Panvel Municipal Corporation

STANDARD OPERATING PROCEDURES FOR MEDICAL EMERGENCY RESPONSE

1. Purpose

To establish a comprehensive protocol for managing medical emergencies where Emergency Medical Services (EMS) act as the Primary Responding Agency (PRA) within the jurisdiction of Panvel Municipal Corporation (PMC). This SOP ensures rapid, coordinated, and effective pre-hospital care, prioritizes patient outcome, and defines the command structure for ambulance-led incidents, including Mass Casualty Incidents (MCIs).

2. Scope

This SOP applies to all PMC-authorized ambulance services (108, 102, PMC-operated, and registered private providers), the PMC Emergency Control Room (ECR), PMC Health Department, and all other PMC departments that provide support during medical emergencies.

3. Objectives

- Ensure the fastest possible response time and initiation of pre-hospital care.
- Establish clear medical command and triage protocols at the scene.
- Define the ambulance service's authority over patient care and transport decisions.
- Facilitate seamless coordination with Police and Fire departments for scene safety and access.
- Integrate hospital notification and preparedness into the emergency response chain.

4. Definitions

- **Primary Responding Agency (PRA):** The designated lead ambulance service/EMS provider.
- **Medical Incident Commander (MIC):** The senior-most qualified medical personnel (Paramedic, Emergency Medical Technician - Supervisor, or Doctor) on scene.
- **Triage Officer:** A designated EMS personnel responsible for sorting patients based on severity.
- **Treatment Officer:** A designated EMS personnel responsible for managing the treatment area.
- **Transport Officer:** A designated EMS personnel responsible for coordinating patient transport to appropriate facilities.
- **Ambulance Control:** The central dispatch/coordination center for the lead EMS provider (e.g., 108 Control Room).
- **Mass Casualty Incident (MCI):** Any incident where the number of patients exceeds the capability of initial EMS resources.

5. Activation and Mobilization

5.1. Call Reception & Medical Dispatch:

1. All medical emergency calls are received by the **PMC ECR** (112/108 integrated).
2. ECR Operator conducts a structured **Medical Priority Dispatch** interrogation to determine:
    - Exact location and call-back number.
    - Nature of medical problem (Medical, Trauma, Psychiatric, Pediatric).
    - Patient's consciousness and breathing status.
    - Pre-arrival instructions are provided if needed (e.g., CPR guidance).
3. ECR immediately relays the call to the designated **Ambulance Control (108)** and patches them to the caller if necessary for advanced medical interrogation.

5.2. Resource Allocation and Simultaneous Alert:

1. **Primary Dispatch:** Ambulance Control dispatches the nearest appropriate ambulance (ALS/BLS) and notifies the **Medical Supervisor on Duty**.
2. **PMC ECR Simultaneously Alerts Supporting Agencies Based on Incident Type:**
    - **For Trauma/Accident/RESCUE:** Fire & Rescue Services and Police are dispatched simultaneously for extrication, scene safety, and traffic management.
    - **For Medical (Heart Attack, Stroke, etc.):** Police may be alerted for traffic facilitation if peak traffic is anticipated.
    - **For Suspected MCI or Communicable Disease Outbreak:** PMC Health Department, District Hospital, and Disaster Management Cell are notified immediately.
    - **PMC Electricity/Water Dept:** For incidents involving utilities (e.g., electrocution).

6. Response And Medical Command

6.1. En-route and Arrival:

- Ambulance crew confirms response and receives updates via data terminal/radio.
- The **First Ambulance on Scene** transmits an initial report to Ambulance Control and PMC ECR: **"Med Unit [Number] on scene at [Location]. Beginning scene size-up. Standby for triage report.".**

6.2. Medical Scene Size-Up & Establishment of Command:

The senior medical provider establishes **"Medical Command"** and performs **METHANE** report:

- **M** - Major Incident Declared? (Yes/No)
- **E** - Exact Location
- **T** - Type of Incident
- **H** - Hazards (Present/Potential)
- **A** - Access & Egress Routes (Best routes for ambulances)
- **N** - Number & Severity of Casualties
- **E** - Emergency Services Present & Required

7. Incident Command System – EMS As PRA

7.1. Medical Command Structure:

- **Medical Incident Commander (MIC):** Overall responsibility for medical operations.
- **Triage Unit:** Led by Triage Officer. Uses **START/JumpSTART** (Simple Triage and Rapid Treatment) methodology.
- **Treatment Unit:** Led by Treatment Officer. Manages areas for Immediate (Red), Delayed (Yellow), and Minor (Green) patients.
- **Transport Unit:** Led by Transport Officer. Coordinates with Ambulance Control for additional ambulances and determines hospital destination based on capacity and specialty (Trauma, Cardiac, Burn, Pediatric).
- **Staging Unit:** Manages incoming ambulance parking and logistics.
- **Morgue Unit:** (If required) Designates a temporary, respectful deceased holding area.

7.2. Guiding Principle:

The authority of the MIC over all medical triage, treatment, and transport decisions is absolute. All other agencies operate in support of this medical mission.

8. Scene Management and Triage Protocol

8.1. Establishment of Medical Zones:

- **Triage Sector:** Initial patient assessment and tagging area.
- **Treatment Sector:** Sub-divided into Red/Yellow/Green areas.
- **Transport Sector:** Ambulance loading point with clear access/egress.
- **Staging Sector:** For incoming ambulances and equipment.
- The MIC requests Police to secure and manage traffic flow into these sectors.

8.2. Patient Management Flow:

1. Triage Officer tags patients (Red/Immediate, Yellow/Delayed, Green/Minor, Black/Deceased).
2. Patients are moved to the corresponding Treatment Area.
3. Treatment teams provide stabilizing care.
4. Transport Officer, in consultation with the MIC and Ambulance Control, assigns patients to ambulances and receiving hospitals to prevent overloading any single facility.

9. Coordination with Supporting Agencies

9.1. With Police Department:

- **Request:** The MIC or designee provides Police Liaison with clear requirements:
    - Secure the **Medical Operation Zone**.
    - Establish a clear **"Ambulance Corridor"** for ingress/egress.
    - Manage crowd control and family members.
    - Provide security if the scene is volatile.
- Police assist in establishing the outer perimeter but do not interfere with medical operations within the treatment zones.

9.2. With Fire & Rescue Department:

- **Request:** The MIC specifies needs:
    - **"We require immediate extrication of one Red-tag patient from vehicle #1."**
    - **"We need lighting and a decon shower set up at the edge of the warm zone."**
    - **"Standby for a secondary collapse/fire hazard."**
- Fire personnel work under the direction of the MIC for tasks directly related to patient access and safety.

9.3. With Panvel Municipal Corporation Departments:

- **PMC Health Department:**
    - Acts as the link to public health systems.
    - Mobilizes additional medical resources (doctors, nurses, vaccines, medicines) for MCIs or outbreaks.
    - Manages deceased persons in coordination with police.
- **PMC Water Supply:** Provides water for decontamination or drinking at the treatment sector.

- **PMC Public Works:** Provides barriers, tents, and temporary structures for treatment areas.

10. Hospital Notification and Transport

- Ambulance Control is responsible for contacting receiving hospitals.
- A **Centralized Hospital Bed Management System** (to be integrated) shall be consulted during MCIs.
- The **Transport Officer** ensures even distribution of patients and provides a **Pre-Arrival Notification** to the hospital, including the number of patients, triage category, and ETA.

11. Demobilization and Termination

11.1. Incident Termination:

- The MIC declares the incident medically terminated when the last patient is transported and no further medical resources are required on scene.
- A final report is communicated to Ambulance Control and PMC ECR.

11.2. Post-Incident Activities:

- **Hot Debrief:** Conducted by the MIC with all EMS personnel immediately after the incident.
- **Equipment Re-Supply:** All ambulances must be fully restocked and marked "in-service" by the crew before becoming available.
- **Multidisciplinary Critique:** PMC Disaster Management Cell will convene a review with Police, Fire, and Health departments for MCIs or complex incidents.

12. Special Protocols

12.1. Pandemic/Communicable Disease Response:

- EMS personnel will don appropriate PPE as per prevailing guidelines.
- The MIC will establish separate **Fever Triage** and **Suspected Case Treatment** zones.
- Specific decontamination protocols will be activated.

12.2. Hospital Diversion & Bypass:

- The MIC, in consultation with Ambulance Control, may authorize bypassing the nearest hospital if it is on diversion or if a patient requires a higher level of specialty care available elsewhere.

13. Training and Exercises

- Quarterly MCI drills involving all EMS providers, PMC Health, and support agencies.
- Annual certification in Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), and Pre-Hospital Trauma Life Support (PHTLS) for ALS personnel.
- Biannual table-top exercises on inter-agency coordination for complex medical scenarios.