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RESPONDING TO A SECOND EMERGENCY DURING AN INFLUENZA EPIDEMIC

RECOMMENDATIONS for Health Care Managers

JUNE 30, 2009

This document provides technical recommendations on responding to a second emergency during the influenza A (H1N1) outbreak. It is intended for all countries in the Region of the Americas, in particular to those countries at risk of being affected by natural disasters (or any other type of emergency situation), while engaged in the response to the current H1N1 emergency. The recommendations will be revised as the situation evolves and additional information becomes available.

BACKGROUND

On Friday April 24, 2009, WHO was informed of the circulation of a novel influenza virus causing human disease in the three countries of the North American sub-region. Three days later, the International Health Regulation (IHR) Emergency Committee, recommended elevating the global influenza alert from phase 3 to phase 4, and on May 29, the Director General declared a global alert - phase 5, and countries were urged to initiate implementation of their national influenza plans.

By then, Mexico had reported 26 confirmed cases with 7 deaths; the United States had reported its first death due to H1N1 and a total of 91 laboratory confirmed cases; while Canada had reported 13 cases with no deaths. To date (June 24), circulation of the H1N1 virus has been reported in 102 countries¹ worldwide. In the Americas, 28 countries are affected, with 45,402 cases and more than 249 deaths².

On April 27, while the country was totally immersed in the emergency situation provoked by the novel H1N1 influenza virus, Mexico suffered an earthquake which registered as 6.0 on the Richter scale. Fortunately, no major damage or loss of life was reported.

On May 28, an earthquake (magnitude of 7.1) with the epicentre off the north coast of Honduras resulted in damage to houses and infrastructure and caused 5 deaths. The Hospital Mario Catarino Rivas sustained minor damage³. At that time, the Honduran health sector was immersed in emergency response activities for H1N1 influenza.

These two events brought to light the probability that during a prolonged epidemic/pandemic event another major emergency could present adding additional pressure to health services and the overall response capacity of the country. Therefore, activation of an additional contingency plan must be possible at any time, even during a pandemic situation.

On the other hand, it is possible that the epidemic/pandemic begins while there is already an emergency situation of another nature in progress. This challenges the capacity of surveillance systems for early detection of cases and the ability of health managers to deal with responding to two dissimilar situations. Such is the case of Brazil where since early April 2009, continuous heavy rainfall has caused extensive flooding in the North East region of the country. The heavy floods have resulted in a dam break in Piauí that caused 5 deaths, bringing the total number of deaths due to the floods to 56 and causing 426,886 people to be displaced. Damage from the rains has affected 485 municipalities in 12 states of Brazil.⁴

1 WHO Influenza A (H1N1)-Update #53 http://www.who.int/csr/don/2009_06_24/en/print.html

2 PAHO Update, Influenza A (H1N1) Regional Report (June 6 2009) http://new.paho.org/hq/index.php?option=com_content&task=view&id=1539&Itemid=1167

3 PAHO, Emergency Operations Center Weekly Report for the week of 25 May – 28 May 2009. <https://intranet.paho.org/DD/PED/EOC/IN-DEX.ASP>

4 idem



The risk of natural disasters and other mass casualty events is an every day reality that health care services have to face. For example, every year during the period of June 1 to November 30, a significant number of countries in the region maintain high levels of alert in response to the imminence of hurricanes in the Caribbean basin and the Gulf of Mexico. For these and other hazards, health services managers must consider as highly probable the possibility of having to deal with two major emergency events at the same time in the near future.

CONSIDERATIONS FOR HEALTH SERVICES RESPONSE ACTIVATION

In responding to a dual emergency situation, the goal of the health services becomes threefold:

1. To continue to provide essential services to the proportion of the population that is not affected by the emergencies;
2. To continue response activities to the victims of the epidemic/pandemic; and
3. To response adequately to the new emergency.

With this in mind, all hospitals and healthcare facilities must develop General Emergency Plans that consider all possible contingencies (all-hazards approach) based on risk analysis (hazards and vulnerabilities).⁵ The pandemic response plan constitutes just one of the contingencies under this general plan and must be fully compatible with the same and with plans for other contingencies. Therefore, in Health Services Preparedness and Response Plans there is an absolute need for integration (compatibilities, synergies and complementarities) of all contingency plans which must be tested, validated, exercised and improved.

Thus, it is the responsibility of the health services managers to identify the main elements for the response to all types of emergencies and recognise how these elements will interact when two different types of emergencies coincide.

Hospitals should consider the scenario of a mass casualty incident with many victims during an epidemic/pandemic as a credible scenario and therefore anticipate problems by organising both the triage activities and the reception of patients. Equally important is the consideration of an internal emergency (fire, bomb scare, chemical spill).

Health authorities should also consider the possibility that a hospital may become totally saturated with contagious patients (quarantine of the hospital) or a significant source for the propagation of disease and the implications of this event, which in itself constitutes a second emergency.

In mass casualty incidents during an epidemic, a major issue may be the early identification of potential pandemic cases among the disaster victims (trauma patients) so as to avoid further transmission, as well as protect health care workers (HCWs), and the integrity of the health establishment for continued provision of services.

CONSIDERATIONS FOR TRIAGE DURING ACTIVATION FOR DUAL EMERGENCIES

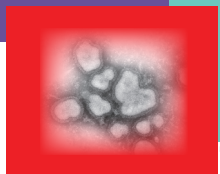
In all emergency situations, triage is the first step in case management. In situations where hospitals and other healthcare facilities are faced with two emergency events at the same time, triage becomes even more critical and must be done in a manner that guarantees the correct classification and management of patients.

It is important to be aware that triage activities for trauma patients rely on different criteria for classifying patients and for providing life-saving care, than those for triage of epidemic and pandemic patients.

Ideally, triage should take place before entering the hospital. In most mass casualty events, triage is conducted on site, while the recommendation for triage of epidemic/pandemic cases is that it be conducted in an area "contiguous but not incorporated into the health care facility"⁶.

5 PAHO-PED, Zaccarelli, Monica. Presentation "Disaster Preparedness: the responsibilities of Health Services Managers". Barbados, October 2008.

6 PAHO-HSS Technical Document # 2: Recommendations for management of Influenza A (H1N1) infection cases. May, 2009.



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If conducted on hospital or health care facility grounds, all triage areas should be clearly identifiable. The triage area for disaster victims (trauma patients) and the area for triage for the pandemic patients need to be separated and clearly identified with adequate signage, to avoid transmission of influenza infection to trauma victims. Basic infection control measures should be applied to all disaster situations.

As much as possible, disaster victims who do not require hospital treatment should be managed as “out-patients”, when the hospital is dealing with an epidemic. This is also the recommended approach for influenza-confirmed cases with mild clinical symptoms that can be effectively managed through home isolation and care. The overall objective is to reserve in-patient resources for those who really require in-hospital care and avoid overwhelming demand on hospital services.

RECOMMENDED ACTIONS UPON ACTIVATION OF A SECOND CONTINGENCY PLAN

Faced with the event of a second concomitant emergency, health service managers should:

- Review General Emergency Preparedness and Response Plan and contingency plans for the ongoing situation and the new emergency. Assess complementarities and resolve gaps.
- Check existing guidelines for the course of action for activation of the alarm and the specific contingency plan and take corrective action if there are gaps or weaknesses regarding the adaptation of these procedures during an epidemic/pandemic.
- Verify how communication is managed to notify staff, other stakeholders, and the public, and determine if it is compatible with risk communications strategies for the H1N1 pandemic. Review Risk Communication plan and ensure mechanisms are in place to support delivery of information to families, the press, and national and local authorities.
- Ascertain what is included at each level of activation for mobilisation of resources, information management, and surge capacity including recalling additional or back-up staff and volunteers.
- Establish whether the enhanced Surveillance System is capable of detecting and notifying infected cases among the victims of the second emergency. Develop/adapt procedures for ensuring early detection of suspected pandemic cases among disaster victims.
- Any suspected influenza case among the victims of the disaster should be managed with the full respect of infection control measures.
- Review and re-organise responsibilities of managers and staff members to deal with both emergencies.
- Identify what training staff will require for dealing with additional contingencies.
- Specify coordination mechanisms and what procedures are necessary to ensure continuity of care between these areas and the other units of the hospitals; and also with first level of care services.
- Identify the referral mechanisms and follow-up activities with first level of care facilities, private providers and home care for both pandemic patients and disaster victims.
- Consider the treatment of as many as possible disaster victims on “ambulatory basis” in coordination with first level of care providers, private and public.
- Assess alternative options for performing triage of epidemic and pandemic patients outside the hospitals (other health care facilities) and what are the roles and responsibilities of the hospital in the network response to the emergency events.
- Traffic flow of disaster victims and pandemic patients should be coordinated in order to avoid the mixing of these two populations or at least in order to decrease the risk for transmission.
- Assess what the specific needs for infection control measures are in triage areas, and for health Care Workers (HCWs) protection.
- HCWs working in the triage areas should be specifically trained and outfitted with personal protective equipment (PPE).



- Pre-determine procedures for admitting routine emergencies to Emergency Departments (e.g. cardiac emergencies) avoiding contact with pandemic triage area or patients.
- Consider the use of alternate triage facilities other than hospitals if a major emergency happens during a pandemic.
- Define where the reception areas for disaster victims and pandemic patients will be located; how they will be staffed, equipped, supplied and protected.
- Consider and coordinate with local authorities, health care facility security personnel, and other appropriate stakeholders, security measures to ensure protection and safety of patients, HCWs and general public.

NOTE: The ideas that originated these recommendations were part of a discussion during a workshop on **Health Care Facility Preparedness for Response to Communicable Disease Crisis**, which met at WHO headquarters in Geneva, Switzerland on 2-4 June 2009. We acknowledge the contributions of Carmen Lucia Pessoa Da Silva, Marcel Dubouloz, Satoko Otsu, John Abo, Mike Hill, Ana Paula Coutinho, Paul Michael Cox, John Watson and Cathy Ellen Roth.