More on Omicron Infections in Children

TO THE EDITOR: Lin and colleagues (Sept. 22 issue)[1] report on the protection against hospitalization related to the B.1.1.529 (omicron) variant of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in children 5 to 11 years of age who had received the BNT162b2 vaccine (Pfizer–BioNTech) and had had previous SARS-CoV-2 infection. This study involved a small number of hospitalized children and included wide confidence intervals.

At 4 weeks since the first dose, vaccine effectiveness against omicron infection was similar among children with no history of SARS-CoV-2 infection (63.2%) and previously infected children (69.6%), and this effectiveness decreased to 15.5% and 22.4%, respectively, at 16 weeks. At 2 months, protection conferred by omicron infection against reinfection with omicron was higher than that conferred by vaccine among both vaccinated children (94.3%) and unvaccinated children (90.7%), but at 4 months, protection conferred by omicron infection was higher among vaccinated children (79.4%; 95% confidence interval [CI], 73.8 to 83.8) than among unvaccinated children (62.9%; 95% CI, 58.8 to 66.6).

The incidence of omicron-related hospitalization, which predominantly affects children with coexisting conditions,[2] was very low among unvaccinated children (0.5%) and children who had received two doses of vaccine (0.3%); these findings were consistent with those of other studies.[3,4] After approximately 5 months, the effectiveness of previous infection in preventing hospitalization was 97.9% (95% CI, 53.1 to 99.9), as compared with 76.1% (95% CI, 27.8 to 92.1) after two doses of BNT162b2 vaccine, and the effectiveness of previous infection remained high (86.9%; 95% CI, −0.4 to 98.3) at 10 months.

Thus, unless countries plan to vaccinate children 5 to 11 years of age every 4 to 6 months, these findings support the provision of primary BNT162b2 immunization to protect uninfected children against hospitalization and show a small benefit from vaccinating already infected children. Contrary to the authors' conclusions, the findings do not support a role for boosters in either uninfected or previously infected healthy children 5 to 11 years of age.

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