% of calls resulted in an upgraded request for Code 3. Of all the Code 3 upgrade requests, 1% or less resulted in an upgrade to Code 3 due to the patient’s clinical indications. The remainder of the Code 3 upgrades (approximately 4%) were the result of non-clinical indications (e.g. extended ETA, traffic, EMD processing). Additional efforts should be made to eliminate the Code 3 upgrades that are not based on clinical condition of the patient.

The quantity of Omega and Alpha calls that were upgraded due to patients’ deteriorating conditions by first responders on-scene represents a small fraction of Code 2 responses. Resource allocation under the current program is also flexible to changing conditions and additional information obtained in the field yielded data showing the effectiveness of the program. Therefore, the proper use of response triage for these call types currently in place in the system is effective and safe by reducing the number of Code 3 responses.