Q&A: COVID-19 & Influenza Immunisation

As COVID-19 restrictions ease and New Zealand's borders re-open in 2022, a resurgence of respiratory viruses likely will follow, and seasonal viruses may not follow typical seasonal patterns. Influenza and COVID-19 co-circulation in the community presents a significant concern due to the risk of co-infection, particularly to those who are at increased risk of severe disease.

Common questions concerning the influenza vaccine in relation to COVID-19 infection are addressed below.

Why is it important to vaccinate for influenza in 2022?

With international travel resuming there is more potential for respiratory viruses to be re-introduced to New Zealand. Due to the limited spread of influenza in 2020 and 2021, New Zealand's residual immunity to influenza is low, and may contribute to an increased susceptibility to viruses this year.

The added concern of co-circulation of influenza and highly transmissible variants of COVID-19 could have severe consequences for vulnerable individuals with compromised immune responses, as well as increasing pressure on New Zealand's health system.

What is co-infection?

Co-infection is the simultaneous infection of multiple pathogens. The overlap of an influenza season and the ongoing COVID-19 pandemic will result in co-circulation of both diseases and poses a risk of individuals acquiring both illnesses at the same time.

Overseas data suggests that COVID-19 and influenza co-infections result in severe disease outcomes, with higher mortality rates in cases with co-infection, compared to those who only tested positive for COVID-19. Age-specific mortality rates were higher among the elderly who tested positive for both COVID-19 and influenza simultaneously. [1,2]

Is the influenza immunisation recommended after a COVID-19 infection?

Yes, once you are no longer acutely unwell due to COVID-19, it is recommended you receive an influenza vaccination. There are no safety concerns with receiving an influenza vaccination post COVID-19 infection.

Can the influenza vaccine be given at the same time as the COVID-19 vaccine?

It depends on the vaccine. The influenza vaccine can be administered at any time before, after or at the same time as the COVID-19 vaccines, except for:

- **FLUAD QUAD and Novavax:** a 3-day interval before or after administering Novavax is recommended when administering the FLUAD QUAD vaccine.

Can receiving an influenza immunisation reduce immunity to COVID-19 or other viruses?

Research shows that there is no increased susceptibility to COVID-19 or any other respiratory illnesses after receiving an influenza immunisation.

A 2020 Canadian study found there was no difference in the chances of contracting COVID-19 between people who had received an influenza immunisation in the most recent influenza season, compared to those who had not been immunised. [3]

It remains crucial to receive an influenza vaccination to reduce the risk of influenza and COVID-19 co-infection.

Is a COVID-19 vaccination and/or booster recommended after a COVID-19 infection?

If you have had a COVID-19 infection, but have yet to receive a COVID-19 vaccination or booster, it is recommended you complete the COVID-19 vaccination course and/or booster **3 months after COVID-19 infection**.

After recovering from COVID-19, how long before it is safe to receive an influenza immunisation?

The influenza vaccination should be deferred until you are no longer feeling acutely unwell. Once you have recovered, you can have the influenza vaccination. There are no safety concerns for receiving an influenza immunisation after a COVID-19 infection.

Can having the COVID-19 disease reduce the effectiveness of an influenza immunisation?

There is no evidence that a COVID-19 infection reduces the effectiveness of an influenza vaccination.

Why should I receive an influenza vaccination if I'm not eligible for a funded vaccine?

Those who are eligible for a funded influenza immunisation are at the highest risk of severe disease. However, everyone in our community is at risk of influenza and severe disease can still occur in healthy people.

It is also important to receive immunisation in order to protect others. If you are immunised, you are less likely to carry and spread influenza to others who are at high risk. Some individuals, particularly the very elderly and those with significant medical problems, do not respond well to the influenza vaccine and are reliant on 'community immunity'.

If a child only has 1 dose of influenza vaccine in their first year, how effective is the first dose?

Effectiveness changes each year depending on the strains in the influenza vaccine and the circulating strains. One dose is much better than no doses at all. The second dose is designed to maximise the response.

For tamariki aged 6 months to under 9 years receiving an influenza vaccine for the first time, two doses are recommended, separated by at least four weeks.

For further influenza information please visit **influenza.org**

References

1. Stowe J, Tessier E, Zhao H, Guy R, Muller-Pebody B, Zambon M, et al. Interactions between SARS-CoV-2 and influenza, and the impact of coinfection on disease severity: a test-negative design. International Journal of Epidemiology. 2021; 50(4):1124-1133.
2. Dadashi M, Khaleghnejad S, Elkhichi P, Goudarzi M, Goudarzi H, Taghavi A, et al. COVID-19 and Influenza Co-infection: A Systematic Review and Meta- Analysis. Frontiers in Medicine. 2021, 8:681469
3. Skowronski DM, Zou M, Clarke Q, Chambers C, Dickinson JA, Sabaiduc S, et al.. Influenza Vaccine Does Not Increase the Risk of Coronavirus or Other Noninfluenza Respiratory Viruses: Retrospective Analysis From Canada, 2010–2011 to 2016–2017. Clinical Infectious Diseases 2020;71(16):2285–8.

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