COUNTY OF LOS ANGELES

FIRE DEPARTMENT

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TO: EACH SUPERVISOR

FROM: DARYL L. OSBY, FIRE CHIEF

TIERED DISPATCH SYSTEM

The County of Los Angeles Fire Department (Department) continues to meet the challenges of the future by re-engineering our emergency medical services (EMS) and implementing best practices. Taking into consideration the recommendations made by the consultants of Citygate Associates, LLC, (Citygate) the Department has recently completed two phases of a three-phase study evaluating a tiered dispatching system.

BACKGROUND

Tiered dispatch has been around for nearly 40 years and has been successfully utilized by hundreds of municipalities throughout the United States and around the world. It enables emergency medical dispatchers to use medical criteria and protocols to identify and differentiate between low and high acuity patients, with the goal of dispatching the appropriate level of service to the scene.

Historically, the Department sends a basic life support (BLS) fire engine and an advanced life support (ALS) paramedic squad to every EMS-related 9-1-1 call. Upon arrival, if it is determined that the patient is low-acuity and needs only a BLS level of service, the ALS paramedic squad is made available for another response. Using tiered dispatch and only sending the necessary BLS resources to EMS incidents enables the ALS unit to remain available for higher-acuity patients. Tiered dispatching will improve response times and coverage, reduce risk and liability, and minimize operating costs. Citygate also suggested that tiered dispatch may reduce fatigue and improve retention of post-position paramedics within the Department.

Subject matter experts including members from Dispatch, EMS, Local 1014, first responders and the Department's medical director formed the Tiered Dispatch Workgroup. This group developed a three-phased tiered dispatch study.

Phased Approach of Tiered Dispatching

Phase I

In the first phase of our tiered dispatch study, the Department conducted a retrospective review of approximately 400 random sample "SICK" and "INJURY" type-coded calls from October 2014. The proposed tiered dispatch system's "SICK BLS" and "INJURY BLS" medical criteria and interrogation protocols were applied to the audio recordings and call text in order to determine if the new protocols would successfully identify and route the necessary level of resources (ALS or BLS) to the patients. Minor adjustments were made to the interrogation questions and criteria to improve the accuracy in determining the patients' acuity levels. The new tiered call-types were found to be 99.95 percent accurate in identifying and excluding the high-acuity patients.

Phase II

The second phase consisted of a six-month proof of concept study in which the new criteria and protocols were applied to live incoming 9-1-1 EMS calls. During this phase, there was no change to the resources dispatched. This allowed us to evaluate the call-types as they related to the assessments, treatments, and transport dispositions. The proof of concept study phase successfully demonstrated that implementing the two new call-types would send the appropriate resources to the patient 94 percent of the time on initial dispatch; the typical threshold for tiered programs is 90 percent accuracy. Of the nearly six percent fallouts, less than one percent are from the medical criteria and interrogation protocols, the remaining five percent is a combination of informant miscommunication and/or call-taker error. Close monitoring and prompt feedback has steadily improved call-taker performance and the data trends show that performance will only improve with further usage and training.

Phase III

On May 1, 2016, the Department will begin the third phase of the tiered dispatch study Department-wide. In this pilot program, the Department will dispatch only BLS units to incoming 9-1-1 calls that meet the two call-types. During the 9-1-1 call, the dispatchers will continue to assess the patients' chief complaints and provide pre-arrival medical instructions until the BLS units arrive on scene. At any time during the call, the dispatcher may upgrade the call-type to an ALS response. Furthermore, a BLS tiered response does not preclude responding units from requesting an ALS response if they determine paramedics are needed in the course of their assessment.

During the pilot program, the Tiered Dispatch Workgroup, in conjunction with our medical director, will continue to closely monitor the study, solicit feedback from our first

responders, stakeholders, and continue our efforts to improve upon our initial compliance percentages.

I look forward to updating your Honorable Board on the anticipated success of the tiered dispatch pilot program. As one of the leading fire departments in the country, it is essential that we stay in the forefront of technology and quality improvement. If desired, we are available to provide a more detailed overview of the program.

If you have any questions, please contact me at (323) 881-6180, or your staff may contact Chief Deputy David R. Richardson Jr., Emergency Operations, at (323) 881-6178.

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