Sublineages of SARS-CoV-2 VOC Omicron

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On 26 November 2021, the World Health Organization (WHO) designated the SARS-CoV-2 virus lineage B.1.1.529 as a variant of public health concern (VOC), and assigned the name according to the Greek alphabet as Omicron.

The VOC Omicron is characterized by having a high number of mutations, particularly concentrated in the spike protein gene (Spike, S), and has demonstrated a transmission capacity of up to 3 times greater than the VOC Delta, which until now had been characterized as the most transmissible of the VOCs. In addition, due to the accumulation of these changes reflected in its protein structure, VOC Omicron can evade both natural and vaccine-mediated immune response, leading to a significant increase in the number of cases even in populations with high vaccination rates.

However, despite its high transmission capacity, there is growing evidence that VOC Omicron does not result in a more severe clinical presentation, and that the risk of hospitalization and death decreases dramatically in individuals who have received the complete vaccination schedule.

Currently, 4 different sublineages have been described for VOC Omicron: BA.1, BA.1.1, BA.2, and BA.3.

Globally, BA.1 is the predominant sublineage. Furthermore, among SARS-CoV-2 samples sequenced between 31 December 2021 and 28 January 2022 in the Region of the Americas, the BA.1 and BA1.1 sublineages have been identified in 95% of samples from North America and in 87% of samples from South America and the Caribbean.

The BA.2 sublineage has been identified mainly in Africa, where it has been detected in 13% of sequenced SARS-CoV-2 samples, and in Europe, where it has accounted for less than 7% of sequences, mostly in Denmark.

In the Americas, BA.2 has so far been detected in less than 0.1% of samples reported to the global database, GISAID.

It is important to mention that the WHO Technical Advisory Group on SARS-CoV-2 Virus Evolution (TAG-EV) has been closely following the behavior of the VOC Omicron sublineages, and so far, **no evidence of any change has been found in terms of transmissibility, clinical presentation, severity, or evasion of the immune response for these sublineages,** beyond those already described for the VOC Omicron.

PAHO Note: The introduction and spread of the various sublineages of VOC Omicron is an expected event; nevertheless, it is necessary to consider that it is the same variant and there is currently no cause for additional concern, nor for a change in the application of the public health control measures that have already been implemented, including vaccination, physical distancing, and others.

This note is shared in order to keep Member States informed.