



Immunisation Coalition Influenza FAQ Document 2022

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1. Is it okay to make a clinical diagnosis of influenza, or do you need microbiology confirmation?

GP's can make a clinical diagnosis of influenza, however, it can be hard to distinguish flu from other upper respiratory tract infections, so getting a formal diagnosis is important. Laboratory confirmed influenza data helps indicate the prevalence of disease, the cohorts affected and the sero-types circulating. In Australia, seasonal influenza (as well as all other influenza viruses) is a notifiable disease only with laboratory confirmation.

2. What is the best test for influenza? Throat swab PCR?

A throat swab PCR will diagnose influenza and respiratory viral infections and allow the clinician to have a quick and accurate diagnosis. According to Influenza Laboratory Case Definition (LCD), nasopharyngeal swabs (NPS) or aspirates (NPA) are the best sample because they contain the highest number of potentially influenza infected respiratory epithelial cells.

3. What is the isolation period for people diagnosed with influenza? Is this period mandatory or just advisable?

Individuals are usually infectious from 1 day before onset of symptoms until 7 days after the onset of symptoms. After 5 days the level of infectiousness is probably very low, however some people, especially children and people with weakened immune systems, might be able to infect others for a longer time. The isolation period is not mandatory.

4. Is there a quarantine period for contacts?

Not at this time. Ideally, any person who is in contact with a positive flu case should monitor for symptoms and stay home if they become symptomatic.

5. Other than symptomatic treatments, what treatments are used for influenza? What about the COVID-19 treatments (Paxlovid, Lagevrio, Sotrovimab etc)?

Most people recover with rest, drinking plenty of fluids and use of paracetamol for the relief of pain and fever.

Chemoprophylaxis is not a substitute for vaccination but can be considered in high-risk individuals with an inadequate or ineffective vaccination status. Some individuals may require antivirals such as:

- Oseltamivir, an oral capsule formulation (marketed as Tamiflu)
- Zanamivir, an inhaled formulation (marketed as Relenza)
- Peramivir, an intravenous infusion (marketed as Rapivab)

Currently the TGA have only provisionally approved COVID-19 antiviral treatments for the treatment of COVID-19. These antivirals are in short supply and should be reserved for COVID-19 positive patients.

6. When should oseltamivir or zanamivir be used? For prevention? For high-risk patients?

For use in patients with confirmed or suspected influenza who require hospitalisation or are at risk of complications (including children, 65+ years, pregnant women, immunosuppressed patients or significant comorbidities), or have severe, complicated or progressive disease.

Pregnant women are at risk of serious influenza illness and oseltamivir is considered the safest option for treatment and prophylactic use based on the studies currently available.

Prophylaxis with NIs should be considered for contacts of a suspected or confirmed influenza case when at high risk of influenza complications, especially in high-risk settings such as long-term residential care facilities.

7. What are the indications for treatment for influenza? That is, treatment other than symptomatic treatment.

Warning signs of severe illness including poor feeding (infants and children), dehydration and difficulty breathing. Oxygen saturation measured by pulse oximetry should be considered a 'vital sign' in patients who have difficulty in breathing. Certain medical conditions can increase the risk of severe disease (pregnancy, obesity, severe asthma, immunosuppressive disorders, chronic disease) so these individuals should be considered for antiviral therapy or hospitalisation.

8. What type of vaccines are flu vaccines? mRNA??

In Australia, all Flu vaccines are inactivated vaccines.

Egg-based vaccines: Fertilized chicken eggs are injected with the viruses that have been selected for that year's vaccine, then left to incubate for several days before the virus is extracted and inactivated for use in the flu vaccine.

Cell-based vaccines: The cell-based vaccine manufacturing process uses animal cells (Madin-Darby Canine Kidney, or MDCK cells) as a host for the growing flu viruses instead of fertilized chicken eggs.

Currently there are no mRNA flu vaccines, however there is current research being undertaken in this field.

9. Cell flu vaccines. Indications? Advantages/disadvantages?

Advantages

1. Cell-based vaccines do not use flu viruses grown in eggs and, therefore, are not dependent on the supply of eggs.
2. No risk of egg adaptation. Viruses grown in eggs can lead to molecular changes or antigenic variants resulting in reduced vaccine effectiveness.
3. Viruses used to make cell-based vaccines may be more similar to circulating "wild" flu viruses than the viruses used to make egg-based vaccines.
4. Studies demonstrate cell-based flu vaccines provide greater protection against flu-related hospitalizations than standard-dose, egg-based vaccines.
5. Observational studies have shown greater protection against flu or flu-like illness among people who received cell-based vaccines compared to those who received standard-dose egg-based vaccines.

Disadvantages

1. Slightly more reactogenic
2. Cost – about \$40 - \$45 per dose

10. What about a booster dose of vaccine later in the year? Is a booster dose funded under NIP?

There is not enough evidence to routinely support a second dose in the general population at this time, even if the influenza vaccine was given early in the season.

People recommended to receive a second dose of influenza vaccine within a year include:

- Children 9 years of age and younger receiving their influenza vaccine for the first time. Two doses 4 weeks apart are required for an adequate immune response.
- People who have had a haematopoietic stem cell transplant or solid organ transplant and are receiving influenza vaccine for the first time after transplant.

· Pregnant women, who may be vaccinated with the next season's influenza vaccine if it becomes available in the latter part of their pregnancy, even if they were vaccinated with the previous season's vaccine prior to or earlier in pregnancy

11. Should a patient get a booster dose if they are travelling overseas?

If a patient is travelling to the Northern Hemisphere flu season, a clinical decision based on risk versus benefit should be made. This dose is not funded under the NIP.

12. Are there any vaccines that cannot be co-administered with influenza vaccine? (? shingrix)

Generally, flu vaccines can be safely co-administered with other vaccines, however, there is currently no specific data on the co-administration of **Fluzone High-Dose Quadrivalent** with other vaccines. However, people can receive it with other vaccines, including COVID-19 vaccines.

The safety of concomitant administration of the adjuvanted vaccines **Fluad Quad and Shingrix** has not been studied. It is acceptable to co-administer these vaccines on the same day if necessary. However, given the lack of data on co-administration of these adjuvanted vaccines, it is preferable to separate their administration by a few days.

13. Is it true that influenza vaccines can be given to people who have egg anaphylaxis? Any extra precautions?

According to the Australasian Society of Clinical Immunology and Allergy (ASCI), there is no evidence that having egg allergy increases the risk of having an allergic reaction to the currently available influenza vaccines. Therefore, people with an egg allergy can receive an influenza vaccine in a primary care facility, such as a GP clinic. As for all vaccinations, it is recommended that clinic staff are able to recognise and treat suspected anaphylaxis, which includes administration of adrenaline (epinephrine). Observations should occur for 15-20 minutes after vaccination

14. Is there a combined influenza-SARS-CoV-2 vaccine?

(No! not yet ...) This research is currently underway. Stay tuned!!

15. Will Pharmacists be able to give influenza vaccines to infants (e.g. 6 months old)?

Not likely....for some time to come, if at all. Most pharmacy vaccination services globally do not offer vaccination of young children. In 2020, all Pharmacy vaccination services in 50 states in the USA were approved to provide childhood vaccines to children from 3 years of age.

No State or Territory in Australia has authorised Pharmacy to vaccinate children under 5 years of age (COVID) or influenza under 10 years of age (or older in some states)

16. Regarding presenteeism - in addition to asking healthcare workers to change their behaviour, what else can be done to reduce presenteeism?

Have a supportive executive! If the workplace does not support workers to stay home, then workers will come to work sick! A good policy that is shared at staff meetings and upheld by all staff. Managers should create a reassuring environment that there is always a Plan B if someone calls in sick. Reward staff who step up and replace a sick staff member's shift.

17. Exactly how severe does asthma need to be to receive a government funded flu vax?

According to the Australian Immunisation Handbook, severe asthma is where a patient requires multiple medical consults or multiple medications to manage their asthma. This person meets the criteria for a funded flu vaccine. If someone only requires a Ventolin puffer when they exercise, they do not fit the criteria for funded influenza vaccine.

18. If flud quad isn't available should we wait until it is available or just opportunistically give fluvax?

There should be no reason why Flud Quad is unavailable once the government flu vaccines arrive. NCIRS state "For adults aged ≥ 65 years, the higher-immunogenicity adjuvanted quadrivalent influenza vaccine (aQIV; Flud[®]) is preferentially recommended over standard QIVs." Balance the risk. If there is very little flu circulating, you may suggest to the patient to return when it is available. If flu disease is circulating, a standard quadrivalent is acceptable.

19. Do you feel that there is a need for more rapid diagnosis of influenza (and differentiation from COVID-19) in primary care settings?

The TGA have a document discussing Point of Care testing for influenza <https://www.tga.gov.au/sites/default/files/seasonal-influenza-ivd-self-tests.pdf>
Also a [guide from the Immunisation Coalition](#).

The question is if it is cost effective or not, and who would you choose to swab given anywhere from 15 - 50% of people with influenza are asymptomatic?

20. What is the interval between having COVID-19 disease and getting a Flu vaccine?

There is no set interval between having COVID infection and getting a flu vaccine. As soon as the person is well enough, they should have a flu vaccine.

21. Are there strategies to offer flu vac to pregnant women or pending overseas travellers in the months between the expiry date from the previous seasons flu vac and the availability of the new season's flu vac (often Feb and Mar of every year)?

Awareness, education, and discussions with patients is key. Everyone over 6 months should be recommended and encouraged to receive a flu vaccine annually. Whilst it is recommended that all pregnant women should be immunised as early as possible in pregnancy the precise timing of vaccination will depend on the time of year, vaccine availability, influenza seasonality, gestation of pregnancy and the likely duration of immunity. If the woman was pregnant when the previous season's vaccine was available, she should have received it, and if she is still pregnant in the current flu season, she should be vaccinated with the latest formulation.

Providers are unable to access Northern Hemisphere flu vaccines therefore, there is a small window where pregnant women and imminent travellers will not have access to vaccine. Ideally, planning travel requirements is key, however there are instances where travel is required without warning.

Antivirals of course should be considered for individuals with influenza and are most effective when given within 48 hours of symptom onset. The Immunisation Coalition has a [guide to Antivirals](#).

22. What's the recommended minimum interval for getting Zostavax after getting influenza vaccine, or vice versa?

They can be co-administered. If they are not co-administered, there is no interval required between the vaccines.

Flud Quad and Shingrix (recombinant adjuvanted vaccine) are a little different. They can be co-administered, however there is limited data. Providers may choose to separate these 2 vaccines by a few days. Shingrix otherwise could be co-administered with any of the unadjuvanted flu vaccines.