

## In brief

### Omicron – symptoms and hospitalised patients

21 January 2022

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#### Summary

- There is currently no information to suggest that Omicron symptoms are different from other SARS-CoV-2 variants, with the most reported symptoms for Omicron being a runny nose, headache, fatigue, sneezing and a sore throat.
- There is evidence of higher proportions of asymptomatic infections in Omicron cases compared to other SARS-CoV-2 variants.
- Reports suggest Omicron is less severe compared to Delta with reduced rates of hospital admission, intensive care unit admission and mortality.
- Early animal and human studies suggest that Omicron replicates faster in human airways however has reduced levels of multiplication and concentration deep in the lung.
- In studies from South Africa, the United States and the United Kingdom, patients hospitalised with Omicron were more likely to be younger, female, have fewer comorbidities, less likely to have an acute respiratory condition, have vaccine breakthrough infections and “white ethnicity”, compared to previous variants.

#### Symptoms

- Generally, [symptoms of COVID-19](#) range from mild to severe and may include fever, coughing, sore throat and shortness of breath. Other symptoms include runny nose or congestion, headache or fatigue, muscle or joint pains, nausea or loss of appetite, diarrhoea or vomiting and temporary loss of smell or altered sense of taste.<sup>1</sup>
- In late November 2021, the [World Health Organization](#) stated that there is currently no information to suggest that Omicron symptoms are different from other SARS-CoV-2 variants.<sup>2</sup>
- Early in the pandemic the wild type and Alpha strains of SARS-CoV-2 had symptoms such as cough, fever and loss of smell as the most reported. When Delta emerged, cold-like symptoms became more common. Omicron appears to cause [symptoms like Delta](#). Data from the [ZOE COVID study app](#) shows that there was no significant difference in the symptoms profile between Delta and Omicron, with the [five most common symptoms](#) being a runny nose, headache, fatigue, sneezing and a sore throat.<sup>3-5</sup>
- [Sore throat](#) was reported more often by Omicron cases compared to Delta cases.<sup>6</sup>
- [Loss of smell and taste](#) has become much less common. In early 2021 it was in the top 10 symptoms, and now ranks at 17, with only 1 in 5 people experiencing it.<sup>4</sup> [NHS data](#) also report that loss of smell or taste was reported less often by Omicron cases compared to Delta cases.<sup>6</sup>
- Omicron was associated with [fewer lower and more upper respiratory tract symptoms](#) compared with previous waves.<sup>7</sup>
- In a study of the first investigated [Omicron cases in the United States](#), the most reported symptoms were cough, fatigue, and congestion or runny nose<sup>8</sup>

- In an outbreak of 81 [Omicron cases in Norway](#), the most common symptoms were cough, runny or stuffy nose, fatigue or lethargy, sore throat, headache and fever.<sup>9</sup>
- There is evidence of [higher proportions of asymptomatic infections](#) in Omicron cases compared to other SARS-CoV-2 variants, which may further contribute to transmission. A [study in South Africa](#) reported a higher proportion (16%) of routinely screened asymptomatic individuals when Omicron was the dominant variant, compared to 2.6% when Beta and Delta variants were dominant.<sup>10, 11</sup>

### Patients hospitalised and in the intensive care unit

- Reports suggest Omicron is less severe compared to Delta, and the risk of hospitalisation is lower.<sup>6, 12</sup>
- A preprint study found that compared to Delta, patients infected with Omicron variant had substantially reduced rates of hospital admission, intensive care unit admission and mortality after an outpatient positive test.<sup>13</sup>
- Preliminary data from South Africa, England, Scotland and Denmark show that people with Omicron are less likely to require hospitalisation compared with Delta, ranging from 40-45%, up to 80% less likely.<sup>14-17</sup>
- Evidence from animal studies suggest that compared to other variants of concern, Omicron has reduced levels of multiplication and concentration deep in the lung.<sup>18</sup>
- A study (pre peer review) from Hong Kong found Omicron replicates 70 times faster in human airways, but infection in the lungs appears less severe.<sup>19</sup>

### Studies reporting on the characteristics of hospitalised patients

- A study in South Africa found hospitalised patients with [Omicron \(wave 4\)](#) were younger (median age, 36 years versus maximum 59 years in wave 3) with a higher proportion of females. Significantly fewer patients with comorbidities were admitted in wave 4, and the proportion presenting with an acute respiratory condition was lower (31.6% in wave 4 versus maximum 91.2% in wave 3).<sup>20</sup>
- Another study from South Africa finding the [mean age was significantly lower](#) (39 versus 49.8 years) compared to previous waves. Most were in the 30-39 age group, and the proportion of admissions in 0-9-year-olds doubled.<sup>21</sup>
- A preprint study from [Houston, United States](#) found that compared to patients infected with Delta variant, patients infected with Omicron were significantly:
  - younger (median age 38.9 versus 48.2)
  - more likely to get vaccine breakthrough infections (49.9% versus 24.1%)
  - less likely to be admitted to a hospital (15.5% versus 43.0%).

Omicron patients also had significantly less likelihood of requiring mechanical ventilation (4.5% versus 10.7%), non-invasive ventilation (6.7% versus 9.5%), high flow oxygen (9.0% versus 26.4%) or low flow oxygen (31.3 versus 33.8).

They also had a significantly shorter length of hospital stay (median duration 2.8 versus 5.4).<sup>22</sup>

- In England, the [UK Health Security Agency](#) shows 60.9% of people hospitalised were aged 40 years or more and 50% of hospitalisations occurred in people whose ethnicity was White.<sup>23</sup>

To inform this brief, the PubMed and Google searches were conducted using terms related to Omicron and symptoms on 14 January 2022.

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