

Emergency Departments Pediatric COVID-19 Quick Tips - April 12, 2020 0750

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Children & Coronavirus:

- SARS-CoV-2 is “novel” and there is still a lot to learn about how it affects children. Data regarding epidemiologic characteristics and clinical features of infected children is limited.
- Studies suggest that children are just as likely as adults to become infected but are much less likely to be symptomatic or develop severe symptoms. According to the WHO and a study in China, children under 18 years made up only 2.4% of all reported cases. The incidence of COVID-19 in children is likely much higher.
- The importance of children in transmitting the virus remains uncertain, however, it is thought that children play a major role in community-based transmission.

How does coronavirus affect children?

The study, Epidemiology of COVID-19 Among Children in China, showed that of 2143 children followed, most cases were found to be mild. Only 6% of children infected with coronavirus experienced severe symptoms compared to 18.5% of adults.

Clinical features:

- Mild URI symptoms (cough, sneezing, rhinorrhea, sore throat)
- Fever
- Pneumonia
- GI symptoms (nausea, vomiting, diarrhea)

Labs

- WBC normal or lymphopenia
- Thrombocytopenia
- CRP and procalcitonin normal
- In severe cases, elevated LFTs, d-dimer, LDH, coagulation studies

Radiology

- Chest XR- bilateral patchy airspace consolidations often at the periphery, peribronchial thickening, and ground-glass opacities

Current data trends:

- No gender bias between male: female
- Median age ~7yrs
- Co-infection rates reported 40-60% in children (i.e. influenza, RSV, metapneumovirus)

Highest-Risk Populations:

Children at highest risk include those with co-morbidities including cardiac, pulmonary, or immunosuppressed states. Younger age is the most consistent risk factor for developing severe symptoms. Younger age is the most consistent risk factor for developing severe symptoms.

- Infants 11%
- Age 1-5yr 7%
- Age 6-10yr 4%
- Age 11-15 4%
- Age 16-18 3%

Breastfeeding:

No samples of breast milk have been found to contain the virus. Encourage mothers to continue breast feeding.

Treatment & Education

Neither the World Health Organization nor the US Centers for Disease Control and Prevention recommends any specific treatment in children and no antiviral drugs are licensed by the FDA.

The only treatment recommendation for children, published by the Zhejiang University School of Medicine, suggests the use of nebulized interferon alpha-2b and oral lopinavir/ritonavir together with corticosteroids and intravenous immunoglobulin for severe cases.

Current recommendations in the US are for supportive measures:

- Sufficient fluid and calorie intake
- Oxygen supplementation
- Broad-spectrum antibiotics with second or third generation cephalosporin if secondary bacterial infection is suspected

Education:

Emphasize good hand hygiene. Make it fun!

Get kids talking. Ask about their current understanding and address concerns in an open, honest, age appropriate way. Let them know it can infect anyone and that it's no one's fault.

Provide reassurance that they will return to school and see their friends again.