



# Evaluation Considerations for Virtual Rehab

# Considerations for the Evaluation of Virtual Rehabilitation

The onset of the COVID-19 pandemic has resulted in a rise in the use of virtual rehabilitation. This change has occurred in response to restrictions on in-person visits imposed by public health directives and also the reluctance and fear expressed by patients to attend on-site visits.

Virtual care is defined as “any interaction between patients and/or members of their 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.”<sup>1</sup>

Given the implementation of virtual rehabilitation, the RCA is providing some guidance around outcome indicators that can be considered to evaluate the efficacy and quality of virtual rehabilitation for service delivery. These considerations, unless otherwise stated, can be applied to the following two virtual modalities:

## 1. Synchronous

(two-way real-time interaction)<sup>2</sup>



1:1 video visits



Group video visits



Telephone visits

## 2. Asynchronous

(Applications that deliver services in a “store and forward” method; no continuous real-time interaction between patient and provider or between providers)<sup>3 4</sup>



Home exercise programs



Surveys/questionnaires

<sup>1</sup> Ontario Health. (2020) Recommendations for Regional Health Care Delivery during the COVID-19 Pandemic: Outpatient Care, Primary Care, and Home and Community Care.

<sup>2</sup> Cureatr. The Two Forms of Telemedicine: Synchronous vs. Asynchronous. <https://blog.cureatr.com/two-forms-telemedicine-synchronous-vs-asynchronous> Retrieved May 25, 2021

<sup>3</sup> Peterson, C.(2017). Expanding Access to Physical Therapy: What is the Current State of Telehealth for Physical Therapists? Federation Forum Spring 2017. [https://www.fsbpt.org/Portals/0/documents/free-resources/ForumSpring2017\\_ExpandingAccessToPhysicalTherapy.pdf](https://www.fsbpt.org/Portals/0/documents/free-resources/ForumSpring2017_ExpandingAccessToPhysicalTherapy.pdf)

<sup>4</sup> Lignell, O. (Oct 7 2020). Asynchronous virtual health: 3 reasons it’s critical for now and foundational for the future. <https://medcitynews.com/2020/10/asynchronous-virtual-health-3-reasons-its-critical-for-now-and-foundational-for-the-future/> Retrieved May 25, 2021

# Key Indicators for the Evaluation of Virtual Rehabilitation

The metrics that follow are organized into four domains to guide the evaluation of virtual rehabilitation. Each domain includes areas of focus and descriptive questions to illustrate the various aspects that can be considered for evaluation within that domain. While the domains are considered separately, there is some overlap between them. These metrics can be used in any combination to support a comprehensive evaluation approach and to provide context to better understand various domains and outcome indicators. In addition to identifying the key outcome indicators for the evaluation, the selection of measurement tools that are relevant and clearly target the information being sought, validated (where possible) as well as reliable are equally important to the evaluation process.

*Note: While clinicians may have provided some virtual rehabilitation via OTN suites, the onset of the COVID-19 pandemic has resulted in clinicians providing virtual rehabilitation to patients in the patients' own homes and as such requires new or additional safety considerations for the clinician treating these patients.*

Domain	Outcome Indicators	Measurement Tools
Implementation Level Outcomes <sup>1</sup>	<b>1. Adoption (uptake)</b> <ul style="list-style-type: none"> <li>○ What was the change in adoption (total virtual visits)?</li> <li>○ Are there any barriers for the provider to implement or use virtual care?</li> </ul>	<b>1.</b> Administrative data; qualitative survey
	<b>2. Acceptability</b> <ul style="list-style-type: none"> <li>○ What was the overall patient/provider experience with using the virtual approach?</li> <li>○ Were the patient/provider expectations for receiving or providing care met?</li> </ul>	<b>2.</b> Qualitative survey
	<b>3. Feasibility/Usefulness (actual fit, suitability)</b> <ul style="list-style-type: none"> <li>○ Is virtual care feasible/convenient for patients and easy for them to access?</li> </ul>	<b>3.</b> Survey, self-report, administrative data

# Key Indicators for the Evaluation of Virtual Rehabilitation (cont'd)

Domain	Outcome Indicators	Measurement Tools
	<ul style="list-style-type: none"> <li>○ What is the effect on client-clinician interaction with respect to communication, ability to conduct assessments and intervention, use of visual and non-verbal cues?</li> </ul> <p><b>4. Technical quality of the platform</b></p> <ul style="list-style-type: none"> <li>○ Can provider use the platform effectively/efficiently to deliver rehabilitation?                             <ul style="list-style-type: none"> <li>▪ Was a pre-session test conducted?</li> </ul> </li> <li>○ Is the platform easy/intuitive to use?                             <ul style="list-style-type: none"> <li>▪ Was the provider given adequate training and delegated time for training on the use of the platform? Were additional resources provided as needed?<sup>5</sup></li> <li>▪ Is the provider confident in using the technology?</li> </ul> </li> <li>○ Is it reliable?</li> <li>○ What is the quality of the audio and visual/screen/picture?</li> <li>○ Is it secure, private?</li> </ul>	<p><b>4.</b> Qualitative survey/checklist</p>
<p><b>Service Level Quality Outcomes<sup>1</sup></b></p>	<p><b>1. Efficient</b></p> <ul style="list-style-type: none"> <li>○ Was it easy to use the virtual platform?</li> <li>○ Can the virtual platform be used to provide care in formats usually used (e.g., 1:1 sessions, group classes)?</li> <li>○ What is the inter/intra rater reliability for assessment conducted virtually vs in-person (e.g. when measuring range of motion (ROM), balance, communication, etc.)?</li> <li>○ What is the impact on case volumes and wait times?</li> </ul>	<p><b>1.</b> Qualitative/survey; administrative data.</p>

<sup>5</sup> The initial experience with using virtual technology can greatly influence both the patient and provider experience and affect the tone of future sessions. If patients have a poor experience, they may be reluctant to participate in virtual rehab. Similarly, if providers have a poor experience, they may reject using virtual technology.

# Key Indicators for the Evaluation of Virtual Rehabilitation (cont'd)

Domain	Outcome Indicators	Measurement Tools
	<p><b>2. Effective/Appropriate</b></p> <ul style="list-style-type: none"> <li>○ Is care received virtually as effective as in-person visits (i.e., does it meet the rehabilitation needs of patients)?</li> <li>○ Are the required tools to deliver virtual care available to support the communication needs and goals identified (e.g., adjustable overhead phone mount, drawing tablet)?</li> <li>○ Is a hybrid model used (i.e., mix of in-person and virtual)?</li> <li>○ What is the % of virtual visits to in-person visits in given time periods? <sup>6</sup></li> <li>○ What is the % of patients who require an in-person visit (e.g., an initial assessment and/or follow-up)?<sup>7</sup></li> <li>○ What is % of virtual encounters that experienced technical difficulties affecting the quality of encounter and ability to provide services?<sup>6</sup></li> <li>○ What is % of virtual encounters that were cancelled due to technical difficulties?</li> <li>○ What is the clinician rating of the quality of the virtual encounter and willingness to expand access to virtual care in their practice?<sup>6</sup></li> <li>○ Have criteria been developed to guide the use of in-person vs virtual vs a hybrid model based on patient needs, rehabilitation population, HHR availability and/or other factors? (Note: criteria may differ across team members.)</li> <li>○ Are there different outcomes based on the use of virtual vs. in-person vs hybrid models?</li> </ul>	<p><b>2.</b> Population/condition specific outcome measures. Consider if outcome measures are validated for virtual use.</p>

<sup>6</sup> This may provide information/data to better understand the context of service provision.

<sup>7</sup> Canadian Stroke Best Practice Recommendations. Telestroke Implementation Toolkit 2020. <https://www.heartandstroke.ca/-/media/1-stroke-best-practices/csbpr7-virtualcaretools-13may2020>

# Key Indicators for the Evaluation of Virtual Rehabilitation (cont'd)

Domain	Outcome Indicators	Measurement Tools
	<ul style="list-style-type: none"> <li>○ Has virtual technology been used to provide communication/training? For example:                             <ul style="list-style-type: none"> <li>▪ Family conferences</li> <li>▪ Team conferences</li> <li>▪ Training (e.g., PSWs or other staff) across different geographies and/or discipline</li> </ul> </li> </ul>	
	<p><b>3. Equitable</b></p> <ul style="list-style-type: none"> <li>○ Are there barriers to accessing virtual care? Are patients asked about the following when considering virtual rehab:                             <ul style="list-style-type: none"> <li>▪ Access to the equipment/technology needed (i.e., computer, tablet, reliable internet)</li> <li>▪ Comfort with using the technology</li> <li>▪ Availability of privacy during the virtual visit</li> <li>▪ Hearing and/or visual impairments that might affect using this technology</li> <li>▪ Preferred language and arrangements to provide service in the language preferred.</li> </ul> </li> <li>○ Does it disproportionately benefit some patients more than others?</li> <li>○ What is the attrition level of patients? Which patients discontinue with virtual sessions and why?</li> <li>○ Who are the patients who are referred but never receive virtual rehabilitation?</li> </ul>	<p><b>3.</b> Internal tracking / survey / checklist</p>
	<p><b>4. Safe</b></p> <ul style="list-style-type: none"> <li>○ Have there been any near misses, incidents of falls or other injuries or calls to 911?</li> </ul>	<p><b>4.</b> Administrative data on incident reports; privacy breaches</p>

# Key Indicators for the Evaluation of Virtual Rehabilitation (cont'd)

Domain	Outcome Indicators	Measurement Tools
	<b>5. Patient-centred</b> <ul style="list-style-type: none"> <li>○ Is the service offered sensitive to the patient’s needs (e.g., language, communication, physical/cognitive/visual impairments) and cultural considerations and preferences?</li> <li>○ Is the patient willing to have a future session(s) in a virtual format?<sup>8</sup></li> <li>○ What is the patient rating regarding the quality of the virtual health care encounter with respect to: <ul style="list-style-type: none"> <li>▪ The therapeutic relationship with the provider?</li> <li>▪ Meeting the patient’s therapeutic goals?</li> </ul> </li> </ul>	<b>5.</b> Survey re: modality used; accessibility issues (e.g., physical, communication, visual)
	<b>6. Timely</b> <ul style="list-style-type: none"> <li>○ Was the wait time to schedule an appointment reasonable? (From whose perspective - patient perspective, provider perspective?)</li> <li>○ Did the appointment start on time? If not, how long did the patient (and the caregiver) have to wait?</li> </ul>	<b>6.</b> Administrative data on wait times
<b>Patient/Caregiver Level Outcomes<sup>1</sup></b>	<b>1. Patient-reported outcome measures</b> <ul style="list-style-type: none"> <li>○ Are patients getting better (measurement-based care)?</li> </ul>	<b>1.</b> Condition-specific PROMs
	<b>2. Patient-reported experience measures</b> <ul style="list-style-type: none"> <li>○ Are patients willing to reuse or recommend virtual rehabilitation?</li> </ul>	<b>2.</b> Condition-specific PREMs

<sup>8</sup> Canadian Stroke Best Practice Recommendations. Telestroke Implementation Toolkit 2020. <https://www.heartandstroke.ca/-/media/1-stroke-best-practices/csbpr7-virtualcaretools-13may2020>

# Key Indicators for the Evaluation of Virtual Rehabilitation (cont'd)

Domain	Outcome Indicators	Measurement Tools
	<ul style="list-style-type: none"> <li>○ What was the overall patient experience with receiving rehabilitative care through a virtual approach (e.g., did patient receive the care they should have received and as frequently as recommended)?</li> <li>○ What worked well from the patient’s perspective?</li> <li>○ Was the virtual visit as useful as an in-person visit?</li> <li>○ Were there any problems with the quality of sound, video, software set up, login process, scheduling of appointment?</li> <li>○ Was there any technical support for the problems?</li> <li>○ How did the problems affect the patient’s experience with the virtual visit?</li> <li>○ Was virtual technology used to facilitate patient/caregiver/family meetings? What was the experience like?</li> </ul>	
<b>Health System Level Outcomes</b>	<ol style="list-style-type: none"> <li><b>1. Health system utilization</b> <ul style="list-style-type: none"> <li>○ How does health resource utilization change as a result of virtual care?                             <ul style="list-style-type: none"> <li>▪ Can more patients be seen?</li> <li>▪ What is the impact on wait times?</li> <li>▪ What is the difference in cost for virtual care vs. in-person?</li> <li>▪ Are there differences in the time required to prepare for a virtual rehabilitation session vs. in-person? Consider set-up of technology, follow-up calls/emails and other non direct patient care activities.</li> <li>▪ Is there clerical support to assist with follow-up tasks?</li> </ul> </li> <li>○ What are the travel miles and costs saved with virtual health care session<sup>9</sup></li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li><b>1.</b> Use administrative data, balancing metrics to ensure outcomes and patient/provider experience are not compromised.</li> </ol>

<sup>9</sup> Canadian Stroke Best Practice Recommendations. Telestroke Implementation Toolkit 2020. <https://www.heartandstroke.ca/-/media/1-stroke-best-practices/csbpr7-virtualcaretools-13may2020>

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