

OPERATIONAL CONSIDERATIONS DURING A SEVERE WEATHER EMERGENCY (SWE)

On Sunday morning, December 13, 2009 parts of EMSI Region 4 were hit with a severe ice storm that significantly impacted the flow of traffic in several parts of the region. Multiple roadways were shut down due to being impassable. Numerous accidents were reported throughout the region. Several emergency vehicles were involved in accidents while responding to calls.

In response to this occurrence and in an effort to assist EMS agencies in planning, a task force made up of EMS leaders and physicians from across the EMSI Region developed a number of considerations to help guide EMS personnel when such an event occurs. The considerations discussed below are not intended to require any particular course of action by an EMS Agency, but rather are presented as a reference for use in operational planning to ensure that resources available during such an emergency are used judiciously, and that the safety of those responding to any incident will not be compromised.

Severe weather conditions can arise suddenly, adversely affecting the ability of public safety agencies to operate according to traditional response plans. Operations may be impacted for short periods or for longer durations, depending on severity and subsequent impact of the adverse weather. Additionally, the impact may be localized or widespread, further complicating operational decisions.

The considerations discussed below include the following:

- Implementing a region-wide approach for responses to the most critical confirmed incidents during severe weather.
- Improving communications and coordination among public safety agencies involved in incident response during severe weather emergencies.
- Improving communications and coordination with hospitals regarding transportation destinations as well as inter-facility transports.
- Eliminate barriers that hinder response of the closest appropriate agency to an incident during severe weather emergencies.

- Improving communications with the general public and news media to help ensure that they are informed about the impact severe weather may have on emergency responder safety and the possibility of delayed responses.

Initiation of the SWE Plan

Initiation of the SWE Plan will be at the discretion of the county / city EMA or the individual EMS Agency.

If the county / city EMA decides that a SWE exists, they will notify EMS Agencies and hospitals in their area of this status.

When the chief of an EMS Agency decides that a SWE exists, the chief or his / her designate will notify the appropriate county PSAP, as well as the usual hospital(s) that the EMS Agency transports to. The chief of the EMS Agency will be responsible for notifying the same parties when the SWE no longer exists and the EMS Agency can return to its usual status.

The PSAP is requested to enter the SWE status into the Knowledge Center.

The local EMA will be requested to contact the media to request a public service broadcast in regard to the SWE, the possible delay in response of EMS to emergency calls, and to ask that the public not call EMS for nonemergency conditions during the SWE.

The SWE Plan can be initiated in response to any of the following Severe Weather Emergency Alerts by the National Weather Service but is not limited to this list.

- **Winter Storm Warning:** Issued when a combination of heavy snow, heavy freezing rain, or heavy sleet is expected.
- **Blizzard Warning:** Issued for sustained or gusty winds of 35 mph or more, and falling or blowing snow creating visibilities at or below $\frac{1}{4}$ mile; these conditions should persist for at least three hours.
- **Wind Chill Warning:** Issued when wind chill temperatures are expected to be 35 degrees below zero or greater.

- **Winter Weather Advisories:** Issued for accumulations of snow, freezing rain, freezing drizzle, and sleet which will cause significant inconvenience and dangerous conditions.
- **Blowing Snow:** Wind-driven snow that reduces visibility and causes significant drifting, blowing snow may be snow that is falling and/or loose snow on the ground picked up by the wind.
- **Freezing Rain:** Rain that falls onto a surface with a temperature below freezing. This causes it to freeze to surfaces, such as trees, cars, and roads, forming a coating of ice. Even small accumulations of ice can cause a significant hazard.
- **Tornado Warning:** Tornado is indicated by radar or sighted by storm spotters.
- **Severe Thunderstorm Warning:** Issued when a thunderstorm produces hail $\frac{3}{4}$ of an inch or larger in diameter and/or winds which equal or exceed 58 mph. Severe thunderstorms can result in the loss of life and/or property.
- **Flash Flood Warning:** Signifies a dangerous situation where rapid flooding of small rivers, streams, creeks, or urban areas are imminent or already occurring. Very heavy rain that falls in a short time period can lead to flash flooding, depending on local terrain, ground cover, degree of urbanization, degree of man-made changes to river banks, and initial ground or river conditions.
- **Dense Fog Advisory:** When dense fog covers a widespread area and reduces visibility to $\frac{1}{4}$ mile or less, and frequently near zero.
- **Excessive Heat Warning:** Issued when the heat index is expected to equal or exceed 115F for 3 hours or longer. In these cases, the heat becomes dangerous for a large portion of the population.
- **High Wind Warning:** When sustained winds of 40mph or greater are expected to last for 1 hour or longer, or for non-thunderstorm winds of 58mph or greater for any duration.

PSAP Response During SWE

- PSAPs should be given the authority (with guidance from the county / city EMA) to dispatch the closest ambulance to an incident, regardless of the EMS Agency affiliation.
- PSAPs should be given the authority (with guidance from the county / city EMA) to implement System Status Management between services/agencies in the same geographical area.
- PSAPs may, under the direction of the county / city EMA, elect to dispatch resources such as a nearby QRS service to provide services or evaluate need for a higher level of EMS response.

EMS Response during SWE

The following paragraphs outline concepts to be considered when EMS is requested to respond to specific types of incidents. If there is any deviation from the ordinary dispatch or response practice or policy, the EMS Agency should immediately contact the PSAP and communicate such information.

Motor Vehicle Crash:

- When possible, confirm whether there are known injuries before responding.
- If injuries are unknown or unconfirmed, determine whether another public safety agency can arrive on scene more quickly to confirm the need for EMS.
- If EMS response is appropriate, respond with the minimum crew and vehicle compliment that can safely and adequately manage the incident.
- Transport multiple patients in ambulances if safe and medically appropriate to keep other resources available for response to additional requests for assistance.

Fire Response:

- When possible, confirm whether EMS response is actually required. If the fire response is for an investigation, unconfirmed alarm or minor incident that is not likely to necessitate immediate EMS intervention, initial EMS response may not be required.
- Communicate with the PSAP so that the fire department OIC is aware of the response status and availability of EMS during any incident.

Medical Response:

- All PSAPs use a priority dispatch system to determine the severity of patient complaints. EMS Agencies should be familiar with the type of call intake system that their county PSAP uses in order to more fully evaluate a patient's need for EMS response.
- When the number of emergency calls assigned to an EMS Agency exceeds the availability of resources, the EMS Agency may obtain patient contact information from the PSAP and have an appropriately trained person directly contact a patient or caller prior to responding for the purpose of "secondary triage" to obtain additional information regarding the patient's condition. The EMS response can then be more appropriately prioritized based on the needs of the patients.
- If EMS response is delayed, it may also be appropriate for an EMS Agency to have an appropriately trained person directly contact the caller or patient to explain the delay and to provide additional assistance over the phone if necessary.

Transport Destinations:

- Transport of emergency patients should be made to the closest available Emergency Department that can appropriately handle the patient's condition. In some cases, particularly when conditions will significantly lengthen transport times or prevent transport to the desired destination, it may be necessary to transport a patient to the closest Emergency Department for stabilization or holding, even though that facility may not be the facility that will ultimately provide the most definitive care for the patient.

Scheduled Transports:

- It may be appropriate to suspend routine and scheduled patient transports until all unmet needs have been met, until additional manpower and/or EMS units become available, or until the severe weather conditions have subsided.

Emergency Interfacility Transfers:

- All transfers, regardless of the seriousness of the patient's condition, may be delayed as necessary and accomplished in a manner that will ensure the safety of the patient and the EMS crew. The EMS crew and the medical facility should communicate frequently with regard to timing and urgency of the transport.
- Priority will be given to those patients who require an EMS Agency that the transferring hospital does not have – such as neurosurgery, cath lab for a patient with acute coronary syndrome for whom lytic therapy is contraindicated, pediatric ICU, etc.
- All efforts should be made by the original hospital to provide end care or stabilize patients within their capabilities, to obviate the need for transfer until the weather emergency has resolved.

Additional General Concepts

Alternative Crew Placement / Mutual Aid:

- Utilize a System Status Management plan.
- If available, utilize mutual aid of equipment/manpower that may be better equipped to handle the conditions of the severe weather emergency. (Ex: 4x4 Vehicles)
- If applicable, activate the local Operational Support Teams to backfill manpower staffing.

Recall Staffing:

- Recall or call in additional staffing
- Mandate hold-over for current crews
- Utilize Operational Support Teams

Shorten Turn Around Times:

- All efforts should be made by hospital emergency departments to limit arriving ambulance turnaround time to ten minutes or less. This would include the processes of bed assignment, report, and replenishing of EMS supplies.
- As turnaround times are important on a daily basis and more so during times of high demand for EMS resources, attention should be directed at improving and streamlining these processes on a routine and ongoing basis to ensure timely turnaround at all times as well as during a weather emergency.

Check On The Welfare:

- Check on the welfare calls, when applicable, can be directed to other available agencies.
- EMS should only be dispatched for patients with a suspected medical need.

Unmet Needs:

- All unmet needs calls will be referred to the local EMA.
- EMA will evaluate the situation and request EMS for questionable scenarios only.

Improving Communications / Coordination:

- Communication channels should be opened between services/agencies to allow direct contact.
- Services/agencies within the same geographical area should have a coordinated response system implemented.