

EMS SYSTEM ASSESSMENT THE RESULTS



A Division of the
Public Health
Department

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Editor's Note: This article is an excerpt from the executive summary of the Fitch Report. The report contains recommendations that will be evaluated over the next few months for financial feasibility and system impact. A process for public input will be developed prior to the release of the RFP for Ambulance Services. To read the entire report, go to the EMS website.



Alameda County Engaged Fitch & Associates to review the EMS system, to make recommendations for system design improvements, and to assist the County in the preparation of the Emergency Ambulance Service Request for Proposal (RFP).

The consultants conducted over 150 interviews, surveyed field personnel and emergency physicians (more than 400 responses), interviewed fire department and labor union officials, analyzed financial and available system data, and visited the majority of the public safety access points in the county. The overall assessment of the Alameda County EMS system concludes that it delivers a high level of clinical care to patients by utilizing up to date and progressive clinical policies and procedures. Paramedics, EMTs and first responders work well together and are dedicated to providing the best care possible for their patients.

The Alameda County EMS Agency is responsible for coordinating EMS activities,

planning for future system improvements, providing medical control and oversight, and monitoring system performance. The Agency cannot fulfill its obligations without the full support and collaboration of all system stakeholder agencies.

Every agency that provides services along the emergency medical services continuum of care has certain fundamental responsibilities. It is incumbent upon each provider to measure performance (e.g. response times), to conduct comprehensive quality improvement activities, and to collect and share data with the system coordinator (EMS Agency) and its governing body (city council, board, etc.). The EMS Agency along with the system providers should use this data to plan for improvements and to correct problems.

The EMS Agency can assist and will provide incentives to system stakeholders to further advance EMS performance and delivery. Currently, one mechanism that is used is to provide support for Advanced Life Support first response.

RESTRUCTURE FIRST RESPONDER FUNDING

This proposed change to fire department agreements aligns financial incentives with performance that results in the most positive impact on survival in the patients who request emergency medical response. The concept would not reduce

current funding to agencies providing first responder ALS, but would open the door to fund transporting fire departments that meet the performance standards proposed. The realignment is described as levels one through four and would apply to both transporting and non-transporting fire departments.

Level 1: Medical First Response

Fire departments that respond to medical calls with defibrillation capability within 8 minutes 30 seconds, 90% of the time, would be eligible to receive the equivalent of 60% of the current per station funding.

Level 2: Emergency Medical Dispatch Prioritization

Jurisdictions whose 9-1-1 requests are rigorously assessed according to County approved, national standards that identify presumptive acuity level of the calls would be eligible to receive the equivalent of 20% of the current per station funding. Departments could choose the number and type of units that respond to calls as long as the response provides the minimum level prescribed by the call prioritization protocol.

Level 3: Provision of Prearrival Instructions

Jurisdictions that ensure that callers receive prearrival instructions based on County approved protocols and national standards would be eligible to receive the equivalent of 20% of the current per station funding.

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Level 4: Accreditation of EMS Dispatch Centers

Jurisdictions that ensure that the emergency medical dispatch center handling medical 9-1-1 calls is accredited by the National Association of EMS Dispatch would be eligible for an additional 5% funding premium.

Levels 1 through 3 of the restructured funding represent the equivalent of the current amount being paid to the First Responder ALS agencies. Support of the transporting fire departments' first responder program and Level 4 would require additional funding.

Other Uses of EMS Funds

The consultants recommend that the EMS Agency develop processes and procedures to distribute performance penalty funds, fund balances and other identified EMS funds to initiate new technologies, procedures or system improvements.

It is recommended that funds be used to implement a comprehensive data collection and management system, with individual grants being made available to agencies to assist in

improving data collection and reporting.

EMS Agency Enhancements

The report identifies six major areas of needed emphasis in the day-to-day management of the system. Those areas in which additional emphasis is recommended include: contract management across all system participants, system monitoring, system advocacy, and transparent reporting.

Fitch recommends regulatory activities and medical leadership responsibilities be continued at the current high level of effort.

Enhancements to Emergency Ambulance Provider RFP

Several changes are recommended for inclusion in the upcoming RFP for emergency ambulance services.

- ✓ Limit the length of time that a paramedic or EMT can work continuously on an emergency ambulance or as a field supervisor to mitigate fatigue and safety concerns.
- ✓ Create reasonable but stringent definitions for good cause exemptions from response time

compliance.

- ✓ Enhance the quality management program requirements.
- ✓ Create mechanisms to closely monitor mutual aid provided to the contracted ambulance provider by transporting fire departments to ensure that the contractor does not impose an undue burden on these agencies.

The net effect of the recommendations is additional expense for the ambulance provider. To mitigate this expense, the contribution from the ambulance provider for FRALS payments would be reduced (EMS assessment funds would be used to balance system needs). Ambulance providers would be required to contract with the Alameda County Regional Emergency Communications Center (ACRECC) for dispatch services which would most likely result in additional savings for the contractor.

Check the EMS website for additional information including the timeline for the release of the ambulance transportation RFP.

Preventing “Back-up” Injuries and Deaths - The **Cameron Gulbransen Kids and Cars Safety Act of 2007** is named after 2 year-old Cameron who was killed when he was inadvertently backed over by an sports utility vehicle (SUV). The blind zone behind the vehicle made it impossible for the driver to see him. According to *Kids and Cars*, every week at least 50 children are backed over by vehicles, 48 are treated in emergency rooms and two die. To address this issue, on February 28, 2008, President Bush signed this new law that requires the Secretary of Transportation to issue the following regulations to decrease the incidence of child injury and death.

- ✓ Provide drivers with a means of detecting the presence of a person or object behind their vehicle
- ✓ Ensure power windows will automatically reverse direction when they detect an obstruction to prevent children from being trapped, injured or killed
- ✓ Require brake pedals to engage when vehicles are not in park to prevent it from unintentionally rolling away
- ✓ Establish a child information program to collect non-traffic incident data and to disseminate this information to parents/caregivers about these hazards and ways to reduce risk to children

Technology and improved designs already exist to address these safety areas. Many car companies offer these features as options and/or as standard features on higher-end vehicles. The intent of this law is to make these features standard on all models.

Expanding the rearward visibility standard will give drivers a better means of detecting the presence of small children or objects behind their car. The rearward visibility of some SUVs is so poor that 62 children could fit in the driver's blind spot. Improving rearward visibility will enable drivers to detect people and objects behind their vehicles and will help to reduce deaths and injuries from backing incidents, especially for children and the disabled.

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The 35th Annual National EMS Week is May 18-24.
This year's theme is:



EMS Week is sponsored by the American College of Emergency Physicians each year to recognize EMS personnel and to educate the public about EMS.

A luncheon will be held at the Marina Community Center in San Leandro where the EMS Agency will present awards to deserving individuals nominated by YOU!

NOMINATION CATEGORIES

***Star of Life Award:** recognizes an individual who represents the ideal EMT or Paramedic through exemplary medical skills, outstanding actions, and contributions to the advancement of excellence in the delivery of emergency care to the residents of Alameda County.

***Heart of EMS Award:** recognizes an individual, who by his/her actions has shown exceptional compassion for patients, has been an advocate for patients' rights, was involved in volunteer activities outside of work that enhance EMS, and/or was a role model for co-workers and others in the EMS community in Alameda County.

***Ben Mathews Lifetime Achievement/Innovation Award:** recognizes an individual or organization who by his/her actions and innovative thinking contributed to expanding the future of EMS in Alameda County, or an individual whose contributions to prehospital care have been consistent and long lasting, representing, in effect, a lifetime of outstanding service to the profession and the public.

***Rising Star:** recognizes an individual who is new to the field of prehospital care (< 3 years' experience) who has shown rapid improvement, exemplary skills, and/or has taken on added responsibility.

***Siren Award:** recognizes an individual, or a team of individuals from one or multiple agencies, who performed exceptional or heroic actions and/or exemplary team work in saving or attempting to save the life of another. The nominee(s) displayed significant and exceptional heroism and faced substantial risk of his/her own life in saving or attempting to save a life.

***Bear-Hug Award:** recognizes an individual or organization that has worked to reduce child and youth disability and death due to severe illness and injury, addressed the emergency medical needs of children when serious injuries or illnesses occur by working with children for better healthcare access, and/or has made a difference in the lives of children in Alameda County.

***Circle of Life Award:** recognizes an individual or organization that worked to reduce preventable injuries in the older population, raised awareness regarding the need for injury prevention programs for older adults, worked with seniors for better healthcare access, and/or made a difference in the lives of seniors in Alameda County.

***Civilian Hero Award:** recognizes a civilian who either:

1. Stepped forward to save another human in peril. This person, not trained in, active in, or affiliated with the provision of EMS or rescue service, has shown valor in an attempt (successful or unsuccessful) to rescue another. The incident must have taken place in Alameda County; however, the nominee need not be a resident of Alameda County. The

nominator need not have been involved in the incident; or,

2. Took on a cause relative to the provision of EMS services or a safety concern within the community that benefited the residents of Alameda County.

***Hospital Award for Excellence:** presented to a hospital facility, team, or staff member who participated or assisted in a pre-hospital care event, project or situation of exceptional nature; or made a significant contribution to EMS service by a one-time or continuing act of service in the public's interest.

***Peer Commendation:** presented to any EMS personnel receiving three or more nominations from members of the EMS, healthcare or first responder community that cites courteous or outstanding performance of duty.

Memorial Recognition

As part of EMS Week activities, EMS pays respect to individuals of the Alameda County EMS community who died during the past year. Please contact Kris Helander-Daugherty at 510.618.2032. To view last year's presentation, see the EMS website

AED Life-Saver

This award is presented for the performance of any public AED effort that resulted in saving a life. This recognition will be awarded to anyone involved in an AED save during 2007. Submit the entire team, and don't forget the individual that responded with the AED!

Contact John Vonhof at
510.618-2038

EMS STAR AWARD NOMINATION

EMS WEEK NOMINATION FORM

Nominations must be received by the Alameda County EMS Agency by May 1, 2008.

1000 San Leandro Blvd. #200
San Leandro, CA 94577



I wish to nominate _____
for the following EMS Recognition Award:

- Star Of Life Award
- Heart Of EMS Award
- Bear-Hug Award
- Circle Of Life Award
- Hospital Award for Excellence
- Siren Award
- Ben Mathews Award
- Citizen Hero Award
- Rising Star Award
- Peer Commendation Award

Nominee Employer/Organization: _____

Nominee Contact Information:

work phone: () _____ home or cell phone: () _____ email: _____

EMT, EMT-P MD, RN, Other - Occupation if not EMS: _____

Nominated by: _____

Your phone: () _____ Your email: _____

AED Life-Saver - *specially designed AED pins will be awarded to the whole team*

Final selection or substitutions will be at the discretion of the award committee.

Please include a brief paragraph about your nominee and why he/she should be recognized.

FROM THE MEDICAL DIRECTOR

By Jim Pointer, MD

Pilot Study Update The October newsletter outlined our four research projects. In this issue we present follow up preliminary data.

CPR in the Schools

This exciting project provided CPR training to students at 14 middle and high schools. The Heart Association's CPR Anytime™ product, a manikin and a 22-minute DVD, to the students, who in turn, "trained" friends and family. A total of 317 trained students provided the CPR instructions to 1357 other persons. On average, each student trained 4.28 friends and family members! This pilot is a "beta test" for a more ambitious project next year that will involve all Alameda County schools and over 20,000 students.



317 kids trained 1357 family members and friends in CPR over the holidays

Fentanyl

Paramedics at Berkeley, Albany, and Piedmont Fire have enrolled over 140 patients in this pilot that compares fentanyl with morphine in efficacy, side effect profile, and other characteristics. Resoundingly, so far, fentanyl appears to be favored in all categories. Compared with patients who received morphine in the same time period one year earlier, fentanyl patient's pain scale assessment was 1.67 "pain scale points" lower. Also, 80.6% of fentanyl patients experienced pain relief in three minutes or less compared to only 50% in the morphine group. Five patients successfully received fentanyl for acute coronary syndrome. Introduction of fentanyl in the state paramedic scope of practice would require a regulatory change.

Res-Q-POD

The study compares the inspiratory impedance device with conventional cardiopulmonary resuscitation in cardiac arrest patients.

The Hayward Fire Department used the Res-Q-POD for 22 cardiac arrest patients between May 17, 2007 and January 13, 2008. Five patients (22.7 %) experienced return of pulse prior to hospital arrival. Interestingly, the initial rhythm in 4 of 5 of

these patients was asystole.

Alameda County Fire utilized the device in 26 patients between August 8 and December 16, 2007. Only one patient, in pulseless electrical activity, had return of spontaneous circulation (ROSC). Further data, including survival, is pending.

King Tube

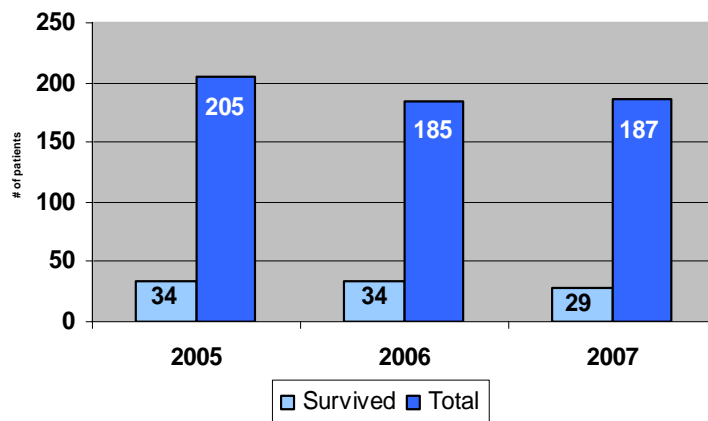
The King Laryngeal Tube is a one-lumen alternative to the Combitube. AMR is conducting a randomized study to compare these two tubes by collecting a number of data points. Forty-seven patients, 23 in the Combitube group and 24 in the King Tube group, have been enrolled through the end of 2007. Paramedics assigned a scale of 1-4 (1 = easiest) for ease of use for each device. The Combitube's score was 1.95 compared to 1.58 for the King. While users preferred the King Tube, they were unable to ventilate two King Tube patients as compared to one for the Combitube. The study will continue until 100 patients are enrolled.

If you have any questions or comments you can contact me at 510.618.2022 (james.pointer@acgov.org) or Mike Jacobs at 510.618.2047 (michael.jacobs@acgov.org)

Cardiac Arrest Survival Data - 2007

This graph reflects the survival rates for the past three years in Alameda County from out-of-hospital cardiac arrest. The only patients who have been followed were those with an initial presenting EKG rhythm of ventricular fibrillation or pulseless ventricular tachycardia (VF/VT). These two life threatening rhythms commonly present as the initial EKG findings in victims of sudden cardiac arrest in or out-of-hospital, and also have the most favorable prognostic outcomes if quickly recognized and treated appropriately. The average survival rate in Alameda County calculated for a three year period (2005-2007) is ~16.8% in this sub-set of VF/VT patients.

Cardiac Arrest Survival 2005 - 2007 (VF - VT)



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WHAT'S NEW ON THE WEB

Fitch Report on the Alameda County EMS System



EMS Star Award Nomination

EMS WEBSITE: acgov.org/ems

NEWS & ANNOUNCEMENTS

Don't forget to submit your nomination for the **EMS Star Awards**. The EMS Agency will present awards to deserving individuals nominated by YOU at a banquet luncheon on May 21st.!

Reminder: The 8th Annual **Senior Injury Prevention Conference** will take place on May 15, 2008 in Sacramento. For more information or the registration brochure go to: <http://www.acgov.org/ems/> or call Colleen Campbell at 510.577.3535

Calling all policy ideas: It is that time of year again when EMS begins the policy review process for the **2009 Field Manual**. If you have any suggestions or comments about policies that need to be revised, or new policies you would like to see added, e-mail them to Joshua English at joshua.english@acgov.org.

A new **CCT-P Field Manual** has been developed in conjunction with Contra Costa County EMS and Santa Clara County EMS, for use by specially trained critical care transport paramedics. The field manual can be downloaded from the EMS agency website.

Child Passenger Safety Seat Work Group

Emergency Medical Services does more than just react. We proactively participate in prevention programs. One of our preeminent programs is the Child Passenger Safety Seat Work Group (CPSSWG) that supplies car seats to low or no income residents of Alameda County. In 2007, the injury prevention staff distributed over 465 car seats.



CPSSWG is composed of representatives from a variety of city, county and board of supervisor's districts. All major nationalities and languages in our diverse county are represented. The workgroup does most of the hands-on training including car seat installation and check ups and the education of thousand of residents regarding car seat laws.

The program routinely conducts educational programs for parents, organizations, and agencies; has trained nursing groups to help educate parents; and has worked with the faith base community to establish an annual car set check up event.

For more information regarding the Child Passenger program contact: Godfrey Wilson at 510.618.2028 or godfrey.wilson@acgov.org or Francell Haskins at 510.618.2027 or francell.haskins@acgov.org.

Back-up Injuries (Continued from page 2)

Requiring power windows to automatically reverse direction when an obstruction is detected will help prevent small children from being caught in or strangled by windows. Finally, vehicles' brake pedals will be required to engage when the car is shifted out of park into another gear. This change will prevent anyone not intending to drive the car, such as a child who cannot typically reach the brake pedal, from automatically setting the car into motion.

In addition to the above standard safety features, the Secretary of Transportation is also required to establish a data base of non-crash incidents and to establish a program to provide the public with safety information regarding non-traffic dangers to young children. Prior to this Act, the government did not collect data about non-traffic incidents.

Young children are impulsive and unpredictable; they have poor judgment and little understanding of danger or personal safety. *Kids and Cars* urge adults to increase their awareness of possible dangers and recommends:

- ✓ Walk around and behind a vehicle prior to moving it.
- ✓ Know where children are. Make them move away from the vehicle to a safe spot before moving the car. Be sure that another adult is supervising the children.
- ✓ Teach children to never play in, around or behind a vehicle.
- ✓ Keep toys and other sports equipment out of the driveway.
- ✓ Always engage the power window "lock-out" mechanism so that children can not play with the windows.
- ✓ Never leave children in or around cars - not even for a minute.
- ✓ Never leave keys or remotes within the reach of children.

For additional information visit the Kids and Cars website at www.KidsAndCars.org.

Did you know...

Cost Fall Related Hospitalization - Alameda County (aged ≥60) - 2004

Number of Hospitalized Persons: 2872

Mean Cost of Hospitalization: \$37,534.48