Covid-19: Symptomatic infection with omicron variant is milder and shorter than with delta, study reports

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Vaccinated people infected with the omicron variant of SARS-CoV-2 had symptoms for 6.87 days on average, compared with 8.89 days with the delta variant, data from the ZOE app have shown. Among those who had received two vaccine doses plus a booster the duration of symptoms was shorter still, at 4.4 days with omicron and 7.7 days with delta.

The shorter presentations of symptoms suggest a shorter period of infectiousness with omicron, which could affect workplace health policies and public health guidance, said the study authors from King’s College, London. However, this will need to be confirmed by viral load studies.

The large community cohort study, published in the Lancet, also found that patients infected with the omicron variant reported a loss of smell less frequently and were more likely to have a sore throat and a hoarse voice than those infected with the delta variant.

The UK’s official list of covid-19 symptoms has now been expanded to include sore throat, fatigue, headache, and six other symptoms. The team behind the ZOE app and others had been lobbying for some time to get the original list of three symptoms updated.

For the latest study, researchers identified 63,002 people who had self-reported test results and symptoms using the ZOE covid app. They were aged 16 to 99, were based in the UK with a body mass index of 15 to 55, had received at least two doses of any SARS-CoV-2 vaccine, were symptomatic, and had logged a positive PCR or lateral flow test for SARS-CoV-2. A matched sample of 4,999 participants who were infected during a period when delta was prevalent (1 June 2021 to 27 November 2021) was then compared with 4,999 participants infected when omicron was dominant in the UK (20 December 2021 to 17 January 2022).

Study findings

Loss of smell was less common in people infected during the omicron wave than during the delta wave (16.7% v 52.7%; odds ratio 0.17 (95% confidence interval 0.16 to 0.19); P<0.001). Sore throat was more common during omicron prevalence than delta prevalence (70.5% v 60.8%; 1.15 (1.30 to 1.69); P<0.001).

Patients infected with the omicron variant were also found to be 24% more likely to develop a hoarse voice than those with delta. And those infected during the omicron wave were around half as likely to display at least one of the three “classic” covid-19 symptoms (fever, loss of smell, and persistent cough) than people infected with delta.

The study also found that patients infected during the omicron wave were 25% less likely to be admitted to hospital (1.9%) than patients infected during the period of high delta prevalence (2.6%). Patients infected during the omicron wave were also 2.5 times more likely to recover within one week than patients with delta.

The research confirms earlier studies from South Africa and South Korea, which suggested that infection with the omicron variant was notably less severe than with the previous dominant variants.

Tim Spector, one of the study authors, told The BMJ, “The UK has now updated its list of symptoms but has not issued any proper guidance on how this should be used or observed. Also, the order in which they are presented is still misleading, as it suggests the classical symptoms are still the most important, when in fact they are the minority of symptoms and often only appear after several days of infection.”

He added that the shorter duration of symptoms with omicron versus delta confirmed that five days was about the right length of time for people to isolate if they have symptoms.

Easy-to-use apps

One limitation of the study is that the researchers were unable to compare symptoms, risk of hospital admission, or duration of infection by the two variants in unvaccinated people, as most participants were vaccinated. Also, hospital admission was not ascertained from surveillance systems but was self-reported. Additionally, infection with omicron and delta was assigned on the basis of prevalence in the UK population at the time and not on individual sequencing from these participants.

In an accompanying commentary Linda Houhamdi and Pierre-Edouard Fournier, of the University of Aix-Marseille Université and Assistance Publique-Hôpitaux de Marseille in France, wrote that large scale tracking apps such as ZOE were very useful monitoring tools.

They said, “The severity of this disease and the unprecedented ability of SARS-CoV-2 to modify its genome and spread in successive waves highlights the usefulness of easy-to-use mobile apps such as ZOE to rapidly assess the characteristics of a new variant and implement optimised management measures.”

1 Menn C, Valdes A, Antonelli M, et al. Symptom prevalence, duration, and risk of hospital admission in individuals infected with SARS-CoV-2 during periods of omicron and delta variant dominance: a prospective observational study from the ZOE COVID Study. Lancet 2022 (published online 7 Apr). doi: https://doi.org/10.1016/S0140-6736(22)00327-0

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