

Management of H1N1 Influenza - A Hospital Administrator's Perspective

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Introduction

- **H1N1 Flu Virus** (Human Swine Flu) is a strain of the influenza virus that usually affects pigs, but may also affect human population.
- H1N1 flu virus is a respiratory illness that causes symptoms similar to those of the regular human flu.

- The World Health Organization declared a global H1N1 flu pandemic.
- A Phase Six pandemic declaration is based on the sustained worldwide spread of H1N1, not the severity of illness caused by the virus.

Key areas of concern

- Effective and Efficient allocation of resources is based on:
 - Surveillance, monitoring and tracking disease outbreaks.
 - Potential new areas where disease can spread.
 - Promptly responding to human-to-human transmission

Hospital Administrator's action plan

1. Documentation of pandemic influenza plan for the institution
2. Streamlined decision making during disaster
3. Plan for control of transmission in healthcare facility
4. Influenza pandemic micro plan

1. Documented pandemic influenza plan for the Institution

- Plan must be in collaborating with local and regional plan
- Build & operationalize communication channels with other healthcare facilities in order to coordinate response efforts
- Prevent duplication of activities

2. Streamline decision making during disaster

- A multidisciplinary planning committee to specifically address pandemic influenza preparedness.
- This committee must have representation from
 - Hospital administration
 - Infection control
 - Public relations
 - Clinicians

Contd....

- Nursing administration
- Sanitation & hospital attendants
- Engineering and maintenance
- CSSD, Security
- Dietary services
- Stores ,laboratory service etc
- Allocation of responsibilities for coordination at all levels

3. Plan for control of transmission in healthcare facility

- Early detection of influenza cases in a facility; use of antivirals to treat ill persons and, if recommended, as prophylaxis
- Seek vaccination of patients and healthcare personnel (if available)
- Isolation of infectious patients in separate isolation facility
- Use of appropriate barrier precautions during patient care
- Restricting visitors

3. Plan for control of transmission in healthcare facility

- Educating patients and staff
- Avoid crowding, promote distance between patients
- Environmental/engineering infection control measures like adequate ventilation, proper patient placement, and adequate environmental cleaning
- Use of available Personal protective equipment (PPE)/ barrier precautions and frequent hand hygiene.

4. Prepare influenza pandemic micro plan:

- **TRIAGE**
 - A suitable location, separate from other clinical triage and evaluation areas to be identified for the triage of patients with possible pandemic influenza.
 - Emergency Medical Response preparedness including plan for initial patient evaluation and admission of patients, isolation & treatment
 - Creation of dedicated Quick response medical teams.

4. Prepare influenza pandemic micro plan:

- **EDUCATION & TRAINING**
 - Printing of Informational materials (e.g., brochures, posters) on pandemic influenza and relevant hospital policies
 - Training of concerned teams with latest applicable Clinical guidelines pertaining to case definitions, treatment protocols, prophylaxis etc
 - Infection Control strategies for preventing pandemic influenza: vaccination (if available)

4. Prepare influenza pandemic micro plan:

HUMAN RESOURCE PLAN

- Vaccine Distribution and Use by hospital personnel
- Designating staff for influenza patients & preparation of duty schedules

4. Prepare influenza pandemic micro plan:

PROCUREMENT PLAN

- Identification & stocking of likely medicines/vaccines and other laboratory assay requirements ((RT-PCR), virus isolation, and immuno fluorescence antibody (IFA) assays etc)
- Stores rate contracts with suppliers for inventory maintenance of drugs based on recommendation (oseltamivir and drugs with activity against influenza viruses)
- Identify extramural facilities such as laboratories which can be used for analysis.

Preparedness at AIIMS

- Guidelines issued by Ministry of Health made available for doctors regarding categorization of patients & their treatment recommended.
- Separate cubicle earmarked in emergency ward having 5 beds for inpatient hospitalization and management of seriously ill Swine flu patients who cannot be referred, shifted to the designated hospital.

Preparedness at AIIMS

- Laboratory testing for Influenza: H1 N1 being done in Microbiology Department.
- Swab sticks and viral transport medium provided by microbiology department and respective clinical department responsible for sample collection and transportation of the same to microbiology laboratory for testing.

Preparedness at AIIMS

- Provision of required medicines (e.g Oseltamivir tablets etc) for the treatment of hospitalized patients organized from the hospital stores.
- Universal precautions practices followed by the health workers in the OPD's, emergency and inpatient ward areas where Influenza A-H1 N1 patients are admitted.

Preparedness at AIIMS

- Three layered face masks provided to all health workers (doctors nurses, and others) in Casualty & OPD areas.
- N95 Masks provided to the health workers who are in direct contact with the hospitalized H1 N1 cases in hospital ward areas.

Preparedness at AIIMS

- Registration staff in OPD's and Casualty given training/education by the respective departments for effective screening and registration of Influenza A H1N1 (Swine Flu) areas attending AIIMS hospital.
- Requisite statistical data for Influenza H1 N1 cases submitted by the respective diagnostic & clinical departments to the Medical Record Section who will compile the same for onward transmission to concerned authorities.

Preparedness at AIIMS

- Posters and notices for public awareness about Influenza A-H1 N1 (Swine Flu and its treatment facilities) put up in important areas in OPD, Casualty and other parts of the hospital
- Awareness programmes about Influenza A-H1 N1 (Swine Flu) organized for doctors, nurses and other staff by the Department of Centre for Community Medicine (Public lecture organized in September 2009)

Conclusion

- Health officials must devise mechanisms to anticipate emergence of such infectious diseases in future
- Faster response regarding how to manage infectious diseases in this modern age where disease travels rapidly with people in transcontinental movements.
- Ensure that well equipped and networked diagnostic laboratories be available– they must be at the appropriate bio-safety level

Conclusion

- Control the disease spreading from animals to humans & human to human
- Also, development of set of diagnostic tools for the earliest recognition of H1N1 or any mutant thereof, if and when they should reappear.
- Vaccine development on priority basis

THANK YOU!