



NATIONAL TRANSPORTATION SAFETY BOARD
Investigative Hearing

Washington Metropolitan Area Transit Authority Metrorail train 302 that encountered heavy smoke in the tunnel between the L'Enfant Plaza Station and the Potomac River Bridge on January 12, 2015

GROUP	H
EXHIBIT	
43	

Agency / Organization

Montgomery County Fire and Rescue Service

Title

Standard Operating Procedures Priority
Dispatch Systems



Montgomery County Fire & Rescue Service

Division of Operations – Emergency Communications

Standard Operating Procedure

Priority Dispatch Systems

Procedure: 2015-02
Issue Date: AUGUST 1, 2015

1.0 PURPOSE

This SOP outlines the procedures for the protocol-based handling of emergency calls and defines the quality improvement measures for these procedures. Protocol systems ensure the proper response configuration, collect information, and provide pre-arrival information that will assist in assuring the safety of patients, bystanders and responders.

2.0 APPLICABILITY

All personnel certified to operate at the Montgomery County Fire and Rescue Service (MCFRS) Emergency Communications Center (ECC).

3.0 DEFINITIONS

- 3.1 Dispatch Review Committee (DRC): Responsible for the formal process of reviewing compliance reports generated by the Quality Improvement Unit. This includes review of individuals, shifts, and the entire communications center. The review will include the analysis of problematic and exemplary cases, implementation and follow-through of all report forms, tracking mechanisms, quality assurance processes, and operational feedback reviews. This group also makes formal recommendations to the Dispatch Steering Committee (DSC) for program changes.
- 3.2 Dispatch Steering Committee (DSC): Responsible for executive level decision making and policy approval as recommended by the DRC.
- 3.3 ED-Q: An Emergency Dispatcher certified by the International Academy of Emergency Dispatch to perform quality assurance review of 911 calls.
- 3.4 Fire Priority Dispatch System (FPDS): The approved system for processing fire events. Protocols exist both electronically (ProQA software) and on back-up cardsets.
- 3.5 International Academies of Emergency Dispatch (IAED): The organization which sets the standards for medical and fire dispatching. The IAED supports unified protocol application and the strengthening of the emergency dispatch community through education, certification, and accreditation.
- 3.6 Medical Priority Dispatch System (MPDS): The approved system for processing medical events. Protocols exist both electronically (ProQA software) and on back-up cardsets.

- 3.7 Maryland Institute of Emergency Medical Services System (MIEMSS): Provides communications, leadership, and oversight necessary for emergency medical services in Maryland and coordinates all components of the statewide EMS system in accordance with the Maryland statute and regulation.
- 3.8 Office of Professional Standards: The administrative staff assigned to ECC who are responsible for training, quality assurance, and ongoing process improvement. Office of Professional Standards personnel manage the QIU and serve at the direction of the Communications Section Chief.
- 3.9 Quality Assurance (QA): All actions taken to assure that standards and procedures are adhered to and that delivered products or services meet performance requirements.
- 3.10 Quality Improvement (QI): All actions taken to continuously improve a system or process or enhance levels of service beyond the established standard.
- 3.11 Quality Improvement Unit (QIU): Responsible for case review, first-line monitoring of call taking performance, and protocol adherence. The QIU consists of all ED-Qs who review and provide feedback on processing time, basic call-taking skills, professionalism and courtesy, and protocol compliance. The QIU is managed by the Office of Professional Standards.

4.0 **PROCEDURES**

4.1 Certification

All personnel must obtain and maintain EMD and EFD certification from the IAED and EMD licensure from MIEMSS. In order to maintain certifications, all personnel must complete continuing education hours in accordance with the IAED and MCFRS.

4.2 Medical Events

Medical events must be processed by a licensed Emergency Medical Dispatcher who is certified to work at the MCFRS ECC.

4.3 Fire Events

Fire events must be processed by a certified Emergency Fire Dispatcher who is certified to work at the MCFRS ECC.

4.4 Protocol Use

With the exception of the Protocol Exemptions listed in Section 4.5, the appropriate protocol system (MPDS or FPDS) shall be used by the call taker to process events for MCFRS. The primary method for protocol use is the ProQA software located on each CAD workstation. In the event that ProQA software is not available or operable, the manual cardset shall be used to process events.

MPDS and FPDS software (ProQA) and cardsets must be licensed, maintained, and available for use at each call taking workstation, and shall be updated to the most recent version within one year of release.

The call taker must type the problem description in the appropriate case entry field.

Dispatch Life Support, including Post-Dispatch and Pre-Arrival Instructions, shall be provided to the caller by the call taker using the appropriate protocol system (MPDS or FPDS).

4.5 Protocol Exemptions

4.5.1 When the call taker is able to obtain the location of the emergency but is unable to readily obtain the nature, the call type UN/EMER may be utilized in order to quickly dispatch help while obtaining additional information.

When the call taker is able to determine that the caller is reporting a medical emergency but is unable to determine the nature of the medical emergency, the call type UN/RES may be utilized in order to quickly dispatch help while obtaining additional information.

4.5.2 When a representative of any of the following agencies is on the scene operating in an official capacity and requests assistance from MCFRS, protocols may be bypassed:

- Chevy Chase Village Police
- Gaithersburg City Police
- Maryland National Capital Park Police
- Maryland State Police
- Maryland Transit Police
- Metro Transit Police
- Montgomery County Police
- Rockville City Police
- Takoma Park Police
- United States Park Police

In these cases, protocols may be bypassed and one of the following appropriate event types may be used:

- POL-ALS
- POL-ASST
- POL-BLS
- POL-ERT
- POL-PIC
- POL-SWAT

- 4.5.3 When a representative of MCFRS is on the scene operating in an official capacity and requests further assistance from MCFRS, protocols may be bypassed and one of the following appropriate event types may be used:
- FRS-ALS
 - FRS-ASST
 - FRS-BLS
 - FRS-PIC
 - SIGNAL3 (OR SIG3FRS)
- 4.5.4 When an on-duty MCFRS EMS Duty Officer requests interfacility transportation or helicopter standby service, protocols shall be bypassed and one of the following appropriate event types shall be used:
- ET
 - RT
 - STANDBY
- 4.5.5 When MCFRS resources are requested to respond to a mutual aide or automatic aide event, protocols shall be bypassed and one of the following appropriate event types shall be used:
- MA/ALS
 - MA/ENRT
 - MA/F
 - MA/FULL
 - MA/R
 - MA/TRT
- 4.5.6 When the location of the emergency dictates a predetermined response plan, protocols shall be bypassed for the purposes of obtaining a call type only. In these cases, the call taker must utilize the appropriate protocol system (FPDS or MPDS) to provide Dispatch Life Support and Post-Dispatch Instructions. These locations include:
- In a METRO right-of-way or in a METRO Yard. For these events, one of the following appropriate event types shall be used:
 - MET/ALS
 - MET/BLS
 - MET/CRSH
 - MET/FIRE
 - MET/OTH
 - In the Potomac River, on White's Ferry, or on a trail between Carderock and Great Falls Park. For these events, one of the following appropriate event types shall be used:
 - RIV/STIL
 - RIV/SWFT

- 4.5.7 All Traffic / Transportation Incidents shall be processed utilizing the 29 card in MPDS. The 77 card in FPDS shall not be utilized.
- 4.5.8 For Traffic / Transportation Incidents (29 card), case entry questions may be bypassed when the caller is no longer on the scene of the incident. In order to bypass these questions in ProQA, the following procedure should be used:
1. Type "29" in the "*The problem is:*" field
 2. Type "No" in the "*With the patient now:*" field and "Unknown" in the "*Number of hurt/sick is:*" field; this auto-fills the remainder of the case entry screen
 3. Press the Enter key to proceed to key questions
- 4.5.9 Transfer/Interfacility/Palliative Care Protocol (33 card)
- The Transfer/Interfacility/Palliative Care Protocol (33 card) should only be selected when the commonplace name in CAD includes "(SNF)" and the caller is a staff member of the nursing facility who is calling for a resident.
 - If the patient has not been evaluated by a nurse or doctor (Key Question 1) or the EMD feels that the caller is not providing a clear assessment of the patient, the EMD should select the most appropriate protocol (1-32) based on the patient's chief complaint.
 - For Key Question 2 ("*What type of incident is this?*"), the EMD must ask the following:
 1. "*Is the patient a DNR-B?*" If yes, ask:
 2. "*Is the appropriate paperwork on site?*" If yes, the EMD must select 'Palliative Care'.

If the answer to either question is no or unknown, the EMD must select 'Transfer/Interfacility' for Key Question 2.
 - For Key Question 10 ("*Have MD/RN names and facility numbers already been obtained and entered?*"), the EMD shall select Yes.
- 4.5.10 For alarm company or other off-site reports of an automatic medical alarm, the call taker may ask for the patient's name, phone number, and a key location or access code prior to or during case entry or key questions.
- 4.5.11 For events occurring outdoors including medical emergencies, collisions, man down, etc., the call taker may ask for a person, clothing or vehicle description prior to or during case entry.

4.5.12 For fire alarm events processed using protocol 52 which are called in by an alarm monitoring company:

- PDI instructions “A” and “B” should be read
- X-Card instructions should NOT be read
- The call-taker’s operator ID should be stated prior to disconnecting with the caller

4.5.13 For odor events processed using protocol 66, the call taker should NOT select “Rotten eggs/Sulfur (HAZMAT)” as an answer to Key Question 3.

4.6 Quality Assurance Methodology

EMD and EFD performance is checked through a software-driven “AQUA” review process. ED-Q personnel perform audits of randomized cases that are managed and reviewed by the Office of Professional Standards. In accordance with the performance standards set forth by the IAED, personnel who obtain a Low Compliance or Non-Compliant score on any case should receive feedback and individualized remediation by a member of the QIU and/or by the employee’s supervisor within one (1) week of completion of the case review.

4.6.1 Randomization and Performance Review Process

Randomization is achieved through use of the advanced export settings in the administrative module of the ProQA software. Exports are performed bi-weekly on every other Monday for the two complete weeks preceding the export.

The following settings are utilized during the export for medical events:

- 3% randomization
- Exclude all: 29, 32, and 33 cases
- Test cases shall be filtered out

The following settings are utilized during the export for fire events:

- 3% randomization
- Exclude all: 65, 76 and 77 cases
- Test cases shall be filtered out

4.6.2 Minimum Number of Reviewed Cases

The minimum number of calls reviewed each week is based on the call volume of the preceding year utilizing the formula set forth by the IAED.

4.6.3 Special Case Review

All requests for non-random case reviews will be directed to the Office of Professional Standards. The Office of Professional Standards has discretion to initiate and/or authorize Special Case Review.

4.7 Operational Standards

It is the goal of MCFRS to maintain minimum performance for Compliance Levels and Deviation Percentages within the IAED accreditation process, measured on a quarterly basis, in the following areas: Case Entry, Chief Complaint, Key Questions, Dispatch Life Support, Final Code and Customer Service. MCFRS ECC personnel must maintain commensurate minimum individual performance levels.

Compliance Levels	Acceptable Levels
High Compliance	
Compliant	
Partial Compliance	10%
Low Compliance	10%
Non-Compliant	7%

Deviation Levels	Acceptable Levels
Critical Deviation	3%
Major Deviation	3%
Moderate Deviation	3%
Minor Deviation	3%

4.8 Committee Meetings

- 4.8.1 The Quality Improvement Unit (QIU) shall communicate via face-to-face conversation and email. Meetings shall be scheduled at the discretion of the Office of Professional Standards.
- 4.8.2 The Dispatch Review Committee (DRC) shall meet at least four times per year.
- 4.8.3 The Dispatch Steering Committee (DSC) shall meet at least twice per year.
- 4.8.4 Members of each of the following committees are listed at this link:
<http://tinyurl.com/owxyzcv>