

Covid Evidence Digest 3/24/20

NYC Health and Hospitals Office of Population Health

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1/ [FDA Issues first Emergency Use Authorization for Point of Care Diagnostic](#)

Bottom Line: The FDA has authorized the emergency use of a point-of-care diagnostic that can rapidly test nose swab samples for the COVID-19 virus. The test will become available starting March 30.

Details: The Xpert Xpress SARS-CoV-2 test, developed by the company Cepheid, has been authorized by the FDA to test patients suspected of COVID-19 infection. This test can deliver results within 45 minutes. The test must be run using Cepheid's GeneXpert Xpress machine.

Key Takeaways:

- This point-of-care test will increase the speed of COVID-19 testing and result delivery in hospitals and emergency rooms.
- It is not known how sensitive or specific these tests will be.

2/ [Clinical characteristics of COVID-19 patients with digestive symptoms in Hubei, China: a descriptive, cross-sectional, multicenter study](#)

Bottom Line: In a small study of patients with confirmed COVID-19 in China, about half reported digestive symptoms when presenting to the hospital, including loss of appetite and diarrhea. The vast majority also developed respiratory symptoms. Patients who have digestive symptoms, in addition to respiratory symptoms, seem to have longer hospital stays and worse prognosis than those without digestive symptoms.

Details: This study evaluated 204 patients with confirmed COVID-19 who presented to three hospitals in Hubei province from January 18 to February 28, 2020. Of these patients, 48.5% (99 patients) came to the hospital with digestive symptoms as their main complaint, most commonly loss of appetite (84%) and diarrhea (29%), and less commonly vomiting (<1%) or abdominal pain (<1%). The vast majority also developed respiratory symptoms and only 7 patients reported *only* digestive symptoms. Patients who have digestive symptoms seem to wait longer before coming to the hospital, stay in the hospital longer, and have worse clinical outcomes.

Key Takeaways:

- This study suggests that nearly half of patients with COVID-19 had digestive symptoms — most commonly loss of appetite — when presenting to the hospital. Most also had respiratory symptoms.
- COVID-19 patients with digestive symptoms seem to have worse clinical outcomes, including longer hospital stays and higher risk of death
- Loss of appetite may be an early warning sign for COVID-19 infection in some patients

Note: pre-print, not yet peer-reviewed

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3/ [SARS-CoV-2 Infection in Children](#)

Bottom Line: Children seem to have a milder course of disease due to COVID-19, but those with co-existing medical conditions may still be at risk for severe disease. The most common symptom in children with COVID-19 is fever (found in 41.5% of patients). Nearly 16% of patients did not have any symptoms or imaging findings of pneumonia.

Details: This study evaluated 1391 children in Wuhan, China who were either symptomatic or were asymptomatic with known contact with someone who had or may have had COVID-19. Of those tested, 12% (171 patients) were confirmed to have COVID-19 infection. Fever, the most common symptom, was present in 41.5% of children. The most common imaging finding was “ground-glass opacities”. Nearly 16% of children with confirmed COVID-19 did not have any symptoms or imaging findings of pneumonia. Only 3 children required ICU and ventilator support, all of whom had pre-existing conditions. There was one death of a 10-month old child. The study assessed children who were tested between January 28 and February 26, and followed their clinical outcomes until March 8, 2020.

Key Takeaways:

- Children have a milder course of COVID-19 infection than adults.
- Nearly half of children with confirmed COVID-19 infection have fever, but many are asymptomatic.
- Children, particularly those who are asymptomatic, may unknowingly spread the disease to those who are more vulnerable.

4/ [Public Health Responses to COVID-19 Outbreaks on Cruise Ships](#)

Bottom Line: COVID-19 on a cruise ship has potential for rapid spread and aggressive efforts are needed to contain spread. All people should avoid all cruise travel during the COVID-19 pandemic.

Details:

During February-March, 2020 COVID-19 outbreaks associated with cruise ship voyages led to over 800 laboratory confirmed cases and 10 deaths.

Data from the Diamond Princess cruise ship: Of 3,711 passengers and crew, 712 (19.2%) tested positive for the COVID-19 virus. Of those who tested positive, 331 (46.5%) had no symptoms at the time of testing. 381 patients were symptomatic; 37 required intensive care and 9 died.

Cases linked to cruise travel have been reported in 15 states across the US and secondary community cases have been reported that have been linked to returned passengers on cruises.

Key Takeaways:

- The Diamond Princess cruise had a high proportion of individuals with asymptomatic infection at time of testing (46.5%) and 17.9% of infected people never developed symptoms.
- Aggressive efforts to contain transmission on board and prevent further community transmission upon disembarkment requires coordination and collaboration of multiple sectors and including travel restrictions to individuals, movement restrictions to ships, infection prevention and control measures, notifying state health departments of returning travelers, and contact tracing of identified cases among returning travelers.