

Date: September, 2014

1. Influenza virus

Influenza viruses are enveloped RNA viruses divided into three types "A, B and C". The first two are the ones involved in significant human diseases.

For influenza viruses type A, there are many subtypes of it but usually one or two subtypes circulate more frequently in the human population at any given time. That is the reason why seasonal influenza vaccines include two subtypes of influenza A viruses and one type of influenza B virus "influenza type B has no subtypes" (thus called trivalent Influenza vaccine).

Influenza viruses are characterized by numerous mutations causing a change in its structure which usually occurs every year.

Therefore, seasonal influenza vaccines structure change annually to match the circulating strains.

2. Seasonal Influenza disease

Seasonal influenza causes sever illness and, at times, life-threatening complications. Moreover, seasonal influenza annually affects 600 million individuals and kills up to 500,000 ones. Hence as mentioned by the European Health Council, seasonal influenza takes more lives annually than road accidents do. The incubation period of influenza ranges from 1-4 days. The symptoms normally start to appear from the second day of infection. Influenza illness is characterized by sudden fever, sore throat, headache, myalgia, chills and extreme fatigue. Some of these symptoms can distinguish influenza from normal common colds.

3. Is there a vaccine to protect against seasonal influenza?

Seasonal influenza vaccine is inactivated influenza vaccine (contains molecules of the influenza viruses), which protects, God willing, from the existing three strains this season. The three strains included in the vaccine are those recommended by the World Health Organization for the winter season 2014.

4.Does Influenza vaccination protects from common colds?

May indirectly protects from common colds. And that because the flu weakens the immune system temporarily, which may make a person susceptible to infection with microbes and other viruses that infect the respiratory tract like common cold and others.

5. How do influenza vaccination works?

By giving the vaccine we are injecting the person with parts derived from the most commonly circulating flu viruses, which will stimulate the immune system to produce antibodies against these strains. This process may take two weeks after which a person acquires protection against these strains.

6.Who are at increased risk of Influenza complications?

Although all age groups are affected by influenza, rates of serious illness, complications, and death are the highest among People with certain chronic medical or other conditions¹. These conditions include pregnant women, persons with chronic lung or heart disease,

[diabetes](#), patients with [weakened immune systems \(congenital or acquired\)](#), [neurologic disorders](#), as well as [residents of nursing homes and long-term care facilities](#)

4. Seasonal Influenza vaccine

The currently available Influenza vaccine in Saudi Ministry Of Health is trivalent inactivated influenza vaccine. The three strains included in vaccine are the ones recommended by WHO.

7. Who should be vaccinated?

Saudi Ministry of Health recently announced that the following groups are among the groups targeted by and recommended for seasonal Influenza vaccination this year.

- [All Diabetics](#)
- [Asthmatics and patients with COPD.](#)
- [Patients with all types of cardiac diseases.](#)
- [Patient with chronic renal diseases](#)
- [Patients with Chronic Liver diseases](#)
- [Congenital or acquired immune deficiency\(due to cancer or steroids\)](#)
- [Pregnant women.](#)
- [All Health Care Workers.](#)

Also, in its efforts to combat flu disease, Saudi Ministry of Health strongly recommending **pilgrims** to get vaccinated against seasonal flu before performing Hajj.

The Advisory Committee for Immunization Practices "ACIP" (the highest authority controlling vaccination policies in US) recommends Influenza vaccination of the same groups.

*) Apart from Hajj, Saudi Ministry of Health is preparing a significant influenza awareness campaign targeting the above mentioned groups. The campaign will start after Hajj

8. Is influenza vaccine safe during pregnancy and lactation?

The type of Influenza vaccines available in MOH can be used during pregnancy and lactation. It is strongly recommended for pregnant women

9. Should pregnant women take the influenza vaccine? And why?

Yes, pregnant women should take the influenza vaccination, and so protect her during pregnancy and to protect her baby until the age of six months after birth (it is not approved for children less than 6 months). Studies have shown that giving flu vaccine to pregnant women reduces hospitalization of their babies after giving birth by up to 92% compared to the babies of pregnant women who did not take the vaccine during pregnancy.

10. Is the type of Influenza vaccines available in MOH safe and effective for patients with chronic illness "Diabetics, asthmatics or heart diseases"?

Not only safe and effective but also strongly recommended for them.

11. Can I get seasonal flu even though I got flu vaccine this year?

Does not protect completely, there is still a possibility you could get the flu even if you got vaccinated but it is less than those unvaccinated. The protection depends on several factors, including: the age and health status of the person being vaccinated, and also the similarity or

match between the virus strains used in the vaccine and those circulating in the community (Protects by up to 90%).

12. Why should I take a flu vaccination?

To protect you from getting sick from flu. Protecting yourself from flu also protects your family and people around you who are at risk for complications. Influenza vaccination may make your illness milder and reduce the risk hospitalization due to complications, and deaths.

13. Why influenza vaccine is an annual seasonal vaccine?

It is an annual vaccine because its composition is modified each year to match annual circulating influenza virus strains in the northern hemisphere where Saudi Arabia is located. And in the southern hemisphere as well. There are 2 types of vaccine for both hemispheres and may be similar in some seasons according to circulating strains in both hemispheres. For this season 2014 vaccine composition is similar for both hemispheres.

14. When should I get vaccinated?

Flu vaccination should begin soon after vaccine becomes available, ideally by October. However, as long as flu viruses are circulating, vaccination should continue to be offered throughout the flu season even in January or later.

15. Where can I get flu vaccine?

Flu vaccine is available free of charge in all MOH hospitals and Primary health care Centers (PHCs).

16. Contraindications to take the vaccine:

There are some people who do not give them the vaccine only after consulting a doctor and those are:

- Those who have a severe eggs allergy
- Those with previous history of severe allergy to influenza vaccine
- Those with history of Guillain Barre Syndrome after taking the vaccine
- Children under the age of 6 months (vaccine is not approved for this category)
- People who have very high or moderate temperature, but they can take the vaccine after temperature resolved.

17. Is there temporary contra-indication for flu vaccination?

As with other vaccines, flu vaccine should be postponed if there is acute illness especially if associated with fever.

18. Adverse effects of vaccine:

Influenza vaccination is safe, but it is possible that some of the symptoms accompanied by transient local for not more than 48 hours, without any treatment, these are:

- Mild redness or swelling at the injection site
- A slight rise in temperature
- Minor body aches
- Sore throat

19. Does flu vaccine protect from getting infection with bird flu? Can I get bird flu infection despite taking seasonal flu vaccine?

Bird flu is caused by another strain of influenza other than those causing seasonal flu. There is no human to human transmission, but can be transmitted by direct contact with sick or dead poultry that were infected with bird flu. Is associated with high mortality (up to 60%) in human. Flu vaccine does not contain bird flu strain and does not protect from infection. But by getting influenza vaccine you will be protected from getting influenza which will protect you from getting other infection.

20. Does flu vaccine protecting from infection with swine flu?

Swine flu (H1N1) is included in seasonal influenza vaccine, therefore it protects from infection with swine flu(H1N1).

(General practical information)

21. Why influenza vaccine is an annual seasonal vaccine?

It is an annual vaccine because its composition is modified each year to match annual circulating influenza virus strains. **It** is also a seasonal vaccine because it should be administered during the influenza season that ranges from September to March every year in the northern hemisphere where Saudi Arabia is located.

22. Who specifies the structure of Influenza vaccines every year?

It is specified annually throughout the recommendation of WHO to ensure that the vaccine is effective against the circulating strains. These strains are isolated annually throughout a global surveillance network which was created in 1948 and located in different countries worldwide.

The strains obtained by WHO surveillance network are provided to vaccine manufacturers to start producing influenza vaccines. This process is repeated each year.

23. What is the composition of the type of Influenza vaccines available in MOH?

The vaccine available in KSA is a trivalent influenza vaccine containing inactivated antigens of two different subtypes of influenza viruses type A and one influenza virus type B, when injected into human body it will stimulate the human immune system to produce influenza virus antibodies. These antibodies will be ready inside human body to prevent influenza infection in case of exposure to the virus.

24. What is the storage condition of influenza vaccine?

As most other vaccine, it should be stored at 2-8 c, protect from light and shouldn't be frozen. But before usage, it should be allowed to reach room temperature.

25. What is its route of administration?

Mainly intramuscular route and could be used deep subcutaneously but never used as intravascular injection.

26. Is there any interaction between the type of Influenza vaccines available in MOH and any other vaccine?

It may be given at the same time as other vaccine but on separate arms.

27.What is the over dosage effect of it?

Over dosage is unlikely to have any unwanted effect

28.What is the pharmaceutical presentation of the type of Influenza vaccines available in MOH?

It is presented in 0.5ml liquid prefilled ready to use syringe.

29.Is there any difference between children’s and adult’s flu vaccine dosage?

Yes there is difference, Children(6month- 8years) who never had flu vaccine before, need to take 2 doses 4 weeks apart, in addition those from younger than 3 years need to take half of adult dose.

30.What is the recommended dose of the type of Influenza vaccines available in MOH

Age group	Dose	Number of doses
6-35 months	0.25 ml	1 or 2***
3-8 years	0.5 ml	1 or 2***
≥9 years	0.5 ml	1

*** Two doses administered ≥1 month apart are recommended for children <9 years who are receiving influenza vaccine for the first time.