Virtual Cardiovascular Prevention and Rehabilitation Implementation Toolkit

Heart & Stroke in collaboration with CACPR, update 2021

CACPR
Canadian Association of Cardiovascular
Prevention and Rehabilitation

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Introduction

> The *Heart and Stroke Foundation of Canada aims* to provide up-to-date evidence-based information for the prevention and management of stroke and cardiovascular conditions, and to promote optimal recovery and reintegration for people who have experienced these conditions (patients, families, and informal caregivers).

Background: Virtual care has become a global priority and is expected to continue beyond the pandemic as part of an integrated approach to clinical practice that will include a hybrid model of in-person and virtual care. Heart and Stroke is supporting this transformational shift in healthcare delivery by creating virtual care toolkits for health professionals that provide information, guidance and practical tips across clinical areas, that can be applied as they plan and deliver virtual care. This toolkit builds on extensive work done by the *Heart and Stroke Foundation of Canada* to support the rapid uptake of digital modalities, ensuring effective and comprehensive assessment, diagnosis, and management of individuals with stroke, across acute care, secondary prevention services and rehabilitation.

This newest addition to our set of virtual care toolkits focuses on cardiovascular prevention, rehabilitation, and ongoing management for people with a range of heart-related conditions. The Virtual Cardiovascular Prevention and Rehabilitation toolkit was developed using an iterative and consultative process in collaboration with The Canadian Association of Cardiovascular Prevention and Rehabilitation (CACPR), and an external group of multidisciplinary expert reviewers.

Purpose: This toolkit aims to support the delivery of cardiovascular rehabilitation and secondary prevention via virtual modalities by providing guidance and practical tips as health professionals integrate *teleconferencing, videoconferencing, secure messaging, or audio digital tools into their practice.* This is **not a guideline document**, but rather a complementary toolkit to support virtual care. The toolkit highlights areas and components of cardiovascular rehabilitation and secondary prevention, such as infrastructure and technology, clinical care delivery and evaluation, that will require modifications or adaptations for a virtual environment. It also provides expert suggestions and considerations to support clinical judgement and establish local policies and procedures. It does not include all aspects of cardiovascular rehabilitation but rather is meant to be used to help implement appropriate guidelines in a virtual world. For cardiovascular rehabilitation and secondary prevention guidelines, please review appropriate source documents. This toolkit will be updated as evidence becomes available.

How to Use: The intended use of this toolkit is to provide structure to planning and delivering virtual care at the levels of system, program, provider and individual patient encounter. The content of this toolkit will enable clinicians to effectively participate in virtual cardiovascular secondary prevention and rehabilitation visits, after the individual or group members involved have been determined appropriate for virtual care. H&S has also developed a Virtual Care decision framework to provide structure and guidance to health professionals and system leaders across disciplines and across the continuum of healthcare as they plan, develop and implement sustainable and scalable systems and processes that fully integrate virtual modalities for delivering a range of healthcare services. The framework serves as a companion document to complement this toolkit and existing evidence-based clinical practice guidelines.

This toolkit is divided up into sections with key elements that align to the care journey. The reader is encouraged to use the toolkit document in its entirety but can focus on specific areas of interest or relevance to their clinical practice. There are considerations provided for the healthcare

provider, as well as corresponding considerations for the individual receiving care. The healthcare provider is encouraged to use both columns of information to help plan and deliver care for each key element.

It is acknowledged that virtual care does have some limitations, and that some clinical care will not be possible or, if possible, not as effective through virtual formats. This may include the ability to conduct certain assessments (e.g., heart sounds, JVP), reading body language, and establishing a personal connection. This toolkit does not replace clinical judgement. Healthcare providers should use clinical judgement and follow all discipline-specific and organizational virtual care guidelines as well as those established by their professional regulatory colleges and applicable mandated polices or legislations of their organization.

Note: Healthcare professionals are encouraged to be aware of required professional college and local licensing, permissions, and training required for valid and reliable use of tools and assessments that may be listed within this toolkit. Naming of specific tools and assessments are for example purposes only and does not indicate endorsement or evidence-based recommendations unless specifically stated.

This publication Virtual Cardiovascular Prevention and Rehabilitation Implementation Toolkit is for informational purposes only and is not intended to be considered or relied upon as medical advice or a substitute for medical advice, a medical diagnosis or treatment from a physician or qualified healthcare professional. You are responsible for obtaining appropriate medical advice from a physician or other qualified healthcare professional prior to acting upon any information available through this publication.

Tips for effective consultations for Healthcare providers [1-4]

- ☐ Review the Heart & Stroke Virtual Care Decision Framework
- ☐ Confirm and clarify consent at the start of each session.
- ☐ Clearly establish mode of communication and inform recipient of care how they will be contacted for the scheduled session.
- ☐ Be aware of individual characteristics, health status, potential language issues, care requirements and digital literacy in advance of session and adjust approach accordingly.
- ☐ Start with introducing yourself and add *"Thank you for inviting me in your home today,"*.
- ☐ Frequently acknowledge that you are present and listening, remain visual on screen if using video, look into camera at the individual and avoid wandering gaze away from camera.
- ☐ Build rapport e.g., make a positive comment about their virtual background or environment to personally connect.
- ☐ Help individuals feel more comfortable *"I realize this visit style is new, thank you for giving it a try"*.
- ☐ Set goals, expectations, and anticipated duration of the session at the start and agree on these.
- ☐ Be aware of body language and use gestures that they can see on camera.
- ☐ Adjust your style if using phone only as the individual will not be able to 'see' you and it will be harder to follow instructions and conversation. This may include asking a question or explaining a concept a second time, in a different way, and/or using different words.
- ☐ Be able to demonstrate what you need the individual to do as part of remote exam.
- ☐ Use pauses to ensure statements come across clearly and the individual has time to respond.
- ☐ A few minutes before end of time, state *we are almost done our visit, is there anything else regarding your heart condition you wanted us to discuss today; how did you feel the virtual visit went today?*
- ☐ Adopt good virtual etiquette in your services. Examples include camera at eye level, confidential environments, badges visible to individual, removing visual distractions behind healthcare providers, and being punctual for appointments with individual.
- ☐ If you are having difficulty hearing, ask the individual to turn down volume of radio, television, or source of background noise and/or if individual could move to a different room.
- ☐ Ensure that individual has a copy of the H&S Virtual Healthcare Checklist.

Tips for effective consultations for individuals participating in virtual healthcare session [1-4]

- ☐ Have technology ready ahead of time and ensure it is working.
- ☐ Have information (health card, medication list, questions) ready and with you.
- ☐ Have any questions or concerns written down and ready to ask.
- ☐ Have a pen and paper nearby to write down any notes or questions throughout the consultation.
- ☐ If needing glasses or hearing aids or other accessibility devices have them ready and with you.
- ☐ Be set up in front of your device (phone, computer, tablet) at least 10 minutes before the scheduled appointment time.
- ☐ Ensure distractions and surrounding noise is at a minimum or removed before starting appointment and good lighting so you can be seen clearly (avoid a bright window in the background).
- ☐ The healthcare provider can only see what your camera sees so be aware of your camera range.

Virtual Health and Virtual Healthcare Definitions:

Virtual Health is a broad 'umbrella term' that encompasses all the ways healthcare providers remotely interact with their patients that does not involve direct contact[5] (Teladoc Health, n.d.).

Virtual healthcare has been defined as any interaction between patients and/or one or more members of their health circle of care, occurring remotely, using any forms of communication or information technologies with the aim of facilitating or maximizing the quality and effectiveness of patient care.

- Virtual care encompasses all means by which healthcare providers interact with patients separated by space (in different locations) and/or time (synchronicity) - often called **virtual visits**.
- **A virtual visit** is an electronic exchange via teleconferencing, videoconferencing, secure messaging, or audio digital tools, where one or more health care providers deliver health care services to a patient. This includes provider to patient/family and provider to provider.

Application of Virtual Healthcare

Goal*:* use of technology as a component of health services to enable access to equitable, integrated and seamless health care to optimize wellness, specialty care and outcomes.
Scope*:* Virtual visits may take place for a broad range of health-related services, such as health promotion, screening, assessment, triage, emergency decision-making, treatment, therapies, rehabilitation, counselling, follow-up and monitoring, education, skills training, teaching, and caring for patients requiring primary, acute, chronic, and specialty care, without or with minimal in-person interaction.

- Related virtual care services include telemonitoring and digital self-care tools that collect biometric data and often support virtual visits.

Specific Types of Virtual Care

Virtual Rehabilitation (Telerehabilitation) refers to the use of information and communication technologies to deliver rehabilitation services from a distance. This can include video or telephone conferencing. Telerehabilitation includes a range of services including evaluation, assessment, monitoring, prevention, intervention, supervision, education, consultation, and coaching.

Cardiovascular Rehabilitation (CR) and Virtual Cardiovascular Rehabilitation (VCR)
Cardiovascular Rehabilitation (CR): is an important specialized component of cardiovascular disease care and chronic disease management that uses a multifaceted approach including: reducing cardiovascular risk factors, using behaviour modification strategies to sustain healthy lifestyles and promote pharmacological adherence, and providing therapeutic exercise training[6-7]

Virtual Cardiovascular Rehabilitation (VCR): is home-based cardiovascular rehabilitation delivered by virtual mechanisms. It refers to the use of information and communication technologies to deliver CR services from a distance, including, but not limited to telephone and videoconferencing communication, e-mail, mail, text or other messaging solutions, smartphone applications, online platforms, and wearable devices[8]

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[5] Teladoc Health. Telemedicine vs. Virtual care: Defining the difference [Internet]. Intouchhealth.com. 2018 [cited 2021 Jan 22]. Available from: https://intouchhealth.com/finding-the-right-term-for-modern-digital-healthcare/

[6] CorHealth. CorHealth COVID-19 Cardiac Memo #12 - Recommendation for an Approach to the Provision of Cardiovascular Rehabilitation During COVID-19 in Ontario [Internet]. 2020. Available from: https://www.corhealthontario.ca/CorHealth-COVID-19-Memo12-Cardiovascular-Rehab-(May-12-2020).pdf

[7] Arthur HM, Suskin N, Bayley M, et al. The Canadian Heart Health Strategy and Action Plan: Cardiac Rehabilitation as an Exemplar of Chronic Disease Management. Can. J. Cardiol. 2010; 26: 37-41

[8] Moulson N, Bewick D, Selway T, Harris J, Suskin N, Oh P, et al. Cardiac rehabilitation during the COVID-19 era: Guidance on implementing virtual care. Can J Cardiol. 2020;36(8):1317–21.

Checklists for Virtual Cardiovascular Prevention and Rehabilitation Services

Legend: *Healthcare provider* refers to any healthcare professional providing services to an individual through virtual modalities and ***working within their regulated scope of practice***. *Individual* refers to the person (patient, client) receiving the healthcare services from the healthcare provider. *Session* refers to the actual virtual healthcare encounter between the healthcare provider and individual. Note, in some cases a ***Substitute Decision Maker*** (SDM) may be involved in a session with or on behalf of the individual. We do not include this person in the checklist specifically for conciseness but do acknowledge they may be included. **Synchronous** refers to sessions that occur in 'real time', where the individual and healthcare provider are connected (e.g., live videoconferencing, audio (such as telephone), or real-time instant messaging). **Asynchronous** refers to sessions that are not occurring in 'real time' (e.g., email, texting, voicemail, other messaging modalities, pre-recorded video).

Key Elements	For the Healthcare Provider	For the Individual, Family and Caregivers
Infrastructure and Technology		
Administrative structure to manage scheduled VCR service appointments **(i.e., system coordination, privacy & security, supporting documentation and manuals, referral management, contract management, monitoring and evaluation).**	☐ Ensure there is administrative and clinical cardiovascular leadership to support VCR development and implementation across provider groups. ☐ Align VCR model with provincial and/or regional CR service structure and priorities and integrate or connect VCR program with available resources and supports. ☐ Ensure that appropriate and approved protocols and cardiovascular care pathways are in place to address VCR. ☐ Maintain regularly updated clinical lists and use algorithms to determine which individuals can be seen virtually vs. those that must be seen in person. *See Virtual Care Decision framework.* ☐ Method or system to change service delivery to a different format of VCR as required (e.g., telephone to video or vice versa, and virtual care to in person or vice versa). ☐ Develop or modify policies to address items related to VCR such as: 　o Verification of identity. 　o Establish location of individual. 　o Privacy. 　o Informed **consent for VCR.** 　　▪ Patient understanding of risks and benefits of VCR	☐ Some individuals may be worried about participating in a virtual healthcare session and sharing personal information online. Ask the healthcare provider what steps they have in place to ensure your information is secure and protected. ☐ Individual to be made aware that virtual healthcare sessions can be part of routine cardiovascular care. ☐ Individual has internet enabled device (telephone, smartphone, tablet, desktop, or laptop computer with webcam). ☐ Individual has access to reliable internet connection and/or telephone connection. ☐ Clarify mode of virtual communication to book the virtual healthcare session, conduct the session, share results and information, follow up (e.g., email, phone call or video call). ☐ Individual to receive information on which program or application (APP) the healthcare provider will be using, and whether

	participation, including safety and exercise programming.	downloading a particular APP or program is required.

- *An established disclaimer for VCR program.*
- Process to attain consent across multiple interactions including: phone calls, emailing information, resources, assessment, virtual education sessions (in accordance with organizational policies and appropriate provincial privacy standards).
- Additional consent for recording sessions if required.
- Consent for participation of additional family members as required.
  - Note: permission may be needed from all referred participants before family members can take part in a group session.
  - o Emergency plan and safety (e.g., emergency plan for synchronous exercise).

☐ Ensure administrative supports and structures in place to address contingency planning, contract management, documentation changes that may be required for virtual care, including the potential of remote working.

VCR Capacity and Expertise	☐ Establish a committed group of healthcare providers with VCR experience prepared to ensure CR care standards are met. Establish specific teams to ensure delivery of VCR components. ☐ Develop virtual service delivery models based on purpose of session – e.g., consultation, assessment, rehabilitation session, exercise, follow-up, education, or ongoing monitoring. ☐ Determine which of existing CR educational materials and resources could be utilized in a virtual format (e.g., changing format, uploading online so that individuals can access, sending by	☐ Clarify whether virtual healthcare session to take place in the individual's home or through a different healthcare clinic location.

mail). Where are the gaps in this information? How will the gaps be filled?

☐ Determine if referring sites have capacity to support the virtual service if appropriate (such as rural health centres); e.g., making devices available for individuals to enable participation.

☐ Develop a system to provide initial and ongoing training in virtual care technology and service delivery for all staff and supporting service areas.

☐ Develop administrative procedures to address staffing capacity to deliver virtual care services, including in times of reduced staffing levels. Staffing complement and availability may determine nature of virtual care services (i.e., group vs 1:1, recorded education sessions as back-up).

☐ Ensure that all healthcare providers work within their scope of practice as defined by professional colleges.

  o If available or required, healthcare providers to be aware of competencies related to governing bodies.

Virtual Care connectivity and Technical Support

Note, confirm with your organization, or appropriate health administration bodies, what networks and/or platforms are approved for use when healthcare provider is working off-site (e.g., at home) - all reasonable precautions for privacy should be taken including that the individual has provided informed consent.

☐ Consider what access the individual has to available technology and support such as a family member or other health care support personnel in the home (e.g., availability of camera and assistance with operating the camera).

☐ Determine the need and capacity of family members or caregivers who may support the individual with technology, communication and/ or any safety issues.

☐ Consider the needs and goals of the virtual care session and determine technology required (e.g., telephone,

☐ Identify what minimal and optimal technology is available to the individual - ensure the device (e.g., smartphone, laptop, tablet) is charged and that the volume is working and has a microphone.

☐ Discuss preferred method of contact (phone versus audio and video).

☐ Ensure individual has secure place to perform a virtual healthcare session respecting privacy and confidentiality – discuss issues with healthcare provider.

☐ Ensure individual can maintain privacy and confidentiality as appropriate (e.g., if in care facility, privacy from other residents).

virtual platform, video call, smart device, APP, virtual system with increased functionality such as peripheral linkages and/or moveable/zoomable cameras).

Note: When connecting with an individual from home and using a personal phone-line, inform individual that the call might indicate "unknown" or "private call" on call display.

☐ Ensure staff have appropriate training and/or support regarding the technological aspects of the program delivery, to optimize virtual care experience for the provider and individual.

☐ Develop or ensure there are polices and procedures that describe and define roles and responsibility for technology set-up and support (e.g., meeting scheduling, support for participants).

☐ Service providers must have a backup plan (e.g., access to telephone) in the event of technical problems or medical emergency. Ensure devices are charged in case of power outage.

☐ Ensure confidentiality and privacy requirements regarding Personal Health Information are respected throughout the continuum of care; both in rest (in platform) and in transit (between platforms) and that patient information is transferred on a secure network that meets legislated health information privacy standards.

☐ There are often audio or video delays in the connection; establish a strategy for managing this (e.g., regular pauses, communicating the delay to individuals.)

☐ Consider plan for technical support available for providers and individuals if providing services directly to individual's homes. Communicate available support to individual.

☐ If available, have a co-host and/or administrative support to troubleshoot any issues.

☐ Identify which location in living quarters the session will take place, ensure well-lit location.

☐ Determine if the connection has an audio or video delay.

☐ Individual has a right to privacy and may choose to have someone else (e.g., family, caregiver) involved in care and participate in the sessions. This should be discussed in advance with care team to ensure appropriate arrangements are made.

☐ Ask if there is a person or service available for technical support, if needed.

eHealth Technologies for measurement and monitoring
 	
eHealth technologies: can include wearables (pedometer, Smart watch, heart rate monitor), smart devices (glucometer, blood pressure), smart phone applications and websites (e.g., fitness tracking applications (APPs))
	☐ eHealth technologies can be highly useful tools to enhance VCR. Such technologies are widely available in the public market. Individuals may ask for healthcare provider's help and support before purchasing and using any of these. Note: Evidence for eHealth technologies continues to evolve and increase validation.
	
	☐ Establish feedback loops and practice for interpretation of information from eHealth technology to inform ongoing management.
	
	☐ Many eHealth technologies have shareable platforms allowing information to be shared between individual and healthcare provider. E.g., healthcare provider can login to view and coach activity patterns.
	
	   o Know your organization's policies around patient information sharing, including individual providing informed consent.
	
	   o Have a discussion with the individual regarding risk/benefit of data sharing.
	
	☐ Limitations may exist regarding eHealth technologies. If used in care, healthcare provider to discuss potential limitations with individual.
	
	☐ If lending eHealth technology, ensure appropriate agreements and polices are in place.
		☐ eHealth technologies can help to support an individual while making lifestyle changes.
		
		☐ Consider informing the healthcare provider if the individual owns and/or uses an eHealth technology.
		
		☐ Many eHealth technologies have shareable platforms allowing the individual to share information directly with the healthcare provider. Individual can inquire about this process so that an informed decision can be made, should the individual choose to share their information this way.
		
		☐ If individual is considering purchase of a wearable or other Smart device, discuss potential accessibility issues (i.e., affordability.). Provide information on available subsidies or programs to support accessibility.
		
		☐ If considering purchase, the healthcare provider may be able to provide information on quality and functionality.

Referral Management: Mechanism in place to support referral management and coordinate virtual healthcare bookings	☐ Develop or confirm clear criteria and protocols available for targeted referral pathways to ensure you respect the health system's efforts to maintain essential services (e.g., if service reductions occur). ☐ Ensure consulting sites and individual healthcare providers have triage protocols and scheduling systems in place that ensure referred individuals are seen in a timely manner within the target timelines outlined (e.g., CCS Quality Indicators) and local intake criteria. If possible, automatic/systematic referrals can assist in this process.	☐ At time of booking, individual provides verbal consent to participate in a virtual healthcare session related to CR and recovery. ☐ At time of booking, individual provides verbal consent to receive email communication regarding scheduling and communication of non-sensitive information. ☐ Individual provides email address (if consent given) for scheduling and communication of non-sensitive information.

	☐ Establish a process to support continuity of care when target timelines cannot be met.
	
	☐ Establish a process to assess individuals for their abilities, eligibility, and preference in participating in a virtual session for CR (such as clinical/medical factors and/or individual factors and sensory/motor, cognitive/communicative, psychosocial domains) as well as access to technology/ability to communicate remotely). See Virtual Care Decision Framework
	
	☐ Appointment times available that accommodate individual and provider schedules as much as possible (within regular clinic business hours and with some flexibility where necessary).
	
	☐ Consider providing an orientation package of information for individual in advance of starting virtual services – what to expect, how the virtual session will be conducted, limitations of virtual session, technical requirements and troubleshooting documents. Address privacy and confidentiality.
		☐ Individual is aware that they may decide whether to include other family and or caregivers as participants in virtual healthcare sessions.
		
		☐ Individual identifies others who may need/want to also participate in the session (e.g., family members, family physician, nurse) and determine whether it is appropriate to the visit and technically possible if they are not present in the same location as the individual.
		
		☐ Individual has secure place to perform a virtual healthcare session, respecting privacy, and confidentiality.
		
		☐ Confirm technology to be used such as smart-phone or another device with video and or audio.
		
		☐ Individual, family, and caregivers assess:
		  o Ability to use the technology effectively.
		  o Ability to safely participate in a VCR session including:
		    ▪ Physical abilities
		    ▪ Cognitive capacity
		    ▪ Language barriers

Alternate plans if technology issues occur	☐ Utilize established IT services and connection back-up plan (e.g., alternate phone number). ☐ If connection was initially made and disconnected before session is completed, both the individual and the healthcare provider can attempt to reconnect and continue the call. ☐ If the virtual call cannot be continued due to loss of internet, power or system outage, the healthcare provider must contact the individual via other means (i.e., telephone if available) to instruct them on any remaining details not already covered as well as follow-up details.	☐ Know how to connect with the healthcare provider to cancel or reschedule the session if needed. ☐ Ask healthcare provider what processes they have in place to address technical issues. ☐ If technical problems arise during the call, have a telephone nearby and the phone number of the healthcare provider to try and resolve the issue. ☐ If able, practice use of platform prior to the visit.

	☐ If connection was not made, healthcare provider will contact the individual to reschedule in-person or virtually as per healthcare provider/individual's request.	☐ Consult the Heart and Stroke Resource: Virtual Healthcare Checklist, for technology tips.

Clinical Care Delivery

Risk Management	☐ Ensure you have an emergency plan (e.g., call 911 or local appropriate number if there is an incident, have individual's home phone number and location) ☐ Ensure informed consent to participate in VCR is addressed. Please refer to the Administration section for further details. ☐ Consider whether the potential benefits of virtual care for a given individual outweigh any risks. ☐ Be aware of and provide recommendations to address limitations of virtual healthcare interactions (e.g., cannot complete a full and/or comprehensive physical exam). ☐ If providing pre-recorded exercise videos to watch, consider asking the individual to watch the video all the way through, prior to exercising, to promote safety. ☐ If music or videos are used as part of the session, ensure sound quality is appropriate and copyright is addressed. ☐ Be aware of required licensing, permissions, and training required for all tools used. ☐ Follow local established protocols for all communication to individual. ○ E.g., when providing assessment questionnaires to individual in advance of session, ensure method of communication (e.g., email, mail, internal system) is permitted. ☐ Ensure companions who participate are not under the care of the service provider and the provider is not providing them exercise advice/medical advice. If they follow along they are assuming the risk.	☐ Individual provides informed consent to participate in VCR session. ☐ Individual to discuss any concerns related to participation in VCR. ☐ Individual is prepared to discuss any issues or concerns that arise during VCR. Individual and healthcare provider work collaboratively to help manage risks, as able. ☐ Individual to always communicate any medication or symptom changes to the healthcare provider.

	Ensure mechanisms are in place to support VCR sessions such as: ☐ Method to provide feedback to individual as needed during VCR. ☐ Method to provide feedback to colleagues, medical director and referring or primary physician as needed during VCR (e.g., allowing time in scheduling for team 'huddles/review' regarding individual's care). ☐ A scheduling system to ensure follow-up care and monitoring and to follow-up on missed appointments.	
Preparation for Virtual Session *(as appropriate to Individual's needs and within professional scope of practice)*	☐ Healthcare provider or administrative support staff to provide individuals with a reminder (e.g., via phone or email) one day prior to the session, if possible. Confirm technology is still available and functional. ☐ Consider interpretation services for those with language barriers for obtaining an informed discussion. ☐ Ensure privacy, informed consent, and confidentiality have been addressed. ☐ Ensure you have an alternate way of contact (e.g., phone number, local contact) in case of break in communication. ☐ Ensure you have an emergency plan (i.e., call 911 or local appropriate number if there is an incident, have individual's home phone number and location) ☐ Have access to individual's medical history records as needed and referral documentation (e.g., health status updates, history of condition related to consultation, cardiovascular risk factors). ☐ Ensure that there is a process in place to receive all required diagnostic, laboratory, and assessment components prior to initiation of session. ☐ Determine source of documentation and metrics - self-report or clinician obtained.	*NOTE: In advance of session, individual to be provided with information to prepare for the virtual session (e.g., could be facilitated within an orientation package or when setting up initial assessment)* ☐ Ask and discuss rights and responsibilities regarding participation in a virtual healthcare session. ☐ Discuss any concerns related to privacy and/or confidentiality regarding participation in a virtual healthcare session, with healthcare provider. ☐ Some individuals may want to record their session with a healthcare provider to help remember information later. Individual must discuss this with the healthcare provider before starting a recording and ensure healthcare provider provides their agreement first. ☐ Request a test call if required and available (may not be possible in some circumstances). ☐ Ask healthcare provider how much space will be needed for the session. ☐ Plan space where virtual healthcare session will take place – good lighting, minimal background noise and

☐ Determine if patient has access to or is using remote patient monitoring equipment or eHealth technologies, and how healthcare provider will access the information.

☐ Consider starting with shorter session to give individual a chance to get used to technology and process before more complicated sessions occur, especially if new individual where they are unknown to the provider.

☐ Consider scheduling breaks throughout session to help address increased screen time.

☐ Determine reason for appointment – new referral or follow-up.

☐ Use validated risk stratification tools and program triage to help guide and inform virtual care delivery.

☐ Determine if a caregiver is available to participate and support the individual through the session (e.g., with rehabilitation exercises).

☐ If applicable: If this session takes place in a referral healthcare site, have health care provider at the referral site complete the individual's vital signs and assist with the physical exam as necessary. VCR team can arrange team assessment for patient on-site if possible and required.

☐ Consider preparing a quick safety checklist of the environment (clutter, pets, phone accessible for emergency, walking aids, hearing aids, glasses, proper footwear).

☐ Ensure adequate privacy in the room used by the health care provider.

☐ Ensure room is well-lit, sound is clear and free of distracting background noise.

☐ Notify all participants if healthcare provider is running late to virtual session.

☐ Prepare outline of key session elements. Plan session activities in advance and determine ability to teach

distractions (such as televisions, radio, pets). Ensure that the space is clear for individual to safely move around as needed (e.g., remove tripping hazards such as loose rugs or cords).

☐ Ensure adequate privacy in the room that will be used for the session.

☐ Ask the healthcare provider in advance what to expect during the session (e.g., assessments, what types of activities will be completed, the length of the session).

☐ Where possible, ask the healthcare provider in advance what information and or equipment may be needed, where to obtain these items, and have ready and available during the session.

☐ If individual wants to show healthcare provider something that will be difficult to demonstrate during a virtual session, ask if taking and sharing a video would be beneficial. Discuss with healthcare provider the best way to share the video.

☐ Have a companion available if possible, to assist in the session and to support safety. Consider virtual participation if they are in another location.

☐ Things to have readily available for the session:

  o Health card.

  o Companion to assist in session if available.

  o Updated medication list including route, dose, frequency, or medication bottles/blister packs.

  o Pharmacy name, location, and phone number.

and perform safely over virtual platforms.

☐ Consider developing a weekly program plan for complete VCR, including facilitator's key notes, learning outcomes and content bullet points – each week healthcare provider can link to the resources that will be needed by the individual.

☐ Consider transitioning questionnaires to a fillable or survey version so that patient can complete on-line.

☐ In advance of session, provide individual with any assessment questionnaires to complete.

☐ In advance of session, provide individual with any materials (electronic or hard copies) that will be required during the session (e.g., exercise program handout, instruction sheets, education pamphlet, instructions for self-measures, home exercise safety instructions). Be mindful to ensure materials are in 'user friendly' version.

Note: If individual has limited access to email, consider mailing materials. A return stamped and addressed envelope may be required to support access.

☐ Consider providing standardized, patient friendly instructions for self-measuring (e.g., handout or video) blood pressure, heart rate, weight, waist measurements.

  o See H&S resource for an example of how to self-measure waist circumference

  o See H&S resource for an example of how to self-measure blood pressure

☐ Consider providing a list of locations where individual can measure blood pressure (e.g., pharmacies)

☐ Have all equipment and visual aids prepared and available at the time of the session, including aides for supported conversation for individuals with communication challenges.

☐ Your virtual toolbox should contain resources and strategies for individuals

  o Blood pressure machine and or recent readings.

☐ Wear comfortable clothes and non-slip footwear if you will be asked to walk or perform specific movements.

☐ Have list of concerns, questions and any changes in health status prepared for discussion, such as:

  o What activities are recommended for me?

  o What should I include as part of my daily routine?

  o What type of information is needed by my healthcare providers to monitor my progress?

☐ Have a pen and paper to make notes and write down instructions and medication changes.

☐ If unable to attend booked appointment let the program know using previously identified communication methods (e.g., phone, email, online booking)

☐ Consider use of the Heart and Stroke Resource: Virtual Healthcare Checklist, to help prepare for the virtual session, and get tips and steps to optimize the session

	to set goals, make action plans, log their progress, and self-manage their healthy behaviours. Examples of strategies include: o Educational material (paper, digital or video). o Mobile and web-based technologies, consumer wearable fitness monitors, training logs and other self-monitoring techniques <u>See eHealth Technologies.</u> o Available (online or in person) patient support groups and community services. o Standardized clinical decision aids and/or tools accessible to facilitate interactions. o Tip sheets and resources to troubleshoot technology issues that arise. *Note: resources may be available through your virtual service provider.* o Consider visiting <u>CACPR/COVID-19</u> for available resources. o See <u>CACPR</u> for some available resources. *NOTE: Consider approach if sharing a diagnosis or negative news that may be distressing for the individual to receive*	
Laboratory and Diagnostic Testing	☐ Ensure process is in place for: o Completion of laboratory and diagnostic testing, including process for sending requisitions (e.g., fax, email, mail). o Communicating information such as frequency/urgency of testing to individual o Healthcare providers to communicate laboratory and test results to one another (e.g., online system, process to access and communicate results virtually). ☐ In the case that laboratory and diagnostic services are not available, have processes in place to continue with modified CR programming.	☐ Be aware of required bloodwork and diagnostic testing, timing and which facility is open for testing. ☐ Ask healthcare provider how to obtain the requisitions or whether the requisitions will be sent directly to the laboratory and/or testing facility and when it will happen. ☐ Ask healthcare provider about urgency and frequency of required tests, and plan accordingly. ☐ Ask healthcare provider if any specific preparation is needed before a test. ☐ Ask about the process for receiving and sharing test

	☐ Ensure that the individual is aware of any preparation required for the test (e.g., fasting may be required for blood test) and clarify if any medication needs to be suspended prior to a test. Communicate this using approved communication methods. ☐ Healthcare providers should communicate clearly to individual when blood work and other tests should take place, that require an in-person visit to a laboratory or testing centre, and how quickly the test needs to be done (e.g., urgently, appropriate to be delayed for a certain time, or change in frequency). ○ Consider burdens and risk/benefit associated with ordering new labs or tests and adjust if needed (e.g., are recent similar labs/tests available from primary care provider or provincial electronic system? Will the results of tests/labs result in a change in care?)	results (e.g., if other healthcare providers have ordered tests, what is the process to ensure all team members can access/ are aware). ☐ Book appointment where possible to avoid waiting in public area for longer time periods. Follow safety precautions based on Health Canada, such as physical distancing and hand washing, when accessing testing services.

Virtual Rehabilitation Session – Intake and Initial Assessment
 	
(as appropriate to Individual's needs and within professional scope of practice)
	☐ Discuss privacy, confidentiality and information security.
	
	☐ Verify individual identity using minimum of two elements (e.g., name, date of birth, address, health card number).
	
	☐ Confirm verbal consent to continue with session.
	
	☐ Perform introductions and take time to determine individual's location and any other relevant information (e.g., where located, living alone or with others, access to caregivers, equipment).
	
	☐ Address primary purpose of session and overall program (e.g., new referral, assessment, education, exercise session, follow-up and or monitoring).
	
	☐ Describe expectations for the session - provide an outline (e.g., what you will do or discuss) and the expected length of time it will take (e.g., 30 minutes).
	
	☐ Inquire about and address any new and or urgent concerns or changes in health status, such as new or worsening symptoms.
	
	☐ Consider a quick safety check-in with the individual about their environment
		Note: if the individual has agreed to the virtual healthcare session and has joined the call – consent is implied. Consent should be verbally agreed on and documented prior to starting the session.
		
		☐ Individual receiving care should be on camera if available to aid in assessment.
		
		☐ Individual to participate in the virtual healthcare session to the best of their ability.
		
		    ○ At any time during the session, individual to let the healthcare provider know if feeling unsafe, uncomfortable or have any concerns with how the session is going
		
		    ○ Individual can request to terminate the session at any time
		
		☐ During the CR program, it is important that the individual lets the healthcare provider know if feeling unwell, or if

(e.g., clutter, pets, phone accessible for emergencies, walking aids, hearing aids, glasses, proper footwear).

☐ Take relevant history such as:

- o Demographic data

- o Barriers to participating in VCR (e.g., equipment, devices, internet, telephone)

- o Medical history (see appendix 1 for examples)

- o Cardiovascular risk factors and risk scores

- o Medication reconciliation

- o Diet history

☐ Complete modified clinical assessment (self report as needed) including for example:

- o Height

- o Weight and waist circumference

- o Blood pressure

- o Heart rate if available

- o Peripheral edema

- o Incision/ wound site

☐ If completing an observational assessment of individual– use camera features of zoom and wide angle to assist in observations.

☐ Consider using tools to assess readiness and confidence. Provide in advance of session or complete during session using digital tools or print outs that can be show on camera.

☐ Screen for:

- o Nutrition needs (if registered dietitian is not already involved, is a referral needed?)

- o Anxiety and depression (is referral to social work or psychology required?)

- o Alcohol, substance use, or current smoker (is referral required?)

- o Vocational status (is assistance required?)

experiencing new or worsening symptoms (such as shortness of breath, chest pain, weakness, or light-headedness). Stop the activity right away, sit down, and discuss with healthcare provider what to do. Individual may be asked to visit the hospital or healthcare provider for further assessment and care.

☐ Ask questions of healthcare provider as required, regarding the treatment plan/program goals.

☐ If possible, have a support person available to participate in session to help where needed.

☐ Complete a modified exercise assessment:

- o Exercise history

- o Functional abilities

- o Movement safety (i.e., quality of movement and falls history)

- o Available equipment

NOTE: ***Ensure there is a process to escalate assessment to physical observation as needed***

☐ Determine a patient-centred and comprehensive care plan that prioritizes mutually agreed on goals of the program and outlines action strategies for risk reduction. Determine how this will be shared and tracked with individual, virtually.

☐ Healthcare provider is encouraged to complete as many components of their usual assessment process as possible, including, but not limited to: patient's history and available test results , symptoms, CV risk factors (including nutrition and psychosocial status), medications and levels and ability for physical activity.

☐ Recognizing limitations may exist due to virtual setting, healthcare provider is encouraged to follow program processes and make adaptations to include assessment tools that can be completed virtually. E.g. self-administered walk test, and technologies such as step counters, heart rate monitors.

☐ Intake letter should be sent to the patient's primary care provider and/or cardiovascular specialist as appropriate to summarize the patient's intake assessment, care plan and goals, or at a minimum should indicate enrollment in the CR program. Use approved communication channels.

☐ Identify and appropriately refer and/or address any new or worsening symptoms and comorbidities. Be aware of the processes that are in place to address issues that cannot be managed during this session or by the

overall program. Be aware of available resources in the community and consider creating a list of resources available virtually (e.g., local physiotherapy, diabetes education)

☐ At the end of the intake and initial assessment, schedule time for following session or inform when individual could expect their next contact from VCR. See Ending virtual session, documentation, follow up, for more details

Note: be aware of required licensing, permissions, and training required for chosen assessments

Considerations for group vs individual care delivery **(as appropriate to Individual's needs and within professional scope of practice)** *Note: Be aware of virtual platform capacity limits.*	*NOTE: Some individuals may not be appropriate for group care delivery models (e.g., language barriers, technology challenges, privacy concerns). Healthcare providers are encouraged to use available decision aids, local processes and clinical judgment when considering this, and have process in place for those unable to participate in groups.* ☐ Have healthcare providers available for one-to-one virtual counselling as needed (e.g., dietitian, mental health workers) to address issues not suitable to virtual group care, such as: o Return to work brainstorming. o Specific emotional challenges. o Individual nutritional concerns. ☐ Consider using group format to deliver core CR components virtually. o E.g., core CR components that could be addressed in this way include information about cardiovascular disease risk factors, general nutrition and exercise information, stress management, medication awareness/adherence, behaviour change, group exercise. ☐ Group classes can help with caseload management, peer support, enhance patient experience, and support behaviour change. ☐ When completing virtual group sessions, ensure privacy and confidentiality is discussed (i.e., what	☐ Individual may be invited to join a group session during VCR program. Individual to express comfort level with participating in group session. If uncomfortable in a group setting, inquire about alternative options. ☐ Individual to use own comfort level to decide what to share with the group. If participating in group session, all information from other members is confidential. o If individual has questions, concerns or information that they are uncomfortable discussing in the group setting, follow the established communication method to communicate privately with the healthcare professional (e.g., by sending a private message to the healthcare provider, indicating in the group session that a private conversation with the healthcare provider is needed) ☐ Individual to be made aware that group sessions can occur using a variety of formats (e.g., 1-way communication such as

group members say in the group, stays within the group).

☐ Consider using both video and telephone platforms to reach a larger audience (i.e., those without stable internet connection. Ensure a method of communication is established between the healthcare providers and the virtual group participants (e.g., chat function, email, telephone calls).

☐ Consider having two healthcare providers available where possible: one to lead the session and the other to monitor chat functions and help troubleshoot technical difficulties.

☐ Create and use a standardized template to guide group sessions. This can help keep the healthcare provider on track, and ensure all needed items are covered.

a webinar or 2-way communication function, such as an interactive call).

☐ Individual will likely hear about some barriers that others have that may be similar to their experience, as well as how others have overcome them.

☐ Others in the group may benefit from other individual's experiences

☐ Have a way to take notes available.

Virtual Cardiovascular Prevention and Rehabilitation Session – Therapeutic Interventions

Contingency plans for individuals requiring medical management during session	☐ Have an emergency action plan in place for your session, and a process in place for healthcare provider if immediate attention or in person care is needed (e.g., have address of individual on hand in case you are required to call local emergency number).
	
	     o E.g., have process in place for what healthcare provider is to do if the person falls/gets hurt while completing synchronous exercise, has new or worsening symptoms
	
	     o Virtual appointments may not be suitable for all situations or individuals.
	
	 ☐ For group formats, consider having a second healthcare provider present if available, in the event that one group participant requires medical assistance.
	
	 ☐ Be aware of and provide recommendations to address limitations of virtual healthcare interactions (e.g., cannot perform a complete physical exam, cannot provide hands on assistance as needed).
		☐ Individual to be made aware that if urgent health concerns arise before the scheduled session do not wait for a virtual appointment. Seek medical assistance by calling 911 or the local emergency number.
		
		 ☐ During a virtual session, individual to discuss health concerns with the healthcare provider.
		
		 ☐ During the VCR session, it is important that the individual lets the healthcare provider know if feeling unwell, or if experiencing new or worsening symptoms (such as shortness of breath, weakness, dizziness). Stop the activity right away, sit down, and discuss with healthcare provider what to do. Individual may be asked to visit the hospital or healthcare provider for further assessment and care.
		
		 ☐ Have an emergency action plan in place for the session

		☐ (e.g., have telephone nearby to call for help if needed and a number of who to call).
		☐ Seek in-person medical help if there are urgent health concerns (e.g., calling 911 or local emergency number).
		☐ Be aware of the limitations of the virtual setting (e.g., healthcare provider is not able to provide hands on assistance).

Virtual Cardiac Rehabilitation Therapeutic Interventions
 	
Risk factor management
 	
(as appropriate to Individual's needs and within professional scope of practice)
	☐ Provide individuals with their risk factors profile (e.g., online, using mail) which indicates their current value for each risk factor.
	
	☐ If available, home blood pressure monitoring should be encouraged, and results should be conveyed. If unavailable, look for potential community resources.
	
	☐ Assess glucometer readings where applicable. Encourage people with diabetes to monitor glucose levels and communicate these during the session.
	
	☐ Review dietary patterns for each applicable risk factor (e.g., dietary salt, added sugar, and fat).
	   ○ Encourage use of a food diary or food tracking/nutrition tracking APP, as appropriate.
	   ○ If dietitian is not already involved, refer to a dietitian as needed.
	
	☐ Review timing for next lipid profile.
	
	☐ Where applicable continue to counsel on smoking cessation and refer to virtual smoking cessation program if available.
	
	☐ In cases when weight/fluid monitoring is necessary (e.g., heart failure and/or function issues) provide individual with appropriate guidelines. Otherwise instead of self-weight monitoring, the individual is encouraged to focus on health behaviors.
		☐ Be prepared to share any changes or concerns since the previous appointment.
		
		☐ Have exercise plan and/or dates available. Inquire about local resources for additional help in getting adequate exercise.
		
		If applicable:
		
		☐ Have blood pressure readings since last session.
		
		☐ Have glucometer readings since last session.
		
		☐ Ask about available smoking cessation programs and treatments.
		
		☐ Ask for dietitian referral.
		
		☐ Ask for information about stress management resources.
		
		☐ Have lab work completed before the appointment.
		
		☐ Ask enough questions to ensure you understand why these targets have been suggested for you
		
		☐ Weigh and discuss the pros and cons of making the changes that may be recommended.
		
		☐ If you decide to make changes, ask yourself how confident you are that you will be successful. If your confidence is low, ask yourself what you would need

	☐ Encourage regular exercise according to clinical scenario. If available ask about wearable technology data. ☐ Encourage discussion related to stress management and mental health, as you would address in an in-person session. Complete screenings and provide additional referrals as required. ☐ Repeat risk factor screens and assessments when clinically indicated. ☐ Include goal setting, action planning and identify barriers and strategies during patient interactions. Determine how this will be monitored and tracked virtually.	to increase your confidence. Ask your healthcare provider for virtual resources that can support you. ☐ If comfortable, reach out to friends or family that can provide support for new goals. Utilize modalities such as phone and video calls to tell them about new goals, so that they can provide support and encouragement.
Virtual Cardiac Rehabilitation Session – Therapeutic Interventions **Exercise** **Address areas appropriate to each individual and within professional scope of practice**	In the absence of in-person exercise: ☐ Assess how the individual is functioning and adapting in their home environments. ☐ Assessment of individual's environment (physical and social). ☐ Address safety during each exercise, and ensure there is an emergency plan in place, including mechanism to address issues (such as symptoms) which may arise during exercise. ☐ Provide individual with education on how to assess and gradually increase their exercise intensity. Encourage individual to communicate this to healthcare provider. Ask individual if they experienced any issues or symptoms in performing exercises since last session. Additional information available from the [CCS COVID-19 Rapid Response Team.](#) ☐ When assigning activities or completing in session, provide direction regarding frequency, duration and intensity of each exercise and/or activity. Exercise progressions may be more gradual in a virtual setting. ☐ Provide clear step-by-step instructions and demonstrations – break exercises into smaller parts and allow individual to demonstrate back to ensure understanding and mastery (if using telephone only or asynchronous modalities for sessions, consider	☐ Gather any equipment that may be needed well in advance of the session. Discuss equipment options with the healthcare provider. ☐ Have a solid supportive surface for balance as needed (e.g., chair or table) during session. ☐ Have a chair available and nearby as needed for rest. ☐ Ensure there is enough room to participate in exercise. ☐ Have appropriate clothing and footwear for exercise. ☐ Have access to water or other hydration or nutrition if needed before, during, or after exercise. o *Note: be mindful of any individual fluid restrictions. Discuss with your healthcare professional as needed* ☐ Understand how to monitor exercise intensity and communicate intensity with healthcare provider. ☐ At any time during the session, individual to let the provider know if they are feeling unsafe, uncomfortable or have any questions or concerns with how the session is going.

mailing out hard copies of step-by-step instructions with illustrations or referring to online resources, such as pre-recorded videos).

☐ Ensure that healthcare provider's camera setup provides clear view of all exercises being demonstrated (e.g., if demonstrating a lower body exercise, ensure the camera is pointing to your lower body).

☐ Provide exercise modifications to promote inclusiveness.

☐ Ensure individual is aware of how to self-manage device therapy (e.g., normal vs abnormal symptoms, who to contact for trouble shooting, heart rate thresholds if ICD or pacemaker present).

☐ Determine whether the patient has exercise equipment available at home. Advise where they could purchase this exercise equipment or consider instruction regarding safe home-based exercise with or without equipment.

☐ Provide the individual with a tip sheet/list of items that they will need for the session. (e.g., hydration, appropriate shoes, safe space, home items that can be used for exercise equipment, required exercise equipment.).

☐ Provide regular reminders and check-ins (by telephone, text, email, Interactive Voice Response (IVR) system,).

☐ Consider having patients track their weekly activity using activity diaries/logs/tracking applications/websites and send them to you for accountability and monitoring. Follow local privacy and confidentiality guidance.

☐ Consider use of wearable devices, such as smart watches or pedometers, when appropriate See eHealth Technologies.

☐ Consider availability of tools to monitor or track vital signs (e.g., heart rate, blood pressure, oxygen saturation) if appropriate See eHealth Technologies.

☐ During the exercise session it is important that the individual lets the healthcare provider know if feeling unwell, or if experiencing new or worsening symptoms (such as shortness of breath, weakness, dizziness, or pain symptoms). Stop the activity right away, sit down, and discuss with healthcare provider what to do. Individual may be asked to visit the hospital or healthcare provider for further assessment and care.

☐ Consider using wearable devices (i.e., smart watches) to assist in tracking activity.

	☐ Try to incorporate interactive components into the virtual session, including time for questions, to keep individual(s) interested and engaged. ☐ If using music, ensure participants are still able to hear your voice/instruction. ☐ Allow opportunities for feedback after session. ☐ If during session it is determined that an in-person visit is necessary to complete a comprehensive assessment, there are safety concerns and/or individual requires treatment that cannot be delivered virtually, follow site protocols for addressing immediate concerns and completing an in-person session.	

Virtual Cardiac Rehabilitation Session – Therapeutic Interventions
 	
Education
 	
(as appropriate to Individual's needs and within professional scope of practice)
	☐ Education may be provided in a variety of formats pending appropriateness and available resources.
	
	   o E.g., pre-recorded or presented in live sessions (1-on-1 or in a group setting).
	
	   o Refer to section on Group Programming for more information.
	
	☐ Provide specific time and opportunity for individuals to ask questions.
	
	☐ Make educations sessions available after they have been presented so individuals can access them at their leisure (video and/or audio recordings, online video, print material). Note: may need to complete a recording without audience to follow local privacy rules and procedures.
	
	☐ Consider emailing or mailing relevant print material to the individuals in advance of education sessions.
	
	   o Provide literacy and language appropriate education/resources.
	
	☐ Recommend reliable online resources for patients. Provide list of resources using agreed upon communication channels (e.g., via email).
	
	☐ Try to incorporate interactive components, including time for questions, to keep patients interested and engaged.
		☐ Write down a list of questions and areas where more information is needed.
		
		☐ Ask about reliable online resources to help individual manage their recovery and daily activities.
		
		☐ Ask about where to find your program's educational offerings, and where to find updated information.
		
		☐ Visit the Heart & Stroke website for information.

	☐ Use a systematic approach to ensure all major components of CV rehabilitation are covered (e.g., risk factors, medications, physical activity, nutrition, stress management/psychosocial health) ☐ Consideration should be given to a variety of individual learning styles and adult learning principles. Offering education in a variety of formats (e.g., different video duration, visuals, audio, text, interactivity) may be beneficial when providing information virtually.	

Virtual Cardiac Rehabilitation Session – Therapeutic Interventions
 	
Medication management
	☐ Complete a medication reconciliation, including over the counter medications (e.g., supplements). Determine how this will be communicated to the individual and other team members in the virtual setting (e.g., electronically).
	
	☐ Question the individual about adherence to treatment, including access to medications and medication coverage.
	
	    o Refer to appropriate services if needed (e.g., physician, pharmacist, social services for medication coverage)
	
	☐ Ensure the patient is on guideline directed medical therapy (GDMT) including dose, according to condition/risk factors.
	
	☐ Assess and ask about potential side effects or allergic reactions.
	
	☐ Enquire if prescription renewal required.
	
	    o Identify most efficient portal to send electronic prescription.
	
	☐ Educate the individual on the importance of medication (purpose and adherence).
	
	☐ Communicate any medication changes to the attending physician and to the patient. Following established local protocols for communication.
	
	☐ Encourage the use of a single pharmacy for medication management.
	
	☐ If individual tends to forget pills, ask about ways to improve adherence to the treatment, and discuss these
		☐ Ensure you have your complete list of medication (with dosages) including over the counter drugs
		
		☐ Document and report any possible side effects experienced.
		
		☐ Check if a medication renewal is needed. Have all the necessary information such as the pharmacy phone or fax number ready for the session.
		
		☐ Do not hesitate to ask questions about the purpose of prescribed medications. It will help in understanding why it is important to take them.
		
		☐ Be sure all medication changes are understood. Ask about how this will be communicated to other care team members (e.g., family physician).
		
		☐ Communicate any medication change since last visit.
		
		☐ It is helpful to use one single pharmacy for medication management.
		
		☐ Bring up any financial issues that could limit access to medication, if applicable.

	options during virtual session (e.g., blister packs, pill organizers).	
Virtual Cardiovascular Prevention and Rehabilitation Session – Follow-up and Evaluation		
Ending virtual session, documentation, follow up	☐ Provide summary of areas addressed, key messages, homework, and outcomes of the virtual healthcare session. ☐ Make recommendations for follow-up, replicating as closely as possible how this is managed in an in-person visit, and share how appointment will be made if needed. ☐ Document session on a standard individual record form for your practice (digital or paper) and send appropriate consultation notes to referring source, as per college and organizational requirements. ☐ If appropriate, obtain verbal consent from the individual that they are willing to have future appointments virtually if necessary and possible. This information is then captured in the documentation following the appointment. ☐ Each future appointment should be assessed for appropriateness for in person versus virtual delivery and mutually agreed upon by the healthcare provider and individual. ☐ Inform individual of next booked appointment with VCR and/or book next appointment between the health care provider and the individual. ☐ Follow-up with any action items from the session (e.g., contacting vendors, arranging for equipment needs, faxing, emailing, or mailing home-based rehabilitation program, exercises, suggestions, instructions). ☐ Provide email summary of therapy session to support individuals with communication or memory difficulties (need email consent from individual). ☐ Discuss long term adherence/maintenance and relapse planning prior to program completion. Provide virtual/online resources and	☐ Individual to ask any remaining questions that they have. ☐ Individual to ask for information about how to contact rehabilitation team members or members of community support teams as appropriate to individual's care. ☐ Make note of instructions and information on follow-up appointments and tests – with whom, when, how will individual be contacted, will it be virtual or in-person.

	tools to support adherence/maintenance that can be utilized.	
Reassessment at Program Completion and Transitioning to Maintenance Phase/Long Term Management	☐ Re-evaluate, assess, and provide summary of pre/post of cardiovascular risk factors, physical activity level, functional capacity, and psychosocial profiles and anthropometric measures, e.g., blood work, nutrition status, health behaviour change, key messages, homework, and outcomes of the virtual CR session. ☐ Evaluate and recommend post-program plans for continued maintenance and long-term management (e.g., virtual community programs, APPS, websites) ☐ Ensure individual understands who to connect with, and has contact information (e.g., phone, email.) for appropriate healthcare providers, in case they have follow-up questions or concerns. ☐ Review signs of heart attack, stroke, or cardiac arrest. Remind the individual that these are medical emergencies and direct the individual to call 911 if they experience any of signs, even if mild or transient. ☐ Establish a virtual process for discharge and/or summary letter to be forwarded to the primary care provider and cardiovascular specialist to aid in ongoing management.	☐ Individual, family member or caregiver to ask any remaining questions that they have. ☐ Complete the necessary testing (e.g., bloodwork, functional testing) for the final cardiovascular risk profile. ☐ Complete program satisfaction questionnaire to determine if individual's needs were met. ☐ Ask for information about how to contact appropriate healthcare provider for any follow up questions (e.g., phone, email). ☐ Make note of instructions and information on follow-up appointments and tests – with whom, when, how will individual be contacted, will it be virtual or in-person. ☐ Visit the Heart & Stroke website for information. ☐ Consider joining Heart & Stroke's online Community of Survivors or Care Supporters Community peer support, or local support network if available. ☐ Ensure follow-up with primary physician. ☐ Ensure to follow up on transitioning recommendations such as on exercise and/or any suggested medical/community services such as diabetic management and education, smoking cessation, psychological counselling, social services.

Evaluation of Virtual Healthcare Sessions and Programs

Cardiovascular rehabilitation services are underutilized with only 34% of all eligible patients participating.[9] There is also considerable variability in terms of access to these services, with three quarters of programs being in the urban setting.[10] As a result of the Covid-19 pandemic, many health care services, including cardiovascular rehabilitation, quickly shifted to virtual healthcare delivery where possible. This allowed for an opportunity to increase program uptake and participation and enable improved access to expertise nationwide.

Much like the more traditional centre or home-based cardiovascular programs, a key step for all virtual cardiovascular rehabilitation programs is to establish an evaluation strategy which includes an assessment of the individual virtual care sessions as well as overall program delivery and outcomes.

Performance measures for individual sessions *may* include:

- A sub-set of your program's current performance measures (determine effectiveness and appropriateness for use in the virtual sessions).
- Degree to which healthcare providers are able to conduct the required assessments and treatments through virtual care sessions *(e.g., screen/question the healthcare providers if they feel comfortable that the virtual session allows for a complete/thorough assessment).*
- Median duration and frequency of virtual care sessions; attendance data; frequency of negative events.
- Effectiveness of virtual care sessions versus in-person *sessions.*
- Percentage of patients requiring in-person follow up for further assessments that could not be addressed virtually.
- Percentage of sessions that experience technical difficulties affecting the quality of session and ability to provide services.
- Healthcare provider rating of the virtual encounter and willingness to expand virtual care in their practice.
- Patient rating of quality of virtual care sessions and willingness to participate in future sessions.

Overall program evaluation should comprise of:

i) Assessment of program outcomes and address established standards of care and quality indicators for cardiovascular rehabilitation[11]
ii) The virtual delivery of cardiovascular rehabilitation services. Using a minimum data set to benchmark to clinical guidelines and performance measures allows for:
    - Assessment of individual patient improvement.
    - Quantifies the quality of care and identifies areas for improvement.
    - Determines program accessibility and barriers i.e., extent of access, wait times, enrollment and completion rates etc., effectiveness i.e., impact on patient outcomes, recurrent clinical events and hospital readmissions, and efficacy i.e., cost savings, advocacy for funding[12]

Mechanisms for data collection should be integrated into patient health care records and virtual care session documentation and should be comprehensive and yet not too time consuming to use. The data should be reviewed monthly with a report prepared annually. Existing CR program databases/registries, such as the CACPR registry, can provide platforms to support data collection and evaluation. Thus, implementing program evaluation measures the "real world"

delivery of care and determines the impact that virtual cardiovascular rehabilitation will have on the patient's cardiovascular health.

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Appendix 1: Completing A Medical History

Examples of information to ask and consider when completing a medical history include:
- Symptoms
- Type and timeline of cardiovascular illness and intervention (level of revascularization, surgery and surgical wounds – sternotomy, vein graft harvest sites, device implant site, PCI, ablation etc.)
- Recent cardiovascular investigations(Angiogram, Echo, MUGA, MPS, cMRI, holter etc.) and any relevant findings therein
- Device therapy thresholds (if relevant)
- Any complications during recovery including arrhythmias, symptoms of heart failure PCI access site complications, surgical site wound complications, etc.
- Relevant past medical history (as may limit activity and exercise recommendations,) e.g., Rheumatologic/musculoskeletal – joint and mobility/range of motion limitations, cerebrovascular disease - physical defects, vascular disease - claudication, Pulmonary diseases – need for oxygen, etc.

Always refer to appropriate guidelines and professional standards.

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