

**EXPERT COLUMN****Covid-19 in Children: Global Perspective and Impact of Vaccination****Dr Satish Ranjan**

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The emergence of novel Coronavirus-Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) was reported in December 2019 from Wuhan, China. The disease caused by this virus has been classified as Covid-19 by the World Health Organization (WHO). SARS-CoV-2 rapidly spread worldwide and caused Covid-19 in a vast number of people, and by March 2020, WHO had declared it a pandemic. As compared to adults, the overwhelming evidence from the real-world data demonstrates that children and adolescents usually have mild disease courses, along with low disease-associated morbidity and mortality.

SARS-CoV-2 has infected children of all age groups from across the world. Children in the age groups of 5-11 are also getting infected in large numbers and transmitting the virus. This was evident from the large-scale spread of infection among primary school students in many schools across countries around the globe. Germany has, for instance, experienced widespread infection among school-going children in all age groups.

But Germany has an exceptionally lower fatality rate among adults and children. During the current wave, which the Delta variant has primarily driven in Germany, the overall hospitalization rate associated with SARS-CoV-2 infection was 35.9 per 10,000 children, ICU admission rate was 1.7 per 10,000 and case fatality was 0.09 per 10,000.

Children without comorbidities were found to be significantly less likely to suffer from a severe or fatal disease course. The lowest risk was observed in children aged 5-11 without comorbidities. In this group, the ICU admission rate was 0.2 per 10,000, and case fatality could not be calculated due to an absence of cases. In Germany, vaccination for children aged 5-11 is still not being done, and without vaccination in this age group, remarkable recovery has been



reported. This provides good evidence of robust immune response in children towards Covid-19 caused mainly by the Delta variant. The currently reported Omicron strain is spreading very fast across the globe because of its tremendous ability to multiply in the upper respiratory tract. This result is a substantial viral load in infected persons, and such people can infect many others by transmitting viruses through coughing and sneezing. The current scientific study also suggests that Omicron has a lower ability to multiply in the lungs. This scientific finding, combined with the real-world data of Omicron infected patients, indicates that the disease severity caused by Omicron is lower than another variant, especially Delta, which has caused devastation in India during the second wave. In such circumstances, chances of children getting a severe disease are lower, and if proper precautions are adopted, Omicron will have less to no impact on children. Vaccines have so far provided protection against hospitalization and prevented severe disease but provided no protection against getting infected

and transmitting the virus. So, vaccination for children will also offer protection against severe diseases and should be encouraged as approved by the Government for 15-18 age groups now. In India, the higher fatality among adults during the second wave compared to other countries was noted. Out of the various factors responsible for higher fatality, the most important factors were self-treatment, wrong treatment and in many cases, over-treatment. So, life-saving lessons must

be learned from this and such practices should be avoided in adults and children as our immune system can fight against the virus more efficiently. In cases where severe symptomatic problems occur after 5-7 days, medical intervention should be done under strict medical supervision.



### Riddles to solve

1. If you don't keep me, I'll break. What am I?
2. I have a tail and a head, but no body. What am I?
3. You'll find me in Mercury, Earth, Mars and Jupiter, but not in Venus or Neptune. What am I?

Answers on page number 31