

## **Second India Disaster Management Congress**

Vigyan Bhavan, New Delhi,

04<sup>th</sup> to 06<sup>th</sup> November 2009

**Thematic Session on**

**Pandemics**

### **CONCEPT NOTE**

#### **Context:**

New Influenza A (H1N1) is a re-assorted virus which originated in Mexico and has spread across the world causing a pandemic. Previous experiences with SARS and Avian flu in this decade have helped in evolving preparedness plans across the globe including India. These plans are proving their value today when the H1N1 pandemic has started knocking at our doors and we have been able to contain the problem reasonably well so far.

This influenza pandemic, as per WHO estimates, may affect up to one-third of the world population in view of lack of immunity human beings carry against this virus. In April 2009, outbreak of Influenza A (H1N1) was declared in Mexico, leading to Phase 5 Global Alert of pandemic by WHO. Being geared up for the action already, NDMA and MoH&FW released documents and guidelines suggesting various preventive and preparedness measures to contain the spread of pandemic. On the basis of these documents, Crisis Management Plans were prepared for health and non-health sectors which were triggered into action on declaration of Phase 6 of ongoing flu pandemic by WHO on 11<sup>th</sup> June 2009.

The government through the nodal ministry of Health and Family Welfare quick to respond and initiated many preventive measures in coordination with various ministries and departments to contain the spread of the Influenza. Despite all these measures a possibility of outbreak in certain population clusters cannot be undermined, causing serious ramifications for health and non-health sectors. All government agencies with the help of the NDMA have acted promptly, so far, to contain the magnitude of this problem. This effort has to continue at the same tempo, keeping in view the possibility of mutation of this virus and the associated dynamics. The situation as on date (24 October 2009) is that 7,23,962 cases reported positive for H1N1 virus with 6,177 fatalities globally, while the situation in our country is 13,158 positive cases with 430 deaths, posing a formidable challenge to our overstretched medical system.

The thematic session on Pandemics would bring professionals who are dealing it on day to day basis to discuss various strategies and plans for response, mitigation and preparedness to contain this disaster.

### **Objectives**

The objectives of the session would be to :-

- a. Discuss the present status and progression of the Pandemic influenza in India.
- b. Discuss the response and measures taken for Pandemic influenza in India.
- c. Discuss the various prevention and mitigations initiatives taken for pandemic influenza in India.

### **Expected Outcome**

The Thematic Session would facilitate better understanding of the issues of prevention and mitigation. The proceedings of the Session shall be published and shall be taken as the basis for development of strategy framework in the context of India.

### **Session Plan**

**Date** : 05<sup>th</sup> November 2009

**Duration**: 2 hours 30 minutes

**Session Chair** : Lt Gen (Dr) J R Bhardwaj, PVSM, AVSM, VSM, PHS (Retd)

Hon'ble Member National Disaster Management Authority,

Government of India

### **PRESENTATIONS** (10 minutes each)

- a. **Introduction to pandemic and prevailing global scenario**

Dr Rakesh Kumar Sharma, Scientist 'F', Institute of Nuclear Medicine and Allied Sciences, Delhi

Historically, we have observed flu pandemic situations during 1918-1919, 1957-1958 and 1968-1969 attributing towards continuously evolving Influenza virus with the continued antigenic cycling of 11-39 years. This presentation

recapitulates the current pandemic and its prevailing global scenario.

**b. Epidemiology of H1N1 Infection**

Group Captain Rajesh Vaidya, Director Health, Armed Forces Medical Services, Ministry of Defence

During the 20<sup>th</sup> century there has been well defined influenza pandemics caused by the influenza A virus at intervals of 15 to 35 years. Over the past decade evidence had been mounting of a possible influenza pandemic and that too from a novel, highly virulent, strain to which the population has no immunity, and therefore, may be associated with high mortality. This presentation discusses the agent, host and environmental factors leading to the evolution of the current pandemic, its present status and with the onset of winter, the second wave of infection with a possibility of more virulent strains is expected culminating in significant increase in morbidity and mortality rates; and consequently, the need to fine tune our plans to face the epidemic comprehensively.

**c. Mitigation strategies for Management of Pandemic influenza A H1N1**

Dr P Ravindran, Director Emergency Medical Response, Ministry of Health & Family Welfare

Anecdotal data reveals that in the pandemic of 1918-1919, the mainstay was mitigation strategies that reduced its impact in the absence of proven drug or vaccine. However, for the present pandemic, the world has progressed universally to combat its impact. This presentation spells out the Mitigation strategies for the management of pandemic Influenza A H1N1 that have been invoked by the Government of India that are in consonance with the international guidelines on the subject to confront this problem jointly and effectively.

**d. Role of Laboratory in Pandemic Influenza A H1N1**

Dr Shashi Khare, Consultant & HoD (Microbiology), National Centre for Disease Control, Delhi

This presentation highlights the crucial role laboratory plays both during the pandemic alert and pandemic phase with respect to planning and coordination, situation monitoring and assessment, prevention and containment, health system response, and communications. During the pandemics phase, the emphasis is

on Case diagnosis, maximize Influenza-like Illness (ILI) / Severe Acute Respiratory Infections (SARI) surveillance to detect maximum number of cases, and maintain adequate surveillance to ensure the monitoring of antigenic drift, antiviral susceptibility and virulence. During the Pandemic Alert Period, laboratories should be able to detect new subtype influenza infection in humans as early as possible, and assist national authorities in the development, amendment and implementation of the National Preparedness Plan.

e. **Management of H1N1 Influenza — A Hospital Administrator's Perspective**

Dr Shakti Kumar Gupta, HoD (Hospital Administration) & Medical Superintendent, All India Institute of Medical Sciences, New Delhi

The primary goal of flu monitoring is to identify any outbreak of human-to-human transmission quickly so that health officials can attempt to contain and control the outbreak. Consequently during pandemics, the hospital administrator faces challenges of global significance. This presentation addresses Action Plan a Health administrator must develop to allocate resources effectively and efficiently which are surveillance, monitoring and tracking disease outbreaks including how and where they might spread.

f. **Community Awareness for H1N1 Pandemic**

Mr N M Prusty, Chairperson, Sphere India

In April 2008, Sphere India in association with NDMA organized a workshop entitled "Pandemic Preparedness beyond Health" with the backdrop of very little awareness and preparedness at the community level and organizations to cope with any pandemic. In light of concurrent H1N1 pandemic, this presentation focuses on the Action plan and strategies regarding community mobilization and sensitization through societies/ organizations that are routinely working at grass root levels in the sphere of Community based disaster preparedness and response.

g. **Pharmacotherapy of 2009 H1N1: Challenges and Issues**

Dr Y K Gupta, HoD (Pharmacology), All India Institute of Medical Sciences, New Delhi

The pharmacological arsenal against 2009 H1N1 virus infection is currently limited to the neuraminidase (NA) inhibitors oseltamivir and zanamivir. The guidelines for use of these agents although differing from country to country mostly focus on reserving them for treatment of severe cases or for prophylaxis in high risk groups. This Presentation highlights the side effects of these drugs,

drug resistance, logistic problems of procurement and distribution of these drugs and development of suitable vaccine against H1N1.

**h. Public Health Issues in Pandemic H1N1 Influenza**

Dr R P Vashist, Head of Public Health, Government of NCT Delhi

This emergence of 2009 H1N1 [influenza](#) this spring led to a flurry of medical, public health and basic science research and planning in order to develop a strategy to effectively combat or minimize the number of people affected by the [virus](#). This presentation highlights as to how Public Health monitoring efforts, led by the [Centers for Disease Control](#) & Prevention, Atlanta USA, have done an outstanding job of tracking the outbreak and disseminating public health mitigation measures to the general public timely and are now on the threshold of vaccination campaign which is fraught with public uncertainty about vaccine efficacy and safety issues.

**i. Public Private Participation in Pandemic H1N1 Influenza**

Dr S Kumar, Principal & Dean, M. S. Ramaiah Medical College & Hospital, Bangalore

Disaster Management is a challenge no matter how well prepared we are. The private sector has over decades filled the void which successive governments have still been unable to cover by themselves. As on today, over 70% of health care delivery and over 60% of medical education is provided by the private sector. This presentation highlights the need for collaborative Public-Private Partnership that can be successful if they are conceived and implemented without reservations or pre-conceived limitations coupled with mutual trust, understanding and a frank sharing of responsibilities, that is, an effective framework for unleashing the full potential of private sector.

**j. Psychosocial Impact of Pandemic Influenza (H1N1)**

Dr Jayakumar C, Senior Specialist (Psycho-Social Support & Mental Health), National Disaster Management Authority, New Delhi

The influenza A (H1N1) is rapidly spreading across the country with number of cases testing positive and deaths are increasing every day, despite the health authorities having taken prompt preventive and response measures. This has still resulted amongst the population confusion, fear, anxiety and restricting their mobility especially quarantine of suspected persons and positive tested persons. This presentation highlights the psychosocial consequences of pandemic H1N1

on the general public as well as care givers and outlines recommendations for normalizing the psychosocial impact at individual, family and community level.

k. **Work Continuity Plan for H1N1 Pandemic**

Major General J K Bansal, CBRN Coordinator, National Disaster Management Authority, New Delhi

Historical data reveals that the 1918 avian flu pandemic infected one third of the population with 20 million deaths paralyzing all activities. With the backdrop of current H1N1 being classified by WHO as Pandemic Alert 6, as its severity enhances, the number of affected population will increase thereby decreasing working strength with adverse impact on economy and resultant vicious cycle of social disruption. This presentation focuses on Business Continuity Plan for Non Health Sectors in respect of which the NDMA has issued the guidelines on Influenza A H1N1 to be implemented by all concerned.

1. **Role of International Agencies in Pandemic Influenza**

Dr Sampath Krishnan, Cluster Focal Point – Communicable Diseases and Disease Surveillance, World Health Organisation - India

Pandemic influenza has wide-ranging consequences for human health, economic and social issues and threatens to undermine the achievements of Millennium Development Goals (MDGs). This presentation portrays that International agencies viz. the multilateral / UN agencies and bilateral development partners (USAID, CDC, DFID, etc) have the responsibility to synergize their Avian and Pandemic Influenza (API) preparedness and response support strategies with the host nation's API programme that are multi-sectoral, operational and extend from national level to the district level. Further, the UN system Consolidated Action Plan for Avian and Human Influenza (UNCAPHI) are also in this arena.

m. **Role of Alternative Medicine in Pandemic H1N1 Influenza Management**

Dr Rajesh Arora, Scientist 'D', Institute of Nuclear Medicine and Allied Sciences, Delhi

The never ending struggle for survival between humans and pathogens has been a part of the evolutionary process since ages. New diseases continue to emerge and baffle physicians and researchers, the recent threat being H1N1 influenza pandemic. Antiviral drugs available in mainstream medicine have their own limitations while vaccines are being trial evaluated. This presentation shares the

potential of traditional Indian and Chinese systems of medicine that can be effectively harnessed for managing the current pandemic flu.

## SECOND INDIA DISASTER MANAGEMENT CONGRESS

**NOVEMBER 4-6, 2009**

### SESSION PLAN

#### **THEMATIC SESSION: I3: PANDEMICS**

**Chairperson: Lt.Gen.(Retd). Dr.J.R.Bhardwaj, VSM, VHS(M)**

**Date: 5<sup>th</sup> November 2009      Time 11:30-14:00**

**Venue: Hall No. 2 (1<sup>st</sup> Floor), Vigyan Bhavan, New Delhi**

<b>Time</b>	<b>Topic</b>	<b>Speaker</b>
11.30 to 11.40	Introduction to pandemics and global scenario of H1N1 Influenza.	Dr. R. K. Sharma, Joint Director, INMAS
11.40 to 11.50	Epidemiology of H1N1 influenza.	Group Captain R Vaidya
11.50 to 12.00	Mitigation strategy for prevention of H1N1 Influenza.	Dr. P Ravindran, Director, Emergency Medical Response, MOH&FW, New Delhi
12.00 to 12.10	Role of laboratory investigations during pandemic outbreak.	Dr. Shashi Khare, NCDC Delhi
12.10 to 12.20	Hospital preparedness including intensive care during pandemic H1N1 influenza.	Dr. Shakthi Gupta, Medical Superintendent, AIIMS.
12.20 to 12.30	Community awareness and sensitization campaign during pandemic outbreak.	Mr. N.M. Prusty, Chairperson, Sphere India.
12.30 to 12.40	Pharmaceutical intervention in H1N1 Influenza.	Dr.Y.K. Gupta, Professor & Head of Pharmacology, AIIMS.
12.40 to 12.50	Public health issues in pandemic H1N1 Influenza.	Dr. R.P. Vashist, Head of Community Medicine, Govt of NCT Delhi.
12.50 to 13.00	Public private participation in pandemic H1N1 Influenza.	Dr. S. Kumar. Principal and Dean, Ramaiah Medical College, Bangalore
13.00 to 13.10	Psycho-social impact of pandemic H1N1 Influenza.	Dr. Jayakumar.C, Senior Specialist, Psychosocial Support and Mental Health Services, NDMA
13.10 to 13.20	Work continuity in pandemic H1N1 Influenza.	Maj. Gen. J.K. Bansal, CBRN Coordinator, NDMA
13.20 to 13.30	Role of international agencies in	Dr. Sampath Krishnan, Cluster

	pandemic H1N1 Influenza.	Focal Point - Communicable Diseases and Diseases Surveillance WHO India.
13.30 to 13.40	Role of Alternative Medicine in Pandemic H1N1 Influenza Management.	Dr. Rajesh Arora, INMAS Delhi
13.40 to 14.00	Question and Answer Session	