

## Pediatric Guidelines for COVID-19 Testing and Routine Immunizations

### Background

New and emerging evidence suggests the incidence of COVID-19 may be under-recognized in the pediatric population. There is also much evidence to date that children are less likely, to spread or become ill from COVID-19. It is important to note that while many children will develop only mild symptoms, others appear to be more vulnerable to COVID-19.

As Primary Care services and school immunization programs adjust to the current environment, this guidance is intended to provide clinicians of pediatric patients with direction and support on both COVID-19 testing and routine immunizations.

### Clinical Features and Diagnosis of COVID-19 in the Pediatric Population

Pediatric studies, most of which look at children from 0-18 years, are consistently reporting that most children have mild disease or asymptomatic infection. It is not known why children are significantly less affected compared to adults.

Symptomatic children typically present with low-grade fever and a dry cough. Less common symptoms include: sore throat, headache, productive cough, anosmia, diarrhea and other gastrointestinal symptoms. Rarely, severe cases may progress to respiratory distress or failure after one week. Co-infection of COVID-19 with other pathogens, eg: Influenza, RSV, and Mycoplasma have been described.

Compared to adults, children report more gastrointestinal symptoms, including abdominal discomfort, nausea, vomiting, and diarrhea. These manifestations may be the sole presentation, without accompanying respiratory symptoms. Similar to other viral infections, COVID-19 can present with dermatologic findings. There have been pernio-like lesions described in cases of confirmed or suspected COVID-19. The pathogenesis is not clear but may represent a post-infectious phenomenon. Skin lesions may appear as acraly distributed red-purple papules or nodules and should prompt testing (typically what is recommended is a nucleic acid amplification test) and discussion or referral to a pediatric dermatologist.

### Associated Syndrome in Pediatric Patients- MIS-C

MIS-C (Multisystemic Inflammatory Syndrome-COVID-19), MIS-C is new and has been associated with COVID-19. Cases of MIS-C have been identified from infants to adolescents.

The symptoms are similar to those of Kawasaki's Disease and toxic shock syndrome, in which different parts of the body become inflamed, including the heart, lungs, kidneys, brain, skin, eyes or gastrointestinal organs.

### **Transmission and Infectivity**

The incubation period of COVID-19 is a median of 3-5 days but range from 2-14 days. The majority of children with COVID-19 have a positive household contact.

Children have found to have high viral loads despite milder symptoms however, it is not clear if there is any correlation between viral loads and ability to transmit infection.

Although there have been reports of positive nucleic acid amplification test in fecal samples from both adults and children, it is unclear what role, if any, this had on COVID-19 transmission, which is different from other viruses such as influenza, where children have significant inter-generational transmission.

The contribution of children to community spread is unknown. The lack of current evidence is likely due to early school and daycare closures. In contrast, adults were relatively less isolated and thus most family outbreaks had adult index cases. ([COVID-19 and children: Report of a special task force led by the Chief Science Advisor of Canada](#)).

### **COVID-19 Testing Guidelines**

#### Who to test: Symptomatic

Test all infants, children, and youth with new or worsening symptoms compatible with COVID-19. High risk groups identified to be more vulnerable include children less than one year of age, with a chronic medical condition (diabetes, chronic lung conditions), and with weakened immune symptoms (cancer, transplant recipients). Refer to:

[https://www.gov.mb.ca/asset\\_library/en/coronavirus/covid19\\_screening\\_checklist.pdf](https://www.gov.mb.ca/asset_library/en/coronavirus/covid19_screening_checklist.pdf) OR  
<https://sharedhealthmb.ca/covid19/screening-tool/>.

#### Who to test: Close-contacts of an individual known to be positive for COVID-19

Patients who have been exposed to COVID-19 through close contact (within two meters and for more than 15 minutes) with an ill person, may be notified by Public Health or the Health Canada COVID App through their device. Advice on the need for testing and/or self-isolation is found on the COVID-19 Screening Tool for Public Health and Health Links-Info- Santé

[https://manitoba.ca/asset\\_library/en/covid/screening\\_tool.pdf](https://manitoba.ca/asset_library/en/covid/screening_tool.pdf)

#### Who not to test: Asymptomatic

Outside of asymptomatic testing for surveillance purposes, asymptomatic testing is generally not advised, unless recommended by Public Health for contact tracing or outbreak investigative reasons. If there is a known reason for a single, or multiple symptoms, such as a fever with clinical presentation of cellulitis and no exposure criteria a test for COVID-19 is not necessary. But at all times it should be based on the clinical judgement of the primary care provider.

#### How to perform the test:

Refer to the Standard Operating Procedure for: Swabbing (Adult and Pediatric):

<https://sharedhealthmb.ca/files/covid-19-sop-swab.pdf>.

Pediatric considerations: For pediatric patients under the age of 8 years old use the smaller swab (Copan FLOQ swab, HGT038), for pediatric patients 8 years and older use the larger swab (Copan FLOQ, H268D). Please understand with the increasing demand in testing supplies that there may be times that the smaller swabs are not available. The larger swab may be used, but bear in mind because of the larger swab there will be increased discomfort.

There may be a substitute available. The current substitute being offered is sized approximately between the small pediatric and large pediatric FLOQ swabs. Again, please bear in mind the size when swabbing smaller children and infants.

A pediatric demonstration video can be viewed:

[https://www.youtube.com/watch?v=AhC6\\_JXaqxE&feature=youtu.be](https://www.youtube.com/watch?v=AhC6_JXaqxE&feature=youtu.be) (video provided courtesy of B.C. Provincial Health Services Authority)

Cadham Provincial Laboratory performs NAAT test from Nasopharyngeal Swab or lower respiratory tract sample.

### Consent

In the absence of public health or emergency order requiring minors to be tested for COVID-19, the consent of a parent or legal guardian is required to perform a nasopharyngeal swab for COVID-19 on a minor. Consent from a parent or legal guardian may be obtained either in person, verbally over the phone once verification of identity is established, or through documentation signed by the parent or legal guardian in their absence and must be kept in the patient's record.

Mature minors, as identified as able to understand the nature of the procedure, purpose, risks, and benefits, may provide consent for themselves, and do not require parent or legal guardian involvement. Generally, this would apply to anyone older than 16 years of age.

For pediatric patients between 13-15 years of age, a clinical judgement on the patient's maturity level as it relates to the above must be considered.

Patient 12 years of age and under generally do not fit the definition of "Mature Minor" and legal consent through a parent or legal guardian must be obtained.

### **Immunizations**

It is important to remember the importance of continuing to administer routinely scheduled immunizations to the pediatric population (2, 4, 6, 12, and 18 months).

Pre-school immunizations in Manitoba have a window to be given between 4-6 years old. If pediatric patients are 4 years of age and otherwise healthy, the pre-school immunizations can be delayed over the fall and flu season safely. However, if you are seeing the patient for an in-person visit, the immunization should be given.

All attempts should be made to administer the flu vaccine this fall to **all pediatric patients 6 months and older**. Children younger than 9 years of age who have not previously received a flu vaccine require two doses, at least 4 weeks apart.

Flu vaccine can be obtained in a variety of ways: Primary Care Offices\Clinics, pharmacies (pediatric patients that are 7 years of age and older), and Pediatric Ambulatory Clinics attached to Tertiary and Non-Tertiary centers.

Please review Manitoba's 2020-21 Seasonal Influenza Immunization Program Plan for details for health care providers on Influenza

([www.gov.mb.ca/health/publichealth/cdc/div/manual/docs/msiipp.pdf](http://www.gov.mb.ca/health/publichealth/cdc/div/manual/docs/msiipp.pdf)).

### **Infection Prevention and Control**

Appropriate Personal Protective Equipment (PPE) must be worn and donned/doffed according to provincial PPE guidance. Guidance and information can be found by referring to:

<https://sharedhealthmb.ca/files/covid-19-provincial-ppe-requirements.pdf>

Specific Disease Protocols for Acute and Community settings are also available at:

<https://sharedhealthmb.ca/files/IPC-acute-care-manual-winnipeg.pdf>

<https://sharedhealthmb.ca/files/IPC-acute-care-manual-provincial.pdf>

Additional Infection Prevention & Control resources are also available:

<https://sharedhealthmb.ca/covid19/providers/ipc-resources/>

Additional precautions and guidance on aerosol-generating medical procedures (AGMPs) are also available. Please refer to:

<https://sharedhealthmb.ca/files/aerosol-generating-medical-procedures-AGMPs.pdf>

### **References**

[COVID-19 and children: Report of a special task force led by the Chief Science Advisor of Canada](#)

<http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/clinical-care/pediatrics>