



# XE VARIANT OF OMICRON – NEW COVID 19 TRANSMISSIBLE MUTANTS

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## ABSTRACT:

XE variant transmissibility: Several reports have surfaced describing the introduction of a new Covid mutant known as **Covid 19 Variant XE** or recombinant variety. According to preliminary findings, it may be more transmissible than BA.2. However, the Tata Institute for Genetics and Society has attempted to assuage anxieties about the new variety, stating that there is no reason to be alarmed but rather do thorough research. XE, a sub-variant of **Omicron**, which caused the third wave of **Covid-19** this winter, had not been found in India until now. The announcement about its discovery sparked concern about the possibility of a fresh wave of infections in India, where Covid-19 cases are in continuous decline, and are now at their lowest level in more than two years. Almost immediately, however, Union Health Ministry sources in New Delhi clarified that the identification of the XE variant in that particular patient was yet to be confirmed. In fact, a preliminary analysis had suggested that the virus detected in the patient was not the XE variant. A confirmation one way or the other was expected in a day or two. As of now, there is no evidence to show that the XE variant is significantly different from the other varieties of Omicron. What has been noticed is that XE could be about 10 per cent more transmissible than the dominant BA.2 variant. But that is a very small advantage that XE has, and even this has not been confirmed as of now. The fact that there has been no significant increase in the incidence of the XE variant since its detection three months ago shows that it might not be a big worry at present.

## KEYWORDS:

XE variant, origin, severity, COVID 19 period, Prevention from XE variant

## INTRODUCTION:<sup>1</sup>

Right when world through it was enough of Covid and its time to move on, the deadly Virus, may have something else in store for human.

### PRE – COVID TIMES:

A new mutation has emerged which has potential of spreading faster than any of variants seen so far, world is again at risk of all progress made towards re-establishing normal coming undone. As per WHO, a covid variant of mutation called XE has been found in UK.

It is could be more transmissible than any other covid strain so far known. In UK which has reached record level, with about 1 in 13 people estimated to be infected with virus in past week (i.e. March

2022). The recombinant variant appears to be as per WHO, 10% more transmissible than BA.2 sub variant of Omicron. “However this finding requires further confirmation” says WHO.

A UK Health security agency (UKHSA) study recently revealed that currently as many as 3 hybrid COVID variant are circulating. The WHO on April 1 issued a report on its finding, about XE. “The XE recombinant was 1<sup>st</sup> detected in United Kingdom on 19<sup>th</sup> January and >600 sequences have been reported and confirmed since,” WHO research shows. Earlier UN health agency had issued warnings against Omicron, Delta recombinant virus; saying with both Omicron and Delta circulating in massive scale this was highly expected.

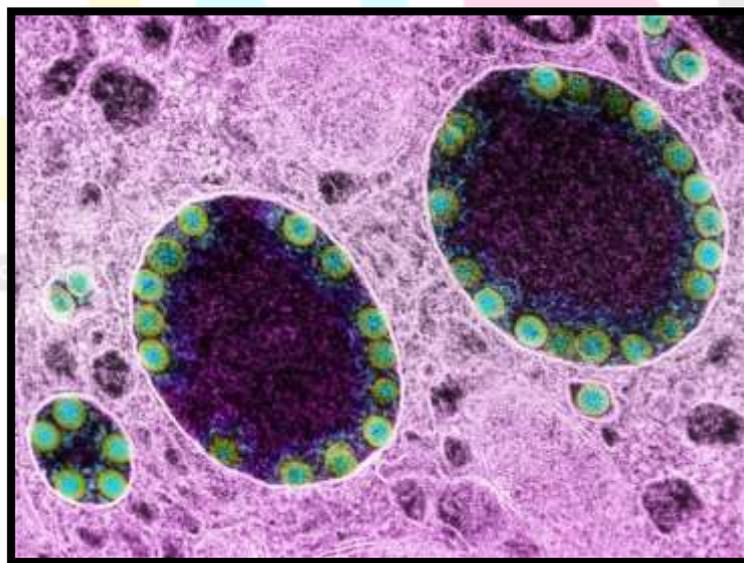
A part from two nations, China is reporting a surge in Covid cases, in March alone, country saw 1.04 lakh Covid cases, a majority of them were found to be Shanghai and Jilin regions. On April 2022, India reported 1,260 fresh Covid-19 cases of XE variant of Omicron taking total number of corona virus infections to 4, 30, 27,035. India also recorded 83 Covid related deaths in last 24 hours according to Health Ministry.

Third wave of pandemic triggered by omicron between December 2021 and February 2022 saw many more cases, but much less severity in cases that were reported. Massive decline in severity health authorities and Government all over world have been slowly resuming international travel and removing stringent Covid-19 protocols. In India total of five States and UTs, including Delhi, Haryana, Maharashtra, Telangana and West Bengal have removed the mask mandate in public places, indicating a slow but sure move toward.

#### TYPES OFOMICRON VARIANT:-<sup>2</sup>

- XD refers to hybrid of Delta x BA .1 lineage of Omicron. It has mostly been found in France, Denmark and Belgium, as per reports. According to virologist Tom Peacock from Imperial College London, XD’s spread to more than one country and its inclusion of more severe Delta make it a strain to watch out for.
- XE is hybrid of BA.1 x BA.2 sub-variants of Omicron. It has been found in Britain and shown evidence of community transmission.
- XF is another hybrid of Delta x BA.1 lineage of omicron. It was found in Britain but has not been detected since February 15.

#### STRUCTURE:<sup>3</sup>



**Fig. New Mutant “XE” Omicron Variant**

**SYMPTOMS:** <sup>4</sup>

Symptoms can include:-

- Fever
- Sore throat
- Scratchy throat
- Cough and cold
- Skin irritation and discoloration
- Gastrointestinal distress
- Dry cough

**DIAGNOSIS:** <sup>5</sup>

The Union Health Minister of India declared that the Omicron doesn't escape the RT PCR (reverse transcription-polymerase chain reaction) and Rapid Antigen Test (RAT). Majority of the ICMR approved RT-PCR test kits being used in India focus on the E, Rd Rp and N genes. Detect the infection using kit with high specification of 3 Gene. RT-Direct RT-PCR kit with extraction free protocol having 3 gene specific to SARS-COV2 and give result in just 40 minutes.

**PRECAUTION:** <sup>5</sup>

Avoiding crowded spaces, keeping your distance from others and wearing a mask.

**DRUGS TREATMENT:** <sup>6 & 7</sup>

1. Molnupiravir

2. Vaccine used in COVID 19: L-Histidine, L-Histidine hydrochloride monohydrate, Magnesium chloride hexahydrate, Polysorbate 80, Ethanol, Sucrose, Sodium chloride, Disodium edetate dihydrate (EDTA), Water for injection.

**Direction:** <sup>8</sup>

It is not advised for pregnant women and younger children.

**CONCLUSION:**

XE variant is the most transmissible variant of omicron. XE variant transmissibility: Several reports have surfaced describing the introduction of a new Covid mutant known as **Covid 19 Variant XE** or recombinant variety. According to preliminary findings, it may be more transmissible than BA.2. In the future winter of 2022, it may be cause of third wave of COVID 19.

**ABBREVIATIONS:**

- WHO: World Health Organization
- UK: United Kingdom
- UN: United Nations
- COVID: Coronavirus disease of 2019
- UKHSA: United Kingdom Health Security Agency

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