

Memorandum

SUBJECT: CorHealth COVID-19 Heart Failure Memo # 1 - **RECOMMENDATIONS FOR AN ONTARIO APPROACH FOR AMBULATORY MONITORING & MANAGEMENT OF HEART FAILURE DURING COVID-19**

TO: Ambulatory Heart Failure Care Stakeholders

FROM: Office of the CEO, CorHealth Ontario

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DISCLAIMER: The information in this document represents general guidance based on current practice and available evidence. The document was developed by provincial clinical experts, reflecting best knowledge at the time of writing, and is subject to revision based on changing conditions and new evidence. This information is *intended to be* "guidance rather than directive," and is *not meant to replace clinical judgment, regulatory body requirements, organizational, or hospital policies.*

Recommendations for Monitoring & Managing Heart Failure Patients during COVID-19

PREAMBLE

COVID-19 is an unprecedented crisis that poses significant risk to the community and the landscape is rapidly evolving. The Ministry of Health (MOH) memo (March 15, 2020) requested that all hospitals ramp down non-essential services, elective surgeries and other non-emergent clinical activity. In response to the MOH memo, it is imperative to transition in-person visits to virtual care options wherever possible.

CorHealth Ontario has been engaging with heart failure and cardiac experts and stakeholders across the province to discuss how best to preserve health care capacity, in light of increasing COVID-19 cases requiring health care. The following guidance and recommendations reflect advice from this engagement.

GUIDING PRINCIPLES

1. Keeping front line health care providers healthy and patients protected is vital.
2. Minimizing the impact of COVID-19 on the mortality and morbidity of patients with cardiac disease is a priority.
3. Aligning with province- and hospital-specific infection prevention and control policies and protocols where they exist is important.
4. Promoting clinical activities aimed at preserving hospital resources (i.e. health care human resources, personal protective equipment, procedure rooms, Intensive Care Units, Emergency Departments) is a priority.

RECOMMENDATIONS

Patients with Heart Failure (HF) require close monitoring and management by a team of professionals to prevent worsening symptoms that require emergency department care and/or hospital admission.

Resource: The Canadian Cardiovascular Society has produced a guidance document on Community-based Care of the Cardiovascular Patient During the COVID-19 Pandemic (March 25, 2020).

Despite the critical strategies to limit in-person visits as much as possible, many patients with HF require close monitoring and management to prevent worsening symptoms that require acute care. High risk patients require more intensive management by professionals typically associated with a hospital-based heart function clinic.

CorHealth, in consultation with stakeholders and system partners, is making recommendations for the management of ambulatory HF patients to support an integrated approach to keep patients safely at home through pre-emptive care and virtual management of HF patients during the COVID situation. This guidance document is organized into major sections:

- Chronic disease management for all HF patients.
- Management of high-risk patients

Chronic Disease Management for All HF Patients

1. Ongoing Monitoring of HF Condition

Patients should continue to be monitored for HF symptoms using virtual care options. Intensity and frequency should be arranged as per patient need and risk. (See UHN Guiding Principles: <https://www.corhealthontario.ca/UHN-Guiding-Principles.pdf>)

There are a number of digital platforms available in Ontario to connect patients to providers and providers to providers using virtual methods across the health care system. The following resource provides an overview of these services, and can also be found linked at CorHealth's COVID-19 Resource Center: [https://www.corhealthontario.ca/CorHealth-Resources-Central-Repository-of-Virtual-resources-\(March-30-2020\)-Version-1.pdf](https://www.corhealthontario.ca/CorHealth-Resources-Central-Repository-of-Virtual-resources-(March-30-2020)-Version-1.pdf)

The following telemonitoring services specifically target people with HF:

- 1.1. **Medly** - Medly is a digital program that allows HF patients to manage symptoms from home and provides HF patients with individualized self-care and coordinated clinical support. Additional information on Medly can be found at: medly.ca
- 1.2. **Ottawa Heart Institute** - The Heart Institute's Telehome Monitoring Program (THM) is a nurse-run, intensive, post-discharge home health program run by the Cardiac-Telehealth department. For more information, please visit the website, <https://www.ottawaheart.ca/healthcare-professionals/regional-national-programs/telehome-monitoring> or contact **Erika Macphee** emacphee@ottawaheart.ca
- 1.3. **Telehomecare for COPD and Heart Failure** - A free, six-month health coaching and remote monitoring program for patients with chronic obstructive pulmonary disease (COPD) and/or HF. Not all areas in Ontario provide this service. For more information, please visit the OTN website. <https://otn.ca/providers/telehomecare/>
- 1.4. **Community Paramedicine Remote Patient Monitoring (CPRPM) Program** - The CPRPM program is a telemonitoring program that also includes mobile community paramedics who are able to respond, in real time, to alerts generated by built in program logic. For more information please contact either Brent McLeod at brent.mcleod@hamilton.ca or Rick Whittaker at rick@wwcf.ca.

Guidance for Virtual Assessment – Is it COVID-19 or is it Heart Failure?

During virtual assessments of patients with known HF, screening for any symptoms of COVID-19 can impose challenges as some patients with worsening HF may experience a cough, fatigue or shortness of breath. A simple, practical guide on patient evaluation to help guide clinical reasoning to differentiate the likely etiology of symptoms for a patient with known HF published by the CCS on April 1, 2020:

<https://www.corhealthontario.ca/COVID-19-or-HF-RRT-doc-01Apr2020.pdf>

2. Pharmacological Optimization and Titration

In the setting of COVID, careful attention to the need for follow up lab testing (e.g. serum creatinine and potassium) is critical as the risk of accessing lab services could outweigh the benefits of medication titration in some patients. Moreover, access to lab testing may become increasingly difficult during the COVID pandemic.

While adherence to best practice remains key, the following are some considerations for managing HF medications during the COVID pandemic:

- 2.1. **Medication management to support decongestion** is critical to avoid escalating fluid congestion.
- 2.2. **For patients with newly diagnosed HF**, follow the Canadian Cardiovascular (CCS) Heart Failure guidelines (2021) for initiation of pharmacological management. Visit the [CCS website](#) for resources such as the Pocket Guide, and review the complete guideline update [here](#).
- 2.3. **For patients with stable HF**, consider deferring medication titration that requires lab follow up for the next 2 months.
- 2.4. **For patients with stable HF and no evidence of congestion**, consider titration of Beta Blocker therapy as per CCS HF guidelines as lab testing is usually not required.
- 2.5. **Explore remote monitoring** to gather necessary information to guide clinical decision making and guide titration through virtual visits.
- 2.6. **Special note regarding ACEi/ARB:**

The Canadian Cardiovascular Society and the Canadian Heart Failure Society **strongly discourage the discontinuation of guideline directed medical therapy (GDMT) involving Angiotensin Converting Enzyme Inhibitors (ACEi), Angiotensin Receptor Blockers (ARB) or Angiotensin Receptor Neprilysin Inhibitors (ARNi) in hypertensive or heart failure patients as a result of the COVID-19 pandemic.** Cessation of these drugs in stable patients can lead to uncontrolled hypertension and increased hospitalizations for heart failure with an unnecessary increase in health care utilization, straining our valuable inpatient hospital resources. Although preclinical data has shown that the COVID-19 virus (also known as SARS-CoV-2), uses the SARS-COV receptor angiotensin converting enzyme (ACE) 2 for entry into target cells¹, there is NO clinical evidence at this time to support withdrawal of these agents. Please continue GDMT. (Reference: <https://heartfailure.ca/education/covid-19-resources> accessed January 6, 2022)

3. Restricted Access to Laboratory Services

Regular monitoring of serum electrolytes and renal function is necessary for clinical decision making in HF patients. To limit the risk of exposure to COVID, patients requiring blood work should consider the following:

- 3.1. Visit a local lab at a scheduled time. This requires arrangements to be made through on-line booking or calling the lab site directly. Life lab: <https://www.lifelabs.com/>

Arrange for a home lab visit for *routine* blood work, where available (not ideal for urgent blood work due to scheduling and turnaround time for results). For example, Life Labs and Dynacare provide this service in some parts of Ontario. This service usually requires payment at the time the blood work is collected. Visit the lab websites for more details: <https://www.lifelabs.com/>; <https://www.dynacare.ca/>

Note: Due to COVID-19, community lab services may have reduced services or changed how they are providing services. Please call ahead to verify what services are in place.

Additional information regarding laboratory testing for HF patients is found in the following resource from the CCS COVID-19 Rapid Response Team, 'Is it COVID-19 or Is It Heart Failure?' (April 1, 2020): <https://www.corhealthontario.ca/COVID-19-or-HF-RRT-doc-01Apr2020.pdf>

4. Advance Care Conversations

Any patient with HF who contracts COVID is at high risk for poor outcomes, including death. The opportunity to explore goals of care, advance care plans, and identification of a substitute decision-making should be included during conversations with all HF patients.

In the setting of the COVID pandemic, the conversation needs to consider that care delivery may look very different. This is an important opportunity to explore how your patient understands their illness and what they value in the future so that good care decisions can be made. For example, some patients who experience health deterioration may wish to have care at home and this is the best time to plan for that possibility.

Whenever possible, these conversations should be undertaken by any health care member that knows the person, including primary care or specialty care providers. These conversations should not be left for acute care providers in an urgent or crises situation. Patients appreciate and expect this honest guidance during these difficult times.

The following resource provides a scripted guide to discuss potential outcomes of possible COVID-19 infection in high risk adults prior to a health crisis and can be found here:

https://www.corhealthontario.ca/Serious-Illness_Mini-Reference_COVID-19-Guide.pdf

This resource was developed by Fraser Health in British Columbia. Similar resources are currently in development in Ontario.

For patients with an Implantable Cardioverter Defibrillator (ICD), conversations need to include the possibility of ICD deactivation. ICD deactivation guides for patients and providers are available on the CorHealth website and found here:

Health Care Professionals (<https://www.corhealthontario.ca/Implantable-Cardioverter-Defibrillator-Deactivation-A-Guide-for-Health-Care-Professionals.pdf>)

More detailed information about advance care planning is available on the following website:

<https://www.speakupontario.ca/>

Management of High-Risk Patients

High risk HF patients often require intense monitoring and following up. While adherence to best practice remains key, the following are some considerations for managing high risk HF patients during the COVID pandemic.

5. Identification of High-Risk Patients

5.1. Triage patients to restrict in-person visits to hospital-based clinics to those requiring critical volume assessment, or for whom the likelihood of admission and/or IV therapies is high.

These primarily include patients with:

- Recent hospital discharge (< 30 days) for acute decompensated heart failure

- Multiple readmissions or ED utilization in the last 6 months
 - Worsening cardiorenal syndrome
 - Home IV inotropes
 - Worsening volume overload and/or requiring IV Lasix
 - NYHA Class III-IV symptoms
 - Work up for advanced therapies (heart transplant or left ventricular assist device)
- 5.2. Limit the use of IV diuretic therapy. More aggressive titration of oral diuretic therapy using higher doses of oral Lasix; Refer to resource for flexible diuretic regimen found here (Western University; must be accessed through Google Chrome): www.decongest.ca
- Addition of metolazone 30 min prior to Lasix as needed
 - Switching oral furosemide (Lasix) to bumetanide as it tends to have better absorption than oral lasix in the setting of gut edema. For most patients the cost of bumetanide may be a prohibitive as it is not covered by the Ontario Drug Benefit program. Consider applying for a compassionate supply through the manufacture (<https://corhealthontario.ca/Burinex-Product-Request-Form.pdf>) or applying for limited use (<https://corhealthontario.ca/EAP-application-form.pdf>)
- 5.3. Transition to in-person assessments outside of the hospital setting. Home or community location visits can support connecting patients through provider-provider collaboration when additional clinical assessment is necessary to guide management.
- Depending on your local resources, some home and community nursing services or community paramedicine services provide home visits.
 - Explore access via a community setting that meets COVID-19 infection control regulations (e.g. primary care provider or specialist office)

6. Use of IV Lasix Therapy in the Community Setting

The logistics of delivering IV therapy will become extremely difficult in the ambulatory or home setting as the COVID situation escalates. There may be situations where patients are refractory to escalating doses of oral diuretics and the need for IV therapy is necessary for symptom control. The following are some considerations:

- 6.1. Some home and community services provide administration of IV Lasix in the home for patients who are refractory to oral diuretic therapy.
- 6.2. For people who require IV Lasix for more than a week or have difficult peripheral vascular access, consider insertion of a PICC line. PICC line insertion should be considered prior to hospital discharge for those in the acute care setting.
- 6.3. Home IV Lasix is not recommended for people who have acute decompensated heart failure and need more acute care management (e.g. etiology of decompensation requires acute care (e.g. ischemia, arrhythmia, etc.), or they are not perfusing adequately.
- 6.4. Furosemide (Lasix) can be administered subcutaneously if necessary. It is not the first line of response. If IV is not possible, use subcutaneously. Delivery options may include direct injection (multiple injections may be needed) or through a Continuous Ambulatory Delivery Device (CADD pump).
- 6.5. For patients who are receiving IV Lasix for end-of- life symptom control, advance care plans should clearly identify an action plan for worsening symptoms.