COVID-19 Less severe in children, asymptomatic people have detectable viral RNA >2 weeks, and contingency plans for ICUs from SCCM

by Denise Baez

NEW YORK -- March 17, 2020 -- Today's DG Alert covers coronavirus disease 2019 (COVID-19) in children, cases of asymptomatic individuals who still test positive for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and solutions from the Society of Critical Care Medicine (SCCM) for increasing intensive care unit (ICU) beds in emergencies.

Children with COVID-19 have fewer symptoms and less severe disease, according to a review published in The Pediatric Infectious Disease Journal.

The news comes from data reported by the Chinese Centers for Disease Control and Prevention showing that of the 72,314 cases as of February 11, 2020, only 2% were in individuals aged younger than 19 years.

A case series with 34 children from the Province of Shenzhen showed that none of the children diagnosed between January 19, 2020, and February 7, 2020, had an underlying disease, 65% had common respiratory symptoms, 26% had mild disease, and 9% were asymptomatic. The most common symptoms were fever (50%) and cough (38%). Most infected children recovered 1 to 2 weeks after the onset of symptoms and no deaths from SARS-CoV-2 has been reported by February 2020.

"From these series, it appears that children have milder clinical symptoms than adults, which could mean children might not be tested for SARS-CoV-2 as frequently as adults," wrote Petra Zimmerman, MD, University of Fribourg, Fribourg, Switzerland, and Nigel Curtis, PhD, Royal Children's Hospital, Melbourne, Australia. "It has therefore been suggested that asymptomatic or mildly symptomatic children might transmit the disease. However, the majority of children infected with SARS-CoV-2 thus far have been part of a family cluster outbreak. The importance of children in transmitting the virus remains uncertain."

Another study in Emergency Infectious Diseases delves into 2 cases of COVID-19 in individuals with mild upper respiratory symptoms who worked on a cruise ship quarantined off the coast of Japan.

The first case was a woman aged 35 years. On day 1 of her illness (February 7), she experienced throat dryness and a slight cough. On day 3, she had throat soreness and was tested for SARS-CoV-2. On days 4 to 5, her symptoms diminished. On day 6, she was told she tested positive and was transferred to Asahi General Hospital, Chiba, Japan. At admission, her throat was bright red without exudates, but her vitals were normal, lung

auscultation was clear, and chest radiographs and blood tests were not clinically significant. Her symptoms continued to diminish. SARS-CoV-2 test results were positive on days 9, 13 and 15, negative on day 19, positive again on day 20, and negative again on days 22 and 23.

Case 2 was a man aged 27 years. On day 1 of his illness (February 8), he had a fever, sore throat, and cough. On day 2, he was tested for SARS-CoV-2 but continued to work. On day 3, his fever persisted, so he stayed in his room. By day 4, his symptoms resolved. On day 5, he was told he tested positive for SARS-CoV-2 and was transferred to Asahi General Hospital. At admission, his throat was bright red without exudates, but vitals were normal, lung auscultation was clear, and chest radiographs and blood tests were not clinically significant. He remained asymptomatic, but SARS-CoV-2 test results remained positive on days 8, 12, 14, 18, and 21.

“We describe 2 mild cases of COVID-19 without discernible pneumonia, which could represent the clinical course in young, healthy persons,” wrote Takeshi Arashiro, MD, Asahi General Hospital, and colleagues. “Worldwide, cases are appearing without apparent epidemiologic links. As the virus spreads, more mild COVID-19 cases are likely, and clinicians should be aware of clinical manifestations in the absence of severe symptoms. Case-patient 2’s symptoms rapidly decreased, but detectable viral RNA persisted for more than 2 weeks. Viral RNA detection does not necessarily indicate infectivity, so we urgently need guidance for detection and management of mild COVID-19 to avoid overwhelming healthcare systems.”

Lastly, the Society of Critical Care Medicine (SCCM) has updated its statistics on critical care resources available in the United States to answer common questions regarding care for an overwhelming number of critically ill patients, many of whom may require mechanical ventilation. The SCCM addresses the most current data and estimates on the number of acute care, ICU, and step-down beds; mechanical ventilators; and staffing. They offer emergency contingency plans for when beds are needed for critically ill patients, such as cancelling elective surgeries and using post-anaesthesia care unit beds or operating rooms with ventilators. They noted that at crisis levels, even non-monitored beds may be mobilised for use but these should be secondary to the aforementioned beds. The SCCM also encourages hospitals to adopt a tiered staffing strategy in pandemic situations such as COVID-19. Hospitals with telemedicine capacity may also use the technology to connect with expert resources at other locations.

Reference: https://wwwnc.cdc.gov/eid/article/26/6/20-0452_article