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Covid-19: Vaccine brands can be mixed in “extremely rare occasions,” says Public Health England

Elisabeth Mahase

Patients should receive the same type of covid-19 vaccine for their first and second doses, but they could be given different brands if the same vaccine is not available or if there is no record of which vaccine the person received first, Public Health England (PHE) has said.

Mary Ramsay, head of immunisations at PHE, told *The BMJ* that “every effort should be made to give [patients] the same vaccine, but where this is not possible it is better to give a second dose of another vaccine than not at all.”

Covid-19 vaccines are currently being rolled out to priority groups including care home residents and staff, people over 80, and health and care workers. In its *Green Book*,¹ which provides guidance to healthcare professionals, PHE said that it was preferable for patients to get the same vaccine type but that it was “reasonable to offer one dose of the locally available product to complete the schedule.”

It added that this option was “preferred if the individual is likely to be at immediate high risk or is considered unlikely to attend again. In these circumstances, as both the vaccines are based on the spike protein, it is likely the second dose will help to boost the response to the first dose.”

Lack of evidence

Concerns were raised over the mixing of vaccines after a *New York Times* story on the issue, which some said suggested that mixing would be commonplace.² The article also highlighted that, unlike the UK, the US would not allow people to receive two different vaccine brands, owing to a lack of data.³

Although they use different technology, both of the covid-19 vaccines approved in the UK—the Pfizer-BioNTech and Oxford-AstraZeneca vaccines—work to induce an immune response to the SARS-CoV-2 spike protein.

It should be noted that there is no evidence on the interchangeability of the covid-19 vaccines. Studies are currently under way, but no results have yet been released.

The new guidance comes after the UK government announced a major change in the vaccination programme—to prioritise getting as many at-risk people as possible vaccinated with the first dose over ensuring that people get their second dose within the three to four week period suggested by the manufacturers.⁴

- 1 Public Health England. Green Book. Chapter 14a: Covid-19—SARS-CoV-2. Dec 2020. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/948757/Greenbook_chapter_14a_v4.pdf.
- 2 Coronavirus: BMJ urges NYT to correct vaccine “mixing” article. *BBC News* 2021 Jan 3. <https://www.bbc.co.uk/news/uk-55519042>.
- 3 Wu KJ. Britain opens door to mix-and-match vaccinations, worrying experts. *New York Times* 2021 Jan 1. <https://www.nytimes.com/2021/01/01/health/coronavirus-vaccines-britain.html>.
- 4 Mahase E. Covid-19: UK approves Oxford vaccine as cases of new variant surge. *BMJ* 2020;371:m4968. doi: 10.1136/bmj.m4968. pmid: 33380513

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