

Delta Variant of Covid-19 and Efficacy of Vaccine - an editorial

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The delta variant, also known as B. 1.617, was first detected in India last year, where it has been ravaging the nation and has since spread to several countries, upending plans for a return to normalcy.¹

Delta has several lineages with slightly different sets of mutations. One of these is B.1.617.2 which is now the dominant coronavirus variant. This Delta variant (B.1.617.2) is an alarming one worrying everybody around the world. The Delta variant (B.1.617.2) was first identified in India in the beginning of the second quarter of this year. The World Health Organization says the Delta variant (B.1.617.2) has spread to at least 85 countries since it was first identified in India.²

Delta variant (B.1.617.2) is now the dominant coronavirus variant in the world and accounts for the vast majority of all covid-19 cases.

The delta variant has become a great concern because it is about 50 percent more contagious than the alpha variant which is about 50 percent more transmissible than the original variant of the coronavirus first identified in Wuhan, China, in December 2019. The delta variant is also more contagious than the beta variant.

The risk of hospitalization with covid-19 from the delta variant is about twice the risk from the alpha variant- with unvaccinated people at the greatest risk; the young and middle-aged covid-19 patients from the delta variant become admitted into hospital, but that may be because they are less likely to be vaccinated.

Vaccinated person and previously infected person may be infected with delta variant, but illness appears to be less severe.

Although the delta is more transmissible, but there is not yet conclusive evidence that delta causes more severe disease.

As younger and middle-aged people become infected with the delta variant; it is now time to reconsider the vaccination schedule, especially to include young people and children.

A new study in the UK, by researchers at Imperial College London, The Francis Crick Institute and the University of Glasgow, explores the loss of coronavirus vaccine efficacy against the virus behind the current pandemic caused by the emergence of newer variants that have undergone mutational escape. The paper shows that the delta variants, in particular, is associated with lower neutralizing efficacy compared to the alpha variant or the original Wuhan strain.³

In the PHE study, vaccine efficacy was compared between B.1.617.2 and the preceding B.1.1.7 variant by vaccination status. Effectiveness was found to be lower after one dose of vaccine with B.1.617.2 (33.5%) compared to B.1.1.7 (51.1%), with similar results for both Moderna and Pfizer/Biontech vaccines. After two doses of BNT162b2 Pfizer/Biontech vaccine, effectiveness reduced from 93.4% with B.1.1.7 to 87.9% with B.1.617.2. Following two doses of ChAdOx1 Astrazeneca-Oxford vaccine, effectiveness reduced from 66.1% with B.1.1.7 to 59.8% with B.1.617.2.^{4,5} Although vaccine efficacy is lower in delta variant than others, vaccination is the main

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tool to fight against delta variant, in addition to wearing mask, maintaining physical distance and avoiding social gathering.

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