

INSACOG WEEKLY BULLETIN

No 4 | July 19th, 2021

A summary of the cumulative data of INSACOG and other state sequencing initiatives can now be found at the INSACOG data portal link (<http://clingen.igib.res.in/covid19genomes/>) along with other INSACOG information at <https://dbtindia.gov.in/insacog>

Delta continues to be the dominant lineage for new cases across all parts of India in recent samples and remains the most rapidly rising lineage globally that is responsible for multiple outbreaks, including across Southeast Asia which shows the fastest growth in new cases globally. Regions with high vaccination and strong public health measures, such as Singapore, continue to do well. A study by ICMR confirms that majority of the clinical cases in vaccine breakthrough were infected with the Delta variant, but only 9.8% cases required hospitalization while fatality was found to be restricted to 0.4% (1). Data for higher infectivity of Delta continues to grow with secondary attack rate in household contacts being almost double for Delta, when compared to Alpha (Public Health England, 9th July update).

Other VOC continue to be very low in India and are declining relative to Delta globally. No cases of Lambda variant have been reported so far in India. In data from UK, Lambda is still seen primarily in travellers or their contacts and is not growing relative to Delta. A growing spectrum of mutations is seen in the Delta background in UK, US and India. The most frequent spike protein mutations, other than K417N (AY.1/AY.2), seen in UK are G446V and P251L. In India, A222V and K77T have been reported as possible markers of sub-lineages (1). Previous research into A222V for either transmissibility or immune escape was negative (2). K77T has previously been reported in a cluster of Delta that spread to Asiatic lions in a zoo, and seen in sequences from Tamil Nadu, but has no known impact on transmission or immune escape in humans (3). While these mutations will be tracked and investigated, there is currently no evidence of any new Delta sub-lineage that is of greater concern than Delta. Clusters of cases containing new mutations of known clinical significance will continue to be specifically looked for.

In summary, Delta variant and its sub-lineages are the major VOC in India at this time. Continuing outbreaks across India are attributable to Delta, a susceptible population, and opportunities for transmission. Public health measures to reduce transmission and vaccination remain critical.

- 1) <https://www.medrxiv.org/content/10.1101/2021.07.13.21260273v1>
- 2) Harvey et al, Nature Reviews Microbiology 2021, 19:409–424
- 3) <https://www.biorxiv.org/content/10.1101/2021.07.02.450663v1>