

# Omicron, SARS CoV2 Variant

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The whole world is grappling under the fear of Covid 19 since it has been reported in 2019. Numerous variants of *Severe Acute Respiratory Syndrome Coronavirus 2* (SARS CoV-2) include Alpha (B.1.1.7 & Q lineages); Beta (B.1.351 & descendent lineages); Gamma (P.1 & descendent lineages); Epsilon (B.1.427 & B1.429); Eta (B.1.525); Iota (B.1.526); Kappa (B.1.617.1); 1.617.3; Mu (B.1.621, B.1.621.1); Zeta (P.2) and Delta (B.1.617.2 & AY lineages) has been documented globally throughout this pandemic. The rapid emergence of these new variants challenges authorized medical counter measures. These mutations effect the transmission, diagnosis, therapeutics and severity of the disease.<sup>1,2</sup>

Till date 295620857 cases and 5474599 deaths have been reported during this pandemic throughout the world.<sup>3</sup>

A new variant of SARS – CoV-2, Omicron (B.1.1529 & BA lineages) and classified as “Variant of Concern (VoC)” is spreading at a rapid pace since detected and reported in the last month of year 2021. The unprecedented surge of *Coronavirus* cases has again set up the alarming bells worldwide. Different views of scientist have emerged regarding this variant. Various studies done on experimental animals like mice and hamsters by Japanese and American Scientist, found this variant to be milder than its earlier version of delta. The findings suggested that the infection was limited largely to the upper airways, the nose, throat and windpipe and produced less damage to the lungs, less weight loss and person was less likely to die.

The concerns raised with Omicron are that if it has more infectivity, more severity of infection or if it can escape the vaccine induced immune response. Studies have shown that there are more than 30 mutations and deletions in Omicron, many of these are same as were seen with other VoC like alpha, beta, gamma or delta. Increased transmission rate and immune escape are

known to be linked with these deletions and mutations.<sup>4,5</sup> Though data pertaining to vaccine efficacy against Omicron is yet not available. So far laboratory diagnosis is concerned, Omicron does not escape the already existing RTPCR tests detecting at least two genes of the virus.

Already new *Coronavirus* variant ‘IHU’, the B.1.640.2 has been identified in France. Researchers said it contains 46 mutations, even more than Omicron, how this new variants will behave as far as infection and protection from vaccines is concerned only time will tell. As a result of outbreak of new variants, more stringent public health actions are required to curb the spread of these variants. The actions needed are notification to the local health authorities, reporting to WHO and CDC. There is need for extensive surveillance to study the sequence of newer variants, better and more accurate laboratory testing facilities, large scale sensitization of general public regarding the importance and effectiveness of vaccines. The behavior of the common people play a significant role in containing the virus, still few are of the opinion that they don't require vaccination but they must understand that unvaccinated are at greater risk and vaccines are safe, effective and our best defense. With the advent of newer and technically more accurate diagnostic modalities, early characterization of the variants in local population will be possible and it will greatly impact the control measures and early treatment. This is for sure that we are not to let our guard down in fight against this deadly disease. Social distancing, wearing masks, maintaining high level of hand hygiene and vaccination plays the golden role to stop the transmission of this rapidly mutating RNA virus.

## 1. Reference

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