

No patient left behind:

The Toronto Rehab Toolkit for Implementing Telerehabilitation within Outpatient Rehabilitation Programs



Mobility Innovations Centre

The Kite Research Institute



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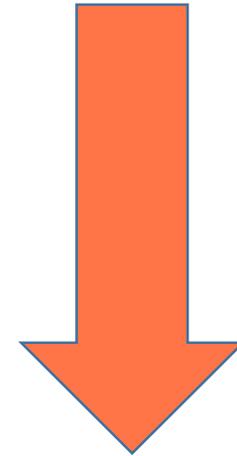
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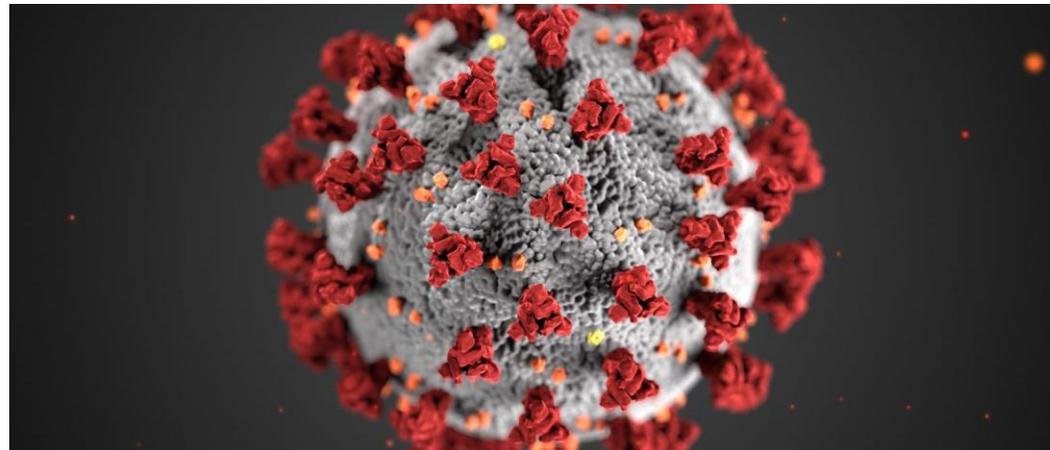
Road map

- About us
- Patient experience of virtual rehab
- Provider experience of virtual rehab
- And it's not just us...
- Introducing the TR Telerehab Toolkit
- Table breakout



Download the Toolkit!

Can you implement virtual rehab in 4 weeks?



Who we are

- Urban, academic rehabilitation setting
- **Inpatient Stroke and Acquired Brain Injury (ABI)**
- **Outpatient Stroke, ABI, and Multiple Sclerosis (MS), LEAP**
 - *Early Supported Discharge (ESD) Stroke* in-person therapy, typically 4-5 times/week
 - *Stroke, ABI, and MS* in-person therapy, typically 2-3 times/week



Rapid pivot during COVID-19 due to the pandemic

Sun	M	T	W	Th	F	Sat
Mar 22	23	24	25	26	27	28
29	30	31	Apr 1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18



How we evolved ... from preparation to now ...

Week 1 & 2

Stage 1: Build Foundation

- Forming the Virtual Working Group
- Met with the interprofessional teams to learn & plan
- Research & explore resources
- Develop model
- Initiate planning for OTN access & equipment

Week 2 & 3

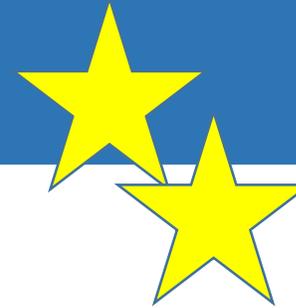
Stage 2: Transform learnings into practice

- Develop processes & forms
- Develop & provide training with staff
- Setup online resources for staff
- Develop patient & family handouts and tools
- Setup equipment

Beginning of

Week 4
April 14th

Full
Roll-Out!

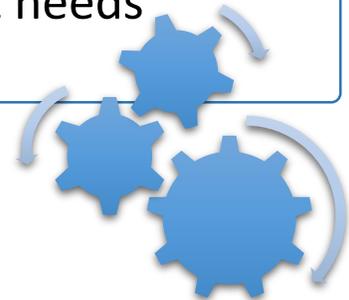


Week 4 to now

Stage 3: Ongoing Learning & Improvement

- Gather formal & informal feedback & evaluation
- Ongoing improvements on forms & processes
- Provide staff training (1:1 / group)
- Update online resources
- Continue to address equipment needs

Some clinicians started providing Virtual Therapy & received 1:1 support



What the virtual program offers

Adapted assessments

- Adapted speech and cognitive assessments
- Functional observations and assessments

Adapted treatment and consultation

- Email exchange of photos, videos, and documents
- Use of videos
- Use of family caregivers to assist

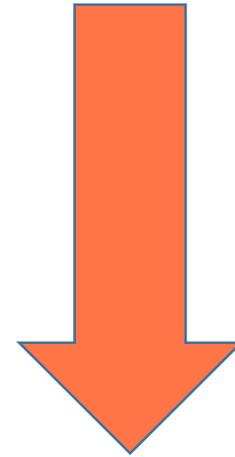
Adapt and progress home programs

- Making use of what they have at home
- Patient and family caregiver education



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We keep learning!

1. Online patient and carer surveys
2. Online staff surveys

- Quality Patient Safety Rounds
- Team meetings
- Informal feedback from the teams, patients and caregivers



Patient experience of virtual neurorehab

Part of a broader program of evaluation and learning

- **Goal of surveys**
 - Understand changes over time
 - Respond rapidly
 - Inform future planning
- Comparing **early on** in the pandemic to **present**
 - Groups largely similar
 - “Moderately familiar” with virtual rehab



What challenges are patients reporting?



Technology: 26%

None: 50%



8%

Technology

None: 66%

Our learning along the way

From our
patients &
carers



- **Most** patients found virtual therapy to be an **acceptable format** to receive therapy after a Stroke or ABI
- Experience **improved over the pandemic**
 - Helped reach their goals (↑88%)
 - Felt confident to participate (↑93%)
 - Satisfied with technology (↑92%)
 - Would recommended to others (↑73%)

Did a family member help you with your virtual rehab?

About 50% “a fair amount” of **support of a carer**

Cardiac rehab: About 90% needed “no help at all”

“Patients who do not have a caregiver family member to help or supervise during a session makes it very challenging to provide as much as value or be as safe as I would like to be.”

Virtual Therapist

Our learning along the way

From our
Patients &
Carers



- Prefer in-person for *physical exercises*
- Need proper *space* to participate
- Learn / help to navigate the *technology*



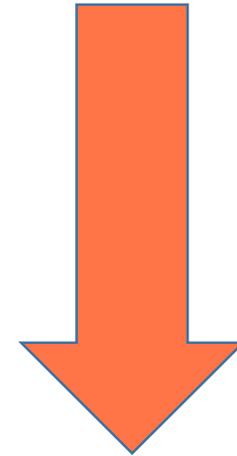
“I am grateful that virtual sessions have allowed me to move forward with my journey ... everything has pictures ... Any other method would just not work!” *Patient*

“It is nice that I don’t have to travel, but much more than that, I can do a full hour of therapy because I am not so exhausted. However, I do miss the closeness ... I have to listen and watch everything much more closely. My therapists need to repeat more and be very patient with me. It’s a partnership and I am very grateful for it!” *Patient*



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Download the Toolkit!

Provider experiences of virtual neurorehab

“As a team, we have really come together to support each other, to learn, share ... Patients and families feel connected and valued, that their recovery matters. For those who would otherwise have no therapy ... that is a real privilege.”

Virtual Therapist



Our learning along the way

From our
Providers



- **Improved** staff perception of **knowledge to provide virtual care** over the pandemic
(Focusing on processes & best practices guidelines, without considering technology)

↑ 89%

- **Confidence** in using technology is high (→83%)





Our learning along the way

From our
Providers

- Low satisfaction with **technology** (↓24%) and **equipment** (↓35%)
 - More laptops & Bluetooth headsets
 - Poor and unstable connection – impact of sound & video quality
- **Low perceived support** (↓35%)
 - Additional training and access to equipment
 - Feasible options for assessments, outcome measures and intervention
 - More real-time tech support *for patients*
- **Virtual fatigue**



Our learning along the way



From our
Providers

- **Ability to meet rehab needs (↓29%)**
 - Less able to address patients with higher impairment
 - Cannot assess pre-driving skills
 - Limited to specific patients, specific goals
 - Limited to individuals who have access to technology
- Virtual care is **not for everyone**
- **Benefits of a hybrid model**
 - A mix of virtual & in-person sessions, depending on goals and needs





“It has been challenging providing virtual PT to patients with lower stages of motor recovery ... Even with instruction, caregivers have difficulty in providing the hands-on cueing and assistance.”

Virtual Therapist

“Bandwidth, freezing, delay, OTN overload, can’t screen share ... and repeat.” *Virtual Therapist*

“There is value in assessing patients within their home environments and doing tasks that are meaningful to them, to identifying safety issues and tailoring their exercise and education.”

Virtual Therapist



Highlights

- Meeting the needs of many in the face of receiving no therapy
- ABI and Stroke patients experience challenges to access and participate in virtual sessions ... **but fewer than you might think**
- **Carer participation** enhances the safety and value of a virtual visit, and this is **critical in many cases**
- Virtual therapy is not suitable for everyone or every goal
- Importance of a **hybrid model** → depends on goals, access, technology, and complexity
- Challenges seem to be impacting providers more than patients

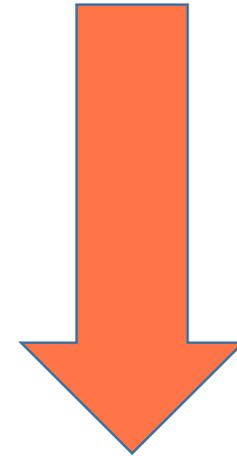
Adapting along the way

- Ongoing support for **technology setup** and **practice with patients** during inpatient stay
- In-person outpatient session to provide tech support
- Flexibility to adapt between virtual only, hybrid & in-person models base on needs and goals
- Continue to address equipment and bandwidth concerns
- Develop **home exercise kits** for patients as they leave inpatients



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And it's not just us...

Other rehab programs were implementing virtual rehab at the same time.

From Cardiac Rehab **Patients**



- Help to reach their goals: ↑ **85%**
- Felt confident to participate: ↑ **86%**
- Satisfied with the technology: ↑ **85%**
- Would recommend to other: ↑ **78%**

From Cardiac Rehab **Providers**



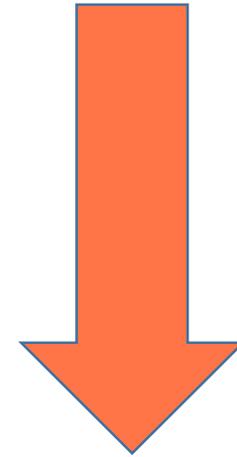
- Satisfaction with the technology: ↑ **57%**
- Confidence using the technology: ↑ **52%**
- Support to provide virtual rehab: ↓ **52%**
 - Need for additional training
 - Need for access to equipment

“Every thing was great. In particular, I appreciated the fact that I could reach many people with questions by email and that they responded in a very timely manner - always willing to help out.”

“Patients have been very satisfied - Using both telephone and MS Teams, the needs of the patients have been met regularly.”

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[Download the Toolkit!](#)

We wanted to share our learnings, resources with other programs so that everyone can better help patients in need of rehab during these pandemic times, and beyond.

The TR Toolkit for Telerehab

- A joint project between the Toronto Rehab Brain Rehabilitation Program, Cardiac Rehabilitation Program and the Mobility Innovation Centre
- Existing resources from the Brain Rehabilitation Program's virtual rehab program + newly created resources created over 4 months
- Feedback from our partners:
 - Dr. Hillel Finestone and Jennifer O'Neil (Bruyère)
 - Dr. Stephanie Plamondon (Foothills)

Available at: <https://kite-uhn.com/tools/tr-telerehab-toolkit>

The Toronto Rehab Telerehabilitation Toolkit for Outpatient Rehabilitation Programs

1st Edition



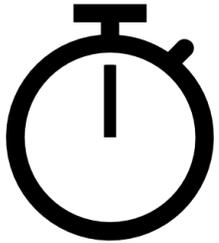
Brain Rehabilitation Program



Mobility Innovations Centre

Toronto Rehab – University Health Network, 2020

What is in this toolkit?



Getting Started



Preparing
Patients and
Carers for
Virtual Rehab



Implementing
Virtual Rehab



Evaluating and
Monitoring

What is in this toolkit?



Getting Started

- A QI, implementation science approach to getting started
 - Forming the team
 - Understanding enablers and barriers – Gap analysis, Guiding questions
 - Checklist on how to support clinicians



Preparing Patients and Carers for Virtual Rehab

- Consent
- Setting goals and expectations
- How to determine if a patient is appropriate
- Preparing caregivers

What is in this toolkit? (continued)



Implementing Virtual Rehab

- Suggested handoff process between inpatient and outpatient
- Patient and carer handouts on how to use the technology
- Scheduling email template
- Medical event protocol
- Safety Checklists



Evaluating and Monitoring

- Suggested evaluation
- Patient and provider surveys

The future

2021?

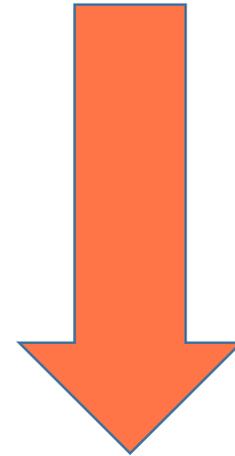
- Version 2.0 TBD
- Multimedia content on how to adapt what we used to offer in-person to the virtual platform
- Telerehab will allow us to reach patients who live in remote areas, or who lack supports to attend in-person rehab

Why is the toolkit not just a clickable download link?!

- Have to complete an user profile before receiving the toolkit:
 - To allow us to keep track of where the toolkit has been distributed
 - To get feedback so that we can improve it for subsequent versions!
 - Also allow us to tell you when subsequent versions of the toolkit become available
- Simple SurveyMonkey user profile that takes minutes to complete

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[Download the Toolkit!](#)

We want to hear from you!

Table breakout (10 min)

We are going to close Presentation Mode and move in to Breakout Mode

- Quick intros within your tables
- Open and browse your toolkit
- Discuss and share ideas
- You can screen share within your Table
- If you have a question, type it in the Chat with your Table # and we will come and help!

Breakout Questions

Question #1: Is there anything in the toolkit you could apply to your work tomorrow?

Question #2: Is there anything that we need to add?

- We would like to add a section on “**Delivering good quality telerehab**” - what content would be most helpful?

Report out (5 min)

- Identify someone in your group to share a 1 key idea
- Raise your Hand and we will bring you up to the stage 1 at a time
- Type your ideas into the Q & A – we will be collecting these!

Take aways

- Virtual therapy is not for everyone or every patient goal, but can meet the needs of many, particularly in a hybrid model
- Patients and providers experience challenges and frustrations differently
- Carer participation is often critical
- We are better together – community of practice

Acknowledgments – We are better together!

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Dr. Sarah Munce

Dr. Paul Oh

- To the clinical teams across the Brain and Cardiac programs for their commitment to care and to the patients we serve.

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Brain Rehabilitation Program



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Toronto Rehab – University Health Network, 2020