Ontario Health
Quality

Adopting and Integrating Virtual Visits into Care: Draft Clinical Guidance

For Health Care Providers in Ontario

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Background

This document was initiated by the Quality business unit of Ontario Health and the Ontario Telemedicine Network (OTN) based on discussions with clinician leaders about the need for additional clinical guidance to support the adoption and integration of virtual visits in health care in Ontario. It is informed by interviews with virtual care leaders in Ontario, including a number of clinicians participating in virtual care projects.

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Introduction

A pillar of Ontario's *Digital First for Health Strategy* is enabling patients to have more virtual care options, such as virtual visits with their health care providers from their location of choice (e.g., home).

This document provides guidance for health care providers, including Ontario Health Teams, who are interested in integrating virtual care into their practices—particularly virtual visits. It provides a set of key considerations, informed by professional standards and best practices, for each step in the process.

A virtual visit is an electronic exchange via videoconferencing, secure messaging, or audio digital tools, where one or more health care providers deliver health care services to a patient. Virtual visits may be a component of both telehealth and telemedicine services. Related virtual care services include telemonitoring and digital self-care tools that collect biometric data and often support virtual visits.

While virtual visits may include other modalities, this document provides guidance for two types of virtual visits: video visits and secure messaging.

A **video visit** (also known as videoconferencing) involves a real-time encounter between one or more health care providers and a patient. The patient can be at home or another chosen location (i.e., direct-to-patient video visit) or at a patient host site (i.e., hosted video visit) that may be supported by a health care professional.

Secure messaging is an asynchronous, written clinical encounter, typically without any visual input (except for optional image attachments), accessible by patients via web browser or mobile application. Secure messaging provides security safeguards, like patient authentication, that are not available with regular email and other unsecure forms of communication.

Providers can access virtual visit tools from their electronic medical record (EMR) or hospital information system, or through stand-alone virtual visit applications from their computer and/or mobile device. Under Ministry of Health direction, the Ontario Telemedicine Network (OTN) is supporting the development of minimum requirements for videoconferencing and secure messaging technologies. Please see www.otn.ca for more information.

This guidance document is part of a set of resources to facilitate the adoption of virtual visits.

For more information about what virtual care services are eligible for reimbursement by Ontario's Virtual Care Program, please see the November 2019 INFOBulletin.

Health care providers may also find it helpful to review insight into how other people have implemented virtual care through virtual visits pilots and case studies (See Figure 1).

Figure 1. Implementation Support: Virtual visits pilots and case studies

IMPLEMENTATION SUPPORT:
Virtual visits pilots and case studies

Virtual visit pilots
Several virtual visit pilots across Ontario have demonstrated the benefits, including the eVisit Primary Care pilot[1] (also known as Enhanced Access to Primary Care) and the Home Video Visits pilot[2]. Physicians participating in both pilots were consulted throughout the development of this guidance document.

Virtual visit case studies
The eHealth Centre of Excellence (eCE) facilitates integration and adoption of virtual visits with the goal of improving timely access to primary care. View the following three case studies from its website:

- Primary care provider experience
- Uses and benefits of provider-initiated virtual visits
- Patient experience with virtual visits

Additionally, several virtual care implementation stories on performance evaluation and measurement, workflow redesign and innovation, and human resource and training requirements are captured in the report *Profiles in Virtual Care Delivery* [1].

[1] The eVisit Primary Care pilot was managed by the Ontario Telemedicine Network and regional partners, and formally evaluated by Women's College Hospital Institute for Health Research. Read the evaluation report here:https://otn.ca/wp-content/uploads/2019/08/eapc-evaluation-report.pdf
[2] The Home Video Visits pilot was managed and evaluated by the Ontario Telehealth Network and ended in November 2019. Direct-to-patient video visits are now provincially available.

Before you get started…

Explore common principles across a selection of guidelines and policies from medical regulatory authorities and professional associations to better understand your responsibilities around virtual visits. Figure 2 provides a checklist of considerations to review before offering virtual visits to patients.

Figure 2: Checklist to complete before offering virtual visits to patients

CHECKLIST TO COMPLETE BEFORE OFFERING VIRTUAL VISITS TO PATIENTS
✓ Understand your professional and legal obligations ✓ Procure a virtual visit solution ✓ Comply with privacy and security requirements ✓ Onboard patients

Understand your professional and legal obligations

Health care providers are expected to follow their respective college guidelines in the delivery of virtual care [2]. For example, the College of Physicians and Surgeons of Ontario (CPSO) and the College of Nurses of Ontario (CNO) have developed guidance for their members on aspects of virtual care:

- The CPSO's Telemedicine Policy (2014) outlines general expectations for physicians practicing medicine via telephone, email, and audio and video conferencing
- The CNO's Telepractice Practice Guideline (2017) outlines nurses' accountabilities when providing care using information and communication technology, including telephones, the Internet, and video conferencing

Other professional organizations and regulatory colleges, including the College of Occupational Therapists of Ontario, the Ontario Psychological Association, and the Canadian Alliance of Physiotherapy Regulators offer similar guidance for their members. For more information on the guidelines and policies used to inform this document, and a list of other professional guidelines for virtual care, please refer to Appendix A: Virtual Care Guidelines.

Generally, regulatory colleges recommend that members use their professional judgment to determine whether virtual care is appropriate and whether it will enable the provider to meet the standard of care. ***Ultimately, colleges will use the same standards to judge patient care, whether it is in-person or virtual.***

Procure a virtual visit solution

Organizations offering virtual visits on a larger scale will have different functional requirements than a primary care provider or specialist. To help select the right virtual tool for you and your patients, consider your clinical workflow, patient preferences, and how you want to use it. It is equally important to consider how the tool supports the standard of care and best practice guidelines.

A helpful business case template is available here; it provides a framework to define strategic context, examine options, and form a recommendation for the purpose of obtaining approval and funding for the implementation of a virtual visit solution in your organization.

CHOOSING VIRTUAL VISIT MODALITIES

Solutions that provide virtual visit services may include any combination of features that enable secure messaging, videoconferencing, audio calls, as well as other features like online booking. Before selecting a solution, it is important to consider what kind of virtual visit services you would like to offer patients, notably secure messaging and/or video visits, either direct-to-patient or hosted.

Secure messaging is suitable for easy back-and-forth communication and simple requests, while more detailed conversations may be better suited to a video visit. If a detailed physical exam is indicated, in-person visits are recommended. In the eVisit Primary Care pilot, over 90% (n= 14,317) of visits used secure messaging [3]. In the context of a well-established patient-provider relationship, secure messaging was found to enhance efficiency, access to care, and continuity of care [4].

Direct-to-patient video visits, where the patient can be at home or another chosen location, are typically used for follow-up care to connect with patients to review test results or check on responses to treatment. Specialists and family physicians with specialized practice might use direct-to-patient video visits for first-time patients, especially those who would have difficulty getting to the office [5].

Hosted video visits are synchronous video visits with a patient who is physically located and supported at a patient host site during the clinical encounter. Host sites are secure physical environments that organizations offer on-site to provide patients with convenient access to videoconferencing technology and, in some cases, clinical support services (nursing support, diagnostics through peripheral devices). Compiled from consultations with health care providers, Table 1 lists some of the pros and cons associated with video visits and secure messaging. Figure 3 lists questions to consider when selecting a virtual visit solution.

Table 1: Pros and cons associated with video virtual visits and secure messaging

Modality	Pros	Cons
Video visit	• Allows family members and/or caregivers to be involved in the visit • Allows for eye contact and body language assessment • Can be suitable for sensitive topics • Facilitates deeper understanding of the patient's home or work environment • Facilitates a limited physical exam • Useful for assessing dermatological issues and other visually observable physical issues (e.g. wound healing, gait, etc.) • Increases access for remote, rural, or homebound patients	• Depending on the solution, technical difficulties can arise unexpectedly • Requires reliable WIFI connection • Requires someone to schedule the video visit • Requires that both the patient and the health care provider are available at the same time • May require preparation of the environment (e.g., cleaning a room, getting dressed, etc.)
Secure messaging	• Another to consult or seek information before responding to patient questions • Ability to support patients who do not require a physical or visual exam quickly and efficiently • Affords flexibility to provide care wherever and whenever, asynchronously • Can be useful for patients who are hearing impaired • Convenient way to support patients for simple health requests and concerns • Frees access for patients who require a face-to-face or urgent appointment • Improves access for patients who are challenged to travel to the office • Improves office efficiency – less phone calls at front desk • Supports continuity of care – e.g., quick and efficient mode to deliver follow-up care and increases support for palliative patients	• Fewer natural boundaries exist regarding appropriate times for communicating • May be difficult to verify a patient's identity • Patients may not respond promptly, causing visits to last over long periods of time • Requires reliable WIFI connection • The tone of the written text could be misunderstood

Figure 3. Considerations for selecting a digital tool for virtual visits

SELECTING A DIGITAL TOOL FOR VIRTUAL VISITS: **Questions to consider**
• Do I want to a tool that supports both provider- and patient-initiated virtual visits? • Does the tool facilitate patient and, if needed, caregiver registration? • Does the tool have sufficient privacy and security safeguards? • Does the tool integrate with my EMR or hospital information system? • Does the vendor offer sufficient training to ensure that I will be comfortable using the tool? • Does the vendor offer technical support and/or educational materials for me and my patients? • How well does the tool integrate with my clinical workflow? • How well does the tool support the standard of care and best practice guidelines? • Is the technology reliable? • Is the tool easy to use for me and my patients? • Is there a free trial period for the tool so that I can test it first? • What type of patient devices is the tool compatible with? • Who are the different user types and what features do they need?

Comply with privacy and security requirements

Virtual visits involve the collection, use and disclosure of personal health information and personal information. As a result, organizations delivering virtual visits must ensure their operations are compliant with the *Personal Health Information Protection Act* (PHIPA).

Furthermore, it is important to note that virtual visits can entail certain risks not often associated with in-person care. Table 2 lists examples of risks associated with video visits and secure messaging that health care providers should consider.

Table 2: Examples of privacy and security risks associated with virtual visits

Modality	Privacy and Security Risks
Video Visits	• Appointment confirmation or reminder emails inadvertently including unauthorized access to personal health information • Insufficient audit logging to investigate and manage incidents • Providers or staff given unauthorized access to a video visit or to the virtual visit platform • Video launches from an unsecure location • Video visit is recorded without authorization • Wrong patient or provider is invited to, or attends, a video visit • Unauthorized providers or staff are within earshot of a video visit
Secure Messaging	• Messages sent with personal health information for the wrong patient • Emails forwarded to unauthorized providers or patients • Insufficient audit logging to investigate and manage incidents • Unauthorized providers copied on a message sent to a patient • Unauthorized providers reviewing patient requests and messages without their consent

Providers are advised to be extra diligent when using their mobile device to support virtual care to prevent loss, restrict access, and maintain the privacy of patients' personal health information. Personal health information accessed or stored on a mobile device must be de-identified or strongly encrypted [6]. Learn more about encrypting personal health information from the Information and Privacy Commissioner of Ontario's Encrypting Personal Health Information on Mobile Devices factsheet.

Strategies to protect personal health information

Organizations and providers can further mitigate risks by implementing appropriate privacy and security policies, procedures, and practices. Some strategies to protect personal health information are included below.

APPLY ADMINISTRATIVE, TECHNICAL, AND PHYSICAL SAFEGUARDS

Table 3 lists examples of administrative, technical, and physical safeguards that health care providers should consider. View additional privacy and security recommendations developed by OTN for video visits here.

Table 3: Examples of administrative, technical, and physical safeguards to protect digital personal health information

Type	Safeguards
Administrative	• Do not include patient information in emails • Ensure that there is a clear privacy breach protocol within your organizations that complies with the Information and Privacy Commissioner of Ontario (IPC)[3] • Leverage OntarioMD Privacy and Security Training[4] and resources to support understanding and compliance with privacy and security requirements [2] • Limit access to personal health information to only those requiring access and have them review and sign confidentiality agreements[5]
Technical	• Enable your device to automatically lock when idle for a period of time (e.g., every 30 min) • Keep your device up to date with the latest security updates and anti-virus software • Only use equipment and apps that are approved by your organization. • Keep your firewall turned o • Encrypt any device containing confidential information. Do not export confidential information onto unencrypted portable storage such as USB flash keys, recordable CDs/DVDs, or external hard drives • Ensure your device is password protected and follow these best practices around password use: o Change passwords with access to confidential information regularly (e.g., every six months) o Do not share your credentials (i.e., User ID and password) with anyone, including trusted colleagues, family members, and support technicians. o Do not store your password where it where it is easy to find. o Do not use the same password for all applications • Do not use the "Remember Me" function on a login page. Clear your username and password when you sign out
Physical	• Have a security system in place (e.g., security cameras) to monitor physical electronic systems • Restrict access to computer servers to authorized users

[3] Read the IPC's *Responding to a Health Privacy Breach: Guidelines for the Health* Sector for information on how to minimize the risk of a privacy breach and what to do when a privacy breach occurs

[4] The online privacy and security training module is open to all Ontario family physicians, specialists, nurse practitioners, nurses, office managers/Executive Directors, non-IT administrative staff, IT administrative staff, clinic manager, quality improvement/data analysis staff (i.e., quality improvement decision support specialists), dieticians, mental health staff, social workers, pharmacists, and other allied health professionals. For physicians, the course is Continuing Medical Education accredited for the College of Family Physicians of Canada and the Royal College of Physicians and Surgeons of Canada.

[5] Access a sample Confidentiality Agreement from the from the Canadian Medical Protective Association's *Risk Management Toolbox*

VERIFY PRIVACY AND SECURITY COMPLIANCE WITH THIRD-PARTY PROVIDERS

Providers should ensure that third-party virtual visit solution providers have adequate policies and contractual guarantees in place that comply with PHIPA regulations [7]. To ensure compliance with physicians' legal and professional obligations to protect the privacy and confidentiality of the patient's personal health information, the College of Physicians and Surgeons of Ontario's Telemedicine policy states that physicians must evaluate whether the information and communication technology being used by the physician has "reasonable security protocols in place" [8]. To this end, Figure 4. Examples of privacy and security services for service agreements with third-party providers describes privacy and security services that should be included as part of the service agreement with a third-party provider.

Figure 4. Examples of privacy and security services for service agreements with third-party providers

EXAMPLES OF PRIVACY AND SECURITY SERVICES: **For service agreements with third-party providers**
• Timely notifications provided when data is accessed without prior authorization • Provision of processes for the destruction of data at the end of the services agreement • Up to date privacy impact assessment of the virtual visit solution • Up to date security threat risk assessment of the virtual visit solution • Administrative, technical, and physical safeguards relating to the confidentiality and security of patient and other information

Onboard patients

Patients will have to be sufficiently onboarded to ensure they agree to receive care virtually and that they can use the technology effectively. Beforehand, health care providers should consider what patients are likely to benefit from virtual care – what could work for one patient might not for another. Consider whether the potential benefits of virtual care for a given patient outweigh any risks [8]. When selecting patients for virtual visits, consider the questions outlined in

Figure 5. These questions were compiled from one-on-one discussions with Ontario health care providers who had already started implementing virtual visits for their patients.

Figure 5. Questions to consider when selecting patients for virtual visits

SELECTING PATIENTS FOR VIRTUAL VISIT: **Questions to consider**
• Are there any language barriers that could negatively impact the virtual visit? If so, does the patient have adequate support to participate? • How far is the patient travelling to see me? Do they have mobility issues? Would a virtual visit be more patient centered? • How tech savvy is the patient? Do they use an internet-enabled computer or smartphone and have email? If required, is assistance available? • Is the patient's device compatible with the virtual visit solution? • Is this an established patient-provider relationship? • What is the patient's cognitive capacity? If required, do they have a caregiver that can support? • Would a virtual visit avoid the need for patients to take time off work? • Would a virtual visit help avoid the cost of parking for my patients?

Strategies for onboarding patients

Health care providers need to ensure that patients identified as good candidates for virtual visits are sufficiently onboarded. The following strategies can help ensure that both patients and providers are prepared to use the technology effectively.

START SMALL AND GO SLOW

Introduce virtual visits to your patients slowly so that your clinic and patients can more easily adapt. For example, the majority of primary care providers participating in the eVisit Primary Care pilot initially targeted only select patient groups (e.g., those with whom they frequently had e-mail correspondence, those who required routine follow-up, and younger patients considered to be "tech savvy"). Over time, the providers in the pilot invited more patients, and some providers eventually offered virtual visits to their entire roster [3].

MANAGE PATIENT EXPECTATIONS PROACTIVELY

To mitigate the risk of unsuitable requests for virtual visits, it may be useful to have a discussion with prospective patients about the types of visits you will be doing virtually, and the types of visits you would prefer to conduct in-person. In addition to a discussion with patients, some virtual visits solutions might include on-screen prompts to remind patients about what are appropriate requests, and how to access care for urgent concerns.

Furthermore, setting expectations by ensuring that patients understand the clinic's standard response times for secure messaging will support appropriate use and improve patient satisfaction. In the eVisit Primary Care pilot, patients understood that primary care providers would answer a patient request within two business days [3].

DEVELOP A STANDARDIZED REGISTRATION PROCESS

Selected patients should be authorized to access virtual visits through a registration process. Popular registration processes implemented during the eVisit Primary Care and Home Video Visits pilots included:

- Emailing the patient[6] with a letter describing the program (including a self-registration link), how and when to use virtual visits, and how virtual visits would benefit them
- Describing the service to patients during in-person visits and discussing examples of appropriate issues for virtual visits to help manage expectations. Patients could then be registered by the provider or administrative staff prior to leaving
- Leveraging administrative staff to raise awareness of virtual visits when patients check in or out of an in-person visit; however, at least one site participating in the Home Video Visits pilot found there was higher patient uptake of virtual visits when the physician promoted them, compared with engagement by a clinic secretary [9]
- Advertise the service around the clinic using posters or other signage and encourage patients to speak to their doctor about whether virtual visits would be appropriate for them

DEVELOP EDUCATION TOOLS FOR PATIENTS

Physicians that participated in the eVisit Primary Care pilot suggested that educational materials (e.g., pamphlets, in-person or online demo) can help patients to discern what is appropriate for a virtual visit [3]. Additionally, several physicians we spoke to in the development of this guidance described resources they created to support their patient onboarding processes, including webpages accessible from their clinic website that describe what virtual visits are and how to sign up.
Click here for an example of a patient handout that OTN and its partners use to answers some common patient questions about an upcoming video visit.

IDENTIFY REQUIRED TECHNICAL SUPPORT

Health care providers should ensure reasonable technical support services (e.g. during business hours) are available to patients. These services can be provided directly by the vendor or by the clinic or organization. Contact information for technical support should be easily accessible by patients.

The evaluation of the eVisit Primary Care pilot reported that knowledgeable and responsive technical support team was needed to aid with any issues pertaining to the virtual visit tool experienced by patients and their providers [3]. In the Home Video Visit pilot, technical issues were occasional and on-call tech support was considered helpful [10]. As such, organizations and providers offering virtual visits may wish to procure a virtual visit solution from a vendor that offers technical support.

[6] Ensure you have a policy to obtain patients' email address to support communication. The Canadian Medical Protective Association offers a *Consent to use electronic communications* template that physicians can customize for circumstances in which electronic communications are expected to be used with a patient.

During a Virtual Visit…

Once you have reviewed relevant regulatory or professional association guidelines and selected a virtual visit solution, you will be ready to offer your patients virtual visits. After you have selected suitable patients and onboarded them so that they know what to expect from a virtual visit encounter, you can get started. Figure 6 provides a checklist of considerations to review during a virtual visit.

Figure 6. Checklist to complete before and/or during a virtual visit

CHECKLIST TO COMPLETE BEFORE AND/OR DURING A VIRTUAL VISIT
✓ Consider assessment needs ✓ Ensure the setting for video visits is private and secure ✓ Ensure appropriate resources are available ✓ Confirm the patient's identity ✓ Obtain consent for virtual visits (if not already done so as part of a registration process) ✓ Document the clinical encounter

Consider assessment needs

A virtual visit solution may enable both video visits and secure messaging, and these services could be either provider- or patient-initiated. When considering what modality to use for a virtual visit, or when accepting a patient-initiated virtual visit request, consider the unique circumstances of each patient, their clinical needs, and whether a virtual visit is appropriate for the clinical encounter [11]. Figure 7 outlines questions to consider before each virtual visit to help choose the most appropriate modality.

The questions outlined in Figure 5 may also be helpful to consider before proceeding with a virtual visit. These questions were compiled from one-on-one discussions with Ontario health care providers who had already started implementing virtual visits for their patients.

Figure 7: Questions to consider when choosing a modality for a virtual visit

CHOOSING THE RIGHT MODALITY: **Questions to Consider**
• Am I delivering bad news? • Am I sharing a diagnosis? • How complex is the conversation I need to have with the patient? • How far is the patient travelling to see me in-person? • Is it a simple follow-up? • Is a more complex physical assessment required[7]?

Strategies to optimize virtual clinical encounters

Once the decision has been made to initiate or accept a virtual visit request, consider best practices for video visits and/or strategies to optimize secure messaging, as outlined below.

VIDEO VISIT BEST PRACTICES

Key aspects of interpersonal communication involve the ability to interpret one's intonation of voice, facial expression, body language, and a developed sense of empathy to respond effectively [12]. Figure 8 lists best practices for video visits. In addition to these best practices, review the strategies listed in Figure 9 to ensure the setting for a video visit is safe and secure.

Figure 8. Video visit best practices

VIDEO VISITS: **Best Practices [13, 14]**	
• Be mindful of audio delays • Be prepared with the right equipment (e.g., webcam, speaker, microphone, strong internet connection) • Be professional; assume that you are visible and can be heard throughout the meeting • Consider headphones to limit feedback with some solutions • Consider whether others in the background can hear the discussion • Engage remote participants by occasionally looking into the camera when speaking	• Enhance the video display by avoiding erratic hand gestures or wearing clothing with loud patterns • Ensure patient and provider settings are well lit • Introduce everyone in each location as some participants may not be in the view of the camera • Mute the microphone when not speaking • Position yourself and your camera accurately • Reduce background noise, including tapping, rustling papers, and side conversations • Speak clearly and naturally

[7] A limited physical exam can be conducted in a video visit. For example, providers can observe a patient move their joint or look at a wound or skin lesion. However, it may be challenging to do a detailed physical exam without the assistance of a health care support person with the patient. Table 4 lists considerations to help determine whether the appropriate resources, including additional health care providers, are in place to conduct virtual visits.

SET REASONABLE RESPONSE TIMES FOR SECURE MESSAGING

In the eVisit Primary Care pilot, patients understood that primary care providers would answer a patient request within two business days [3]. To come up with appropriate response times for your clinic, consider how long it currently takes you to return a phone call for a patient and use that as a guide.

MAKE YOUR SECURE MESSAGES CLEAR AND CONCISE

The Harvard Business Review article, *How to write email with military precision*, offers the following tips:

1. Use keywords in the subject line to clearly state the purpose of the email. Common examples include: ACTION, SIGN, INFO, DECISION, REQUEST
2. State the bottom-line up front (BLUF) to declare the purpose of the email and action required. An effective "BLUF" answers the who, what, where, when, and why
3. Be concise; short emails are more effective than long ones

Take care to ensure that writing can be understood and be aware of the patient's health literacy. Avoid acronyms and words that are not suitable for a lay audience. Finally, as this is a medical document, messages must be written professionally.

DEVELOP TEMPLATES TO SAVE YOUR TIME

Some physicians reported that they have developed numerous message templates for common topics, including how to communicate a diagnosis, different ways to tell a patient that their iron is low, emails listing counselling in the patient's area, and how to write a message to a patient that says they would be best served in-person.

CREATE A LIBRARY OF WELL-VETTED RESOURCES FOR COMMON ISSUES

Have useful electronic resources on hand to share with patients during a video visit or over a secure message.

Ensure the setting for video visits is private and secure

When conducting video visits, consider the privacy offered by the physical locations. Both individuals should be located in a private setting where the patient can comfortably share confidential information and where the physician can assess the patient and provide advice [11].

Figure 9 lists several strategies that can help ensure that the privacy of patients is protected during a virtual visit [13].

Figure 9. Ensure the setting protects patient privacy: Strategies for video visits

ENSURE THE SETTING PROTECTS PATIENT PRIVACY: Strategies for video visits	
• Announce everyone who is in the room with the consultant at the start of the session • Avoid selecting a room with windows or ensure that there are window coverings available to provide privacy • If conducting a video visit, have a backup plan for the patient's care if there is a technical failure or if the patient's clinical situation becomes unstable during the video visit • If possible, select a room that is soundproof (or can be soundproofed) to prevent unauthorized individuals from hearing the consultation	• Place a sign on the door to indicate that a video visit is in progress to prevent unauthorized individuals from opening the door • Place the computer display in such a way that the patient video cannot be seen if the door is inadvertently opened • When selecting a room for video sessions, consider locating it in an area that is away from high traffic to minimize the possibility of a patient confidentiality breach

Ensure appropriate resources are available

Providers should ensure the right resources (e.g., technology, equipment, etc.) are available and can be used effectively when practicing virtual care [8]. For example, if using a mobile device, is a docking station or stand required to avoid excessive motion that would be viewed by a patient and that could cause symptoms associated with motion sickness? The provider should also have mechanisms in place to order prescriptions, laboratory tests, and diagnostic imaging, when required.

Other factors that could influence the effectiveness of virtual visits include connectivity between sites, bandwidth, and resolution. Diagnostic assessment requires good bandwidth and resolution to identify non-verbal behaviours (e.g., tics, dysmorphia, etc.) [15].

It is equally critical to consider the level of patient support immediately available, particularly for patients with higher acuity. As with in-person care, providers should know the patient's address and emergency response numbers in case the patient's condition deteriorates during a virtual visit.

VIDEO VISITS USING CLINICAL PERIPHERALS

In addition to video media, a video visit may also include clinical peripherals that capture biometric data for diagnostic purposes [16]. Examples of clinical peripherals used by telehealth networks and programs include general exam and dermatology cameras, otoscopes, ophthalmoscopes, ocular cameras, retinal cameras, ultrasound scanners, home health monitors, tablets, and smartphone-based apps [17].

Confirm the patient's identity

Providers should ensure the patient is accurately identified at a virtual visit [8].
Typically for an in-person visit, administrative staff may require that a presenting patient verbally states their name, address, or date of birth, and present their OHIP card. In the absence of a traditional in-person encounter, additional measures to uphold patient safety should be considered to guarantee the identity of a patient [18].

For primary care providers with established patient-physician relationships, confirming a patient's identity could be as simple as visually confirming the patient in a video visit. In other circumstances, such as specialty care virtual visits between a patient and provider who have never met before, the provider should take reasonable steps to confirm the patient's identity, as outlined below.

Strategies to confirm a patient's identity

Until a suitable provincial service solution that can digitally identify, authenticate, and authorize a patient's identity[8] is ready for use in Ontario, providers will need to find an alternative way to confirm the identity of a patient for a virtual visit. Some strategies to help providers identify patients at the start of a video visit are listed below, along with special considerations for secure messaging.

ASK THE PATIENT TO DISPLAY THEIR OHIP CARD

If video quality allows for it, it may be possible to identify the patient by asking them to hold their OHIP card up to the camera.

KEEP A PICTURE OF THE PATIENT ON FILE

For clinics that offer video visits for patients to use with multiple providers, it might be helpful to retain a picture of the patient on file to help consulting providers identify the patient.

SPECIAL CONSIDERATIONS FOR SECURE MESSAGING

While the strategies listed above may be sufficient to confirm patient identity at the start of a video visit, secure messaging requires stronger access controls and user authentication. To support accurate patient identification for secure messaging, only provide registered patients with secure access to virtual visit services and ensure the virtual tool requires patient authentication (e.g., enter a login and password).

Obtain consent for virtual visits

Informed consent is considered a requirement for virtual visits and is regarded as separate from **consent for treatment** [19, 20]. In the eVisit Primary Care and Home Video Visits pilots, participating physicians obtained consent from the patients selected for virtual visits during the registration process (see In the eVisit Primary Care pilot, patients understood that primary care providers would answer a patient request within two business days [3].

Develop a standardized registration process for more details). Providers may also find it helpful to consider the nuances of implied and expressed consent.

[8] In July 2019, the Ministry of Health put out a call for applications to create a patient digital identification, authentication, and authorization service that enables people in Ontario to present specific credentials to ensure the security, privacy, and safety of their personal health information when they interact virtually with a health care provider via video visit or secure messaging [47]. This project is underway with an expected completion date in 2022.

Implied consent is not defined in PHIPA; however, according to the Information and Privacy Commissioner of Ontario, implied consent is assumed, based on what a patient does or does not do in specific circumstances (e.g., the words or behavior of the patients) [21, 22]. In general, consent is implied when personal health information is collected or used over the course of receiving medical care, including when the patient accepts or initiates a virtual visit, and written consent is not routinely necessary. Furthermore, if the mode of communication is encrypted, then implied consent is sufficient.

Expressed consent (provided either orally or in writing) is required in some circumstances; for example, when a health care provider collects, uses, or discloses personal health information for the purpose of marketing or market research [22].

Generally, express consent is always better if it's reasonable to obtain [20]. To this end, the association offers a *Consent to use electronic communications* template that physicians can customize for circumstances in which electronic communications are expected to be used with a patient.

When it is not feasible to document a patient's consent using a written form, the Canadian Medical Protective Association advises physicians to use the patient's medical record to document discussions held and any consent to email communication [23]. Providers seeing patients for the first time at a virtual visit, then, should explain potential risks, obtain the patient's expressed consent, and document that in the EMR.

Document the clinical encounter

Virtual visit records must be kept to the same standard as in-person care [24]. Providers should also document specific details about the electronic aspects of the encounter, and, if multiple providers are involved, identify the most responsible physician [11]. Patient data, messages, files, or images exchanged during a virtual visit should be transferred to a medical record [16]. To this end, virtual visit solutions should facilitate documentation in medical record systems by recording data with personal health information exchanged during the patient encounter.

Appendix A: Virtual Care Guidelines

The guidelines and policies used to inform this document, and a list of other professional guidelines for virtual care.

Organization	Document title	Document description
Canadian Alliance of Physiotherapy Regulators	Tele-rehabilitation in physiotherapy: Guidelines for physiotherapists (September 2017; available here)	Ten provincial physiotherapy regulators have entered into a Memorandum of Understanding for Cross Border Physiotherapy. The agreement makes it easier for physiotherapists who are registered in one Canadian jurisdiction to obtain a certificate of registration to practice in additional jurisdictions in order to provide continuing care or physiotherapy services that are not otherwise available, whether the services are delivered in-person or via tele-rehabilitation.
Canadian Medical Protective Association (CMPA)	Pracitising telehealth	Outlines the CMPA's principles of assistance for members whose practice includes telehealth. The CMPA considers "telehealth" to include any technology that enables the delivery of care at a distance.
Canadian Nurses Protective Society	Telephone advice (2008)	Covers the legal implications of providing telephone advice and strategies for managing risks.
Cancer Care Ontario (CCO)	Oncology nursing telepractice standards (August 2019)	The standards in this document aim to provide guidance to oncology nurses and administrators on the standard to achieve safe, high quality oncology nursing telepractice, irrespective of established systems within organizations to respond to patient telephone calls during business hours or after hours. They align with providing the highest standard of ambulatory oncology care, while minimizing the legal risks associated with telephone advice laid out by the Canadian Nurses Protective Society.
College of Nurses of Ontario (CNO)	Telepractice (February 2017)	This guideline will help nurses to understand their accountabilities when providing care using information and telecommunication technologies. It highlights key points of college standards and guidelines and government legislation that apply to telepractice.

College of Occupational Therapists of Ontario	Guidelines for telepractice in occupational therapy (2017)	This guideline aims to help occupational therapists (OTs) understand the complexities of telepractice, and determine if telepractice is an appropriate approach for use with their clients. These guidelines are intended to facilitate the use of professional judgement by OTs. The OT's fundamental responsibilities to clients remain the same whether service is provided face-to-face or by telepractice.
College of Physicians and Surgeons of Ontario (CPSO)	Continuity of care—Approved policies	Recognizing that continuity of care is an essential component of patient-centred care and an important contributor to patient safety, CPSO offers four inter-related Continuity of Care policies. This document also provides background information on the scope of these policies and the role of patients, technology, and the health care system in facilitating continuity of care.
College of Physicians and Surgeons in Ontario	Telemedicine policy	This policy sets out general expectations for the professional conduct of physicians practising telemedicine in Ontario.
Federation of Medical Regulatory Authorities of Canada (FMRAC)	Framework on telemedicine (2019)	This framework proposes recommendations and minimum regulatory standards to the members of FMRAC. It is intended to help inform the development of the medical regulatory authorities' policies and guidance to physicians and promote pan-Canadian consistency.
Federation of State Medical Boards	Model policy for the appropriate use of telemedicine technologies in the practice of medicine	This policy document provides guidance to state medical boards for regulating the use of telemedicine technologies in the practice of medicine and educates licensees as to the appropriate standards of care in the delivery of medical services directly to patients via telemedicine technologies.
Ministry of Health	Patient-facing digital health policy	This policy directs all Ontario Health Teams to offer a minimum set of functionalities for their patients to enhance how and when they receive care and access their personal health information, including "virtual visits," which include direct home video visits and video visits where the patient is in a health care or communication support agency setting (e.g., telemedicine patient host site), and may be supported (e.g., by a nurse to connect via video

		to a clinician). Audio calls and electronic messaging for bi-directional communication between patients and providers (e.g., email, portal, text message) are also considered virtual visits.
Ministry of Health	Digital health service catalogue (August 2019)	This catalogue provides a list of provincial digital health assets, services and infrastructure services available for use by Ontario Health Teams (OHTs) to satisfy digital health needs and requirements. This document covers a wide range of service and programs that have been built or procured for use by Ontario health system participants and should be used as a first resource for OHTs looking for digital solutions. It also includes a list of public-facing programs and services that offer virtual visits.
Ministry of Health	Ontario health teams: Digital health playbook (August 2019)	Includes Digital Health Policy Guidance and the Digital Health Service Catalogue.
Ontario Psychological Association	Guidelines for best practices in electronic communications (April 2015)	This document clarifies for members their responsibilities and expectations regarding electronic communication.
Ontario Psychological Association	Guidelines for best practices in the provision of telepsychology (April 2015)	Guidelines designed to highlight best practices in the provision of psychological services via telepsychology.
Ontario Telemedicine Network (OTN)	Telemedicine consultation—Considerations for healthcare providers (July 2016)	OTN has developed the following considerations for health care providers planning to use telemedicine to connect with patients in a non-traditional health care setting (examples include the workplace, school, the patient's home). These considerations also outline important information that should be taken into account before conducting a video telemedicine consultation, and address a short list of topics that are frequently top of mind for providers when adding patient video visits to their practice.
Ontario Telemedicine Network (OTN)	Guidelines for telemedicine scheduling and patient care coordination (August 2014)	OTN has implemented the following guidelines for direct online scheduling and coordination between healthcare providers and patient sites across Ontario through the use of their online scheduling tool, Ncompass.

Province of BC Health Authorities	Telehealth clinical guidelines (September 2014)	The purpose of this document is to provide generic clinical guidelines for the use of telehealth in British Columbia health authorities. The guidelines are intended to be used in conjunction with all applicable organizational standards, protocols, and policies and procedures for care service provision and are designed to guide staff, physicians, and clinical practitioners providing assessment, treatment, and consultative services via videoconferencing technologies.
Registered Nurses Association of Ontario	Adopting eHealth solutions: Implementation strategies	The purpose of this guideline is to provide evidence-based individual, organization, education, and system/policy recommendations to: 1) enhance the capacity of all individuals involved in the implementation of an eHealth solution within a health care organization; 2) establish suitable infrastructures to support eHealth education needs; and 3) facilitate technology-enabled health system transformation.
The Royal Australian College of General Practitioners	Implementation guidelines for video consultations in general practice—A telehealth initiative (April 2014)	These guidelines are intended to assist general practitioners and their staff establish video consulting within their practice by providing understandable and easy to interpret guidance on a range of implementation, technical, and usage issues.

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