

# Frequency and burden of disease for SARS-CoV-2 and other viral respiratory tract infections in children under the age of 2 months

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## Abstract

**Background:** To evaluate the frequency and burden of disease of SARS-CoV-2 and other respiratory viruses in children under the age of 2 months. **Methods:** A retrospective, cross-sectional, single-center study was conducted between March 2021, and February 2022. All children under the age of 2 months and tested for SARS-CoV-2 were included. The frequency of SARS-CoV-2, of other respiratory viruses and the burden of disease caused by SARS-CoV-2 and other respiratory viruses were evaluated. **Results:** 727 children with an RT-PCR test for SARS-CoV-2 were included (mean age: 0.9 months ( $\pm 0.6$ ); boys: 57%); 514 (71%) in the emergency room and 213 (29%) in hospital. Among them, 62 (8.5%) had a positive RT-PCR test for SARS-CoV-2, more often in the Omicron period (23%) than in the Alpha period (4%). Of the 565 (78%) with a multiplex RT-PCR test for other viruses, 325 (58%) were positive. Children with a positive SARS-CoV-2 were less likely to have required respiratory support ( $p=.001$ ), enteral nutrition ( $p=.03$ ), or intensive care admission ( $p=.01$ ) and had a shorter hospital stay than children with other respiratory viruses (5d vs. 7d,  $p=.007$ ). **Conclusion:** In this young population of children, SARS-CoV-2 infection was less frequent and less severe than other viral respiratory infections.

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