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Covid-19: Moderna and Novavax vaccines to be tested in mixing vaccines trial

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The Moderna and Novavax covid-19 vaccines will be added to a trial that is investigating the effect of mixing vaccines.

The Com-Cov study launched in February 2021 with participants receiving alternating doses of the Oxford AstraZeneca and Pfizer vaccines. An additional 1050 volunteers will now be recruited onto the trial as six new arms are added. They will be adults over 50 who have received their first vaccination dose as part of the national rollout in the past eight to 12 weeks.

Mixing vaccines is not currently recommended in the UK, however Public Health England has said patients can be given a different vaccine brand for their second dose on extremely rare occasions.¹

The study is led by researchers from the University of Oxford and funded by the Vaccines Taskforce and the Coalition for Epidemic Preparedness Innovations. The team is working across eight sites in the UK to run the study and are looking at adverse reactions and the immune responses to the different vaccine combinations. As a non-inferiority study, researchers will determine whether mixing is worse than non-mixing.

The six new arms are:

- Pfizer vaccine dose, followed by Pfizer vaccine dose, 12 weeks apart
- Pfizer vaccine dose, followed by Moderna vaccine dose, 12 weeks apart
- Pfizer vaccine dose, followed by Novavax vaccine dose, 12 weeks apart
- AstraZeneca vaccine dose, followed by AstraZeneca vaccine dose, 12 weeks apart
- AstraZeneca vaccine dose, followed by Moderna vaccine dose, 12 weeks apart
- AstraZeneca vaccine dose, followed by Novavax vaccine dose, 12 weeks apart

Matthew Snape, chief investigator on the trial and associate professor in paediatrics and vaccinology at the University of Oxford, said, “If we can show that these mixed schedules generate an immune response that is as good as the standard schedules, and without a significant increase in the vaccine reactions, this will potentially allow more people to complete their covid-19 immunisation course more rapidly. This would also create resilience within the system in the event of a shortfall in availability of any of the vaccines in use.”

If the study produces promising results, the UK’s Medicines and Healthcare Products Regulatory Agency and Joint Committee on Vaccination and Immunisation would formally assess the safety and efficacy of any new regimen before it is rolled out to patients.

The original study combinations are:

- AstraZeneca vaccine dose followed by AstraZeneca vaccine dose, 4 weeks apart
- AstraZeneca vaccine dose followed by Pfizer vaccine dose, 4 weeks apart
- Pfizer vaccine dose followed by Pfizer vaccine dose, 4 weeks apart
- Pfizer vaccine dose followed by AstraZeneca vaccine dose, 4 weeks apart
- AstraZeneca vaccine dose followed by AstraZeneca vaccine dose, 12 weeks apart
- AstraZeneca vaccine dose followed by Pfizer vaccine dose, 12 weeks apart
- Pfizer vaccine dose followed by Pfizer vaccine dose, 12 weeks apart
- Pfizer vaccine dose followed by AstraZeneca vaccine dose, 12 weeks apart

¹ Mahase E. Covid-19: Vaccine brands can be mixed in “extremely rare occasions,” says Public Health England. *BMJ* 2021;372:n12. doi: 10.1136/bmj.n12 pmid: 33397685

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