



MEMORANDUM

From the Office of the Fire Chief

Date: February 25, 2013
To: City Council Members
From: Brian Crawford, Fire Chief
Subject: Medical Priority Dispatch System Action Plan

For thirty years, Plano Fire-Rescue (PFR) has used a “one-size fits all” approach to dispatching emergency units to medical calls. The Department routinely sends a minimum of one major apparatus (engine or truck), along with an ambulance, to every emergency medical call. Additionally, all units respond with lights and sirens, regardless of the call type. While this dispatch and response system has been well regarded in the past, it has come under scrutiny by outside sources over the last few years and is no longer considered among industry best practices. Among the issues cited are concerns that PFR’s current method of dispatching units to medical calls is antiquated, inefficient, and fraught with considerable and unnecessary risk.

Today, a more contemporary, intelligent, and scientifically-supported emergency medical dispatch mode exists - Medical Priority Dispatch System (MPDS). This system is a medically-approved, unified system used to dispatch appropriate aid to medical emergencies, including systematized caller interrogation and pre-arrival instructions. MPDS is neither a new concept nor process, but rather a medical dispatch methodology that is currently being used in a number of cities across the United States. According to the 2010 JEMS (Journal of Emergency Medical Services) 200 City Survey, 82.7% of the top 200 most populous cities in the United States reported having a protocol-driven dispatch process and 68.1% indicate they objectively triage every call. The City of Plano routinely participates in this annual survey, and according to the above survey results, is counted among the minority of cities that *do not* have a protocol-driven dispatch process currently in place.

MPDS starts with the Public Safety Communications (PSC) dispatcher asking the caller key questions. These questions allow the dispatcher to categorize the call by chief complaint into a set of determinant levels or codes ranging from “Minor” to “Immediately Life Threatening,” as it relates to the severity of the patient’s condition. Once the determinant code is identified, the proper resource(s) is matched to the call type and dispatched accordingly. While the caller interrogation process for minor or low acuity calls may take additional time on the front end, more emergent or high acuity calls are identified and dispatched with no delay. By matching the right resource with the patient’s need, the Department will be able to better ensure that only the necessary resources are dispatched, thus leaving other units in their assigned districts and available for more critical calls as they occur. Intuitively, PFR anticipates that the implementation of MPDS will result in an increase in the availability of responding units, and a subsequent decrease in overall response times.

Additionally, while MPDS is designed to appropriately match the responding resource to the identified medical need, it also ensures that the dispatched resources respond in the proper mode – i.e., “COLD” - normal traffic or “HOT” - using lights and sirens. While running “HOT” to emergency calls is the norm for most fire and EMS agencies, there is no clear evidence that doing so results in better overall patient outcomes. Conversely, running HOT has been associated with significant risk for increased vehicle collisions involving emergency units – a risk to responders and the general public. Fort Worth Med Star, a local third-party EMS agency, reported that up to 72% or more of their motor vehicle collisions involving emergency units were related to units responding HOT, whereas collisions involving a COLD response were significantly less.

Clearly, MPDS is a progressive medical dispatch system that provides several inherent advantages in the way of resource management, efficiency, and risk reduction:

- Ensures that the “right-size” response is dispatched for the call type, resulting in fewer emergency resources being deployed.
- Increases the availability of emergency units for high acuity calls due to fewer resources needing to be deployed.
- Decreases overall response times due to increased unit availability from sending fewer units to low acuity calls.
- Reduces the risk of vehicle collisions involving emergency units by ensuring the proper response mode is assigned to each call.

On March 18, 2013, PFR will begin responding to medical calls using MPDS. Medical calls will be assigned by PSC to one of the following four categories or response levels, depending on the information received by the PSC call taker.

- **Level One** = Ambulance (Hot) and an Engine or Truck (Hot)
- **Level Two** = Ambulance (Cold) and an Engine or Truck (Hot)
- **Level Three** = Ambulance (Cold) [If the ambulance cannot be on scene within six (6) minutes, add Engine or Truck (Cold)]
- **Level Four** = Ambulance (Cold) [If the ambulance cannot be on scene within 10 minutes, add the closest Engine or Truck (Cold)]

It is important to note that the MPDS dispatch criteria has been reviewed and approved by PFR’s EMS Medical Director, Dr. Mark Gamber. Additionally, this program has been successfully piloted by PSC since October 1, 2012, using medical calls originating from the City’s jail.

Below is a timeline of actions taken thus far, as well as the steps needed for full implementation of MPDS citywide on March 18, 2013:

November 1, 5-9, 2012

Dr. Gamber reviewed the concept of MPDS in all 12 sessions of the November 2012 EMS CE (continuing education) and PSC was present to help answer questions. Approximately 30 minutes per class was spent reviewing the MPDS concept.

December 18-20, 2012

PFR conducted officer in-service training with all on-duty, company-level officers. Members from PSC were in attendance to answer questions.

January 24, 2013

Chief Crawford, Director Timmons, and Director Vail-Grube met to discuss the best way to alert the general public of anticipated changes in the way that PFR will respond to medical calls in the future.

February 25, 2013

Chief Crawford, Director Timmons, and Medical Director Gamber will brief City Council on the MPDS process. This presentation will explain to the Council not only the changes, but also the reasoning behind the changes. Presentations are expected to last 10-15 minutes, with additional time for questions.

February 14 and 26, 2013 and March 11, 12, 14, and 15, 2013

Chief Crawford and FRS Kevin Haines will conduct department-wide training so that all members are well educated in the MPDS response plans and the reason behind the Department’s decision. Each shift will have four classes, giving ample time for all members to attend.

March 18, 2013

With close monitoring, PFR and PSC will go “live” with the implementation of MPDS.

Monthly meetings

PFR will meet monthly with PSC to monitor the MPDS components and to ensure that all calls are receiving the proper response. Dr. Gamber will be an integral part of the monthly QI/QA process.

The Medical Priority Dispatch System is a tiered medical dispatch system designed to send the *right resource* to the *right person* in the *right way* at the *right time*. PFR fully believes that the implementation of MPDS and use of priority levels and codes to set responses more in line with the patient's condition and actual need for EMS resources will result in a safer, more efficient EMS system.



Brian A. Crawford
Fire Chief