

COVID-19 Primary Healthcare Guidance

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COVID-19 in Aboriginal and Torres Strait Islander children with chronic suppurative lung disease (CSLD) - Guidance for primary care

Context

Children are less likely than adults to get severe COVID-19 disease resulting from SARS-CoV2 infection.

Children have been underrepresented in reports of tens or hundreds of thousands of people with COVID-19 disease in USA (1) and China (2), and underrepresented in reports of COVID-19 deaths in Italy (3).

In Wuhan, of 171 children with SARS-CoV-2 at a time when there were over 4000 COVID-19 deaths in the community, only one child death (from intussusception) was reported (4).

Infants less than 1 year old may be at higher risk than older children (2).

Not only are children who contract SARS-CoV-2 less likely to become critically unwell or die, they appear less likely to become infected in the first place. In China, the likelihood of people aged 0–14 years contracting the virus was around 0.25 of the risk for those aged 65 years and over. Much, but not all, of this difference would have been due to reduced social mixing (5).

In the absence of studies related to non-cystic fibrosis (CF) bronchiectasis or CSLD, the CF model is the most comparable. The total number of people with CF infected with SARS-CoV-2 is far lower than anticipated, suggesting they are a population that is good at taking measures to avoid community infection. During the first three months of the outbreak in Northern Italy, of the CF population of 265, no cases were reported in the screened population (6).

In summary, we think children and adolescents are at low risk of having severe consequences of SARS-CoV-2 infection, but that risk is likely to be increased slightly in young people with an underlying health condition such as CSLD. It is likely that SARS-CoV-2 infection in children with chronic lung suppuration would not be severe. However, that makes it difficult to distinguish on clinical grounds from other viral infections or exacerbations of lung disease.

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Recommendations

With the context in mind we suggest the following:

Avoidance of exposure

The best way to avoid serious consequences of SARS-CoV2 infection is not to be infected in the first place. We recommend:

- Children with CSLD should avoid having contact with other people in the community who are unwell. If they are visiting others, phone ahead to check that no-one is sick where they are visiting. If someone is sick, don't go.
- If others are visiting, phone them first to make sure no visitors are sick. If they are sick, they should not visit.
- Teach all children, but especially those with CSLD, good hand hygiene; i.e. regular hand washing and use of alcohol hand sanitiser, and cough etiquette.
- At home, if there is someone unwell with any viral illness, consider whether a child with CSLD can stay somewhere else until the sick person recovers.
- If there is someone at home with COVID-19, arrange for them or the child with CSLD to stay elsewhere if possible. If this is not possible, encourage regular hand hygiene, social distancing and wearing masks and good ventilation in shared spaces.

It is clear that transmission of SARS-CoV2 can occur at schools; however, the community prevalence needs to be factored in to quantify the risks of transmission at a particular school at a given time. We recommend following state and territory guidelines regarding school attendance.

Excellent usual care is essential

- Delivery of usual care for management of chronic diseases needs to be maintained and is not less important during the pandemic: monitor growth and nutrition; deliver smoking cessation advice to parents and carers; prescribe antibiotics as appropriate. Immunisation, especially against influenza, is crucial.

If a child with CSLD presents to you unwell

- Use appropriate PPE. Take a history and perform a physical examination as you normally would do.

For new respiratory symptoms, or an exacerbation of lung disease

- We recommend careful assessment as above and treat as you normally would do.
- We recommend swab for SARS-CoV-2. If an alternative diagnosis is revealed, only one swab is required. But, if there is a new or escalating respiratory infection or exacerbation of lung disease, consider repeating SARS-CoV-2 testing, acknowledging there is low pre-test probability for SARS-CoV-2 in the community in the absence of epidemiological risk factors. While waiting for results, the child should isolate at home and not mix with others outside the household. An early clinical review in person or by telehealth should be arranged.

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- If a child is unwell enough to transport to hospital do not swab — it can be done at the hospital end. This is especially important for escalating croup. Discuss this with the receiving hospital.
- Have a low threshold for discussing cases with a paediatric respiratory specialist.

Use of high flow oxygen and nebulisers

- There is some evidence that delivery of high flow oxygen via nasal prongs, or the use of nebulisers can aerosolise secretions. Avoid nebulisers if possible and use alternatives. Avoid using high flow nasal oxygen for suspected, probable and confirmed COVID-19 unless in a single room and use the lowest flow possible to maintain oxygen saturation above 92% (7).

References

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