

Influenza CME

Influenza: What is new?

Organized by:

**Department of Community Medicine Maharishi
Markandeshwar Medical College Solan Himachal Pradesh**

in

**Annual Conference of North Zone Chapter India Association of
Preventive and Social Medicine**

(25.11.2016)

Report

Submitted to:



Influenza Foundation of India

Submitted by:



North Zone Chapter

Indian Association of Preventive and Social Medicine

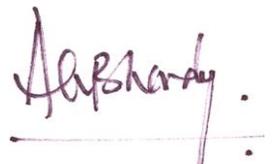
Acknowledgements

I am grateful to the Influenza Foundation of India (IFI) for providing funds for this CME, which is an attempt to spread awareness about this disease and provide recent updates to medical fraternity to prevent and control this infection.

I take this opportunity to express my deep sense of gratitude to the management of Maharishi Markandeshwar Medical College Solan and the Principal, Dr. Kiranjit Kaur who gave permission to organise this CME in their Institution.

I thank Dr. Safoora Bilquees, the Organizing Secretary of the Annual Conference of North Zone Chapter of Indian Association of Preventive and Social Medicine (IAPSM) to provide slot for this CME on Influenza in their conference..

I am thankful to all resource persons who consented for this CME.



Dr. AK Bhardwaj
Former President
Indian Association of Preventive and Social Medicine
(IAPSM)



Influenza CME

Influenza: What is new?

Date: 25th November 2016

Venue:

Auditorium, MM Medical College Solan
Himachal Pradesh

PROGRAMME

Co Chair: Dr. Anurag Chaudhary, Professor and head, Community Medicine
Dayanand Medical College Ludhiana, Punjab

Co Chair: Dr. S. Mohammad Salim Khan, Professor and head, Community
Medicine Government Medical College Srinagar, J & K.

Time	Topic	Speakers/Guest
1330 - 1340	An Overview of IFI	Dr. Mitasha Singh
1340 - 1410	Key Note Address: Influenza: What is new?	Dr. AK Bhardwaj
1410 - 1440	Vaccination in Influenza	Dr. Anmol Gupta
1440 - 1510	Vulnerable population and Influenza	Dr. VK Srivastava
1510 - 1540	High Tea	



A CME on Influenza was organized during the North Zone chapter annual conference of Indian Association of Preventive and Social Medicine at MM Medical College Solan, Himachal Pradesh on 25.11.2016.

Influenza Foundation of India sponsored this session. Influenza Foundation of India (IFI) aims to promote awareness of influenza among healthcare professionals, with the intention of enhancing control measures and boosting pandemic preparedness in the India region.

Dr. Mitasha Singh:

Hamdard Institute of Medical Sciences and Research, New Delhi

Dr. Mitasha Singh from Hamdard Institute of Medical Sciences and Research, New Delhi spelled the aims and objectives of Influenza Foundation of India.

She explained that Influenza Foundation of India (IFI) aims to promote awareness of influenza among healthcare professionals, with the intention of enhancing control measures and boosting pandemic preparedness in the country.

She further elaborated that Influenza is a public health problem in the country and a cause of concern to the community.

She told that Influenza Foundation of India has been founded with the following objectives:

1. To improve knowledge on influenza disease and its epidemiology in India.
2. To disseminate unbiased scientific information on influenza to the medical community & the public.
3. To promote influenza pandemic preparedness activity in India.
4. To co-ordinate news and activities related to influenza, between the private sector and government.
5. To produce educational and scientific material for the medical community and the public.

She then introduced the chairpersons and the speakers.

Dr. AK Bhardwaj:

**Dean, School of Public Health and Professor Community Medicine
Dr. Rajendra Prasad Government Medical College Tanda
Himachal Pradesh**

Dr. AK Bhardwaj discussed in details what is new in Influenza.

He told that Seasonal influenza is an acute viral infection caused by an influenza virus.

There are 3 types of seasonal influenza viruses: A, B and C. Type A influenza viruses are further classified into subtypes according to the combinations of various virus surface proteins. Among many subtypes of influenza A viruses, influenza A (H1N1) and A (H3N2) subtypes are currently circulating among humans.

Influenza viruses circulate in all parts of the world. Type C influenza cases occur much less frequently than A and B. That is why only influenza A and B viruses are included in seasonal influenza vaccines.

Dr. Bhardwaj discussed about Signs and symptoms of Influenza. He said that seasonal influenza is characterized by a sudden onset of high fever, cough (usually dry), headache, muscle and joint pain, severe malaise (feeling unwell), sore throat and runny nose. Cough can be severe and can last 2 or more weeks. Most people recover from fever and other symptoms within a week without requiring medical attention. But influenza can cause severe illness or death especially in people at high risk (see below). The time from infection to illness, known as the incubation period, is about 2 days.

He further told that yearly influenza epidemics can seriously affect all populations, but the highest risk of complications occur among children younger than age 2 years, adults aged 65 years or older, pregnant women, and people of any age with certain medical conditions, such as chronic heart, lung, kidney, liver, blood or metabolic diseases (such as diabetes), or weakened immune systems.

Dr. Bhardwaj deliberated about the spread of seasonal influenza and told that it spreads easily and can sweep through schools, nursing homes, businesses or towns. When an infected person coughs, infected droplets get into the air and another person can breathe them in and be exposed. Hands contaminated with influenza viruses can also spread the virus. To prevent transmission, people should cover their mouth and nose with a tissue when coughing, and wash their hands regularly.

Seasonal epidemics and disease burden

Dr. Bhardwaj also revealed that, in temperate climates, seasonal epidemics occur mainly during winter while in tropical regions, influenza may occur throughout the year, causing outbreaks more irregularly.

He further told that Influenza occurs globally with an annual attack rate of 5% - 10% in adults and 20% - 30% in children. Illnesses can result in hospitalization and death mainly among high-risk groups (the very young, elderly or chronically ill). Worldwide, these annual epidemics are estimated to result in about 3 to 5 million cases of severe illness, and about 0.25 to 0.50 million deaths.

In industrialized countries most deaths associated with influenza occur among people age 65 or older. Epidemics can result in high levels of school absenteeism. In case of workers, it results in productivity losses. Clinics and hospitals can be overwhelmed during peak illness periods.

The precise effects of seasonal influenza epidemics in developing countries are not known, but research estimates indicate that a large percent of child deaths associated with influenza occur in developing countries every year.

Treatment

Dr. Bhardwaj also discussed the treatment of Influenza and told that Antiviral drugs for influenza are available in some countries and may reduce severe complications and deaths.

Ideally they need to be administered early (within 48 hours of onset of symptoms) in the disease. There are 2 classes of such medicines:

1. Inhibitors of influenza neuraminidase* (Oseltamivir and Zanamivir; as well as Peramivir and Laninamivir licensed in several countries); and
2. Adamantanes (Amantadine and Rimantadine).

* Currently, WHO recommends neuraminidase inhibitors as the first-line treatment for people requiring antiviral therapy, as the currently circulating influenza viruses are resistant to the Adamantanes.

Dr. Bhardwaj further elaborated that some influenza viruses develop resistance to the antiviral medicines, limiting the effectiveness of treatment. WHO monitors antiviral susceptibility among circulating influenza viruses to provide timely guidance for antiviral use in clinical management and potential chemoprophylaxis.

Dr. Anmol Gupta:

**Professor Community Medicine, Indira Gandhi Medical College Shimla
Himachal Pradesh**

Dr. Anmol Gupta discussed about Vaccination against Influenza. He told that there are 2 types of flu vaccines: Trivalent and Quadrivalent.

Trivalent vaccines protect against 3 strains of the flu, A/H3N2, A/H1N1, and influenza B. These vaccines are available in: Traditional flu shots, approved for anyone 6 months and older.

The quadrivalent vaccine protects against four flu virus strains.

He further elaborated that the flu vaccine comes in two forms: a flu shot (IM) and a nasal spray.

1. Trivalent Inactivated Vaccines (TIV): Seasonal inactivated influenza vaccine
2. Live Attenuated Influenza Vaccines (LAIV): Seasonal live attenuated intranasal influenza vaccine

Trivalent vaccines protect against an H1N1 and an H3N2 and an influenza B virus.

Trivalent vaccines are available in:

Standard-dose trivalent shots (IIV3) are approved for use in people 6 months and older.

Most flu shots are given with a needle. One flu vaccine also can be given with a jet injector, for persons aged 18 through 64 years.

Intradermal trivalent shot, which is injected into the skin instead of the muscle and uses a much smaller needle than the regular flu shot, approved for people 18 through 64 years of age.

High dose trivalent shot approved for people 65 and older.

A trivalent shot containing virus grown in cell culture is approved for people 18 and older. Recombinant trivalent shot that is egg-free, approved for people 18 years and older

Why in each season

Dr. Anmol further told that vaccines are required in each season because of the following reasons:

1. The body's immune response from vaccination declines over time, so an annual vaccine is needed for optimal protection.
2. Flu viruses are constantly changing; the formulation of the flu vaccine is reviewed each year and sometimes updated to keep up with changing flu viruses.

That's why it's better to get vaccinated early in the fall, so you are protected before flu begins spreading in your community. Seasonal flu vaccines have a very good safety track record.

Other details are annexed.

Dr. VK Srivastava: Former Vice chancellor Jamaica University.

Dr. VK Srivastava discussed about the public Health responsibilities in Influenza.

He summarized the key facts of seasonal Influenza as brought by Dr. AK Bhardwaj in his presentation. He stressed on the following facts about Influenza that every health provider as well as the community must know about.

1. Seasonal influenza is an acute viral infection that spreads easily from person to person.
2. Seasonal influenza viruses circulate worldwide and can affect anybody in any age group.
3. Seasonal influenza viruses cause annual epidemics that peak during winter in temperate regions.
4. Seasonal influenza is a serious public health problem that causes severe illness and death in high-risk populations.
5. An influenza epidemic can take an economic toll through lost workforce productivity and strain health services.
6. Influenza vaccination is the most effective way to prevent infection.
7. Antiviral drugs are available for treatment; however influenza viruses can develop resistance to the drugs.

He then outlined various issues in public health research agenda for Influenza, as that has to be adopted.

He further told that the Research Agenda is organized around a framework of five key research streams. These areas of research are of particular importance to public health decision-makers for both well and less-resourced countries.

Stream 1: Reducing the risk of emergence of pandemic influenza.

Stream 2: Limiting the spread of pandemic, zoonotic and seasonal epidemic influenza.

Stream 3: Minimizing the impact of pandemic, zoonotic and seasonal epidemic Influenza.

Stream 4: Optimizing the treatment of patients.

Stream 5: Promoting the development and application of modern public health tools.

Dr. Srivastava then outlines various objectives for research agenda on Influenza.

1. Provide a framework reflecting public health research priorities for pandemic, zoonotic and seasonal epidemic influenza.
2. Identify specific research topics, reinforce and establish their importance in meeting public health needs over a medium-to-long term period.
3. Maintain a focus on less well-addressed areas, such as operational research and the needs of under-resourced countries.
4. Facilitate discussion and coordination among researchers, donors and public health professionals.
5. Highlight the need for and benefits of a multidisciplinary approach to address knowledge gaps in public health related to influenza.

The chairpersons concluded the session and Dr. AK Bhardwaj thanked the organisers for all support provided for this session.

Memento's were given to the presenters and the chairpersons by the organizers.

The session ended with vote of thanks to the Influenza Foundation of India for sponsoring this important session.

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