

**RESOURCE TOOLKIT:**

# ***COVID@Home* Monitoring for Primary Care**

Implementing home monitoring for COVID-19 patients  
through primary care

March 17, 2021

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# Introduction

During the COVID-19 pandemic, Hamilton Primary Care Leadership (including the McMaster University Department of Family Medicine) created the [HFAM.ca](https://www.hfam.ca) website to support primary care resource sharing for Hamilton Family Medicine (HFAM) teams. Their model for monitoring patients with COVID-19 at home through primary care to optimize care for their patients was inspiring and led to the creation of this toolkit.

## Purpose of This Document

This toolkit was created to be shared with primary care teams across Ontario to help them treat COVID-19 patients directly in the community. Using the best evidence pathways available through the HFAM website ([HFAM.ca](https://www.hfam.ca)), this toolkit will provide the following information to help your team implement a remote home monitoring system for your COVID-19 patients:

1. Clinical content and suggested best practice pathways for primary care that will safely support COVID-19 patients in their home
2. Quality improvement building blocks that may be used in planning and sustaining a monitoring program within your setting

## Rationale for Home Monitoring in Primary Care

Primary care is essential in the context of the COVID-19 crisis to help manage unexpected surges in demand on the health system and to maintain continuity of care for affected patients.<sup>1</sup> Implementing systematic COVID-19 monitoring programs in primary care creates the opportunity to provide optimized care for patients who do not need immediate hospital attention but may be at high risk of developing serious symptoms. For example, primary care monitoring may assist in early detection of pneumonia or asymptomatic hypoxia, allowing patients to receive appropriate, more intensive medical care sooner—before invasive measures are required.

If patients are admitted to hospital, primary care monitoring can also improve the transition from hospital back home by providing continuity of care for medically stable patients who require continued short-term oxygen support in terms of oxygen monitoring, continued oxygen provision (where appropriate), and oxygen weaning.

This toolkit is meant to provide guidance on leading practices and tools and resources for primary care providers or other teams who wish to support this work. Remote monitoring of COVID-19 patients in the community can be considered an extended model of primary care that can be ready to unburden hospital services that may become overwhelmed. It includes resources to support clinicians in establishing this type of program and a review of possible implementation steps.

**Note:** There are currently 29 technology-based remote monitoring programs supporting patients with COVID funded throughout the province of Ontario with various local models (e.g., hospital-based COVID assessment centre models) and regional models (leveraging home and community care, and community paramedicine). If you want to learn more about a remote monitoring programs in your region and how you can work in collaboration to support your patients, please reach out to your regional digital lead (see Appendix A for a list of contacts).

<sup>1</sup> Organization for Economic Co-operation and Development (OECD). Strengthening the frontline: How primary health care helps health systems adapt during the COVID-19 pandemic. Paris: OECD; 2021 Feb 10 [cited 2021 Mar 2]. Available from: [https://read.oecd-ilibrary.org/view/?ref=1060\\_1060243-snyxeld1ii&title=Strengthening-the-frontline-How-primary-health-care-helps-health-systems-adapt-during-the-COVID-19-pandemic](https://read.oecd-ilibrary.org/view/?ref=1060_1060243-snyxeld1ii&title=Strengthening-the-frontline-How-primary-health-care-helps-health-systems-adapt-during-the-COVID-19-pandemic)

## Target Patient Population

For the purposes of this toolkit, we have categorized community-dwelling COVID-19 patients into three categories:

- Group 1:** Community-dwelling patients who have tested positive for COVID-19 and the primary care practice has received a notification. They may have risk factors that make them more vulnerable to serious illness and require increased monitoring beyond the advice public health can provide.
- Group 2:** Community-dwelling patients prefer to have their care needs met in the home setting, whose goals of care do not align with transfer to hospital, and where a palliative approach to care is being used. These patients require increased monitoring but also may require oxygen for management of symptoms and connection to additional supports to ensure they are able to remain at home.
- Group 3:** Community-dwelling patients who have tested positive for COVID-19 and have been hospitalized but are now stable and can be discharged earlier from hospital or directly from the emergency department if monitoring by primary care is continued. This can include patients who required continued oxygen provision and is planning an eventual weaning in the home setting, continued oxygen saturation monitoring, medication management (e.g., steroids) and/or intravenous (IV) fluids.

**For the purposes of this toolkit, we will be focusing on Group 1 and Group 2 patients.** Primary care models may be able to serve Group 3 patients once they have successfully rolled out to Group 1 and Group 2 patients in their practice, and if they have good relationships with other partners in their health care ecosystem.

# COVID@Home Primary Care Monitoring Models

Table 1 outlines the suggested primary care monitoring models for Group 1 and Group 2 patients.

**Table 1: Suggested Primary Care Monitoring Models for Group 1 and Group 2 COVID-19 patients**

Primary Care Monitoring Models		
	Group 1 Patients	Group 2 Patients
<b>Intent</b>	<ul style="list-style-type: none"> <li>• Provide safety net that reduces unnecessary ED visits</li> <li>• Ensure objective decision making regarding escalations for additional care</li> </ul>	<ul style="list-style-type: none"> <li>• Improve quality of care for patients with serious life-limiting illness</li> <li>• Care for COVID-19 patients on a palliative care pathway who require oxygen for symptom management</li> </ul>
<b>Activities of Care Team</b>	<ul style="list-style-type: none"> <li>• Triage and monitor oxygen saturation</li> <li>• Monitor symptoms through patient self-monitoring, patient education on management, and an action plan for “red flag” symptoms</li> <li>• Virtual primary care “ward rounds”/ check-ins with frequency determined by patient risk level (see <a href="#">Monitoring and Follow-up section</a> of the HFAM website for risk assessment and monitoring frequency recommendations)</li> </ul>	<ul style="list-style-type: none"> <li>• Triage and monitor oxygen saturation</li> <li>• Monitor symptoms through patient self-monitoring and patient education</li> <li>• Manage oxygen and other medications</li> <li>• Virtual rounding/check-ins, as needed</li> </ul>
<b>Clinical Plan</b>	<ul style="list-style-type: none"> <li>• IV fluids and oxygen are not “started” on patients in this group</li> <li>• If patient condition worsens, they are sent to ED</li> </ul>	<ul style="list-style-type: none"> <li>• Oxygen provision, IV medications, and/or IV fluids/hypodermoclysis can be started if required</li> <li>• If patients condition worsens, goals of care are reviewed again, and external supports put in place if patient wishes to remain at home</li> </ul>
<b>Required Equipment and Human Resources</b>	<ul style="list-style-type: none"> <li>• Pulse oximetry monitors</li> <li>• Primary care physician <b>and/or</b> staff for monitoring (may include nursing and/or paramedicine, depending on setting)</li> </ul>	<ul style="list-style-type: none"> <li>• Oxygen saturation monitors, oxygen provision as required for hypoxia (see <a href="#">HFAM.ca</a> pathway for targets)</li> <li>• Primary care physician or most responsible physician and other staff as clinically indicated for monitoring (e.g., may include respiratory therapy, if indicated and if available, home care nursing, or paramedicine)</li> </ul>

Abbreviations: ED, emergency department; HFAM, Hamilton Family Medicine team; IV, intravenous

**Note:** It is important for primary care teams to provide protocol-based care and fail-proof escalation pathways. If technologically-driven remote processes are used, low-tech back-up options should be readily available should technologies fail.

## Clinical and Escalation Pathways

The [HFAM.ca](https://www.hfam.ca) website includes links to all of the required tools and information for clinical and escalation pathways (including patient information and electronic medical record [EMR] templates), and the site is updated regularly as COVID-19 evidence evolves.

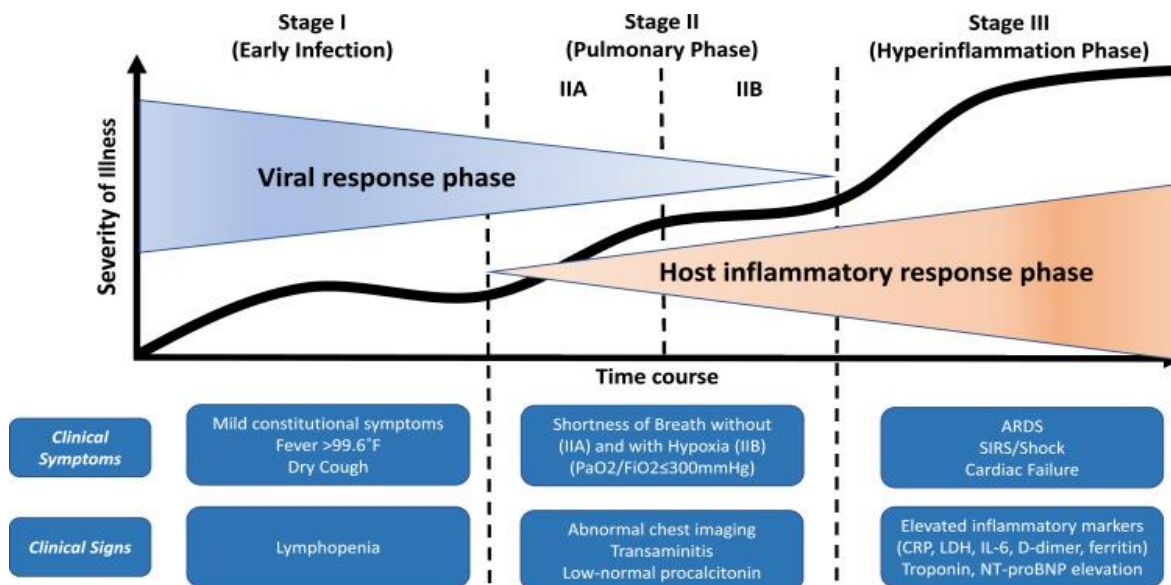
### Clinical Pathways for Groups 1 and 2 COVID-19 Patients

Clinical recommendations for both acute COVID patients (Group 1) and those patients whose goal of care are consistent with palliating at home (Group 2) are available at the links below:

- **Group 1 (acute COVID-19 patients):** [Hamilton Family Medicine Pathway for Assessment, Diagnosis and Management of COVID](#)
- **Group 2 (patients who have goals of care which align with taking a palliative approach to care and who have indicated they do not wish to be transferred to hospital):** [Hamilton Family Medicine Pathway for Group 2 COVID-19 Patients](#)

Please see the Quality Improvement section for a high-level example of a possible [clinical pathway](#) for Group 1 and Group 2 COVID-19 patients.

Figure 1 shows a possible disease course for COVID-19 through three phases of the virus. The disease course is important to consider when thinking about the optimal time to start and stop active monitoring for patients. Anticipate that symptoms peak at 8 to 12 days after symptom onset and expect to monitor patients from 0 to 14 days or longer, depending on the individual’s disease trajectory. (These details are included in the operationalised pathway; see “Monitoring and Follow-up/Risk Stratify Patient” in the [HFAM pathway](#)).



**Figure 1: Possible disease course of COVID-19<sup>2</sup>**

<sup>2</sup> Siddiqi HK, Mehra MR. COVID-19 illness in native and immunosuppressed states: A clinical-therapeutic staging proposal. *J Heart Lung Transplant*. 2020; 39(5): 405–7.

## Key Safety Factors and Escalation Pathways

In setting up *COVID@Home* monitoring systems, the following factors are **key** to ensuring patient safety:

1. Appropriate assessment of COVID severity, including risk assessment and risk stratification
2. Clear escalation pathways if patient experiences any “red flags” or their risk level changes
3. Quick access for patients to a clinical provider 24 hours a day, 7 days a week (or guidance on what to do if they can not reach their providers)

### Risk Stratification

A [risk stratification table](#) is available from the HFAM webpage. It can be found under “Monitoring and Follow-up-Risk Stratify Patient tab” on the HFAM clinical pathway.

**Note:** Please visit the [HFAM website](#) frequently as information is constantly updated to reflect the latest evidence and best practice.

### Escalation Pathways for Red Flags

It is key that an escalation pathway for patient presenting with “red flag” symptoms (including hospital referral) is mapped out and agreed upon with all partners before commencing with the pathway with your clinic or group. *COVID@Home* monitoring systems should consider using [process mapping](#) to ensure decision points and pathways are clear to all team members involved as well as patients.

Common “red flags” that should trigger an escalation pathway to the emergency department may change as evidence is updated. Current “red flags” can be found at the following webpages:

- [Assessment, Diagnosis and Management of COVID page](#) of the HFAM website
  - In “History” tab and “When to Refer to the ED” tab
- [COVIDCare@Home clinical assessment tool](#) from Women’s College Hospital

These “red flags” should be clear to all providers in your clinic and included as triggers in escalation pathways.

**Tip:** In Hamilton, a specific rapid access advice line to secondary care physicians was made available to support patients who do not need transfer to hospital, but where secondary care advice would be useful. This may be a helpful support to set up in your own area.

## Clinical Considerations

### Oxygen Provision

Prior restriction to oxygen therapy qualifications and funding [are being waived during the pandemic](#).

**Note for users outside the Hamilton area:** These pathways from HFAM include VitalAire and ProResp Order Forms for oxygen provision. You may have relationships with a different oxygen provider in your area. **A full list of oxygen providers can be found [HERE](#).** If you are working with another oxygen provider, please confirm this provider can rapidly initiate home oxygen, if needed, including on weekends to map your local requirements.

### Oxygen Saturation Monitoring

The following three pulse oximetry monitors are available from the Ministry of Health:

- [Thermor BIOS 11PO Oximeter — Operator’s Manual](#)
- [ChoiceMMed MD300C20 — Operator’s Manual](#)
- ChoiceMMed MD300C29 — Operator’s Manual can be found in Appendix B (not available online)

[The above monitors can be requested from the ministry via this link](#). Please consider the size of the population you are serving and the incidence of COVID-19 in your community when determining quantities for ordering.

**Public Health Guidance:** Pulse oximeters should be cleaned with approved alcohol wipes and then ordered by return date in storage. Public Health advice suggests this cleaning plus a 24-hour “rest period” before re-allocating to protect those handling devices for the patient.

### EMR Integration

A template for this clinical pathway has been created for several electronic medical record (EMR) platforms, including OSCAR, TELUS, and Accuro. The development of the OSCAR template was led by Dr. Dee Mangin, Professor and Associate Chair of Research, McMaster Department of Family Medicine and her colleagues. The TELUS and Accuro EMR templates were adapted by the North York Family Health Team. Links to all three templates can be found [here](#).

The purpose of the template is to better support primary care in comprehensive monitoring of patients who have tested positive for COVID-19, enabling early and effective intervention, and wherever possible, reducing demand on our hospitals. The tool may also be used as a monitoring template for patients discharged from hospital after initial management of COVID. The eForm links to best practice information for assessing and managing COVID-related illness that has been curated by our Department and made available for download on the [Hamilton Family Medicine \(HFAM\) website](#).



## FOR OSCAR

Tools for the OSCAR EMR can be found below:

- [OSCAR COVID Community Ward Monitoring Record](#) eForm
- [Report by Template](#) (For optimal performance, it is recommended that you add an index to the database; instructions provided in the link)

**If you are a client of Well EMR Group:** You can email [help@oscarprodesk.ca](mailto:help@oscarprodesk.ca) to have the tools added to your system.

## FOR TELUS

Custom TELUS EMR forms can be found at this link: [Telus PS Custom Forms on COVID-19 Positive Patient Tracking Tool for Telus PS Suite](#)

## FOR ACCURO

Follow the same steps you would in downloading other templates (e.g., [Quality Standards placemats](#)) or patient forms. Follow these four easy steps:

1. Go To Tools ⇒ Forms editor
2. Click Tools ⇒ Publish/Download
3. Use the keyword “Ontario Health” or “COVID@Home” to search
4. Download the form

Please contact [support@QHRtech.com](mailto:support@QHRtech.com) for support.

## Assigning Staff Roles

It can be helpful to assign specific roles to staff to ensure that all patients are well monitored. Table 2 provides an example of how responsibilities can be divided.

**Table 2: Sample Assignment of Roles and Responsibilities**

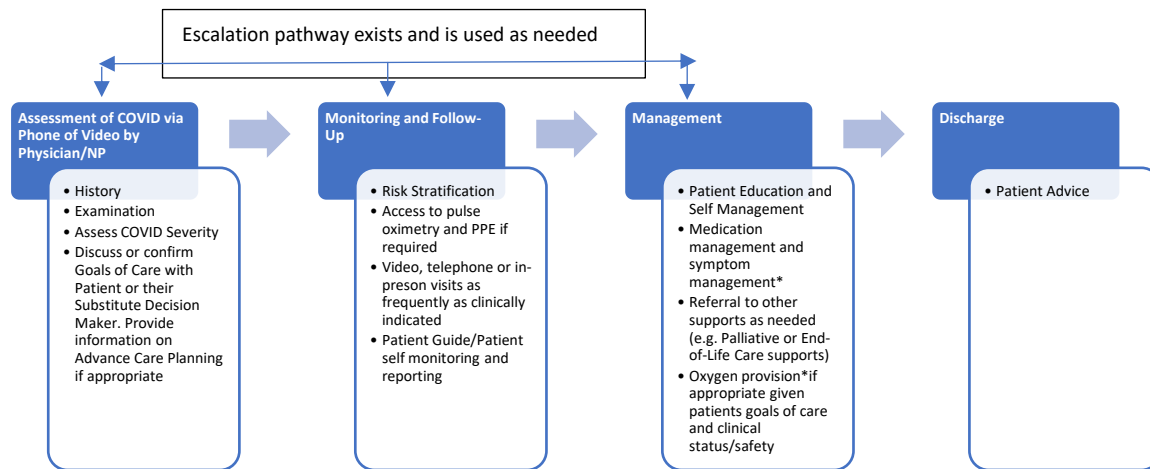
Role	Options to Source	Responsibilities
Remote monitoring of patients	<ul style="list-style-type: none"> <li>• Clinic physicians or NPs</li> <li>• Larger groups may also organise to deliver remote monitoring for a local area (e.g., community health centres, family health teams)</li> </ul>	<ul style="list-style-type: none"> <li>• Initial assessment and risk stratification</li> <li>• Communication with monitoring team members</li> <li>• Review patients regularly and provide patients information and education</li> </ul>
On-the-ground clinicians ( <i>most primary care patient monitoring does not require any in-home staff</i> )	<ul style="list-style-type: none"> <li>• Respiratory therapy from oxygen vendors</li> <li>• Home care nurses</li> <li>• Family health team nursing staff</li> <li>• Community paramedicine</li> <li>• Primary care providers</li> </ul>	<ul style="list-style-type: none"> <li>• Perform home visits, if indicated</li> <li>• Support patient and families</li> <li>• Communicate findings to lead most responsible physician (e.g., physician, NP, etc.)</li> </ul>
Patients and Substitute Decision Makers	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>	<ul style="list-style-type: none"> <li>• Provide consent to participate in assessment and treatment if program provided outside their usual primary care setting (e.g., technology-based remote monitoring programs)</li> <li>• Allow on-the-ground providers access (into the home) as required</li> <li>• Agree to use virtual tools as needed</li> <li>• Access to home internet or cell phone with data if apps are being used for video visits or monitoring or any phone for “low tech” monitoring via telephone</li> <li>• Participate in self monitoring activities and data entry</li> </ul>
Infection Prevention and Control Expertise	<ul style="list-style-type: none"> <li>• Public health</li> <li>• Regional hubs</li> <li>• Hospital partners</li> </ul>	<ul style="list-style-type: none"> <li>• Support to team regarding IPAC practices for visiting patient in the home, instructions for caregivers in the home, and cleaning procedures for equipment</li> </ul>
General Internal Medicine, Emergency Department physicians, Palliative Care Specialists	<ul style="list-style-type: none"> <li>• Hospital partner (local hospital or tertiary care centre)</li> </ul>	<ul style="list-style-type: none"> <li>• Provide advice regarding COVID treatment and escalation of care as needed</li> <li>• Help develop direct care advice and pathway from community to hospital</li> </ul>
Volunteers	<ul style="list-style-type: none"> <li>• Local community groups</li> </ul>	<ul style="list-style-type: none"> <li>• Assist with delivery and pick up of oxygen saturation monitors when they are no longer needed by patients</li> <li>• Ensure IPAC advice is followed (e.g., appropriate distancing, hygiene, and PPE use)</li> </ul>

Abbreviations: IPAC, infection prevention and control; NP, nurse practitioner; PPE, personal protective equipment

# A Quality Improvement Approach to Implementation

## Sample Mapping of a Clinical Pathway

Stakeholders may use the following sample clinical pathway (Figure 2) or map out their own (as long as best evidence/best practice is followed). Consider indicating which team members are involved in each activity and any tools or resource which will be used at each step.



\*clinical decision making based on best-evidence – COVID science evolving rapidly requiring practitioners to stay up to date

**Figure 2: Sample clinical pathway for [Group 1](#) and [Group 2](#) COVID-19 patients (based on the HFAM clinical pathways)**

## Pre-Implementation Activities

### Readiness Assessment Questions

Before implementing a quality improvement (QI) change, it is important to conduct a readiness assessment. The following are prompting questions to help you understand factors that will affect your ability to implement provision of different levels of comprehensive COVID care for patients at home:

1. Do I have the human resource capacity and flexibility to do the different levels of this work (including monitoring over the weekends)?
2. Does my team have experience with previous QI initiative or projects? Were these successful?
3. Does my team have relationships with other parts of the system that can be leveraged for this program to work at different levels of intensity (e.g., the ability to provide monitoring consultations and access to a pulse oximeter for Group 1 patients, or the ability to refer to oxygen suppliers, community paramedicine, home and community care, hospital emergency department (ED)/virtual ED or hospital general internal medicine programs, palliative care resources, etc. for palliative or Group 2 patients)?
4. Do I have access, or can I get access to the technology required to run this type of program (e.g., virtual care technology [including phone visits], a place to document patient statuses, an agreed upon way to communicate with other team members)?
5. For Group 2 patients, are all key stakeholders aware of the change? If not, how will you make them aware of this change?
6. Do the team members/stakeholders understand the purpose and demonstrate a willingness to support this initiative?
7. Do our team members currently have the education and skills needed to support this initiative? If not, when, where, and how will they get them?

## Implementation Activities

The following checklists help guide the implementation of your *COVID@Home* remote monitoring system.

### Implementation Checklist 1 (QI and Change Management Perspective):

- Identify a leader or champion
- Engage all team members who will support this initiative
- Review the pre-implementation readiness assessment questions with the team and brainstorm mitigation strategies for areas of deficit or change ideas around items as needed
- Identify scope (which patients to enroll first for plan-do-study-act [PDSA] cycles)
- Create a process to share education, tools, and resources to prepare for new monitoring
- Plan for a way to integrate toolkit contents, especially clinical pathways, into workflow (test on PDSA group)
- Brainstorm ways to use other resources, aids, innovative thinking, or partnerships to promote effective skills, knowledge, and confidence among all team member (which will improve patients' satisfaction and safety)
- Evaluate use and benefits of this model of care

### Implementation Checklist 2 (Operational Perspective)

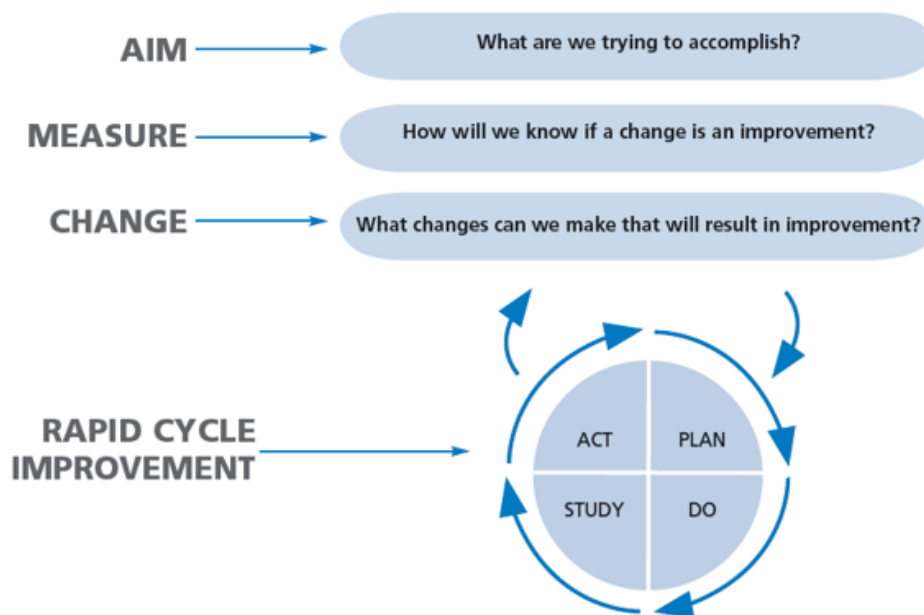
Do I have the following in place?

- Access to an evidence-based risk assessment tool, which includes “red flags” for escalation
- For Group 2 patients: a process for rapid assessment of oxygen needs with a vendor and rapid delivery of equipment and 24/7 access to respiratory therapy
- Process in place for timely initial assessment (in-person or virtual) by nurse practitioner or physician
- Process or partnerships in place to deploy human resources for monitoring oxygen saturation and other clinical indicators virtually and/or in-person (also on weekends)
- Education materials for patients developed and ready for distribution
- Secure place to document patient
- Communication pathway or tool for interprofessional team members
- Process in place for delivery, pick up and cleaning of pulse oximetry monitors (if not done by oxygen vendor)
- Escalation pathway or “fast track corridor” in place with hospital partner
- Process for providing after-hours contact to patients in distress
- Clear criteria for discharge

Implementation Checklist 2 is by no means an exhaustive list of steps a team may take to initiate a remote monitoring system but does provide some “big bucket” items that require consideration and action for implementation to be successful.

## Model for Improvement

Several QI tools and resources can be found on Ontario Health’s Quorum page under the [QI Tools and Resources Tab](#). Using the Model for Improvement in Figure 3 can help you know what you want to improve and allow you to test a change before you attempt to implement it on a larger scale. Since we already have evidence or best practices, developing change ideas is much easier! You may need to think about what the “gaps” are between your current practice and the ability to meet these best practices. Your change ideas will be developed around finding ways to embed this new standard of practice into your current workday/workflows.



**Figure 3: Model for Improvement**

The [Plan-Do-Study-Act \(PDSA\) tool](#) will help you set up a small test of change using the principles provided in this resource toolkit. This helps to minimize risk and increase provider confidence in using new practices. If unsuccessful, you can tweak or modify as needed and try it again. If successful, you can continue to widen the scale. See Figure 4 for an example of a completed PDSA worksheet after one test cycle.

# PDSA: Plan-Do-Study-Act TOOL

Test Topic: **Develop process of COVID+**      Cycle #:      Date:

PLAN				
The purpose of this cycle is to: <input checked="" type="checkbox"/> <b>Develop</b> <input type="checkbox"/> <b>Test</b> <input type="checkbox"/> <b>Implement</b>				
<b>What questions do you want to answer?</b>		<b>What are your predictions?</b>		
Can I develop a process to monitor my COVID+ patients who have risk factors that make them more vulnerable to serious illness and who may need increased monitoring?  Can I test this process on a small group of patients?		Yes - with support from my hospital partners and some community services  Yes - I can try this with the next three COVID+ patients that are identified in my practice		
<b>Plan to collect data to answer your questions:</b>				
What data will be collected?	How? <small>(checklist, chart audit)</small>	Who? <small>(name or role)</small>	When? <small>(times, dates – be specific)</small>	Where? <small>(unit, area, charts)</small>
# of patients monitored per month  # staff members educated on new processes	EMR	admin	pull data at end of each month	using PC in back office
<b>List tasks necessary to set up test:</b>				
What? <small>(specific task)</small>	How? <small>(checklist, chart audit)</small>	Who? <small>(name or role)</small>	When? <small>(times, dates – be specific)</small>	Where? <small>(unit, area, – be specific)</small>
Download COVID Community Ward monitoring form into my EMR  Educate staff on new model and process  Connect with community para-medicine and Home and Community Care Contacts re: assistance with monitoring	electronic  discuss at next staff meeting and set aside extra time  e mail and follow up phone call	front desk staff  physician  QI specialist	by Feb 20th  Feb 21st at staff meeting  by Feb 20th	electronic  virutally on Zoom  by phone from home

**Figure 4: Sample Completed PDSA Worksheet**

# Discussion

## Enablers and Barriers Teams Can Expect

The following are lists of considerations and topics for discussion with your team and/or stakeholders as you develop your *COVID@Home* monitoring system.

### Enablers

What are possible facilitators to implementation and how can we incorporate these?

- Clear instructions for patients
- Ease of clinical pathway into workflow
- Having time available to implement this model
- Interdisciplinary approach to implementation

### Barriers

What are possible barriers to implementation and how can be mitigate them?

- Not enough time or staff to implement
- Uncertainty of process owner
- Necessary resources unavailable
- Model does not fit into our current workflow
- Patient guides and education not accessible to those non-English reading/speaking
- Uncertainty around which billing codes to use/financial remuneration

## Additional Resources

A list of remote home monitoring contacts can be found in Appendix A. The Operator's Manual for pulse oximetry monitor MD300C29 can be found in Appendix B. Additional resources to help support the implementation of your *COVID@Home* monitoring system in primary care can be found in Appendices C and D.



# Appendix A: List of Current Remote Monitoring Programs and Contacts

Region	Ontario Health Team (OHT)	Lead Organization	Remote Patient Monitoring (RPM) Technology	Regional Digital Health Lead Contact 1
Central	Hills of Healthwaters Collaborative	Headwaters Health Care Centre-LIVE	Community Paramedicine RPM-Ideal Life	<a href="mailto:OH-Central_DigitalVirtual@ontariohealth.ca">OH-Central_DigitalVirtual@ontariohealth.ca</a>
	Western York Region	Mackenzie Health-LIVE	EPIC-Healthy Planet-One Care plan MYCare COVID-output	
East	Scarborough, Durham, Peterborough, Northumberland, Kawartha Lakes	Central East LHIN Home and Community Care-LIVE	Vivify Go+	<a href="mailto:OH-East_DigitalVirtual@ontariohealth.ca">OH-East_DigitalVirtual@ontariohealth.ca</a>
	Ottawa and Ottawa East OHTs	Champlain LHIN Home and Community Care	Vivify Go+	
	Lanark Leeds Grenville OHT	Brockville General Hospital	aTouchAway-(Aetonix)	
	Rural Hastings, Quinte OHT's	Bellville Quinte West Community Health Centre	Raziel (Ideal Life), aTouchAway	
	Frontenac, Lennox, Addington OHT	Lennox and Addington County General Hospital	aTouchAway- (Aetonix)	
North		Thunder Bay Regional Health Sciences Centre-LIVE	Vivify Go	<a href="mailto:OH-North_DigitalVirtual@ontariohealth.ca">OH-North_DigitalVirtual@ontariohealth.ca</a>
		Sudbury EMS-LIVE	Raziel (Ideal Life)	
		Cochrane EMS	Raziel (Ideal Life)	
		Parry Sound EMS and West Perry Sound Health Centre-LIVE	Raziel (Ideal Life)	
		Superior North EMS (Thunder Bay)	Raziel (Ideal Life)	
		Maamwesying North Shore Community Health Services	Vivify Go	
Toronto	East Toronto OHT	Michael Garron Hospital-LIVE	Vivify Go	<a href="mailto:OH-Toronto_DigitalVirtual@ontariohealth.ca">OH-Toronto_DigitalVirtual@ontariohealth.ca</a>
	Mid West Toronto OHT	University Health Network-LIVE	UHN-RCOVID app	
		Women's College Hospital-LIVE	WCH-EPIC/Zoom/RCOVID-Care Companion	
	North Toronto OHT	Sunnybrook Health Sciences Centre-LIVE	Phone/video	
		Baycrest Hospital-LIVE	Vivify Go	
	North Western Toronto OHT	Humber River Hospital -LIVE	Healix	
	North York Health Partners OHT	North York General Hospital	Vivify Go	
West Toronto	Unity Health Toronto LIVE	Phone/email/Zoom		
West	Brantford-Brant	County of Brant, Town of Paris, Township	Raziel (Ideal Life)	<a href="mailto:OH-West_DigitalVirtual@ontariohealth.ca">OH-West_DigitalVirtual@ontariohealth.ca</a>
	Burlington	Burlington Family Health Team-LIVE	Aetonix	
	Chatham-Kent	Chatham-Kent Health Alliance-LIVE	Vivify Go	
	Guelph Area	The Corporation of the City of Guelph-LIVE	Vivify Go, Raziel (Ideal Life)	
	Hamilton OHT	St. Joseph's Healthcare Hamilton-LIVE	Cloud DX, EPIC	
		Hamilton Health Sciences	Cloud DX	
	10+ OHTs in West Region	South West LHIN Home and Community Care-LIVE	Vivify Go	
	Western (London and Middlesex)	London Health Sciences Centre-LIVE	Phone	

# **Appendix B: Operator's Manual for ChoiceMMed Pulse Oximeter Model MD300C29**



# Appendix C: Learning, Education, and Training for Primary Care Providers

## COVID-19 Provider Supports

- [Ontario College of Family Physicians COVID-19 Community of Practice Recordings](#)—the group meets once monthly to discuss and share perspectives on topics related to COVID-19. Recorded sessions can be accessed at the above link. In addition, the recording to our March 4 webinar can will be added to this resource when available.
- [COVID-19: Clinical Guidance for Primary Care Providers](#)—available from the Centre for Effective Practice
- [Managing COVID-19 Symptoms \(including at end of life\) in the Community: Summary of NICE Guidelines](#)—BMJ article
- **Resources from the Women’s College Hospital (WCH) COVIDCare@Home Program:**
  - [COVID-19 Clinical Assessment Tip Sheet](#)—tip sheet for primary care providers from the Women’s College Hospital COVIDCare@Home Program (originally adapted from the BMJ article [COVID-19: Remote Assessment in Primary Care](#))
  - [Additional Resources](#)
- [Virtual Care: COVID-19 Guide](#)—poster from the Ontario Medical Association and OntarioMD provides information on virtual care platforms and billing

## Remote Monitoring Supports

- [Clinical Model and COVID-19 Remote Monitoring Use Cases](#)—from the Ontario Telehealth Network (Ontario Health)
- [Remote Care Management During the COVID-19 Pandemic](#)—quick reference from the Ontario Telehealth Network (Ontario Health)

## Post-Acute COVID-19 Care Management

- [Long COVID: A Primer for Family Physicians](#)—editorial from the American Family Physician
- [Management of Post-Acute COVID-19 in Primary Care](#)—article from BMJ

## Palliative Approach to COVID-19 Care

- [Palliative Care Resource to Support Frontline Providers during the COVID-19 Pandemic](#)—from the Ontario Palliative Care Network (Ontario Health)
- [Managing Expected Death in the Home During COVID-19](#)—from the Ontario Palliative Care Network (Ontario Health)
- [Goal of Care Conversation Guides \(for patient with COVID-19\)](#)—from Speak Up Ontario

# Appendix D: Learning, Education, and Training for Primary Care Patients

## COVID-19 Patient Supports

- [COVIDCare@Home Patient Resource for Managing COVID-19](#)—from Women’s College Hospital
- [COVID Care @ Home Integrated Comprehensive Care Program Handout](#)—from a collaboration between St. Joseph’s Health System, Niagara Health, and St. Joseph’s Home Care
- [COVID-19 Guide for Patients](#)—from McMaster University Family Medicine and the Hamilton Family Medicine
- [COVID-19 Fact Sheet for Patients](#)—from Ontario Health West COVID-19 Remote Patient Monitoring Team
- [COVID-19 Home Monitoring Program: Timed Position Changes Instructions](#)—from the Georgian Bay Family Health Team
- [COVID-19 Symptom Timeline: Why Days 5 to 10 Are So Important](#)—from the Georgian Bay Family Health Team

## Oxygen Monitoring

- [Pulse-Oximetry—Patient Instructions For Use](#)—from McMaster University Family Medicine and Hamilton Family Medicine
- [Patient At-Home Oxygen Monitoring Instructions](#)—from the Georgian Bay Family Health Team