



# COVID-19

## research update

May 4, 2020

### Effectiveness of therapeutic interventions

A [cohort study of hydroxychloroquine use to treat COVID-19](#) (JAMA Cardiology, May 1) found that patients at a Boston hospital who received hydroxychloroquine for the treatment of pneumonia associated with COVID-19 were at high risk of serious heart arrhythmia, and concurrent treatment with azithromycin was associated with greater changes in heart rhythms. In addition, the study included a reported case of other abnormal heart rates with administration of hydroxychloroquine and azithromycin, which to the authors' knowledge, has yet to be reported here in the literature. Given these findings, clinicians should carefully weigh risks and benefits if considering hydroxychloroquine and azithromycin, with close monitoring of patient heart rhythms.

A [randomized, double-blind, placebo-controlled trial of remdesivir](#) (The Lancet, April 29) at ten hospitals in Hubei, China found that the drug was not associated with statistically significant clinical benefits. Although not statistically significant, patients receiving remdesivir had a numerically faster time to clinical improvement than those receiving placebo among patients with symptom duration of 10 days or less. Adverse events were reported in 102 (66%) of 155 remdesivir recipients versus 50 (64%) of 78 placebo recipients.

### Symptoms and outcomes in children

A [study of 100 Italian children with COVID-19 in 17 pediatric emergency department](#) (NEJM, May 1) found that 55% of the cases involved exposure to SARS-CoV-2, the virus that causes COVID-19, from an unknown source or from a source outside the family. The study found that 21% of the patients were asymptomatic, 58% had mild disease, 19% had moderate disease, 1% had severe disease and 1% were in critical condition. Common symptoms were cough (44%) and no feeding or difficulty feeding (23%). No deaths were reported.

A [study of children tested in a hospital in Wuhan, China](#) (NEJM, April 23) found that of 1,391 children tested, a total of 171 (12.3%) were confirmed to have SARS-CoV-2. Fever was present in 41.5% of the children. Other common symptoms included cough and sore throat. As of March 8, there was one death in a 10-month-old child, 21 patients were in stable condition in the general ward and 149 were discharged. Asymptomatic infections (15.8%) were not uncommon. Determination of the transmission potential of

these asymptomatic patients is important for guiding the development of measures to control the ongoing pandemic.

A [systematic review of 18 studies of pediatric patients with COVID-19](#) (JAMA Pediatrics, April 22) found that most pediatric patients with SARS-CoV-2 infection presented with fever, dry cough and fatigue or were asymptomatic. Most children with COVID-19 presented with mild symptoms, if any, and generally required supportive care only. Typically, children had a good prognosis and recovered within 1 to 2 weeks.