



Division 05 **Emergency Medical**

Chapter 10 – Multiple Casualty Incident Operations

March 2009

POLICY

This General Order provides operational guidance for Multiple Casualty Incidents (MCI). A MCI is declared when the number of patients encountered severely taxes or exceeds normal Fire/EMS Department resources. This plan intends to maximize effectiveness and efficiency regardless of size or complexity of the incident.

DEFINITIONS

Blue Alert – When an EMS jurisdictional system is temporarily taxed to its limits in providing prehospital care and ambulance transportation due to extraordinary situations such as multi-casualty incidents, snow, icing, or flooding or other circumstances that contribute to high demand for ambulance service, the jurisdiction may declare blue alert status which suspends yellow alert. The jurisdiction’s senior EMS officer or his designee shall declare a Blue Alert.

EMRC – Emergency Medical Resource Center - The EMRC medical channel radio communications system links EMS providers in the field with hospital-based medical consultation. Consultation facilities and multiple hospitals can be patched into a single consultation. The EMRC plays a critical role that aids in ensuring a coordinated response to major incidents and catastrophic events.

Medical Ambulance Bus (MAB) – An EMS unit designed to transport twenty (20) non-ambulatory (immobilized) patients.

The department has one (1) Medical Ambulance Bus. Minimum staffing for this

unit is three (3) personnel. There are seven (7) Medical Ambulance Buses within the National Capital Region (NCR).

Medical Care Support Unit (MCSU) – An EMS unit designed to carry supplies and equipment to specifically address the resource needs of a multiple casualty incident (MCI). These units are designed to rapidly deploy treatment areas and associated equipment.

The department has two (2) Medical Care Support Units:

- MCSU 805 has the capability to address one hundred (100) patients
- MCSU 849 has the capability to address fifty (50) patients.

Minimum staffing for these units is three (3) personnel. Generally, the station where the unit is assigned is responsible to meet the minimum staffing level. If the unit does not have three riding positions, the station officer will determine what means will be used to transport the crew to the scene. If this staffing level cannot be met with a single company, additional units must respond in order to fulfill this requirement.

There are Medical Care Support Units deployed throughout the National Capital Region for over 1000 patients.

S.T.A.R.T. (Simple Triage and Rapid Treatment) - The triage method designated by the Maryland Medical Protocols for Emergency Medical Providers (“Protocol”). S.T.A.R.T. is a thirty (30) second assessment utilizing the following physiological signs:



- Respirations
- Perfusion
- Mental Status

Personnel performing this initial triage assessment will use Triage tape to identify findings.

S.T.A.R.T. findings

- Immediate (Red) – Patients with airway compromise or respirations over 30/minute, and or capillary refill greater than two (2) seconds, and/or unconscious or unable to follow simple commands
- Delayed (Yellow) – Patients with respirations under 30/minute, capillary refill less than two (2) seconds, and is able to follow simple command
- Minor (Green) – Walking wounded, patients that require only minor medical intervention
- Deceased (Black) – Victims found pulseless and/or apneic after opening airway. No CPR will be initiated during initial triage

Transportation Group (Transportation Group Supervisor) – The group that is responsible for:

- coordinating hospital capabilities
- assign patient transport destinations
- hospital communications, and
- transportation record keeping.

Treatment Group (Treatment Group Supervisor) – The group responsible for the overall management of patient care in the Treatment Units. The Treatment Group Supervisor must:

- Request and maintain sufficient personnel and supplies to adequately treat expected patient load.

- Maintain communications with the Transportation Group Supervisor and coordinate patient movement out of the treatment areas.
- Ensure periodic reassessment of patients in the treatment area to ensure proper categorization.

Triage Group (Triage Group Supervisor)

The group responsible to assess and prioritize patients to maximize effective patient treatment and transportation. The S.T.A.R.T. method with triage tape will be used during initial triage.

PROCEDURES

1. General

During a Multiple Casualty Incident (MCI), it is vital to establish the essential EMS groups in order of need as needed within the Incident Management System. These groups serve to effectively and efficiently triage, treat, and transport patients from the scene to an appropriate medical facility, according to their injuries or illnesses.

2. Dispatch

Public Safety Communications (PSC) or the Incident Commander may add a “Multiple Casualty Task Force” assignment to the initial assignment when information indicates, such as:

- Motor vehicle collision involving multiple patients, such as a commuter bus
- Passenger train collision/derailment
- Occupied building explosion/collapse

The Multiple Casualty Task Force will include:

- 4 BLS Ambulances
- 2 ALS Medic Units



- 1 Medical Care Support Unit (MCSU)
- 2 Engine Companies
- 2 EMS Officers
- 1 Battalion Chief
- Medical Ambulance Bus (MAB) will be dispatched on all incidents involving 20 patients or greater.

3. Operations

The first unit to arrive on the scene establishes command and reports the following information:

- Type and/or cause of incident
- Any hazards present
- Approximate number of patients
- Area involved, including problems with scene access/egress

The first arriving EMS unit assumes the Triage Group and initiates triage procedures utilizing S.T.A.R.T. Colored triage tape will be applied to each patient to indicate proper triage category. Units assigned to the Triage Group must:

- Consider the potential for patient contamination. If patients are contaminated, decontamination procedures must be completed prior to entering the treatment areas.
- Account for and retain all patients
- Request additional resources, if needed. Two (2) providers for every twenty (20) patients is a guideline.
- Move all "Green Patients" to a secure and supervised treatment area, if not already done
- Triage all remaining patients where they are found
- Request sufficient personnel to begin moving all patients to designated treatment areas

Incident Command

The Incident Commander should establish an EMS Operations Group (or Branch). The EMS Operations Group may consist of:

- Triage Group
- Treatment Group
- Transport Group
- EMS Staging
- EMS Supply Unit
- EMS Communications Unit

The EMS Operations Group should be assigned a separate radio channel for communication purposes.

EMS Operations Group should have a separate staging area. All suppression and EMS units assigned to the EMS Operations Group report to EMS Staging.

EMS Operations Group will contact EMRC for the following:

- Declare a Multiple Casualty Incident.
- Provide the type and approximate number of patients.
- Ensure area hospitals are notified
- Receive an initial assessment of each hospital's patient capability
- Consider placing the County on a "Blue Alert" status.
- Consider designating an EMS Communications Unit who maintains appropriate communications with hospital resources through EMRC.

Treatment Group

The primary objective of the Treatment Group is to treat and stabilize patients until transportation is available.

The Treatment Group is established prior to moving triaged patients. Each Treatment Area should be established while considering:



PRINCE GEORGE'S COUNTY, MARYLAND FIRE/EMERGENCY MEDICAL SERVICES DEPARTMENT GENERAL ORDERS

- Area away from hazards
- Anticipating patient loads by patient category
- Distance from the incident site
- Level ground
- Access/egress for transport units

Patients are brought to the Treatment Area through a single entry point where secondary triage is performed and a MIEMSS/MWCOG Triage Tag is attached to each patient. A patient identifier sticker from the tag will be placed next to the patient's information on the Patient Tracking Form upon arrival in the Treatment Area.

The Treatment Group will consist of three (3) units:

- Red Treatment Unit
- Yellow Treatment Unit
- Green Treatment Unit

Initial staffing for each Treatment Unit is:

- Red Treatment Unit – one (1) ALS unit, one (1) BLS unit, and one (1) engine company
- Yellow Treatment Unit – one (1) BLS unit, and one (1) engine company
- Green Treatment Area – one (1) engine company

Treatment Unit staffing should increase in anticipation of increases in patient load.

All EMS providers in the Treatment Units operate under the established protocols within the *Maryland Medical Protocols for EMS Providers*. When a local jurisdiction declares an MCI, it is extremely important to maximize patient care resources and reserve EMS communications for emergent situations. Except for extraordinary care interventions, EMS providers may perform all skills and administer medications within

protocol. When the MCI condition is instituted, the Exceptional Call box must be checked on the Patient Care Report (PCR).

Patients must be periodically re-assessed while in the Treatment Area.

The Treatment Group Supervisor:

- Determines the order of patient transfer based on secondary triage and reassessment outcomes
- Coordinates patient transfers with the Transport Group Supervisor.

The Treatment Group Supervisor and Transport Group Supervisor document entry and exit of all patients on a Patient Tracking Form utilizing the patient identifier stickers from the triage tag.

The Medical Care Support Unit officer is designated as the EMS Supply Group. Additional medical supplies for Treatment Areas are through the Medical Supply Group.

No patients are permitted to leave the Treatment Area without the Treatment Group Supervisor's knowledge. Pediatric patients may only be released to verified immediate family member. Any person attempting to remove a pediatric patient from the scene must show proof of identification and be verified by a law enforcement officer.

Transport Group

The primary objectives of this group are:

- Maximize the effectiveness of transportation resources
- Monitor the status of all receiving hospitals
- Assign patients to transport resources
- Assign transportation destinations



- Account for all patients transported by completing Multiple Casualty Patient Forms.

The Transport Group Supervisor obtains hospital capabilities, including trauma or specialty beds from the EMS Operations Group Supervisor. Once hospital capabilities are established, patients are distributed as effectively as possible.

The Transport Group Supervisor coordinates with the EMS Operations Group and the EMS Staging Officer to ensure adequate ground and MEDEVAC transportation resources are available. The Transportation Group Supervisor must maintain an effective traffic pattern to avoid congestion and potential transport delays. Law enforcement personnel may be requested to assist.

Patients are moved to the Transport Group based on triage priority and when appropriate transport resources are available.

The Transport Group Supervisor:

- Documents the disposition of each patient to a transport unit and receiving hospital.
- Documents the hospital destination of each patient using the Multiple Casualty Patient Tracking Form.
- Assigns the destination of all transport units.
- Provides all EMS/medical communications to receiving hospitals related to transport information, unless an EMS Communications Unit is created.
- Establishing a helicopter landing zone, if appropriate

MCI Transport information includes:

- Unit destination

- Estimated time of arrival
- Triage category and triage tag number
- Age/Sex of patient
- Chief complaint

Staging

In the event of a multiple casualty incident, separate staging areas should be considered for those units assigned to EMS tasks and those assigned for other suppression/rescue tasks. The EMS Staging Manager reports to the EMS Operations Group and is responsible for:

- Planning the layout of staging area (consider immediate and future needs)
- Maintaining direct communications and coordination with the Transportation Group Supervisor
- Establishing routes of travel for EMS transport units
- Request additional resources through command to maintain sufficient staffing levels and transport capabilities throughout the incident
- Coordinate with EMS Supply Unit to establish a system to restock transport units, if necessary

Temporary Morgue

The Morgue Group is established only if necessary. Its location must be away from the operational areas and not readily available to the public or other patients. Only deceased patients that hinder operations or victims that expire in the treatment area are transported to this area. Other deceased patients encountered on initial triage are left undisturbed as part of the investigation.

Bodies will be covered with sheets when available. Access to the morgue area will be restricted to authorized Fire/EMS personnel and law enforcement. The Morgue Group



must maintain Patients Tracking Forms as the other EMS Operations Groups to track patient disposition.

Attachment 2 – Maryland/MWCOG Triage Tag

Termination

All Group Supervisors must ensure a complete patient accountability and disposition can be constructed from their respective Patient Tracking Forms. When all victims have been accounted for and/or transported to medical facilities, the EMS Operations Group Supervisor may notify Incident Command and the incident can be downsized. At this time, a complete patient disposition report will be forwarded to the Incident Commander.

Triage Resources

Unit	Tags	Tape	Tarps
Fire	50	1/ea	
EMS	50	1/ea	
EMS Sup	50	1/ea	1 set
MCSU	200	4/ea	1 set/50 pt
MAB	200	4/ea	
Batt Ch	50	1/ea	

REFERENCES

Emergency Medical Protocols for Emergency Medical Services Providers

FORMS/ATTACHMENTS

FORM 1 – Treatment Unit Patient Tracking Form

FORM 2 – Transportation Unit Patient Tracking Form

Attachment 1 – START/Jump START Algorithm

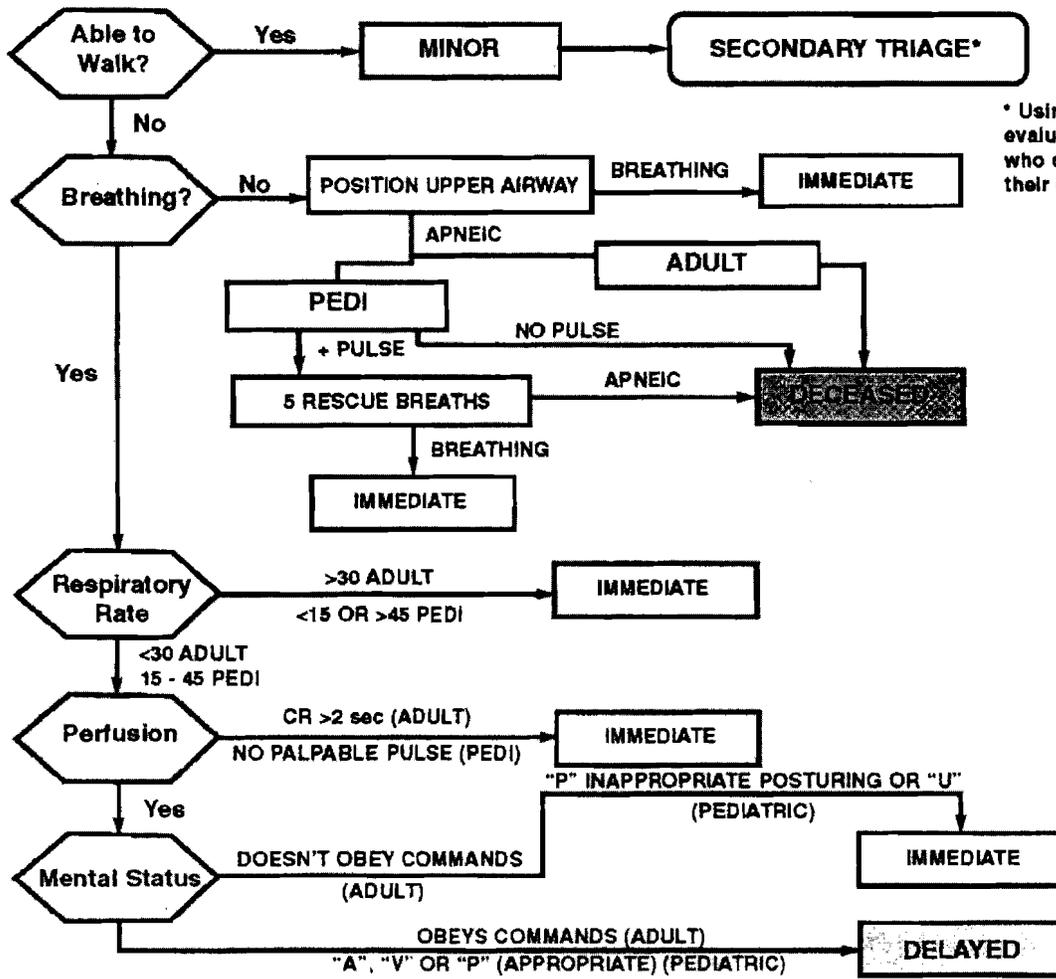


**Prince George's County Fire/EMS Department
Multiple Casualty Incident Operations
Transportation Group Tracking Form**

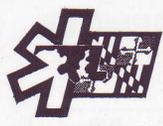
Hospital -				Transport OIC -			
Capacity	Red -	Yellow -	Green -	Trauma Beds	Cat A/B -	Cat C/D -	

Combined START/JumpStart Triage Algorithm

For Pediatric Patients Ages Birth -14 Years



* Using the JS algorithm, evaluate first all children who did not walk under their own power.



MIEMSS

TRIAGE TAG

DO NOT REMOVE

PATIENT NUMBER

PATIENT INFORMATION

AGE _____ WEIGHT _____

MALE FEMALE

* M D 4 7 5 8 0 3 *

NAME _____

ADDRESS _____

CITY _____ ST _____ PHONE _____

TRIAGE STATUS

EVALUATION	TIME	RED	YELLOW	GREEN	BLACK
INITIAL		IMMEDIATE	DELAYED	MINOR	DECEASED
SECONDARY		IMMEDIATE	DELAYED	MINOR	DECEASED
		IMMEDIATE	DELAYED	MINOR	DECEASED
HOSPITAL		IMMEDIATE	DELAYED	MINOR	DECEASED

CHIEF COMPLAINT

Head Injury C-Spine

Blunt Trauma

Penetrating Injury

Burn Fracture

Laceration Amputation

Medical _____

Cardiac Respiratory

Diabetic OB/GYN

Haz-Mat Exposure

COMMENTS _____

TRANSPORTATION AGENCY/UNIT _____ DESTINATION _____ TIME ARRIVED _____

TREATMENT	* M D 4 7 5 8 0 3 *	HOSPITAL	* M D 4 7 5 8 0 3 *
OTHER	* M D 4 7 5 8 0 3 *	OTHER	* M D 4 7 5 8 0 3 *
OTHER	* M D 4 7 5 8 0 3 *	OTHER	* M D 4 7 5 8 0 3 *
OTHER	* M D 4 7 5 8 0 3 *	OTHER	* M D 4 7 5 8 0 3 *

TRANSPORT RECORD

AGE _____

MALE FEMALE

NAME _____

CHIEF COMPLAINT _____

DESTINATION _____ HOSP NOTIFIED _____

TRANSPORTATION AGENCY/UNIT _____ TIME OUT _____

PATIENT NUMBER

* M D 4 7 5 8 0 3 *

TRIAGE STATUS