

IPCRG practice driven answers on COVID-19 and respiratory questions



What should we advise people who have had a non-mRNA vaccine and who would like a different vaccine for their second dose?

What the research says

Early data on mixing second doses suggest that mRNA vaccine following a non-mRNA vaccination approach may be effective and generates a robust antibody response. However, there is no indication whether it is more or less effective than a second dose with the same vaccine (Borobia et al 2021; Hillus et al 2021; Schmidt et al 2021).

The ongoing Com-CoV-2 study (Oxford University) is evaluating a mix and match approach to vaccination

<https://comcovstudy.org.uk/about-com-cov2> with mRNA and non-mRNA vaccines. Early data suggest that individuals receiving a different vaccine for their second dose may experience higher rates of common vaccine-related side effects such as fever (Shaw et al 2021).

Current approaches to second dose vaccine choice varies between countries at the present time, with some countries only permitting the same vaccine to be used for a second dose with other countries determining second dose vaccine based on availability with no choice being given to clinicians or patients in this regard.

What this means for your clinical practice

- Patients should be encouraged to complete their vaccination course regardless of the vaccine offered except if there is a specific reason not to (e.g. contraindication).
- SARS-CoV-2 vaccine programs should be initiated and delivered according to National guidelines, with vaccines used according to their licenses and availability.
- Research is ongoing, however there is no data at present to suggest that having a different vaccine as a second dose is any more or less effective than having the same one.

Useful links and supporting references

Borobia AM, et al. Reactogenicity and immunogenicity of BNT162b2 in subjects having received a first dose of ChAdOx1s: Initial results of a randomised adaptive, phase 2 trial (CombiVacS). Pre-print, not yet peer-reviewed, available at:

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3854768. Accessed October 2021.

Hillus D, et al. Safety, reactogenicity, and immunogenicity of homologous and heterologous prime-boost immunisation with ChAdOx1-nCoV19 and BNT162b2: a prospective cohort study. Pre-print, not yet peer-reviewed, available at:

<https://www.medrxiv.org/content/10.1101/2021.05.19.21257334v2>. Accessed October 2021.

Schmidt T, et al. Immunogenicity and reactogenicity of a heterologous COVID-19 prime-boost vaccination compared with homologous vaccine regimens. Pre-print, not yet peer-reviewed, available at: <https://www.medrxiv.org/content/10.1101/2021.06.13.21258859v1>. Accessed October 2021.

Shaw RH, et al. Heterologous prime-boost COVID-19 vaccination : initial reactogenicity data. Lancet 2021;397:2043–6. Available at: <https://pubmed.ncbi.nlm.nih.gov/33991480/>. Accessed November 2021

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Last reviewed: 24 November 2021

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