

Providing Care for Our Patients with COVID@Home

Primary Care Providers (PCP) have continued to support their patients throughout the pandemic. This document provides a simple framework for PCPs to utilize when following their own patients with COVID@Home.

The framework presents the care broken down into two manageable steps when a patient is first identified as being diagnosed with COVID-19:

- A. Initial Assessment and Risk Stratification
- B. Ongoing Monitoring Visits

A. Initial Assessment and Risk Stratification

1. Confirm with patient the Date of diagnosis and Date of onset of symptoms
2. Provide education and support with patient about importance of self-isolation (see Public Health document for self-isolation) for patients and others in the household
3. Undertake assessment of symptom presence and severity with particular focus on (consider using the Hamilton Family Medicine Community COVID Ward Monitoring Document):

Symptoms

- Breathlessness (severity and stability)
- Cough
- Chest tightness
- Fever
- Fatigued
- Light-headedness
- GI Upset

Red Flags (if present consider ED transfer)

- Hemoptysis
- Confusion
- Decreased urine output
- Syncope
- Cold clammy skin
- Non-blanching rash

Perform assessment of Medical Risk Factors

- | | | |
|-------------|-----------------|--------------------|
| ○ Pregnancy | ○ Liver disease | ○ Autoimmune |
| ○ COPD | ○ Asthma | ○ Immunosuppressed |
| ○ CKD | ○ Smoking | ○ Substance use |
| ○ CVD | ○ Malignancy | ○ Hypertension |
| ○ Diabetes | | |

Perform assessment of other Contextual Risk Factors

- o Occupational risk
- o > 60 years
- o Living with elderly
- o Financial insecurity
- o Underhoused
- o Living alone
- o Living with young children
- o Mental health history
- o Lack of access to food
- o Lack of support/care

4. Provide patient general COVID-19 care advice

- i. Advise patient to get access to pulse oximeter. If patient does not have means or access to a pulse oximeter, consider supporting their access through [requesting pulse oximeters through this process](#)
- ii. Advise patient to undertake a daily (or twice daily) assessment of their symptoms (presence and relative change) and monitor their O2 saturation and heart rate (Record on the Mississauga COVID@Home Self Care and Self-Monitoring document)
- iii. Set expectations about the general course of the illness (see COVID Symptom Timeline)
- iv. Advise patient to rest and energy conserve (increased episodes of triggered dyspnea linked with increased pulmonary damage)
- v. Advise patient to focus on hydration
- vi. Advise patient to change positions to aid breathing (See COVID Timed Position Change Document)

5. Risk Stratify the patient

High Risk***	Average Risk	Low Risk
Any age with medical comorbidities (medical risk factors from above)		Otherwise healthy adults; asymptomatic adults
Patients with symptom deterioration	Pregnant women	No comorbidities
Patients with any of the safety net flags (<i>only food/income insecure patients in phase 1</i>)		No safety net flags
Age >60	40-60 years old with no medical comorbidities	Age 1-39 with no medical comorbidities
Monitor Daily for 14 days	Monitor Every 2 days x 7 days; then recommend self-monitor for additional 7 days depending on progress	Monitor Consider self-monitoring only; check-ins determined by individual patient (consider at 7 days)

If the patient stratifies as high/average risk, they are eligible to be followed also by a member of the Interprofessional Monitoring Team as part the COVID@Home Monitoring Program (See Mississauga COVID@Home Monitoring Program Document)

6. Give clear guidance about whom to contact if symptoms get worse, for example:

Call 911 if:	Call clinic if:
<ul style="list-style-type: none"> ○ You have severe trouble breathing OR ○ You have severe chest pain ○ You are confused or not thinking clearly ○ You pass out (lose consciousness) ○ If monitoring O2 saturation < 88% 	<ul style="list-style-type: none"> ○ You have new or worse trouble breathing ○ Your symptoms are getting worse ○ You start getting better and then get worse ○ You have severe dehydration (e.g. dry mouth, light-headed or producing little urine) ○ If monitoring O2 saturation that < 93% but \geq 88%

7. Determine how ongoing follow-up and monitoring will occur and communication that to the patient

B. Ongoing Monitoring Visits

1. Confirm with patient preferred method of virtual consult (telephone vs. video)
2. Utilize HFAM [Community COVID-19 Ward Monitoring](#) Template to structure and document your regularly scheduling monitoring visits
 - Downloadable versions are available [here](#) for the following EMRs
 - i. OSCAR
 - ii. Telus PS Suite
 - iii. Accuro
3. Check mental health and well being
4. Check access to food, support or carer availability, financial or house stress
5. Determine if the patient is still safe to be managed at home by screening for red flags (if present consider transfer to ED*)
6. Goals of care discussion if appropriate
7. Determine if risk has been re-stratified and refer (if appropriate) to the COVID@Home Monitoring Program
8. Establish date and time for next monitoring visit

Red flag symptoms: if present, consider if patient should transfer to ED

Respiratory	Other
<ul style="list-style-type: none"> ○ Severe shortness of breath at rest ○ Difficulty in breathing ○ Increasing significant fatigue ○ Blue lips or face ○ Hemoptysis 	<ul style="list-style-type: none"> ○ Cold, clammy, mottled or pale skin ○ Reduced level of consciousness or new confusion ○ Little or no urine output ○ Pain or pressure in the chest ○ Syncope

Mississauga COVID@Home Monitoring Program

Description

The Mississauga COVID@Home Monitoring Program aims to augment the care of patients with COVID-19 provided by their Primary Care Provider (PCP) with a more intensive level of monitoring. It also aims to provide linkages to community support services and system navigation (if appropriate).

The following Program Description will outline at a high level the various aspects of the program:

1. Referral Sources
2. Eligibility
3. Intake
4. Pulse Oximetry
5. Monitoring Visits
6. Escalation Process
7. Discharge

1. Referral Sources

The following are anticipated referral sources:

- Community-based PCPs have identified their patient with COVID-19, have undertaken a STANDARDIZED RISK ASSESSMENT of the patient and judged the patient to be High or Average Risk for deterioration. It is anticipated that PCPs will provide care for the bulk of their patients with COVID.
- Individuals who have been assessed in the Hospital or ED from COVID symptoms (pathway in development)
- Individuals who have been assessed by the THP COVID Assessment Centre Resulting Team and judged to be High Risk (pathway in development).

Referrals to the COVID@Home Monitoring Program can be initiated by a written request stating “COVID@Home” to the Home and Community Care & Support Services (HCCSS) Referral Form. This will trigger a triage to one of the COVID@Home Monitoring Teams currently housed within the Mississauga Health Interprofessional Primary Care Teams:

- CarePoint Health
- Credit Valley Family Health Team
- Summerville Family Health Team

2. Eligibility

Patients will be judged for eligibility based upon the follow criteria
Inclusion criteria:

- Community-dwelling individuals
- > 18 years of age
- Risk stratified as Average Risk or High Risk
- Agree to be followed by Monitoring Team

Exclusion criteria:

- Underhoused/homeless
- Unable to use a telephone or video call
- Unable to follow instructions and complete self-monitoring tasks
- Unable to self-manage

3. Intake

Upon receipt of the referral, the Monitoring Team will undertake an Initial Assessment and Risk Stratification, similar to that completed by the PCP prior to referral. If the patient is judged to be unwell or if their Initial Assessment demonstrates Red Flags they will be directed to the ED.

At the point of intake, the patient's primary method of contact will be established and expectations about the frequency of virtual assessments will be communicated. The patient's emergency contact will also be established. Patients will be taught how to undertake at a minimum twice daily (may be as frequent as every 2-4 hours) symptom assessments and Pulse Oximeter assessments (O2 Sat and HR).

Patients will be sent electronically and oriented to the Patient Resource Documents including:

- Mississauga COVID@Home Self Care and Symptom Monitoring
- Mississauga COVID@Home Patient Symptom Timeline
- COVID@Home Timed Position Changes
- Public Health How to Self-Isolate
- Pulse Oximetry Patient Instructions

4. Pulse Oximetry

PCPs are encouraged to advise patients to procure their own pulse oximeter immediately upon diagnosis of COVID. If patients are unable to procure their own pulse oximeter the COVID@Home program can provide one for them. The receipt of a referral to HCCSS for a High Risk COVID-19 patient will trigger a discussion with the patient if they have access to a pulse oximeter. If they do not, it will trigger delivery of the Pulse Oximeter to the patient's home. This will be organized through HCCSS contacting one of the delivery agents (e.g. St. John's Ambulance) to deliver a Pulse Oximeter from the Mississauga COVID@Home device reservoir to the patient's home. Included in the delivery bag will be written instructions for usage of the Pulse Oximeter, instructions about how to return the Pulse Oximeter and Patient Resource Documents (if the patient cannot receive electronically).

5. Monitoring Visits

The Monitoring Teams will perform regular virtual consults (ranging from twice per day to once every two days) with patients who are enrolled to the Program. While performing the virtual consults, the Monitoring Team Clinician will utilize the HFAM [Community COVID-19 Ward Monitoring](#) Template as a way of documenting symptom severity and change over time. Monitoring visits will occur during the hours of 0900 – 1700 (Monday to Sunday).

6. Escalation Process

The Monitoring Team Clinician will be continuously assessing during their virtual consults the development of worrisome symptoms. A referral to the ED will be considered if any of the following are detected:

- HR >110, SPO2 consistently \leq 92%, RR >24
- Severe shortness of breath at rest (e.g. Breathlessness RR >30 despite normal O2 saturation)
- Difficulty in breathing (work of breathing)
- Reducing O2 saturation
- Pain or pressure in chest
- Decreased oral intake or urine output (dehydrated, needing IV fluids)
- Cold, clammy or pale mottled skin
- New onset of confusion, becoming difficult to rouse, syncope
- Blue lips or face
- Coughing up blood
- Other symptoms indicating severe illness, or significant or rapid deterioration including markedly increased fatigue (if O2 Saturation are not available).

When considering whether or not to send a patient to the ED, the Monitoring Team will attempt to contact the PCP and review the state of their patient's health. However, if they are unable to reach the PCP in a timely manner, the Monitoring Team will act consistent with the patient's best interest.

7. Discharge

Patients will be deemed to be discharged from the COVID@Home Monitoring Program when one of the following occurs:

- The patient passes through the initial 14 days of their illness and has sufficiently recovered from their COVID-19 symptoms
- The patient is transferred to the ED and is admitted to Acute Care.

Upon Discharge from the program, the COVID@Home Monitoring Team will provide a brief summary of the patient's course in the Program

INSTRUCTIONS:

- This form is to be started when a patient has received a positive result on a COVID-19 test and will be monitored and managed by primary care.
- When saved, the form will appear in the left column on the patient's OSCAR eChart as "COVID Monitoring Record".
- **It is important the same form is used for each monitoring visit.** To do this, open the patient's eChart and open the same form again from the left menu.
- **If you save a change to this form and close it, you must refresh the patient's eChart before opening this form again in order to see the changes you made.**

Risk Level

See Guide to Risk Assessment (<https://hfam.ca/clinical-pathways-and-evidence/covid/assessment-diagnosis-and-management-of-covid/guide-to-risk-assessment/>)

<input checked="" type="radio"/> High	<input type="radio"/> Average	<input type="radio"/> Low
<p>MONITOR Daily for at least 14 days</p>	<p>MONITOR Every 2 days x 8 days; then recommend self-monitor for additional 7 days depending on progress</p>	<p>MONITOR Consider self-monitoring only; check-ins determined by individual patient. (Consider at 7 days)</p>

Isolation and Contact Tracing

Test Data and Isolation Period

Date of Positive Test

2021-01-26

Date of First Symptom OR No Symptoms

2021-01-25

End of Isolation Period

2021-02-05

Data Checklist

- Download lab from OLIS to chart
- Add COVID code to Disease Registry (080)
- Add "COVID19 [month/year]" to medical history
- Add COVID code to billing (080)

Patient Isolation/Contact Tracing Education Checklist

- Patient was contacted by Public Health after positive test result OR
- Send Tickler ? Used Public Health Guide (<https://hfam.ca/wp-content/uploads/2020/12/Instructions-for-individuals-who-tested-positive-for-COVID-19.pdf>) to provide or reinforce Public Health's direction on self isolation and identifying/contacting contacts *

Home Equipment Inventory

Patient has or can borrow:

- BP cuff
- Thermometer
- Send Tickler ? Pulse oximeter (NOTE: May direct to YouTube video on using pulse oximeter at <https://www.youtube.com/watch?v=ghUTSH-PYio> (<https://www.youtube.com/watch?v=ghUTSH-PYio>))

(*NOTE: Recommend directing patients to Hamilton Public Health (<https://www.hamilton.ca/coronavirus/covid-19-have-symptoms-or-been-exposed>) (<https://www.hamilton.ca/coronavirus/covid-19-have-symptoms-or-been-exposed>)) and HFAM Patient Resources (<https://hfam.ca/patient-resources/> (<https://hfam.ca/patient-resources/>)) for more information. These may be provided verbally and/or sent electronically through VirtualClinic+ (<https://app.wellclinics.ca/app/surveys/show-surveys>).

COVID-19 Monitoring Visits

IMPORTANT: To access a new row for data entry, save the form, exit, refresh the patient's OSCAR eChart and open this form again from the eChart's left menu.

Please follow specific history and exam details per HFAM Monitoring Template (<https://hfam.ca/clinical-pathways-and-evidence/covid/assessment-diagnosis-and-management-of-covid/monitoring-template/>). Also see tips for assessing Dyspnea (<https://hfam.ca/clinical-pathways-and-evidence/covid/assessment-diagnosis-and-management-of-covid/tips-for-assessing-dyspnea-virtually/>) and Vitals (<https://hfam.ca/clinical-pathways-and-evidence/covid/assessment-diagnosis-and-management-of-covid/assessing-vital-signs-virtually/>) virtual

Date	Symptom Presence (and Relative Change) or Absence						Vitals								Red Flags	Safe to Continue
	Dyspnea	Cough	Fever	Loss of Taste/Smell	GI Upset	Other	RR	HR	BP	T	O2 Sat (%)	Hydration				
2021-01-27	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> Better <input checked="" type="radio"/> Worse <input type="radio"/> Stable	<input type="radio"/> Y <input checked="" type="radio"/> N Note	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> Better <input type="radio"/> Worse <input checked="" type="radio"/> Stable	<input type="radio"/> Y <input checked="" type="radio"/> N Note	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> Better <input type="radio"/> Worse <input checked="" type="radio"/> Stable	<input type="radio"/> Y <input checked="" type="radio"/> N Note	16 Note	88 Note	N/A Note	37.8 Note	98 Note	<input type="radio"/> Concern <input type="radio"/> Satisfactory Note	<input checked="" type="radio"/> Y <input type="radio"/> N Note	<input type="radio"/> Y <input checked="" type="radio"/> N Note		

	Note	Note	Note															
	Notes																	
2021-01-28	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> Better <input type="radio"/> Worse <input checked="" type="radio"/> Stable Note	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> Better <input type="radio"/> Worse <input checked="" type="radio"/> Stable Note	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> Better <input type="radio"/> Worse <input checked="" type="radio"/> Stable Note	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> Better <input type="radio"/> Worse <input checked="" type="radio"/> Stable Note	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> Better <input type="radio"/> Worse <input checked="" type="radio"/> Stable Note	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> Better <input type="radio"/> Worse <input checked="" type="radio"/> Stable Note	<input type="text" value=""/> Note	<input type="text" value=""/> Note	<input type="text" value=""/> Note	<input type="text" value="38.0"/> Note	<input type="text" value="98"/> Note	<input type="radio"/> Concern <input type="radio"/> Satisfactory Note	<input type="radio"/> Y <input type="radio"/> N Note	<input type="radio"/> Y <input type="radio"/> N Note				
	Notes																	
2021-02-22	<input type="radio"/> Y <input type="radio"/> N Note	<input type="radio"/> Y <input type="radio"/> N Note	<input type="radio"/> Y <input type="radio"/> N Note	<input type="radio"/> Y <input type="radio"/> N Note	<input type="radio"/> Y <input type="radio"/> N Note	<input type="radio"/> Y <input type="radio"/> N Note	<input type="text" value=""/> Note	<input type="text" value=""/> Note	<input type="text" value=""/> Note	<input type="text" value=""/> Note	<input type="text" value=""/> Note	<input type="radio"/> Concern <input type="radio"/> Satisfactory Note	<input type="radio"/> Y <input type="radio"/> N Note	<input type="radio"/> Y <input type="radio"/> N Note				
	Notes																	

Next Visit Date

OR

Discharge Date (<https://hfam.ca/clinical-pathways-and-evidence/covid/assessment-diagnosis-and-management-of-covid/discharge/>)

2021-01-29

On Call Notified if Visit on Weekend

Note

Other Areas of Assessment/Support

Area	Concern?	Notes	Referral?	Referral Instructions
Mental Health	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="button" value="Send Tickler ?"/>	<input type="text"/>	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="button" value="Send Tickler ?"/>	<input type="text"/>
Access to Food	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="button" value="Send Tickler ?"/>	<input type="text"/>	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="button" value="Send Tickler ?"/>	<input type="text"/>
Access to Caregiver(s)	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="button" value="Send Tickler ?"/>	<input type="text"/>	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="button" value="Send Tickler ?"/>	<input type="text"/>
Access to Needed Supports	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="button" value="Send Tickler ?"/>	<input type="text"/>	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="button" value="Send Tickler ?"/>	<input type="text"/>
Financial Health	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="button" value="Send Tickler ?"/>	<input type="text"/>	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="button" value="Send Tickler ?"/>	<input type="text"/>
Housing	<input type="radio"/> Y <input type="radio"/> N <input type="button" value="Send Tickler ?"/>	<input type="text"/>	<input type="radio"/> Y <input type="radio"/> N <input type="button" value="Send Tickler ?"/>	<input type="text"/>

• N

• N

Send Tickler ?

Patient Advice/Education Checklist

Please refer to "Patient Advice Guide" (<https://hfam.ca/clinical-pathways-and-evidence/covid/assessment-diagnosis-and-management-of-covid/patient-advice-guide/>)

- Illness course explained
- Information about hydration and comfort medications given:
- Direction given to limit exertion and education provided about breathing position:
- Return to care instructions given
- Advice given about regular medications (SADMAN (<https://www.rxfiles.ca/rxfiles/uploads/documents/SADMANS-Rx.pdf>)): N/A OR Notes:
- Management of comorbidities discussed:

Summary of Goals of Care Conversation (if relevant and appropriate)

N/A Full escalation of care if worsens



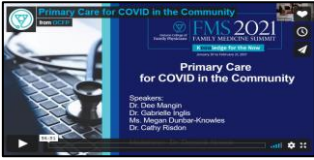

Save

This form was developed by the McMaster University Department of Family Medicine and may be modified and used as needed, subject to retaining this acknowledgement in all versions. In the spirit of collaborative improvement, we welcome your feedback. (mailto:oscarmcmaster@fammedmcmaster.ca) Thank you v1.4

COVID@Home

Tools and Resources Supporting Primary Care Providers

Ontario Health COVID@Home tools and resources to support primary care providers in the community who wish to remotely monitor their patients who have mild to moderate COVID-19. All efforts to support monitoring COVID-19 patients in the community strive to help ease constraints on the health care system.

RESOURCE	INFORMATION	HOW TO ACCESS
COVID@Home Monitoring for Primary Care Community of Practice CoP	Ontario Health (through Health Quality Ontario) has developed a COVID@Home Monitoring Community of Practice for Primary Care. Members will gain access to information about clinical pathways based on best evidence and other tools and resources.	<ol style="list-style-type: none"> 1. Visit quorum.hqontario.ca. 2. Sign up to create an account. 3. Visit the Quorum site and JOIN GROUP. <p><i>You will be notified by email when granted access</i></p> 
Ontario Health Resource Toolkit: COVID@Home Monitoring for Primary Care	Supports primary care team implementing a remote home monitoring system for COVID-19 patients by providing information on: <ol style="list-style-type: none"> 1. Clinical content and suggested best practices. 2. Quality improvement building blocks. 	Click here to access Ontario Health's COVID@Home Resource Toolkit. 
Mainpro+ Certified Video Primary Care for COVID in the Community	This 1-credit-per-hour online Group Learning program certified for up to 1 Mainpro+® credit. To receive your certificate, contact the FMS team at fms@ocfp.on.ca after watching the session.	 <p>Click here (scroll down) to access the video</p>
COVID-19: Remote Consultations	Created by the Ontario Family of Physicians to provide a quick guide to assessing patients by video or voice call.	Review the algorithm for remote monitoring for COVID-19 patients. 
Oxygen Saturation Monitors for your COVID+ patients	As part of the COVID@Home initiative, the Ministry of Health has procured a stockpile of oxygen saturation monitors to be distributed to primary care professionals and teams who wish to provide enhanced monitoring of their COVID-19 positive patients at home.	Click here to learn more. Click here to complete the Oxygen Saturation Monitor Eligibility and Intake Form to order O2 saturation monitors for your COVID+ patients.

QUESTIONS?

COVID@Home monitoring
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Clinical pathways for COVID@Home monitoring
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