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## Children With COVID-19: Characteristics and Outcomes



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Severe COVID-19 in adults is characterised by severe pneumonia followed by systemic inflammation that could result in death. In adults, age, comorbidities and multiple organ failure are associated with increased in-hospital mortality. However, initial reports of COVID-19 in children suggest a milder course of illness compared to adults. Reports from an early cohort of critically ill children in American and Canadian PICUs suggest that severe COVID-19 disease is infrequent in children, and outcomes are generally better than in adults. Many children have been reported to be asymptomatic when infected with the coronavirus.

However, recent reports of children with COVID-19 hospitalised in the U.S. are showing different results. But there is still limited data from large, multicentre studies of children with COVID-19. The Society of Critical Care Medicine (SCCM) launched a multicentre registry in 2020 called the Viral Infection and Respiratory Illness Universal Study (VIRUS): COVID-19 registry. The VIRUS case report form was designed to reflect paediatric-specific data elements.

In this study, researchers describe the characteristics, ICU admissions and outcomes among children hospitalised with COVID-19. Study participants include children < 18 years hospitalised with COVID-19 from February 2020 to January 2021. The primary outcome of the study was ICU admission. Secondary outcomes included hospital and ICU duration of stay and ICU, hospital and 28-day mortality.

A total of 874 patients were included in the study, with a median age of 8 years and a male:female ratio of 1:2. The median body mass index was 19.4 kg/m<sup>2</sup> with 13.4% children who were overweight and 36.6% children who were obese. 67% of the children presented with fever, and 43.2% had comorbidities. 46.2% were admitted to the ICU.

Study findings show that age, fever, multisystem inflammatory syndrome and pre-existing seizure disorder were independently associated with a greater risk of ICU admission. Hospital mortality was 1.8%. The median duration of CU and hospital stay was 3.9 days and 4 days, respectively.

These findings show that ICU admissions are common in children with COVID-19. Older age, fever, multisystem inflammatory syndrome and seizure disorder were independently associated with ICU admission. Overall mortality was lower among children than that reported in adults.

Source: [Critical Care Medicine](#)

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Published on : Mon, 23 Aug 2021