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Preliminary data indicate COVID-19 vaccines remain effective against severe disease and hospitalisation caused by the Omicron variant

EMA continues to monitor emerging data on the effectiveness of vaccines against COVID-19, including disease caused by the Omicron variant which is now spreading rapidly across the EU.

Although Omicron appears to be more infectious than other variants, studies from South Africa, UK and some EU countries show a lower risk of being hospitalised after infection with Omicron; based on these studies, the risk is currently estimated to be between a third and half of the risk with the Delta variant.

Results from recently published studies show that vaccine effectiveness against symptomatic disease is lower for Omicron than for other variants and tends to wane over time. As a result, more vaccinated people are likely to develop breakthrough disease due to Omicron.

However, these studies also show that vaccination continues to provide a high level of protection against severe disease and hospitalisation linked to the Omicron variant. The latest evidence, which includes real-world effectiveness data, also suggests that people who have had a booster dose are better protected than those who have only received their primary course. Data from South Africa indicate that people who have received two doses of a COVID-19 vaccine have up to 70% protection for hospitalisation; similar data from the UK shows that while protection declines a few months after vaccination, protection from hospitalisation rises again to 90% after a booster shot.

EMA will continue to review data on vaccine effectiveness and severity of the disease, as well as the evolving landscape in terms of circulating variants and natural exposure to Omicron, as they become available. The outcome of these assessments may impact future vaccination strategies recommended by experts in EU/EEA Member States.

EMA emphasises that vaccination remains an essential part of the approach to fighting the ongoing pandemic. In line with recommendations by national authorities, efforts should continue to increase full vaccination uptake in individuals who are currently unvaccinated or partially vaccinated and to accelerate the roll-out of booster doses.

² UK Health Security Agency. SARS-CoV-2 variants of concern and variants under investigation in England. Technical briefing: Update on hospitalisation and vaccine effectiveness for Omicron VOC-21NOV-01 (B.1.1.529). December 31, 2021.



¹ E Collie S, Moultrie H, Bekker L, Gray G. Effectiveness of BNT162b2 Vaccine against Omicron Variant in South Africa. N Engl J Med 2021. December 29, 2021.