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Omicron sub-lineage BA.2 may have “substantial growth advantage,” UKHSA reports

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More than 1000 cases of BA.2—a sub-lineage of the SARS-CoV-2 variant omicron—have been identified in England, the UK Health Security Agency (UKHSA) has reported.¹

The agency warned that BA.2 has an “increased growth rate” compared with the original omicron variant (BA.1) in all regions of England where there were enough cases to assess. The agency added that while growth rates can be overestimated in early analyses, “the apparent growth advantage is currently substantial.”

Contact tracing data found that people infected with BA.2 were more likely to infect household contacts, with 13.4% (64 of 476) of BA.2 household contacts testing positive, compared with 10.3% (10 444 of 101 773) of BA.1 contacts (27 December 2021 to 11 January 2022.)

The agency also noted that preliminary investigations found no evidence of decreased vaccine effectiveness against symptomatic disease for BA.2 compared with BA.1. At least 25 weeks after two doses, vaccine effectiveness against symptomatic infection was reported as 9% and 13% respectively for BA.1 and BA.2, which increased to 63% for BA.1 and 70% for BA.2 at two weeks following a third booster dose. Meanwhile, the UKHSA has said there is currently no data on the severity of BA.2.

Susan Hopkins, UKHSA chief medical adviser, said, “We now know that BA.2 has an increased growth rate which can be seen in all regions in England. We have also learnt that BA.2 has a slightly higher secondary attack rate than BA.1 in households. Although hospital admissions and deaths remain low, cases are still high in some areas and some age groups so it’s important that we continue to act cautiously as restrictions are lifted.”

Commenting on the report, John Edmunds, professor at the Centre for the Mathematical Modelling of Infectious Diseases at the London School of Hygiene and Tropical Medicine, said, “BA.2 appears to be even more transmissible than the original omicron strain (BA.1). It is starting to increase in relative frequency and we might expect it to become dominant in the UK in the next few weeks, as it has done in Denmark recently.

“It is difficult to say what the implications of this will be. It may well extend this wave of infection, or even lead to another peak. The good news is that at present there is no evidence to suggest that it is more severe than omicron and, as the UKHSA analysis shows, the vaccines appear to be as effective against it as they are against BA.1.”

Hospital admissions

Looking at the latest hospital data, the agency has reported that, where variant information was available, most intensive care unit admissions from 24 November 2021 to 19 January 2022 were delta infections. However, admissions with omicron increased from 9% (week commencing 15 December 2021) to 50% in the week commencing 12 January 2022.

The agency also reported that despite a rapid increase in infections in care home in December 2021, there has not been an associated increase in hospital admissions. “Our findings suggest the current wave of omicron infections is unlikely to lead to a major surge in severe disease in care home populations with high levels of vaccine coverage or natural immunity. There were limited numbers of BA.2 in this study and no inferences can be made regarding BA.2,” the report said.

¹ SARS-CoV-2 variants of concern and variants under investigation in England. Technical briefing 35. 28 January 2022. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1050999/Technical-Briefing-35-28January2022.pdf.