

COVID-19 Guidelines for the Delivery of Home and Community Care Services for Children with Medical Complexity at School.

INTRODUCTION

There are unique infection control precautions and related considerations for children with medical complexity (CMC) and technology dependency in preparation for school reopening in light of the coronavirus disease-2019 (COVID-19). It is crucial that children with complex and specialized health care needs are safely accommodated for, and those in the school community inclusive of students, families/guardians, teachers, administrators, staff and community/home care providers (nurses and rehabilitation specialists), are equipped with the knowledge, skills, and resources to safely do so.

These guidelines were developed through expert consensus building informed by empirical and experiential sources of evidence for best practice in the context of the COVID-19 pandemic. The guidelines were created for and informed by children/youth/families, Local Health Integration Networks (LHIN), Service Provider Organizations, Public Health, Children's Treatment Network, paediatric medical experts, education specialists, school administrators and others among a diverse Community of Practice (CoP) assembled for consultation to provide the school community with support for planning and point of care decision making.

These guidelines are intended to provide specific recommendations and considerations for the school community and complement other leading sources of guidance (see links to resources at the end of the document). They make recommendations to promote safety in the context of the COVID-19 pandemic, yet implementation will require compassionate and reasoned approaches that take into consideration the immense physical, emotional and psychosocial stressors experienced by CMC and their families, facing plans for back to school. Ongoing review and revision of guidelines will occur as further evidence and experience with return to school for CMC occurs. These recommendations are based on current epidemiology of Severe Acute Respiratory Syndrome coronavirus-2 (SARS-CoV-2) in Ontario but are subject to change in response to changes in provincial SARS-CoV-2 epidemiology, recommended public health measures and provincial plans.

BACKGROUND

Children with medical complexity (CMC) are those children and youth that require close monitoring as well as frequent interventions, and often rely on highly skilled and vigilant family caregivers, multiple health care providers, and staff in the school community to meet their unique needs. Many rely on assistance from medical technology in their daily lives. Societal and health-care changes due to the COVID-19 pandemic have been extremely difficult for many families that care for CMC with a lack of access to typically available home/community care supports, respite and school. They express the desire to have information and confidence that the school community is prepared to promote a safe environment and experience for their children and family.

These guidelines offer pragmatic recommendations for controls required to reduce potential risk for transmission of SARS-CoV-2 in the school community with considerations for the physical health, mental and social wellbeing of CMC and their families during a period of intense uncertainty.

The CoP endorses that for most children/youth there is benefit to school attendance on balance with risk, when risks are mitigated. These guidelines aim to promote informed decision making and personalized plans of care, learning, and participation throughout the process of return to school for CM. Continued partnership to explore the option of delayed start time and the flexibility to transition between modes of learning (in school versus on line) for CMC and their siblings as part of their Individual Education Plan, while retaining access to the essential supports of community/home care providers is highly encouraged.

RECOMMENDATIONS FOR CHILDREN WITH MEDICAL COMPLEXITY

CMC have exceptional health care needs often supported in the school environment by community/home care nurses and rehabilitation specialists (Occupational Therapists, Physiotherapists and Speech Language Pathologists). Many of these children/youth also receive direct support from Educational Assistants (EAs), aides, intervenors and others in the school community to promote their success in learning and participation in school life. The population includes but is not limited to children/youth with a variety of needs including enteral feeds, oxygen therapy, and/or invasive ventilation at school. These children/youth attend school in a variety of settings (e.g. congregate and/or typical classrooms) and with varied models of home/community services (e.g. 1:1 nursing, visiting health professional, cluster care). Children with complex respiratory care needs are among this group and require the same accommodations for return to school for the population of CMC at large, with some additional recommendations outlined below this section.

Screening:

- Daily screening by parents/ family caregivers prior to leaving home will occur to ensure safety to attend school.
- Children are to be 1) asymptomatic (ie have no symptoms suggestive of COVID-19 based on the provincial screening recommendations); 2) to not be in close contact with a confirmed case of COVID-19 in the last 14 days; 3) no history of recent travel out of the country in the last 14 days; and 4) no household member under investigation for symptoms of COVID-19. Provincial guidance are to be followed. (<https://covid-19.ontario.ca/self-assessment/>).
- Any child with symptoms of COVID-19 is to be moved to a separate designated area and arrangement made for testing and transfer home as per schoolboard educational policy and procedures.
- CMC may have baseline clinical symptoms that can be consistent with COVID-19 (i.e. chronic cough). These children are to be screened for worsening of baseline symptoms and new symptoms.
(http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_reference_doc_symptoms.pdf)
- Temperature taking is not recommended as a routine screening measure.
(<https://www.toronto.ca/home/covid-19/covid-19-reopening-recovery-rebuild/covid-19->

[reopening-guidelines-for-businesses-organizations/covid-19-guidance-elementary-secondary-schools/](https://www.ontario.ca/page/guide-reopening-ontarios-schools/))

- As is usual practice, temperature taking is part of the health assessment when a CMC presents with a change in symptoms from baseline (self-report or proxy report) and fever is suspected by their community/home care provider. Temperature measurement via digital thermometer (tympanic/axillary), not Infrared/Thermal is recommended in these instances. (<https://www.aboutkidshealth.ca/Article?contentid=966&language=English>).

Masking:

- The purpose of student and school community member masking is for source control (i.e. to protect other students, teachers and caregivers).
- Masking is required for CMC students as per Ontario's Guide to reopening Ontario's Schools (<https://www.ontario.ca/page/guide-reopening-ontarios-schools>), with some notable exceptions.
- Students with CMC may be exempt from masking under certain scenarios, and this decision is to be made at the point of care by health care providers and/or educators and partnered with family caregivers. For example, if a child/youth is unable to remove a mask without assistance due to developmental or motor considerations, they will not be required to mask per public health. (<https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/prevention-risks/about-non-medical-masks-face-coverings.html#Limitations>)
- Access to 1:1 observation and/or behavioural interventions may enable safe masking in those initially deemed to be exempt.
- A face shield is not a replacement for face masks as it may not provide equivalent source control. However, in situations in which masks cannot be tolerated, a face shield may be considered. (<https://www.toronto.ca/home/covid-19/covid-19-reopening-recovery-rebuild/covid-19-reopening-guidelines-for-businesses-organizations/covid-19-guidance-elementary-secondary-schools/>)

Physical Distancing:

- Physical distancing is recommended in accordance with the Ministry of Health and Education's recommendations for all in the school community, including for CMC.
- Physical distancing is to be maintained especially in situations where masking by CMC is not tolerated AND/OR in the setting of Aerosol Generating Medical Procedures (AGMPs). The school community is to promote inclusion and education for all students, monitor for and act to limit social isolation, bullying/ stigma for CMC.
- Children/youth/families who decide CMC will participate in learning, play and other activities where physical distancing cannot be maintained, will do so in consideration with health care providers at the point of care. Health Care Providers will don appropriate medical grade PPE (i.e. ASTM certified; per OH Guidelines for Home and Community Care).
- Rehabilitation therapies will be provided or implemented at the safest distance possible and less than 6ft as needed; providers will don appropriate medical grade PPE as per point of care risk assessments (i.e. ASTM certified; per OH Guidelines for Home and Community Care).

Cohorting:

- Cohorting is highly recommended to limit potential exposure and spread of SARS-CoV-2.
- Cohorting is to be considered for CMCs that require enhanced in-school health or educational resources to support learning (e.g. rehabilitation services and educational assistants).
- Cohorts as small as possible are recommended for CMC to minimize risk of transmission and taking into consideration the exposures that would occur if a case were to be identified.

(<https://www.sickkids.ca/PDFs/About-SickKids/81407-COVID19-Recommendations-for-School-Reopening-SickKids>)

(<https://hollandbloorview.ca/sites/default/files/2020-07/HB-BackToSchool-Recommendations.pdf>)

Environmental Controls:

- CMC may require accommodations (e.g. placement, EA support) to enable access to hand washing and hand sanitization stations for those with varying ability to do these procedures independently.
- Continuity of direct care (i.e. dedicated providers/staff) for CMC is highly recommended, wherever possible, to limit potential transmission from providers (school staff, home/community) to CMC and also from child to child.
- Handwashing/sanitizing and wiping of surfaces will be completed before and after touching child/youth and their equipment/surfaces and anytime there is potential they have been contaminated; and access to these resources are to be located within the 6ft (2m) zone for any child/youth requiring Aerosol Generating Medical Procedures (AGMP). Ideally, they will be kept in a plastic cabinet/within that space to decrease the risk of contamination.
- Innovative uses of physical barriers (e.g. plexiglass shields) that enable visualization of the child for select therapies that require face masks be removed (e.g. speech language delivered or implemented <6ft [2m]) is encouraged. The barriers are to be easily moveable and above head-height when the therapies are being conducted.

Hand Hygiene

- Students are to be reminded/ assisted by the school community to wash their hands with soap and water for 15 to 20 seconds or use alcohol-based hand rub (ABHR) before they leave home to take the bus, when they arrive at school, before and after play, eating and toileting, when they are leaving school prior to taking the bus, and when they get home
- Frequent use of ABHR (common pump or personal bottle) is recommended throughout the day.
- Members of the school community assisting with care of the CMC are to have constant access to ABHR throughout the day

Personal Protective Equipment (PPE)

- Health Care Providers and staff in the school community are to adhere to requirements under the Occupational Health & Safety Act and its regulations, including those measures needed to protect workers from the risk of COVID-19 (<https://www.publichealthontario.ca/-/media/documents/ncov/updated-ipac-measures-covid-19.pdf?la=en>)

- Training of school staff regarding appropriate donning and doffing of PPE is recommended. (<https://www.publichealthontario.ca/en/videos/ipac-fullppe-on>; <https://www.publichealthontario.ca/en/videos/ipac-fullppe-off>)
- Access to fit-tested medical grade PPE for home/community providers will be the responsibility of their employers (SPO, CTN; American Society for Testing and Materials (ASTM) certified; per Ontario Health Guidelines for Home and Community Care).
- Rehabilitation therapists (e.g., Occupational Therapy, Physiotherapy, Speech and Language Pathology) and others in the school community may require specialized PPE to enable visualization of their face/mouth for delivery or implementation of therapies (e.g. ASTM certified clear masks for speech therapies).
- It is recommended that all in the school community who directly support within 6 ft (2m) of CMC have access to medical grade (ASTM certified) PPE; also see section on Complex Respiratory Care recommendations (<https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/medical-devices/personal-protective-equipment/medical-masks-respirators/health-professionals.html>)
- For instances when physical distancing (6 ft [2m]) is maintained no additional PPE is recommended beyond universal masking for source control per Ontario's Guide to reopening Ontario's Schools.
- For the following medical technologies and therapeutics provided in school, precautions outlined in the table below are recommended. No additional precautions are required unless there are new symptoms of COVID-19. In all circumstances, staff are to perform a point of care risk assessment to determine their body fluid exposure risk and choose PPE accordingly.

Technology/Therapeutic	Type of Precautions	Mask and Eye Protection	Gown	Gloves
Enteral feeding	Routine	x		x
CVAD Care	Routine and for ANTT	x		x
Diabetes (if needles)	Routine	x		x
Metred Dose Inhalers	Routine	x		x
Toileting	Routine	x	x	x
Lifting patients to and from large equipment	Routine	x		
Oral and nasopharyngeal suctioning	Routine	x		x
Oxygen therapy (on its own)	Routine	x		

Legend: CVAD= Central Venous Access Devices, ANTT= Aseptic Non-Touch Technique

Note: Eye protection may be via goggles, visor or face shield.

For infection control precautions for complex respiratory care technologies and therapeutics, including Aerosol Generating Medical Procedures (AGMPs) please see the next section.

Suspected/positive COVID-19 status

- For CMC who may experience new symptoms while travelling to/from home or at school, it is recommended they be supported to leave the classroom immediately and wait in a separate and contained area pending leaving the school.
- Pick-up procedures (e.g. mode of transportation to leave the school) are to be planned for in advance of school start and in accordance with the Ministry of Education's recommendations.
- Testing recommendations and return to school procedures for CMC with symptoms of COVID-19 will follow guidance by Public Health for the school setting.
- Appropriate contact tracing and outbreak management will be directed by Public Health in the situation of potential in-school exposure.

Urgent/ Emergent Situations

- Members of the school community not directly responsible for managing an emergency with a child/youth with medical complexity, will maintain safe physical distance (≥ 2 meters).
- Community/home care providers directly managing a respiratory related emergency for a child with COVID-19 symptoms will don appropriate PPE for Droplet and Contact Precautions with the addition of an N95 respirator prior to attending to the child, if time permits
- Automated external defibrillators will be used as indicated and undergo appropriate procedures for decontamination after the emergency is managed.
- It is recommended the emergency manual resuscitation bag, if carried by the CMC, be fitted with an antibacterial/viral filter if available.

Transportation

- Plans for transportation that align with the same controls described in this document for the school setting is strongly recommended and is considered a requisite to a safe return to school plan for CMC.
- Special consideration is required for the transport of CMC unable to tolerate masking or using AGMPs on a bus or other congregate modes of transportation to school. Considerations for these children include the following:
 - Physical distancing (≥ 6 feet) from other children is to be a priority: An assigned seating plan as well as physical markings on the bus to denote physical distancing is recommended.
 - Spaces on buses or other modes of transit are to be cleaned with heightened protocols.
 - Windows are to remain open on the transport vehicle to facilitate ventilation.
 - The maximum number of children in a vehicle is to be determined by the number that can safely maintain physical distancing in the setting of a CMC unable to wear a mask and/or undergo an AGMP.
 - It is recommended that bus routes are planned to prioritize CMC unable to use a mask and/or needing AGMPs be picked up last on the way to school and dropped off first on the way to home.
- Single CMC/ family transportation options such as vans for transport to and from school is recommended when possible. Private transportation is especially important for CMC not able to tolerate masks, in settings when physical distancing is not possible or for those requiring AGMPs during transport. ([https://services.aap.org/en/pages/2019-novel-coronavirus-covid-](https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-essential-guidance/schools)

[19-infections/clinical-guidance/caring-for-children-and-youth-with-special-health-care-needs-during-the-covid-19-pandemic/](https://www.publichealthontario.ca/-/media/documents/ncov/updated-ipac-measures-covid-19.pdf?la=en)

RECOMMENDATIONS FOR CHILDREN WITH COMPLEX RESPIRATORY CARE NEEDS

Children with complex respiratory care needs are those requiring respiratory technology or who have underlying respiratory compromise and are at higher risk for severe disease and/or transmission of SARS-CoV-2. Aerosol Generating Medical Procedures (AGMP) are activities of daily living required to/from home and at school among many children/youth with complex care needs. AGMPs are thought to potentially increase the risk of the transmission of SARS-CoV-2 because they generate increased respiratory droplets, including aerosols.

The following are AGMPs per Public Health Ontario guidance; listed below to discriminate between procedures that are continuous for risk of droplet/aerosol generation (e.g. invasive ventilation) and those that pose an intermittent risk (e.g. tracheostomy suctioning).

Continuous AGMP Procedures	Intermittent AGMP Procedures
Mechanical Ventilation with circuit leak and a tracheostomy tube	Tracheostomy procedures (insertion/ open suctioning/ removal)
Non-invasive Ventilation with a mask (e.g. Continuous Positive Airway Pressure therapy (CPAP) and Bi-level Positive Airway Pressure (BiPAP) therapy	Induction of sputum with nebulized saline
High Flow Nasal Cannula	Nebulized medications by a tracheostomy tube or face mask*
High flow air used in conjunction with oxygen delivery systems*	In/Exsufflation therapy (e.g. E70 Cough Assist device)*
	Manual ventilation with a bag-valve mask

*not included in Public Health Ontario's list of AGMPs but being considered as one by the CoP

(<https://www.publichealthontario.ca/-/media/documents/ncov/updated-ipac-measures-covid-19.pdf?la=en>)

Point of care risk assessments made by health care providers will also enable identification and appropriate protections, aligned with those for AGMPs, for other respiratory care procedures and therapies that have the potential to produce increased droplets/aerosols. Providers are encouraged to consider risk based on the child/youth's known and anticipated response to the procedure/therapy (e.g. likelihood of cough) and use appropriate protections (e.g. eye protection with masks) <https://www.publichealthontario.ca/-/media/documents/ncov/ipac/report-covid-19-aerosol-generation-coughs-sneezes.pdf?la=en>.

Surveillance Testing:

- Surveillance testing for SARS-CoV-2 may be considered for CMC who undergo continuous or frequent AGMPs; (see section on Children with Complex Respiratory Care for definitions and details) in collaboration with public health, especially for those individuals in a congregate setting and/or where masking and physical distancing may not be consistently achieved.

Masking/PPE:

- The use of a mask/ material covering a tracheostomy tube is not recommended if it obscures visibility of the tracheostomy tube.
- Medical grade PPE including masks, eye protection, gown and gloves is recommended for use within the school community for all those in close physical contact (less than 2 meters) of a child undergoing AGMPs.
- Recommended PPE for AGMPs, for **asymptomatic** children/youth
([https://www.oha.com/Bulletins/Personal%20Protective%20Equipment%20use-COVID-19 Released March 30 2020.pdf](https://www.oha.com/Bulletins/Personal%20Protective%20Equipment%20use-COVID-19%20Released%20March%2030%202020.pdf))

Within 6ft (2m)	Masking	Eye protection	Gowns	Gloves
Continuous AGMPs	Medical grade, ASTM Certified - Continuous use if not soiled	Glasses, goggles or eye shield, continuous	Continuous and changed between children	Continuous and changed between children
Intermittent AGMPs	Medical grade, ASTM Certified - Continuous use if not soiled	Glasses, goggles or eye shield, when doing procedure	When doing procedure and changed between children	When doing procedure and changed between children

- Donning and doffing of appropriate PPE is required if providers in the school community are moving from student to student requiring AGMPs. Medical grade masks may be reused if not visibly soiled.
- An adequate supply of PPE including access to N95 respirators will be carried and/or accessible on site for use by home and community providers and/or school staff in the event a CMC who requires AGMPs has new COVID-19 symptoms. Stewardship for N95 respirators and other PPE is encouraged for conservation of these items.

Physical distancing:

Per recommendations for all children/youth CMC as above, and the following-

- A designated and separate space for all AGMPs is recommended and location for this may be made at the point of care with consideration for ease of access, infection control safety (e.g. ventilation), and the child/youth's learning needs and preferences for participation.
- The use of barriers (e.g. portable plexiglass stations) that enable separation and promote visibility and participation are encouraged for those requiring frequent intermittent and/or continuous AGMPs. Barriers are to be above the head of the individual undergoing the AGMP. Consideration is to be given to ensure that the barriers do not block access to the child in the event of a decompensation in health status.
- In the absence of a barrier, the general school community will maintain a physical distance of greater than or equal to 6ft (2m) from any child actively undergoing an AGMP (always for continuous AGMPs or when an intermittent AGMP is in progress), unless the individual/s are

donning appropriate medical grade PPE for droplet/contact precautions (e.g. nurses, education assistants).

Environmental control:

Per recommendations for all children/youth CMC, and the following-

- Spaces designated for AGMPs (classrooms, halls, buses) will require heightened cleaning protocols for all surfaces and access to all needed supplies, hand sanitizing and non-touch waste bins for disposables are within the 6ft (2m) point of care.
- After every AGMP, environmental cleaning is to be performed using appropriate cleaning products (with a drug identification number) (<https://www.canada.ca/en/health-canada/services/drugs-health-products/disinfectants/covid-19/list.html>).
- A written procedure for how to clean the space is recommended; it is recommended that the staff responsible for cleaning the space are trained on how to clean the space (e.g. which product to use, the contact time required for cleaning/ disinfection) and have access to the required PPE as per the cleaner/ disinfectant manufacturer's instructions for use.
- Signs to identify that an AGMP is underway is recommended where spaces may be shared with others.
- Consideration is to be given to an assessment of the ventilation in the room where the AGMPs are to be performed by the facility building management or a HVAC consultant. Windows are to be opened where possible.
- HEPA filtration units can be considered for use in spaces where AGMPs are being performed in consultation with manufacturer's directions and service professionals to optimize placement. Generally, the placement takes into consideration the likelihood that aerosols/droplets are being captured by the intake (e.g., proximity to the source) before being dispersed. Manufacturer's instructions on maintenance are to be followed.
- The space used to complete AGMPs may be used for more than 1 CMC during the course of the day as long as appropriate environmental cleaning is completed after every AGMP. Two or more children are NOT to undergo an AGMP in the same space at the same time to limit risk of exposure between CMC.

Change in status to COVID 19 suspected/positive:

Per recommendations above for all CMC.

Urgent/ Emergent Situations

Per recommendations for all CMC.

Transportation

Per recommendations for all CMC, and the following-

- Physical barriers (e.g. plexiglass) on school buses are to be available when a CMC is undergoing the AGMP. The barrier is to be above the height of the CMC when receiving the AGMP.

Specific recommendations by technology type

Healthcare providers partner with children/youth/families in considering the child/youth's type of technology and other features of their health and wellbeing when making recommendations for return to school for CMC with complex respiratory care needs. Many children will have complex care plans and benefit from collaborative conversations with the child/youth/family, school, Local Health Integration Network, their point of care teams (primary care, specialists) and local public health authorities about the best approach to safety in the context of learning and psychosocial needs.

Respiratory Medicine Specialists and Respiratory Therapists are well positioned to guide use of and access to the following specialty technologies, intended to limit risk of exposure from AGMPs. Community/home care providers are encouraged to work with families, vendors and others in the hospital sector for any education or questions about access to these devices. *See Appendix 1 for respiratory equipment adjuncts to minimize AGMP aerosol generation.*

- Children with tracheostomy tubes who are NOT USING a ventilator at school
 - If a child can safely tolerate this, a tracheostomy tube cap and a mask on the face is recommended
 - If a tracheostomy tube cap cannot be tolerated, a Heat and Moisture Exchanger (HME) with a filter is recommended because air is filtered on inhalation. *Note: an HME filter is preferred over a speaking valve because a speaking valve does not filter air on inhalation*
 - If a child requires a speaking valve, a mask over the face is recommended
 - The following are intermittent AGMPs these children may require during the day:
 - Open airway suctioning of the tracheostomy tube/ tracheostomy tube change.
 - Nebulization of medications or saline. *Note: if possible nebulized medications are to be switched to meter-dose inhaler medications*
 - Cough assist therapy (filter at the machine end as well as at the patient interface is recommended)
- Children with tracheostomy tubes USING a ventilator at school
 - The breathing circuit (i.e. tubing) that is used will have a continuous leak (called a passive breathing circuit). This is considered a continuous AGMP. It is recommended that others that are not donning appropriate PPE (droplet/contact) maintain physical distancing.
 - An inline HME with a filter is recommended for the breathing circuit.
 - *Note: When using a HME filter a heated humidifier is contraindicated*
 - An antibacterial filter is recommended at the outlet of the ventilator when an inline speaking valve is used.
 - In-line suctioning is recommended
 - The following are intermittent AGMPs these children may require during the day:
 - Suctioning of the tracheostomy tube (in-line suctioning is recommended)
 - Nebulization of medications or saline. *Note: if possible nebulized medications are to be switched to meter-dose inhaler medications*
 - Cough assist therapy (filter at the machine end as well as at the patient interface is recommended)

- Children using CPAP or Bi-level PAP through a mask at School
 - These therapies are continuous AGMPs when in use.
- Children without a tracheostomy tube who require nebulization or Cough Assist treatments at school
 - Cough assist therapy (filter at the machine end as well as at the patient interface is recommended)
 - Nebulization of medications or saline. *Note: if possible nebulized medications are to be switched to meter-dose inhaler medications*
- It is recommended the emergency manual resuscitation bag, if carried by the CMC, be fitted with an antibacterial/viral filter.
- Training for any new equipment (e.g. HME with a filter, in-line suction catheters) being recommended to minimize SARS-CoV-2 transmission for child that undergo AGMPs at school will be supported by their point of care teams (e.g. Respiratory Medicine), home/community providers and/or Connected Care program, SickKids.
- Consideration is required for access to exceptional funding to cover the costs of additional equipment adjuncts/ equipment modifications recommended that minimize risk for SARS-CoV-2 transmission for a child that undergoes AGMPs at school.

Safe Transport of Equipment to and From School

- It is recommended that the transportation of medical equipment to and from school is in the original medical grade carrying cases.
- All equipment is be wiped with the appropriate antiseptic cleanser for the device upon arrival to school and before departing the school in addition to as-needed occasions during the school day.
- After every AGMP, all surfaces and related equipment are to be wiped down using a disinfectant that is effective against SARS-CoV-2. See the following link (<https://www.canada.ca/en/health-canada/services/drugs-health-products/disinfectants/covid-19/list.html>).

Innovation and Investment

Innovation towards solutions that enable safety in the school community and participation while minimizing stigma for the CMC is strongly recommended. Innovation in equipment and other personal safety barriers and engineering controls provide opportunities to engage in research & development of novel products to enable comfort and safety for the CMC and community at large.

Investment for return to school for CMC, for specialized medical grade equipment as a solution to minimize risk for AGMPs (e.g. inline suctioning), infrastructure (physical barriers, ventilation, HEPA filtration) and staffing models (for continuity, cohorting) will require a commitment to additional funding resources as such solutions to enable safety become identified.

Creative solutions are also encouraged to identify ways to destigmatize the experience at school for CMC and encourage participation and healthy return to learning. The school community is

encouraged to partner broadly and share ideas and solutions to challenges experienced in using these guidelines in efforts to promote safe return to school for CMC and the school community, while retaining the option for children/youth/families of remote access to learning with the essential supports of community/home care providers.

The guidelines will benefit from timely revisions per experience acquired in early phases of back to school and aligned with changes in the epidemiology and other emerging sources of evidence and actions that enable safe practices and procedures for the care of CMC in the school community. Support for uptake of these guidelines (e.g. webinars, real-time consults) was discussed among members of the CoP as a potential resource per identified needs and preferences of those in the school community.

References and Resources

Public Health Ontario

<https://www.publichealthontario.ca/en/diseases-and-conditions/infectious-diseases/respiratory-diseases/novel-coronavirus/health-care-resources>

School Boards

<https://www.tcdsb.org/Board/Documents/tcdsb-reopening-action-plan-2020.pdf>

https://www.tdsb.on.ca/Portals/0/docs/Returning%20to%20School_A%20Guide%20to%20the%20Safe%20Reopening%20of%20the%20TDSB_August%2010.pdf

Ontario Health

http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_home_community_care_guidance.pdf

Children's Hospitals

<http://www.sickkids.ca/PDFs/About-SickKids/81407-COVID19-Recommendations-for-School-Reopening-SickKids.pdf>

<https://hollandbloorview.ca/sites/default/files/2020-07/HB-BackToSchool-Recommendations.pdf>

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Toronto Catholic District School Board
 Linda Maselli-Jackman, Superintendent of Education
 Andrea Coke, MHsc, OCT, S-LP(C) Chief Speech and Language Pathologist
 Marie Meehan, Superintendent of Special Services
 Donald Reid, Special Education

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 Stephanie Bailey, Vice Principle, Sunny View Public School

Rebecca Ansley, Principal, Lucy McCormick Senior School
 Thomas Widstrand, Vice Principal, Lucy McCormick Senior School
 Alana Grossman, Principal, Beverley Public School

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In Consultation with Public Health Ontario, Long-term Ventilation and Infectious Disease Consultants
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 Dr. David Leasa MD, FRCPC, Respirologist, London Health Sciences Centre



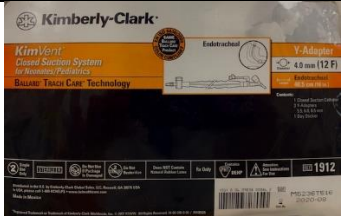

The Ottawa Hospital
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Sunnybrook Hospital
 Dr. Anu Tandon MD, FRCPC, Staff Respirologist and Division Head

West Park Healthcare Centre
 Dr. Robert Varadi, MD, FRCPC, Respiratory and Internal Medicine

**Appendix 1: Tracheostomy and Ventilation Additional Supply List for Safe Return to School
for Children with Medical Complexity**

Product, Description, #	Product Pic	Company/ Distributor/ Vendor	When to discard	Cost
HME for neonatal Hygroscopic Condenser Humidifier. (Vt> 0.2). #5704EU		Carefusion	Every 24 hours (only used while awake)	~ <\$5 each
Gilbeck Trach-Vent HME ideal for pediatric (Vt> 50) #TEL41112		Hudson RCI/Teleflex Medical	Every 24 hours (only use while awake)	~ < \$5 each
HME with Filter (<u>in-line</u> with vent circuit or with manual resuscitation bag) Intersurgical Options 1. Clear-Therm Mini HMEF with luer port (Vt's >90mls) #1831000 2. Clear-Therm Micro HMEF with luer port (Vt's >35mls) #1441000		Intersurgical/ ProResp	Every 24 hours	40/box Mini = \$3.50 each Micro = \$3.00

<p>HME with Filter (<u>in-line</u> with vent circuit) Hudson Options:</p> <ol style="list-style-type: none"> 1. Humid-Vent 1, Catalogue # 1112 or with port: 11132 (dead-space 10-14mls) H01G1112 2. Humid-Vent 2, Catalogue # 14412 (dead space 29mls) H01G14412 		<p>Hudson RCI/ Smith's Medical/ ProResp</p>	<p>Every 24 hours</p>	<p>Range from \$4-10 and come in boxes of 20, 30 or 50</p> <p>Humid-Vent 1 = \$5.50 Humid-Vent 2 = \$8.50</p>
<p>Antibacterial/viral filter to use for:</p> <ol style="list-style-type: none"> 1. Outlet of the cough assist and on the circuit before the cough assist interface. 2. Outlet of the ventilator 3. At the end of the resuscitation bag 		<p>AirLife product #:3030EU</p>	<p>Outlet of cough assist and ventilator: Every 1-2 weeks</p> <p>On the circuit before the cough assist interface: every 2-3 days or when soiled/wet</p>	<p><\$5.00 each</p>
<p>Inline/Closed suction system</p> <p>Kimberly-Clark "KimVent" Closed Suction System for Neonates/Pediatrics – Ref #: ----- (ref numbers differ based on size of catheter)</p>	 	<p>Halyard Health (previously Kimberley- Clark)/ CHS – Canadian Hospital Specialties/ ProResp</p>	<p>Changed weekly</p>	<p>Ped Version = ~\$31.00 (box of 20 is ~\$640)</p> <p>Adult Version = ~\$28.00 each (box of 20 is ~ \$560)</p>

RP-DEP W/Filter Exhalation Port #1065775		Ontario Ventilator Equipment Pool	Washed weekly. Changed as needed.	Request from the Ontario Ventilator Equipment Pool
MDI Spacers inline with ventilator circuit: 1. AeroChamber VENT Chamber (can be left inline however with the addition of the inline suction, it can <i>possibly</i> add more deadspace) 2. MiniSpacer (<20 mL deadspace). By Novus Medical	 1025 22mm OD/ID	Trudell Medical	Changed when the circuit is changed. E.g. a disposable circuit is changed weekly.	Aerochamber Plus Flow-Vu w/Mask – Small Child 10152101048 \$ 50.00 each MiniSpacer® Dual-Spray Metered Dose Inhaler = ~\$ 3.50 - \$6.50 each
		TOTAL: Approximate additional cost per week: \$100 for a child on trach/vent (for those not currently using these supplies).		

Travel to School Respiratory Equipment and Supplies Checklist:

- ☐ Ventilator with travel circuit (includes **in-line HME**)
- ☐ Backup batteries (fully charged)
- ☐ Portable Oxygen (if prescribed)
- ☐ Manual resuscitation bag with oxygen tubing, trach adaptor and mask(s), **filter**
- ☐ Emergency tracheostomy kit (including any speciality items like a syringe and water for cuffed trach's, manual suction with appropriately sized feeding tube, filters)
- ☐ Trach supplies: e.g. **HME with filter**, trach cap, speaking valve
- ☐ Cough Assist machine and supplies (if prescribed)
- ☐ Suction equipment (fully charged), extra supplies (including **in-line suction** if on vent), water for rinsing or n/s nebulas for in-line suction
- ☐ Oximeter (fully charged), AC cord, cable and probes
- ☐ Shoulder roll
- ☐ Feeding supplies if needed

- ☐ Medications (including Aerochamber for trach if needed or portable compressor with trach mask)
- ☐ List of contact numbers and emergency plan
- ☐ **Face mask** for COVID 19 precautions
- ☐ Gloves
- ☐ Cell phone
- ☐ Plastic bags for dirty gloves/used supplies
- ☐ Hand sanitizer
- ☐ Antiseptic wipes for wiping down equipment