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Ministry of Health and Family Welfare
Directorate General of Health Services
(Emergency Medical Relief)

Seasonal Influenza A (H1N1): Guidelines for Vaccination with Influenza Vaccine

1. Background

Seasonal Influenza is caused by a number of circulating Influenza viruses such as Influenza A H1N1, H3N2, H2N2, Influenza B etc. While declaring the Pandemic to be over in August 2010, World Health Organization conveyed that Pandemic Influenza A (H1N1) virus that caused Pandemic [2009-2010] would circulate as Seasonal Influenza virus and would continue to do so for years to come.

Seasonal Influenza may affect all age groups; globally incidence is higher in young children and those above 65 years. Health workers and persons with co-morbid conditions (such as lung disease, heart disease, liver disease, kidney disease, blood disorders, Diabetes) and immuno-compromised persons are at higher risk. Influenza may have an aggressive course in extremes of age and in co-morbid conditions.

2. Evidence Base for Vaccination

World Health Organization recommends vaccination of high risk groups with Seasonal Influenza Vaccine. Vaccination is an important tool to prevent infection and severe outcomes caused by influenza viruses. Over the years, evidence has been established through research globally on the protection provided by Seasonal Influenza Vaccine, in particular for those at higher risk. It helps protect women during pregnancy and their babies up to six months and among vaccinated, there is reduction in influenza related hospitalizations across all age groups.

In India, available information suggests that in the post pandemic period (2012-2015) Seasonal Influenza has affected persons mainly in the age group 15-60 years. Analysis of mortality of laboratory confirmed cases suggest that about 50 % of those affected had co-morbid conditions.

3. Guidance for the States/ UTs on Seasonal Influenza Vaccination

3.1 Persons recommended for vaccination

Based on epidemiological evidence, the advice received from World Health Organization, Indian Council of Medical Research and subject experts, Government of India recommends vaccination of High Risk Groups with Seasonal Influenza Vaccine. The recommendations for prioritized groups are as under:

- Health Care workers, working in hospital / institutional settings (doctors, nurses, paramedics) with likelihood of exposure to Influenza virus **should be vaccinated**. This include those:
 - working in casualty/ emergency department of identified hospitals treating Influenza cases.
 - working in ICU and Isolation Wards managing influenza patients.
 - identified to work in screening centres that would be set up for categorization of patients during Seasonal Influenza outbreak.
 - treating/managing the High Risk Group
 - laboratory personnel working in virological laboratories testing Influenza samples.
 - Rapid Response Team members identified to investigate outbreaks of Influenza.
 - drivers and staff of vehicles/ambulances involved in transfer of Influenza patients.

- Vaccine is recommended for pregnant women, irrespective of the duration of pregnancy.
- Vaccine is recommended for :
 - persons with chronic illnesses such as Chronic Obstructive Pulmonary Disease, Bronchial Asthma, heart disease, liver disease, kidney disease, blood disorders, Diabetes, cancer and for those who are immuno-compromised.
 - for children having chronic diseases like Asthma; Neuro developmental condition like cerebral palsy, epilepsy stroke, mentally challenged etc; heart disease like CHD, CHF; blood disorder like sickle cell diseases; diabetes, metabolic disorder, all immuno compromised children, malignancy receiving immuno-suppressive therapy, kidney disorder and liver disorder.
- Vaccine is desirable for
 - elderly individuals (≥ 65 years of age)
 - children between 6 months to 8 years of age.

3.2 Selection of Vaccine

3.2.1. Seasonal Influenza Vaccine recommended for the winter season of 2015-2016

Keeping in mind that there may be enhanced Influenza A(H1N1)pdm2009 activity, similar to that witnessed in the early part of this year, for the ensuing winter months from December 2015 -March, 2016, the currently available vaccine (Northern hemisphere trivalent vaccine for the winter of 2015-16) may be used, as the Influenza A(H1N1) pdm 2009 sub type included in the vaccine remains the same since 2009. This vaccine is expected to offer good effectiveness against Influenza A H1N1. Further, this vaccine has the approval of Drug Controller General (I).

3.3 Type of Vaccine

Ministry of Health and Family Welfare recommends the trivalent inactivated influenza vaccine.

4. Implementation

The State Governments/ Union Territory Administration, depending upon the public health burden of Influenza, would evolve a plan for vaccinating the health care workers/ persons at higher risk. The concerned hospitals would also have an action plan to vaccinate its health care workers.

5. Limitations of the Influenza Vaccination

Influenza vaccination is most effective when circulating viruses are well-matched with vaccine viruses. Even with appropriate matching, efficacy of vaccine may be about 70% to 80%. In case the locally circulating virus is different from vaccine virus recommended by WHO, it may be partially effective or not be effective at all. Hence, vaccine should not give a false sense of security. Considering the risk perspective, the preventive modality of infection prevention and control practices like personal hygiene, frequent washing of hands, respiratory etiquettes and airborne precautions (in hospital settings or domiciliary care settings) should be strictly adhered to.

The available vaccine takes about 2-3 weeks for development of immunity. Hence for the health care workers working in an environment with likelihood of exposure to Influenza virus, use of chemoprophylaxis during this period may be considered.