

**COVID-19 Pandemic Plan for Pediatric Hematology and Oncology Patients**

**Maritime Provinces**

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Intended audience: IWK Pediatric Hematology Oncology Program, Maritime Pediatricians, and Family Doctors caring for pediatric hematology oncology patients.

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**(Adapted in part from the Cancer Care progam of Nova Scotia Cancer care Protocol version 23.03.2020)**

**Introduction**

This document provides direction to all the IWK Pediatric Hematology and Oncology Program staff and physicians regarding hematology oncology service adjustments in response to the COVID-19 pandemic. This has been informed by IWK Pediatric Hematology and Oncology Program clinical leadership and IWK infection control as well as shared documents with the Cancer Care Program of Nova Scotia.

It is recognized that there is a need to continue treatments for hematology and cancer patients during a pandemic. Resources may affect the capacity for centres to treat as many patients as usual. It is also recognized that patients with hematology disorders and cancer can be immunocompromised and therefore may be at a greater risk of COVID-19 infection complications with poorer outcomes, although this is not proven. Preliminary evidence suggests that pediatric oncology patients may have similar outcomes to non-oncology pediatric patients.

It is important to consider all conditions that may lead to an immunocompromised state in pediatric hematology oncology patients including secondary to classical chemotherapy, underlying immunodeficiency state, status post Bone Marrow Transplantation, asplenic or hyposplenic patients and those on some biological agents.

This document is directed to pediatric oncology and hematology patients. Adult oncology protocols are different. Please refer to NSHA COVID-19 guidance.

Guidance for ongoing management of pediatric oncology and immunocompromised hematology patients will come from the IWK Pediatric Hematology Oncology Program.

**THIS GUIDANCE DOCUMENT WILL CONTINUE TO CHANGE AS NEW EVIDENCE BECOMES AVAILABLE.**

**General**

1. The IWK Hematology and Oncology Program will continue to provide direct care and treatment to pediatric hematology/oncology patients as well as provide support for our regional partners:
	1. Tumor Board Case conferences will continue on Wednesday afternoons by Teleconference. No in-person case conferencing will occur.
	2. Consultation services and regional support across the Maritimes continues.
	3. Specialty Clinics will continue for urgent patients.
2. Patients on chemotherapy or immunosuppressive treatment should not have their treatment protocols modified in anticipation of potential COVID-19 infection, including those who are contacts of symptomatic COVID-19 patients.
3. Patients should be counselled not to take medications directed at preventing, treating or modifying COVID-19 outside of the setting of a clinical trial. Drugs such as hydroxychloroquine are considered experimental and may have serious complications or interactions with existing therapy.
4. We are not recommending routine prophylaxis with low molecular weight heparin for hospitalized patients (in contrast to adult recommendations). Please discuss this with the IWK hematologist on call, if considering.
5. Patients in the IWK catchment area will be screened for COVID-19 and directed to clinic or the Emergency Department according to the attached **IWK algorithm (version March 17, 2020)**. Patients in regional centers will be screened according to regional institutional infection control practices.
6. For patients on active treatment who exhibit pandemic related symptoms continuation of treatment will be at the clinical judgment of the attending hematologist oncologist physician. Arrangements must be made prior to clinic visits and in-patient stays to minimize exposure to other patients and staff.
7. Depending upon the site of care, follow IWK, NSHA, or local hospital Infection Prevention & Control (IPAC) guidance for those cancer patients.
8. Wherever possible, care that can be provided remotely (e.g. telephone, telehealth) should be provided remotely.
	1. Computers will be used by oncologists and family care coordinators (FCCs) with Zoom Telehealth or similar software installed to support virtual care clinics that meet PIHA requirements to maintain confidentiality.
	2. Whenever possible and appropriate, toxicity assessments will be done by telephone.
	3. To avoid travel (especially across provincial borders) diagnostic imaging, blood work and physical examinations will be done locally when feasible.
9. Undergraduate medical education is suspended. Postgraduate resident education continues but residents may be re-deployed to areas of need.
10. All volunteer programs will be suspended until further notice.
	1. Support accommodation such as Ronald MacDonald House are closed.
	2. Point Pleasant Lodge is closed.

**Patient Communication**

1. Family Care Coordinators (FCCs) are in regular contact with patients and will continue to respond to cancer, hematology or COVID-19 related questions.

2. An **IWK Pediatric Immunocompromised Patient** sheet has been posted on the IWK Website and APPHON. It is also being distributed in paper copy to patients who attend clinic. (Updated version 26 March 2020).

3. A variety of links to reliable advice for patients for medical management and psychosocial support are listed in the **Appendix document** – COVID-19 related Resources.

4. Patient visitors are limited to one person on a non-rotating basis. Exceptions may be considered for specific circumstances eg palliative care, new hematology/oncology diagnosis, cancer relapse.

**Blood Products**

1. The National Blood Emergency Committee has issued recommendations for use of blood products in the event of a shortage of blood products (including cellular and acellular products). Requirements for hematology/oncology patients are included in this recommendation, which we are following. There are **currently** NO changes to our usual practice, other than a reminder of the judicious use of this resource. If your blood bank has any concerns about any of the patients for whom we share care, please call the pediatric hematologist/oncologist on call to discuss.

2. Factor concentrates for patients with bleeding disorders as well as those on emicuzimab: there are **currently** NOshortages in supply and this has been conveyed to all patients receiving factor replacement prophylaxis.

**Research and Clinical trials**

1. All non-therapeutic research is suspended.

2. Clinical trials with the prospect of benefit for the child remain open. This predominantly applies to COG (Children’s Oncology Group) trials. HCP should continue to follow protocol therapy without modifications unless directed by the IWK. If a modification is required secondary to a COVID issue, it should be annotated as related to the COVID pandemic.

3. The COG office remains office has moved home but remain accessible by phone and email.

**IN THE EVENT PANDEMIC PRIORITIZATION IS REQUIRED, THE FOLLOWING PATIENT PRIORITIZATION GUIDELINES WILL BE IMPLEMENTED.**

**Priority 1**

* Curative intent treatment will be the highest priority to be maintained during the pandemic.
* Treatment that is ongoing, should proceed uninterrupted, wherever possible, particularly those treatments associated with survival improvement or the goal is symptom control.
* Patients requiring imminent intervention in order to prevent life or limb threatening clinical deterioration and suffering.
* Patients who may have a suspected diagnosis that has the potential to be life threatening, are clinically unstable or have intolerable suffering:

**Priority 2**

* Patients who require services/treatment (including supportive care, psychosocial and toxicity management) but whose situation is deemed non-critical (no unbearable suffering, patient is stable and condition is not immediately life threatening).
* **Whenever possible, consultations occur by telephone or via telemedicine to avoid patients having to come into the IWK.**

**Priority 3**

* Patients who are generally healthy whose condition is deemed as non-life threatening where the service can be delayed without anticipated change in outcome.

**Palliative Care patients**. Note for the management of palliative care patients. Each patient should be considered individually. The patient may fall into priority 1, if they meet the criterion of intolerable suffering even though curative intent is not the focus of the care. Advanced discussion is encouraged to consider goals of care and to clarify that access to intensive care and ventilator support is likely to be limited in certain populations.

Priority 1 patients will receive ongoing treatment in the center closest to their home qualified to perform the activities (assuming regional capacity). Transfers to the IWK will continue for new diagnosis, critically ill patients and for treatment that exceeds established levels of care expectations.

Priority 2 patients should have a phone or telehealth contact to review current status. Appointments at the IWK will be arranged once it becomes feasible to do so. If feasible, care should be provided in the center closest to their home qualified to perform the activities (assuming regional capacity). Patients and health care providers should contact the IWK if the clinical condition changes.

Priority 3 patients will have their care deferred 3 to 6 months. Patients and health care providers should contact the IWK if the clinical condition changes.

**IWK Pediatric Hematology Oncology Clinics**

1. Teams will review patient lists and determine which patients can be managed by telephone, video, etc. weekly. The IWK has directed that all non-urgent clinic visits be cancelled or replaced by telehealth or phone assessments. This will occur until, at least, the end of April.
2. Where feasible investigations and diagnostic imaging will be done closest to home if the patient is not requiring an urgent IWK assessment. Some patients who have a requirement for diagnostic imaging under pediatric anesthesia will also be arranged at the IWK on a case by case basis. This will be facilitated by the patient’s FCCs or IWK registration clerk.
3. Patients to be seen at the IWK will be contacted the day before their scheduled in or out-patient appointment and screened for ‘pandemic-related symptoms’ using the IWK Pre-screen Assessment Tool (Pre-Screen Assessment Tool version 23 March 2020).
4. All patients will notified of the status of their visit:
	1. Cancelled. To be rebooked in 3-6 months as pandemic abates.
	2. In person at IWK. To be seen in clinic as originally scheduled (urgent, emergent or patients in whom delay would pose significant risk).
	3. Phone visit (where physical examination that can be conducted by video is likely not contributory).
	4. Videoconference visit (where physical examination that can be conducted by video would be helpful).
5. Patients should NOT be directed to COVID-19 Assessment Centres if febrile, as they may have sepsis related to fever/neutropenia or hyposplenic function or other immunocompromised state.
	1. IWK hematology/oncology patients should follow the **IWK Algorithm**.
	2. Regional patients should contact their local pediatrician for directions and show their Treat Promptly cards at the reginal Emergency Department.
6. For patients identified as requiring COVID-19 testing for symptomatic cough/fever while in the clinic:
	1. Provide patient with a surgical mask, instruct to clean their hands and place in a room with the door shut.
	2. Health care providers (HCPs) should use personal protective equipment (PPE) with face shield, mask, gown and gloves.
	3. Use a viral swab – for RSV, Influenza, COVID-19 swab throat and both nares. N95 mask is not required for this type of procedure.
	4. Nasopharyngeal aspirates (NPA) swabs for COVID-19 testing are not necessary, but if done are considered an **Aerosol Generating Medical Procedure** that requires N95 mask in addition to usual PPE.
	5. Once the patient leaves the clinic, contact housekeeping to complete a terminal clean of the room.
	6. Patients will be instructed to self-isolate until test results are known. When test results are known (positive or negative), Public Health will contact the patient for follow up.
7. Please inform treating oncologist if a patient is identified to be COVID-19 positive.

**IWK HEMATOLOGY/ONCOLOGY InPatient Care**

1. IWK Inpatient care on 6 Link continues at full operations except that common areas (such as the kitchen and playroom are closed).

2. Patients will be on self-isolation secondary to travel outside Nova Scotia in the last 14 days, contact with a COVID-19 patient. The patient is not allowed to leave the room unless required for medical investigations. The parent is not allowed to leave the room at all including for food, smoke breaks, or other reasons. HCP do not need to wear PPE when visiting the room.

Programs are being put in place to address those with substance use issues on isolation eg Nicorette gum for smokers.

3. Patients who have screened positive for risk of COVID-19 and have influenza-like symptoms and are awaiting PCR results will be kept on isolation in negative pressure room. PPE (face shield, mask, gown, gloves) is required for care.

4. Patients who are COVID-19 positive will be kept on isolation in a negative pressure room. PPE is required for care. If the patient deteriorates and is anticipated to require ventilator support, early transfer to the Pandemic Response Unit is required. Avoid unplanned intubation.

5. N95 masks are only required for Aerosol Generating Medical Procedures (eg intubation, extubation, open suction).

6. Remind parents that they should bring their own entertainment for those on isolation (eg toys, DVD games etc and sufficient clothes as communal washing is not allowed.

**Common Areas**

The IWK recommends regional sites follow infection control practices recommended by their local infection control officers.

**At the IWK**:

1. To minimize number of people in waiting rooms, patients will be instructed during the pre-screening call not to report to cancer centre until their appointment time.
2. All play rooms are closed.
3. All clinic and ward kitchens are closed. Food is still available from Dial for Dining.
4. All restaurants (Tim Hhorton’s and Subways) are closed. The cafeteria is providing limited pre-ordered meals. This is subject to change.
5. Seat patients at least 2 meters (6 feet) apart from other people in waiting rooms and treatment areas.
6. Wipe down chairs and tables between patients.
7. Remove loose, shared items including patient brochures and tablets and any food and drink from waiting rooms.
8. Clean and disinfect work areas, including keyboards and telephones, frequently.

**LOCAL LOGISTICS**

1. Parking is free at the IWK hospital and surrounding side streets.
2. Contact the oncology FCC for assistance if local accommodation is needed.
3. All patients for ambulatory care must enter through the Women’s Site entrance on University Avenue. The IWK Emergency Department remains open for emergency visits and its entrance is located on South Street.

**Attachments:**

1. IWK Screening Questions Corona Virus (version 23 March 2020)

2. IWK Algorithm for Triage to Emergency Department (version 17 March 2020)

3. IWK COVID Provincial Border Crossing Family Note Template (version 26 March 2020)

4. IWK Quick References COVID (version 26 March 2020)

5. IWK Health Centre PEDIATRIC IMMUNOCOMPROMISED PATIENT (version 26 March 2020)

6. COVID Resources for patients and families.

**Please contact Conrad Fernandez at 902-470-6988 or** **Conrad.fernandez@iwk.nshealth.ca** **if any questions.**