



# **PRE-PANDEMIC & PANDEMIC RESPONSE PLAN**

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# **SECTION A**

## General Information & Background

## **BACKGROUND**

International interest in the field of EMS infectious disease was accelerated by the U.S. Anthrax cases in October, 2001, concerns about Smallpox and bioterrorism, and by the 2003 SARS outbreak in Toronto.

We have resisted the temptation to specifically address the possibility of pandemic “flu” since this may limit the utility of these plans. Any pathogen may achieve pandemic proportions and impact, not just influenza.

During a pandemic, it may be necessary to make painful decisions regarding limited care in the face of increased demand and decreasing resources. These decisions will be difficult, but they must be made. Bluntly, we cannot afford to use time, resources, or personnel to help those who are beyond survival. As in triage at an MCI, the goal of our approach to a pandemic must be to maximize the use of available resources and provide reasonable help to the greatest number of people.

While compassion and caring are always appropriate, it is imperative that we do not allow these natural, human feeling to cloud our judgment in making treatment, transport, or resource decisions. If resources are limited, the decisions we make in the field have implications beyond that of the individual patient.

Subverting these guidelines could potentially threaten the entire medical system.

We feel it important that we give these topics some consideration now so that we will be better prepared-not just operationally, but also emotionally- if the pandemic or any other natural manmade “disaster” occurs.

## **SYMPTOMS IN HUMANS**

Early identification of an influenza pandemic is essential to responding appropriately and successfully to the influenza virus. The reported symptoms of avian influenza in humans have ranged from typical influenza-like symptoms (e.g., fever, cough, sore throat and muscle aches) to eye infections, pneumonia, acute respiratory distress, viral pneumonia, and other severe and life-threatening complications.

## **FLU TERMS DEFINED**

**Seasonal** (or common) flu is an annual, recurring respiratory illness that can be transmitted person to person. Most people have some immunity and a vaccine is usually available.

**Pandemic** flu is virulent human flu that causes a global outbreak- or “pandemic” – of serious illness. Because there is little natural immunity, the disease can spread easily from person to person, against which humans have little historic immunity.

## **STANDARD PRECAUTIONS**

In addition, Tri-State Ambulance must plan for the event with increased awareness with use of proper hygiene, appropriate acquisition and use of proper PPE, in addition to the efficient distribution of vaccine for the employees and their immediate family members.

The World Health Organization currently recommends strict adherence to Standard Precautions and additional precautions to minimize droplet contact and airborne transmission of the disease in the care of patients with known or suspected influenza. It is paramount that strict body substance isolation practices are followed. As stated, it is known that the primary route of transmission of the H1N1 virus is droplet infection. Focus should be given to protection of respiratory routes of exposure as well as protection of mucous membranes. The following are Universal Precautions to be utilized for body substance isolation:

- Gloves
- Eye Protection
- Mask N-95
- Gown - appropriate for conditions

## **DEFINITIONS**

- **EMS Level 3 (GREEN): Normal Awareness and Operations**  
*Human Pandemic exists somewhere in the world.*
  - No cases identified in the region
  - Operational Planning Period – as required (unless otherwise specified)
  - Response procedures are normal
  
- **EMS Level 2 (YELLOW): Heightened Awareness and Operations**  
*Human pandemic cases identified in the region.*
  - No significant impact on EMS and medical systems.
  - Operational Planning Period – 7 days (unless otherwise specified)
  - Response procedures may be altered
  
- **EMS Level 1 (RED): Extreme Awareness and Operations**  
*Human pandemic has achieved rapid, human-to-human transmission with increased morbidity and mortality*
  - Overwhelming impact on EMS and medical systems.
  - Operational Planning Period – 24 hours

- Response procedures are/may be altered  
**Quick Reference Operating Protocol**

	EMS Level 3	EMS Level 2	EMS Level 1
<b>DISPATCH</b>	Normal caller questioning	Medical Priority Dispatch as possible. Additional caller screening applies	Medical Priority Dispatch as possible. Modified response for 26-A-1. Utilization of 36 Card
<b>RESPONSE</b>	Normal	Normal	Modified response to call volume and determinants
<b>TRIAGE</b>	Normal	Initial assessment for ILI (Influenza Like Illness) with single-medical and limited First Responders	Initial assessment for ILI (Influenza Like Illness) with single-medical and limited First Responders
<b>TREATMENT</b>	Normal	Enhanced awareness and specific treatment measures	Enhanced awareness and specific treatment measures
<b>TRANSPORT</b>	Normal	Normal with early notification of ILI to ER	Private vehicle for stable pts. Ambulance transport only if required.
<b>DESTINATION</b>	Normal	Normal	May transport to rehab and quarantine centers, and ERs.
<b>EQUIPMENT</b>	Normal	Enhanced decontamination efforts with all patients	Limited equipment use
<b>DECON</b>	Normal	Enhanced with decontamination supplies and techniques	Enhanced with decontamination supplies and techniques

## **OBJECTIVE:**

A Flu Pandemic outbreak would cause a staffing shortage of employees as well as an increase in pre-hospital run volume for Tri-State Ambulance. The objective of this plan is to mobilize the resources of Tri-State Ambulance at an elevated level. This requires a commitment to pre-hospital care beyond normal daily EMS capabilities and operations.

The Command Staff and EMS Administration of Tri-State Ambulance will assemble to determine and facilitate the following during a pandemic outbreak that affects the delivery of EMS Services:

1. Analyze the emergency situation.
2. Determine what TSA and other department resources are needed for the emergency.
3. Place additional ambulance or QRV in service as deemed necessary.
4. Recall appropriate personnel resources as necessary.
5. Make TSA department policy regarding the departments' response and resource management of the emergency.
6. Prioritize response and resources as necessary.
7. Select and provide EMS Officers to staff Emergency Support Function or to represent Tri-State Ambulance during an activation of Emergency Operations Centers.

# **SECTION B**

## **Pre-Pandemic Awareness, Preparation and Operations**

## **EMS LEVEL 3**

**Human pandemic flu exists somewhere in the world. No cases are reported in the Region.**

- Continue with unfinished items in planning and preparations
- Continue daily surveillance of “Infectious Disease” patient calls for service.
- Callers will be asked on every “Breathing Difficulty” and “Unknown Sick”- Card 26- if the patient has a “fever” or “cough.”
- Review plan and consider implementation of employee screening for symptoms, temperature and exposure.
- Implement mandatory personal protection guidelines when responding to possible pandemic patients:
- Prepare to manage increased volume of bio-hazard infectious waste.
- Normal responses before pandemic
- Plan in place, increased awareness and use of PPE
  - Within 6 feet of patient with Influenza Like Illness
  - If patients on a ventilator, nebulizer treatment, BVM

## **EMS LEVEL 2**

**Human pandemic cases identified in Region. No significant impact on EMS and medical systems.**

Review implementation of Level 1 operational changes.

Implement mandatory personal protection guidelines on all responses.

- Mask, goggles, gloves, gowns, etc.
- Minimize time spent in infectious environment
- Minimize number of people in close contact with patient.
- Increase efforts at personal hygiene and decontamination.
- Decontaminate EMS equipment

Prepare for the following- Implementation of alternative staffing plans. Personnel may be called to report to duty for an undefined period of time. Stations may be used as living quarters for extended shifts. Alternative human and physical resources may be utilized for transportation needs. Plan on an increased use of PPE, medical supplies, and other logistical items.

## **EMS LEVEL 1**

Human pandemic has achieved rapid human-to-human transmission with increased morbidity and mortality. Outbreak is causing an overwhelming impact on EMS and medical systems.

Direct activation of Pandemic Plan Standing Orders

## **PANDEMIC MEDICAL STANDING ORDERS – Pandemic Plan**

### **Rational:**

In the case of a pandemic, demand for emergency medical services of all types may reach crisis proportions. In this event, significant adjustments may be necessary in the guidelines covering dispatch, response, treatment and transportation. The Pandemic Plan provides guidance for the EMS system when and if the crisis point is reached.

**The decision to activate the Pandemic Plan will be made jointly by the Director of Operations, and the Medical Director. In a public health crisis, the situation may evolve rapidly. Depending on the situation, the Pandemic Plan in its entirety or any portion, may be activated and adjusted as the crisis warrants.**

**It is assumed that the Pandemic Plan will be activated only at the Pandemic EMS Level-1**

# **SECTION C**

## **Pandemic Plan For Declared Pandemic**

The Pandemic Plan offers directions, which may be helpful under these circumstances, in the following EMS activities:

## **COMMUNICATIONS/DISPATCH**

**Information:** Communications personnel may transfer callers requesting information or reporting infectious disease signs and symptoms to alternate electronic resources. These may include prepared scripts or recorded information lines established by public health, existing 211line, or other information resources set up during a pandemic. This information may include reporting a dead body or caring for a dead body until retrieval can be arranged. **The required call-processing time limits will be waived, along with response time requirement, ambulance staffing, and ambulance response times.**

In managing calls for EMS service, Call Receivers must be alert to signs and symptoms, which indicate the presence of an infectious disease or a potentially infectious condition. In addition to the usual EMS pre-arrival questions, when an infectious disease is reported or suspected, callers should be asked specifically:

### **Are signs or symptoms of infectious disease present?**

- **Fever**
- **Cough**
- **Respiratory distress**
- **Unusual skin rash**
- **Gastro-intestinal symptoms (nausea, vomiting, diarrhea)**

## **PANDEMIC FLU TELEPHONE TRIAGE- EMD/PUBLIC HEALTH**

Pre-hospital EMS capability will play a critical role in responding to requests for assistance, providing treatment, and in triaging patients. GL Dispatch (TSA dispatch resource) will experience a significant surge in calls and will determine how and when EMS units are dispatched. Modifying dispatch protocols and developing pandemic-specific pre-hospital triage and treatment protocols will help maintain critical response resources during this time of crisis.

Given that most persons with pandemic influenza will experience typical influenza symptoms, most persons who seek care can be managed appropriately by outpatient providers using a home-based approach. Appropriate management of outpatient pandemic influenza cases may reduce the risk of progression to severe disease and

thereby reduce demand for inpatient care. A system of effective home-based care would decrease the burden on health care providers and hospitals and lessen exposure of uninfected persons to persons with influenza.

During the waves of the pandemic outbreak it will be virtually impossible to make an ambulance response for every call with Influenza like symptoms. Instead of a mobile response, Gundersen Lutheran Dispatch may transfer non-emergent calls to public health call centers created by County Health Departments to provide advice on whether to stay home or to seek care.

This task could be accomplished by using the dispatch system we already have in place with modification to the 26-A-1 response for a sick person without any priority symptoms.

The Medical Priority Dispatch System should be utilized to give pre-arrival instructions and guide what resources are sent on emergency calls. In the case entry, if the chief complaint is flu like symptoms then Card 26 would be the appropriate chief complaint card to utilize. Following and completing the case entry and chief complaint card questioning will help insure that the patient does not have any priority symptoms and would not need an immediate emergency response.

Pre-Hospital symptom surveillance will also be achieved by mandating the use of ProQA (computerized version of the protocols) during a declared pandemic event. ProQA has a tab to click to check off flu like symptoms being reported by the callers and will be utilized during elevated threat levels. This data can be used to show trends and geographic locations.

Depending on available resources there may be outside service options for callers who need instructions on how to deal with the ill, dying or deceased. If those services are not available the following procedures will be followed by the communications staff:

### **SCRIPT FOR REDUCTION OF SERVICE:**

**“Due to the recent declaration of a Level 1 Pandemic we are unable to provide an aid response to your location.**

#### **Instructions:**

- 1. Position patient for comfort. If seated, have the patient lean forward. If supine (lying down), place the patient on their side.**
- 2. Provide hydration with oral fluids and, if possible, Tylenol for fever and body aches.**

## **EMS TREATMENT GUIDELINES**

### **BLS THERAPY GUIDELINES:**

- Apply surgical or procedure mask to identified symptomatic patients over oxygen appliances.
- HEPA filters will be used, when available on:
  - Bag-valve mask ventilators
  - Nebulizers
  - Non-rebreather oxygen masks
  - Suction units
- Patients must be able to maintain their own airway
- Oropharyngeal and nasopharyngeal airways will not be placed
- Mechanical ventilations should not be attempted.
- Decisions regarding palliative care may be required at the BLS level in consultation with medical control when medical resources and medical destinations are unavailable.

### **ALS THERAPY GUIDELINES:**

- Support and continue BLS palliative care efforts as outlined above. Additional “care & comfort” measures may include: sedative and pain medications and IV hydration.
- Advanced airway maneuvers may not be helpful, including ventilation, intubation and surgical airway, and may not be performed.
- Palliative care, for patients, may be pre-authorized or obtained from Medical Control.
- Permission to continue or cease cardiac arrest resuscitation efforts will not require Medical Control consultation.

## **SUSPENSION OF NON-EMERGENCY ACTIVITY**

If this condition occurs, all non-emergency activity will be suspended until resources are returned to normal operational status. Alpha/ or non-emergent calls and calls for first responder companies due to extended response time of an Emergency Unit will be suspended.

- In the pandemic event, EMS response by Tri-State Ambulance may be altered.
- If local response capabilities are taxed, the Director of Operations, or his designee, may suspend routine response to Alpha and Bravo calls.

- “Reserve units” may be placed in service, staffed with 2 EMT’s, as BLS “Flu Response Units”. These units may be responsible solely for the treatment and transport of patients that are determined to have signs and symptoms of flu as determined by the alarm office through the Health Department Influenza screening questionnaire.
- By a mutual decision of the Director of Operations, the TSA medical director, and the County Health Department, routine transport of patients with pandemic signs and symptoms may be suspended because of over-taxed EMS and acute care resources. This may be done by the following methods:
  - If, after evaluation of a patient on scene and by using the Health Department Influenza Screening questionnaire, it is determined that the patient likely has influenza without other complications they will be advised to shelter in place.

## **RECALL OF OFF-DUTY PERSONNEL**

When a determination is made that the situation requires the recall of off-duty personnel to handle the increased EMS call volume or reduction in EMS staffing, a consultation for reconfiguration of EMS response and staffing will be made by the Director of Operations, Operations Supervisor and others as deemed necessary.

Personnel may be recalled for replacement of vacancies caused by incident, to place reserve companies in service, or to respond to the scene of an incident. The recalling of off-duty personnel will be accomplished by contact with the employee by any means necessary with regard to “Emergency Call in” rather than the “Overtime Call in” mode.

All attempts will be made to recall first those employees who have been inoculated to the pandemic flu strain.

## **SICK LEAVE POLICY**

It is suggested by each and every resource and reference at the time of this draft that a stay-at-home sick policy be encouraged during an outbreak. Patients are said to be contagious for up to 7 days following resolution of their fever.

## **EMERGENCY OPERATIONS**

Emergency Operations – as defined in daily planning for operating period

The Operations responsibilities under this plan include:

1. Provide and manage emergency services.
2. Director of Operations will coordinate with the Operations Supervisor to formulate an emergency medical response plan to best suit the needs of the community and the personnel of Tri-State Ambulance

## **PUBLIC INFORMATION OFFICER**

The Public Information Officer will be responsible for establishing and maintaining media contact to establish rumor control (during the outbreak) by providing timely information, regarding factual current situation, scope of incident, resource management issues.

## **SUPPLIES & VEHICLE MAINTENANCE**

Supplies and Vehicle Maintenance responsibilities under this plan include:

Maintaining the following capabilities at all times:

1. Prepare reserve apparatus to be placed in service without delay.
2. Prepare reserve ambulances to be placed in service.
3. Staff the warehouse and provide for the delivery of needed supplies and equipment in emergent times.
4. Provide personnel to make emergency purchases or obtain emergency supplies and equipment from other sources and vendors.
5. Assistance in the Rehab functions at major incidents.
6. Assist in management Mass Casualty Vehicles for major incidents
7. The supply personnel will keep a pre-determined number of N95 masks, eye protection, gowns and gloves in stock for employee use.

## **INFECTION CONTROL OFFICER**

Infection Control Officer Responsibilities' under this plan include:

1. Assist and coordinate with local and State of Wisconsin Department of Health Officials to provide health and safety measures during pandemic conditions.
2. Disseminate information to department and employees regarding health and safety measures as current information is received.
3. Enforce all pandemic wellness measures outlined in pandemic wellness plan

- a. Personnel surveillance when reporting to work.

## **EMERGENCY MEDICAL SERVICES**

Additional responsibilities of the Operations Supervisor and Director of Operations include:

1. Ensure additional ambulances are being placed in service as needed.
2. Ensure that the appropriate EMS Level Plan has been activated.
3. Ensure that hospitals, the public health department, mutual aid ambulances, helicopter services are notified and prepared to assist as the situation dictates.
4. Ensure that all special equipment and supplies are deployed to staging locations
5. Ensure that all EMS Support Staff are contacted or recalled. Personnel may be recalled for replacement of vacancies caused by incident, to place reserve units in service, or to respond to the scene of an incident in a supervisory role.
6. Determine the need for redirection of Tri-State Ambulance resources for staffing requirements of reserve ambulances.
7. Ensure preventive medical measures and proper rehab for all personnel involved in a natural or manmade incident.
8. Ensure Coordination with County Health Department in the event of a public health emergency.
9. Enforce all pandemic wellness measures outlined in pandemic wellness Plan

## **EMS RESPONSE**

During the response, EMS providers must pay close attention to the dispatch information provided for details indication a possible infections condition. As with all patients, use of appropriate PPE will be indicated. This may also include “Premise History” or other knowledge of know infectious patients or locations where these patients have been identified.

Every member of the responding crews must be informed and PPE readied for use. Units may consider staging until the scene is secured and PPE donned.

**Remember that the patient(s) may have been advised by dispatch to move outside.**

Responding to patients with signs/symptoms of ILI (influenza Like Illness), limited personnel should be included on the initial assessment. This would present as one (1) member from the ambulance crew and limited Medical First responders. If required, the second and subsequent personnel may be added.

During the response, units may consider the need for, and request, additional resources:

- o Command Officers (Lead Medics, Ops Sup, Dir of Ops)
- o Law enforcement

- o Additional Units (Ambulance, QRV)
- o Other infectious disease resources that may exist

## **PATIENT DISPOSITION AND TRANSPORT**

Individual patient transport destinations will be determined based on:

- o The patient's medical needs
- o Infectious disease status, suspected or known
- o Hospital status—(bed availability)
- o Pre-designated hospital(s), if any, for known or suspected infectious disease patients
- o Availability of transport vehicles
- o Alternate care facilities, (if indicated by the Health Department or hospital officials / Medical Control)

GL Dispatch Center can assist in finding patient destinations and will be dependent upon bed availability, staffing, etc. This will be accomplished with information sharing and interoperability software tools like MNTRAC and WITRAC

Communications with the receiving hospital will include the known or suspected infectious disease status of the patient and plans for transferring the patient at the receiving facility.

Transport vehicles will be utilized depending on:

- o Medical needs of the patient
- o Ability to protect and de-con transport units
- o Availability of specialized transport resources

During transport, ventilation within the patient compartment will be increased by opening windows and turning on mechanical ventilation. A positive-pressure environment in the driver's cab will be achieved by turning on mechanical ventilation and leaving windows closed. If possible, any entry or opening between the patient compartment and cab will be closed and sealed.

On arrival at the hospital, PPE will be worn until patient transfer has occurred and the EMS equipment and vehicle have been decontaminated. Decontamination of vehicle, equipment and all potentially contaminated surfaces will take place using recommended disinfectant. Removal and disposal of contaminated PPE will take place in accordance with TSA related procedure.

## **MEDICAL DIRECTOR**

1. The TSA Medical Director will provide medical advice, assist with medical issues, and provide additional skill sets as needed.
2. The TSA Medical Director will be the liaison between Tri-State Ambulance, local health community, and the local and State Health Department to insure proper prevention and treatment in the case of pandemic conditions.

## **REDIRECTION OF RESOURCES**

In the event of a major emergency situation, such as a pandemic, the primary function of Tri-State Ambulance is to provide personnel resources and transportation to support emergency operations. However if staffing of ambulance is reduced due to pandemic conditions certain actions must be into consideration.

1. Staffing of reserve or additional ambulances by crew configuration adjustments of Paramedic/Paramedic, Paramedic/EMT, EMT/EMT
2. The use of non-emergency medical services personnel in a crisis like a pandemic is essential for operations. Personnel can be utilized for driving ambulances or other vehicles during the transport of patients or personnel.
3. Equal workloads for all staff. No personnel should be idle during operations with the exception of rest periods.
4. Redirection of shift configurations to accommodate staffing and rest periods.
5. Consideration for mutual aid personnel (Fire, F/R, EMT) may be used for ambulance crew configuration

## **Crew Configuration Possibilities – EMS Level 1**

- Paramedic/Paramedic
- Paramedic/EMT
- Paramedic/MFR
- EMT/EMT
- EMT/MFR
- EMT/Driver

## **Miscellaneous considerations**

In addition, the following are precautions know to reduce to instance of influenza and the spread of infection and must be stressed to employees:

- Hand washing and antiseptis (hand hygiene)- Wash before and after touching your face, after touching doorknobs, handrails, ATM machines, and before and after patient contact. - Wash your hands thoroughly with soap and running water for at least 20 seconds and dry them completely with a disposable paper towel. Hand sanitizers which are 70% alcohol based also kill viruses.
- Use of personal protective equipment when handling blood, body substances, excretions and secretions. The utilization of appropriate Body Substance Isolation is a must.
- Wear a face mask to protect yourself in public. Any face mask will help to prevent you from touching your nose and mouth. The World Health Organization recommends N95 type mask as personal protective equipment.
- Surgical mask for patients with suspected symptoms.
- Get a flu vaccination. It will not protect you from Avian Flu but it will prevent the Avian Flu virus from adapting to spread more easily.
- Appropriate handling of patient care equipment and supplies –Items contaminated with bodily fluids should be disinfected with a 1% bleach solution (1 part bleach to 5 parts water) or 70% alcohol with a contact time of 10-15 minutes. Use a trigger pump sprayer instead of aerosols because they may spread the virus.
- Prevention of needle stick/sharp injuries
- Appropriate handling of waste- Consider all waste as hazardous that has come into contact with patient.
- Avoid touching your eyes, nose and mouth. This is how a virus enters your body. Learn to cough into the crook of your arm rather than your hands to prevent spreading infection.
- Stay healthy by eating a balanced diet, drink at least 6 glasses of water per day, get at least 15 minutes of exercise each day, and sleep at least 7 hours

per night. Remember the flu can be spread 1-3 days before symptoms appear. Avoid close contact and shaking hands with people.

## **DISTRIBUTION OF PLAN**

Distribution of this plan and any other information related or forthcoming shall be accomplished by each employee receiving a copy for personal review (electronic or printed). Employee will sign for verification stating receipt of plan or information. Plan will also be posted on TSA Net local intranet.

Furthermore, this plan will be available for all associated agencies and departments such as Fire Departments, Medical First Responders, Law Enforcement, and community groups.

*Sources:*

*World Health Organization;  
Centers for Disease Control  
Science Daily  
Response Plan – EMS Providers  
The National Influenza Pandemic Response Plan  
Memphis Fire Department  
Tri-State Ambulance*