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Covid-19: Focus should be on new vaccines rather than boosters, says WHO

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Giving repeated booster doses of existing covid-19 vaccines in developed countries is not a sustainable global strategy for tackling the pandemic, the World Health Organization has said.

Instead, WHO argues that the focus should shift towards producing new vaccines that work better against transmission of emerging variants.

In a statement¹ published on 11 January, the WHO Technical Advisory Group on Covid-19 Vaccine Composition said, “A vaccination strategy based on repeated booster doses of the original vaccine composition is unlikely to be appropriate or sustainable.”

The expert group, which is assessing the performance of covid-19 vaccines, said that to deal with emerging variants such as omicron, new vaccines needed to be developed that not only protect people against serious illness but against infection. “Covid-19 vaccines that have high impact on prevention of infection and transmission, in addition to the prevention of severe disease and death, are needed and should be developed,” the group said.

Vaccines also need to be more effective at protection against infection, “thus lowering community transmission and the need for stringent and broad reaching public health and social measures,” the group said.

New vaccines should “elicit immune responses that are broad, strong, and long lasting in order to reduce the need for successive booster doses,” it added.

Until the time that such vaccines are available, and as the virus evolves, the group suggested that the composition of current covid vaccines “may need to be updated.”

WHO has previously expressed opposition to rolling out blanket booster programmes in developed countries given that many people in poorer nations are still waiting for a first dose, arguing that this increases the chance of new variants emerging.

“In practical terms, while some countries may recommend booster doses of vaccine, the immediate priority for the world is accelerating access to the primary vaccination, particularly for groups at greater risk of developing severe disease,” the expert group said.

Saul Faust, professor of paediatric immunology and infectious diseases within medicine at the University of Southampton and chief investigator of the Cov-Boost trial, which has been investigating the impact of booster doses, backed WHO’s latest statement.

“I agree with the WHO statement,” he said. “We should be concentrating resources on immunising the huge numbers of people worldwide who have not yet had their first two doses, using third or booster doses to protect the most vulnerable populations, and developing pan-variant vaccines for vaccine escape—vaccines that will tackle future variants that cause hospital admissions and death.”

Faust, who is also chief investigator (on behalf of University Hospital Southampton NHS Foundation Trust) for the University of Cambridge DIOSynVax phase I trial of a pan-Sarbeco coronavirus vaccine, questioned the approach being taken in Israel to start offering fourth doses to the wider population. “None of us really understand the scientific basis,” he said. “It makes little sense.”

He added, “There is a general feeling among vaccine experts globally that we should wait, especially in the context of such a rapidly evolving omicron wave.

“Firstly, it’s impossible to immunise the entire at-risk global population every three to four months, and we can’t predict what the future dominant variant or variants might be.

“Secondly, it is likely that immunological memory and protection against hospital admission and death is going to be maintained after a third dose.”

1 WHO. Interim statement on covid-19 vaccines in the context. 11 January 2022. www.who.int/news/item/11-01-2022-interim-statement-on-covid-19-vaccines-in-the-context-of-the-circulation-of-the-omicron-sars-cov-2-variant-from-the-who-technical-advisory-group-on-covid-19-vaccine-composition.

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