

Rapid Access Clinic for Low Back Pain: Virtual Assessment and Education Toolkit



Version 2.0: March 2021

Disclaimer

The virtual toolkit is meant to supplement and not replace the Rapid Access Clinic for Low Back Pain (RAC LBP) regional hub practices, policies and procedures. RAC LBP providers are encouraged to work with their regional hub to modify the toolkit to meet their local needs. This Toolkit was prepared by RAC Low Back Operations and reflects its interpretations of findings from its consultations with Practice Leads across the 16 regional Rapid Access Clinics for Low Back Pain, Dr. Raja Rampersaud, who is the Low Back Pain Pathway Provincial Clinical Lead and a Spine Surgeon, as well as other stakeholders in the field.

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This report and other associated supplemental materials are available at www.lowbackrac.ca.

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Acknowledgements

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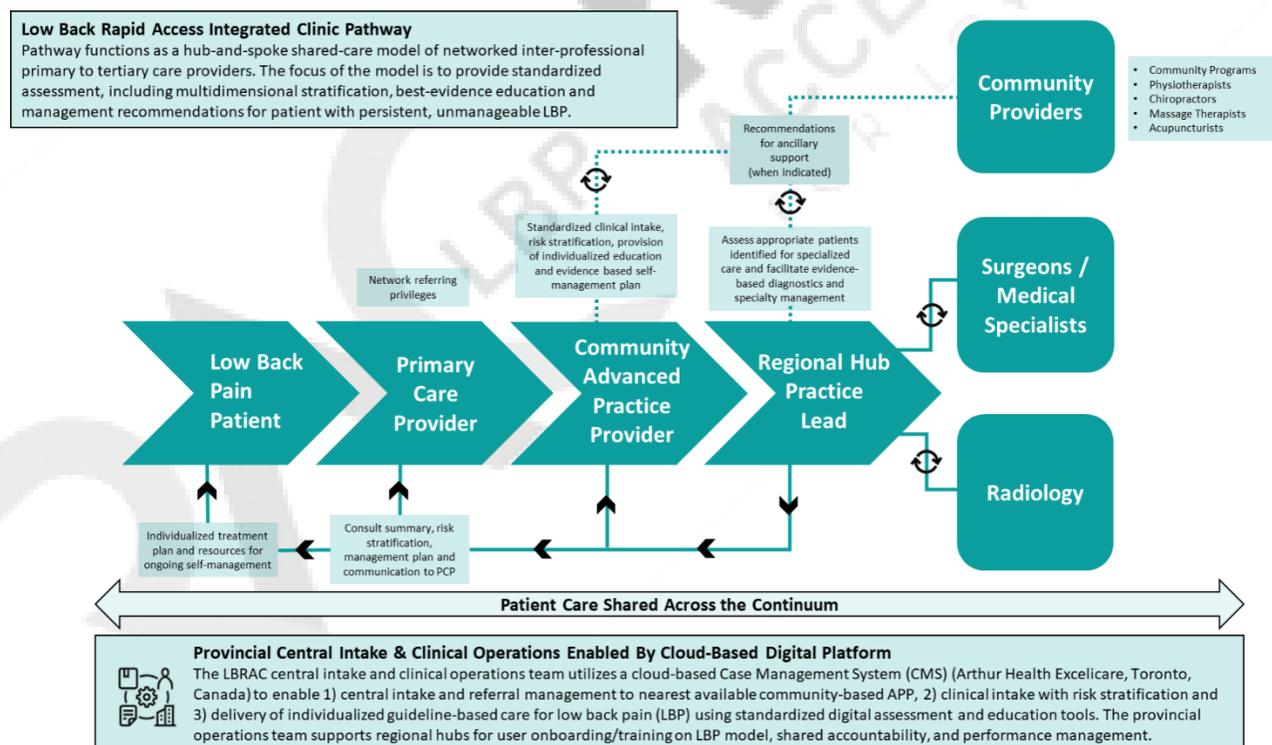
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Introduction

The Rapid Access Clinics for Low Back Pain (RAC LBP) are well-positioned to drive innovation in virtual care to manage patients with new or worsening back pain. A *Virtual Assessment and Education Toolkit* has been developed to provide guidance and education on how to conduct standardized assessments and deliver guideline-based care to manage patients with back pain virtually within Ontario's RACs LBP during these unprecedented times.

The Ministry of Health (MOH) launched the expansion of the RAC LBP program, which was adopted from the Interprofessional Spine Assessment and Education Clinics (ISAEC) pilot. This has established a Low Back Pain (LBP) provider network across 16 RAC LBP regional hubs spanning from Windsor to Thunder Bay, ensuring patients receive high quality connected back pain care, close to home.



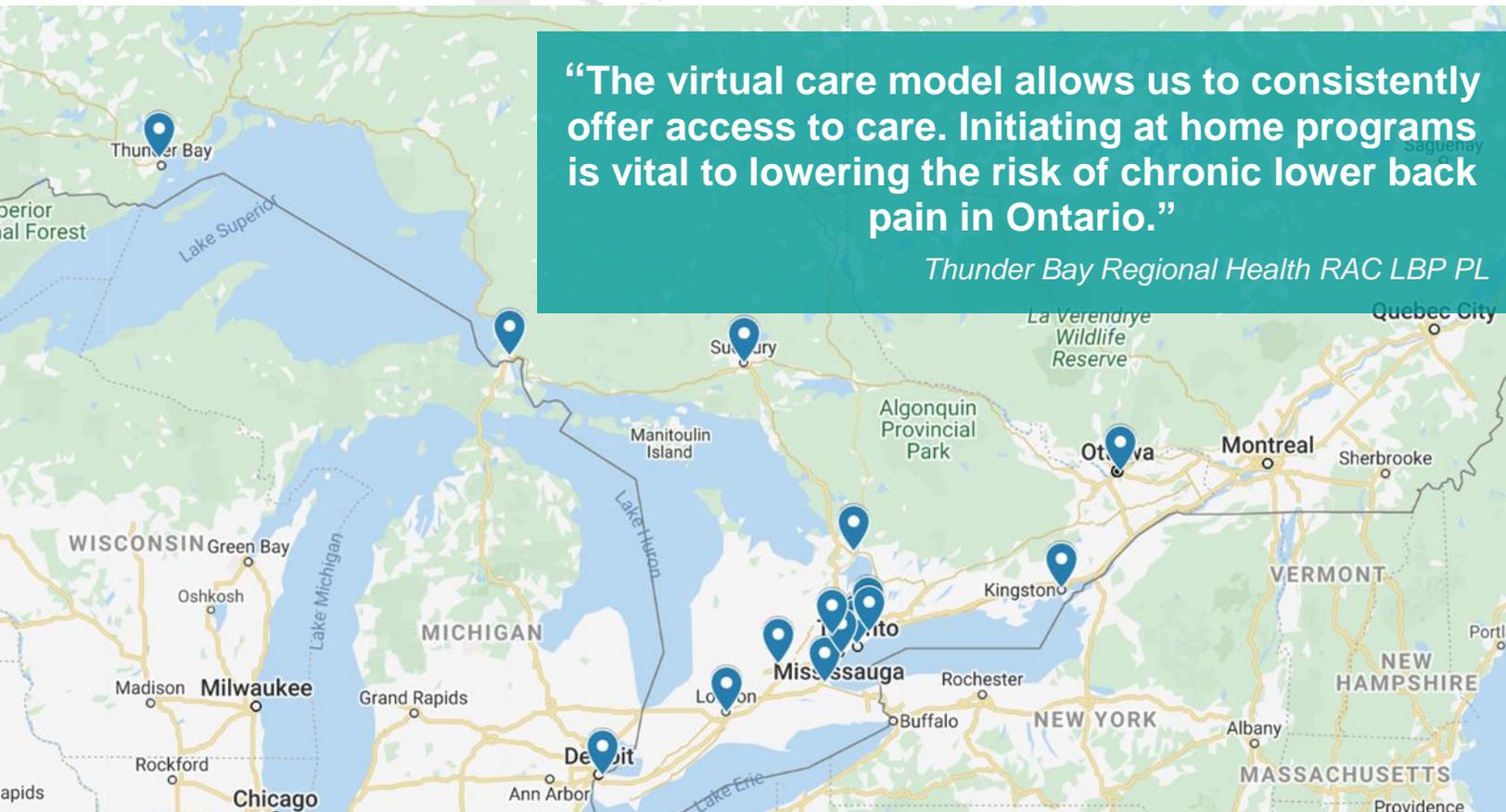
*The Low Back Pain shared care pathway was developed and validated from the ISAEC pilot

This growing network includes >5,000 primary care providers (PCPs), 153¹ community based advanced practice practitioners (APPs), 17 regional Practice Leads (PLs) and spine surgeon leaders, with specialized LBP management expertise. A provincial IT case management system (CMS) digitally integrates the Ontario LBP Provider Network through a central intake infrastructure, geo-matched referrals and standardized assessments and treatment plans to enable the efficient delivery of connected back pain care to patients close to home. This shared CMS electronic system is a critical enabler allowing RAC LBP to manage low back pain patients virtually. ²

¹ These are current clinicians enrolled/hired as of May 25, 2020 and subject to evolve to varying FTE resourcing to meet regional needs.

² Ontario Health - Quality. Quality Rounds Ontario. Webinar (Slide 28). Feb 26, 2020

Rapid Access Clinics for Low Back Pain (RAC LBP)



Toolkit Development: An Environmental Scan

The purpose of the toolkit is to support the provider and patient interaction with clinical assessments and patient self-management education across the shared-care Low Back Pain care pathway. The toolkit serves as a guide to supplement and not to replace RAC LBP regional hub policies and procedures, and adjustments to the toolkit are encouraged to meet local needs. The toolkit will evolve accordingly, as we develop a stronger understanding of the RAC LBP regional hub patient and provider experiences. The working copy of the Toolkit and all its corresponding resources have been made available on www.lowbackrac.ca.

The Toolkit was developed with RAC LBP PLs across the 16 regions, and Dr. Raja Rampersaud, who is the Provincial Low Back Pain Pathway Lead and a Spine Surgeon.

RAC LBP Operations in conjunction with Dr. Rampersaud, undertook the following activities to help address concerns raised by RAC LBP PLs around how to effectively deliver the low back shared-care pathway virtually:

- Discussions with the Ministry of Health (MOH) on conducting virtual appointments via the RACs LBP. See Appendix A for [MOH COVID-19 communication supporting virtual care innovation](#).
- Weekly webinars with PLs to understand clinical and regional concerns on care delivery.
- Consultations with the Colleges and Associations of Physiotherapists and Chiropractors on guidelines, practice standards, and other regulatory requirements that support virtual care delivery within the RAC LBP framework.
- Consultation between Dr. Rampersaud and the 16 regional hub spine surgeon leads around the delivery of the shared-care LBP pathway within a virtual setting.
- Engagement with RAC LBP PCPs regarding central intake status and referral management. PCPs were provided newly developed patient [education pamphlets](#) to support management of patients waiting to be seen by a RAC LBP provider.
- Obtained feedback from RAC LBP PLs, APPs, and patients on virtual care toolkit components and resources.
- Resources that were developed as a result of these engagements include but are not limited to:
 - Online [Patient Intake Forms](#) that patients can complete remotely.
 - [Patient Education Video](#) to help patients prepare for their virtual appointment.

- [Provider Education Video](#) on how to conduct a virtual musculoskeletal exam and tips to optimize the patient and provider virtual interaction.
- A standardized low back virtual assessment available for all RAC LBP providers. This assessment is currently being developed into the CMS digital platform to support connected care.

For more information on these tools, please visit www.lowbackrac.ca or contact RACLowBack.Operations@uhn.ca.



“By offering access to care at home, patients have the opportunity to start moving in the right direction earlier.”

Thunder Bay Regional Health RAC LBP PL

Virtual Care Process: Low Back Clinical Pathway

Virtual Care is any interaction between patients and/or members of their circle of care, occurring remotely, using any forms of communication or information technology with the aim of facilitating/maximizing the quality and effectiveness of patient care¹.

Virtual care can be facilitated using a variety of communication-based technologies, such as telephone, email, text message and videoconference. For the purpose of the RACs' LBP patient assessment and education needs, videoconference offers the most effective remote communication interaction opportunity. **Therefore, the toolkit will primarily focus on the delivery of care using videoconference technologies.**

An overview of the key steps is provided below to help guide RAC LBP providers with delivering the low back pain clinical pathway through virtual care.

Preparing
your
Practice

Selecting
your
Appropriate
Patients

Preparing
your
Patients

Arranging
your Virtual
Appointment

Conducting
your Virtual
Appointment

¹ <https://www.cma.ca/sites/default/files/pdf/virtual-care/ReportoftheVirtualCareTaskForce.pdf>



“My entire experience with the RAC LBP has been very positive. From the pleasant lady who called with the appointment to my provider, you have all provided such great care.”

London Health Sciences Centre RAC LBP Patient

“I was able to perform the exercises with convenience in the comfort and security of my own home. I would definitely like to continue with virtual care in the future.”

St. Michael's Hospital RAC LBP Patient

“My first virtual assessment surprised me. I could do more than I expected and felt I was able to provide effective information and care to my patients.”

The Ottawa Hospital RAC LBP APP

Preparing Your Practice

Establish infrastructure to support virtual care, RAC LBP providers are encouraged to ensure the following organizational and structural components are in place to support the delivery of virtual care.

- Support from regional hub managers and directors.
- Compliance with locally established processes and procedures.
- A secure platform that meets privacy standards (ex. [the Personal Health Information Privacy Act](#) (PHIPA) and [Personal Information Protection and Electronic Documents Act](#) (PIPEDA)).
- Compliance with regulatory requirements as outlined by the practitioners' regulatory college.
- Established clinical pathway for escalation of care to the surgeon sponsor, if required.

Selecting your equipment

To optimize virtual care, the APPs and PLs are recommended to utilize a tablet, computer or laptop, with the following capabilities:

- Camera or webcam that can be repositioned
- Speakers
- Microphone
- Internet connection
- Headphones

It is not recommended for the provider to conduct a virtual assessment using a smart phone because the screen size and image quality may be insufficient to visualize a patient's movements and any limitations in those movements.

Some providers have preferred using two screens. One screen dedicated to the virtual assessment and the second screen for documenting on the CMS and reviewing the patient electronic file.



“I will definitely continue to provide virtual care going forward. I believe this is an essential channel for communicating important information to our patients.”

Windsor Regional Hospital RAC LBP PL



“The RAC LBP recommendations have made the entire virtual care experience a smooth transition for myself and my patients.”

Toronto Western Hospital RAC LBP APP

Selecting your Appropriate Patients

Review the referrals currently on hold at the APP or PL level to identify patients who may be suitable for a virtual appointment.

A **virtual appointment** is appropriate for new patients who require an initial patient assessment **OR** for follow-up patients who require a follow-up assessment.

Virtual care may be appropriate for patients who meet the following considerations:

- Clinically appropriate (i.e. medically stable, does not require nursing intervention).
- Agreeable to videoconference at home
- Holds a basic understanding of technology
- Have access to a mobile device or computer, including a webcam and speakers
- Have access to the internet
- Owns a personal email account
- Resides in Ontario on the scheduled date of the appointment

In the following patient scenarios, an APP or PL may need to review to see if they can perform a safe and comprehensive low back assessment, or if additional supports are required:

- Visual or auditory impairments
- Significant medical history (i.e. cardiac condition)
- Severe neurological impairment
- Severe mobility restriction
- Language barrier

If the patient does not have the appropriate requirements to participate in virtual care, or the provider does not feel they can perform an effective or safe assessment, the referral should be on hold until an on-site visit can be arranged.



“Virtual Care is an excellent means of delivering safe, efficient and accurate assessments for spinal care. The toolkit has enabled us to identify and triage patients remotely to receive the appropriate treatment at the appropriate time.”

Couchiching Family Health Team RAC LBP PL

“We really appreciate that we can have our concerns and therapy needs addressed from the safety of our own home.”

Windsor Regional Hospital RAC LBP Patient

Preparing your Patients

Introduce virtual care

As this is a novel approach to care for many patients, it is understandable they will have questions related to the delivery of care in this format. The information obtained through a virtual assessment is similar to an in-person assessment and will allow the clinician to better understand the condition and make appropriate recommendations for management. See Appendix E for the [OTN conversation script template](#).

During the virtual assessment, a provider can:

- Obtain relevant and important information from the patient interview
- Conduct and evaluate a series of tests to confirm a diagnosis
- Prescribe, modify and review appropriate exercises
- Provide education on the condition
- Direct the patient to resources for self-management
- Make appropriate recommendations for symptom relief
- Answer any questions or concerns
- Facilitate referrals or diagnostic tests as needed
- Review and share imaging if available

The limitations to virtual care include:

- Inability to provide hands-on assessment or subsequent treatment
- Risk to safety within the context of the home (ex. tripping while executing a movement)
- Some inherent risk that health information may be intercepted or unintentionally disclosed
- Possibility of technical difficulties during a virtual assessment

To minimize risk:

- Correspondence by email should use an email address that is password protected and only accessible by the patient.
- A back up communication plan should be available in case of technical difficulties.
- Confirmation of patient address and alternative contact person are necessary in case of an emergency.

By understanding the capabilities of virtual care and acknowledging and planning for the inherent risks associated with this care delivery, a patient can make an informed decision if they would like to participate in a virtual appointment. They also need to understand they can withdraw from virtual care at any time.

If the patient is agreeable to correspondence by email and has the existing technology to support virtual care then the virtual care documents can be sent to the patient for completion.

Documents for your patient to complete:

- [RAC LBP Patient Intake Form fillable PDF](#)
- [Patient Consent to Virtual Assessment](#)
- [Patient Consent to Email Correspondence](#)



“The patient instructions and video were very helpful in setting my expectations and preparing me for the whole experience.”

Toronto Western Hospital RAC LBP Patient

“My first experience with virtual care was preceded by some uncertainty, but at the end of my first assessment the patient and I both agreed that our experience was extremely positive.”

St. Michael's Hospital RAC LBP PL

Arranging your Virtual Appointment

Once virtual care has been introduced and the required documentation is completed and returned, the patient can be booked for a virtual care appointment.

The APP or PL Admin:

- Confirms address of assessment, alternate contact information, emergency contact
- Schedules patient for a virtual assessment
- Uploads intake and consent forms to CMS for APP and/or PL access
- Books patient into APP or PL app scheduler in CMS
- Sends patient date and time of virtual appointment

Instructions to provide to your patient:

- [EXAMPLE: Virtual Platform Patient Instructions and Troubleshoot](#)
- [Patient Instructions: Preparing for your Virtual Care Appointment](#)
- [RAC LBP Patient Education Video](#)



“The virtual appointment has been a wonderful experience, very professional and informative. I think this is a great option for people with mobility issues going forward.”

Sunnybrook Hospital RAC LBP Patient

“This was my first video appointment and I was quite impressed by how effective it seemed to be. I was left with a good sense of the process and the setup of the appointment was very easy.”

Toronto Western Hospital RAC LBP Patient

“As a senior who is not familiar with technology I was unsure if I would manage or how this appointment would help me. I'm so glad I tried, I got fantastic advice and I feel like I finally know what I should do after 2 months of just waiting it out at home.”

The Ottawa Hospital RAC LBP Patient

Conducting Your Virtual Appointment

The environment

Choose a quiet space with a neutral background. A private room with a door is encouraged to promote patient privacy. A sign can be placed outside the door to inform others a virtual appointment is in session. Positioning a light source to your side or in front of you will allow the patient to have a clear view on their digital device. Avoid wearing bold patterns and stick with solid colours or neutral tones to optimize the visual experience.

Obtain verbal consent

Introduce yourself and verify the identity of the patient. Ask the patient to identify any additional members present in the patient's space during the exam and obtain patient's verbal consent for their presence. Review the suggestions outlined by the [CMA for obtaining and documenting verbal consent](#) for a virtual assessment. If the patient is agreeable you can proceed with the assessment.

The virtual assessment:

- Review the [RAC LBP Patient Intake Form](#) PDF and complete a subjective assessment.
- Perform a [Virtual RAC LBP Spine Assessment](#)
- Demonstrate/provide appropriate [exercise video\(s\)](#) to patient.
- Provide treatment plan to patient by email, if appropriate.
- Document findings of subjective and objective assessment.
- The same standards of practice for documentation are expected, irrespective of the assessment being provided virtually or in-person. Please follow the standards of practice for RAC LBP documentation and your regional hub.
- Complete consultation note and fax to PCP office.
- Advise patient of follow-up plan and to contact APP or PL office for next appointment if required.

Additional tips for providers:

- Two screens tend to work best – one screen for CMS documentation and another screen for the virtual assessment.
- Confirm the patient has reviewed the [Patient Education Video](#).
- Advise the patient of any additional items you may want them to have available prior to the assessment (yoga mat, light weights, towel etc.).
- Add cervical screening questions to the subjective assessment to screen all patients for cervical myelopathy.
- Clarify if there is any additional information that was not included in the [Patient Intake Form](#) the patient would like to add.
- Verbalize any additional objective tests you would like the patient to perform and demonstrate.
- Verbalize instructions for exercise prescription.
- Use the **'share screen'** function on the virtual platform to show your patient an image and/or video of the exercises you are prescribing or would like them to perform.
- Use the **'share screen'** function or draw on a whiteboard/pad of paper to explain concepts, such as anatomy.



“There is no way I could have gone without therapy during the pandemic, virtual care has allowed me to stick with my management plan, making my goals a reality.”

Hamilton Health RAC LBP Patient

RAPID
ACCESS CLINICS
FOR LOW BACK PAIN

**Appendix A: Ministry of Health COVID-19
Communication with Rapid Access Clinics
for Low Back Pain**



Ministry of Health

Implementation and Supports
Branch
Ontario Health Teams Division

1075 Bay Street, 11th Floor
Toronto ON M5G 2B1

Telephone: 416 560-2813

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Direction de la mise en œuvre et
du soutien
Division des équipes Santé Ontario

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Toronto ON M5G 2B1

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181-2020-67

March 31, 2020

MEMORANDUM TO: Rapid Access Clinic (RAC) Leads

FROM: Dr. Raja Rampersaud
Provincial Clinical Lead, Low Back Pain Pathway
Orthopaedic Spine Surgeon
University Health Network (UHN)

Allison Costello
Director
Implementation and Supports Branch, Ontario Health Teams
Division, Ministry of Health (MOH)

SUBJECT: Low Back RAC Operations

Over the last week we have seen significant changes in our province related to COVID-19. Despite personal and professional challenges, we have seen from you and your teams a commitment to continue providing front-line services and caring for your patients. We want to thank each of you and your team members for your dedication.

We are writing today to highlight a recent communication you received and request a status update on your operations.

On March 16, 2020, Low Back RAC Practice Leads (PLs) received a communique from the Inter-professional Spine Assessment and Education Clinics (ISAEC) operations team indicating that during this time, they should follow the policies of their local institutions. It was also noted that PLs should consult with their hospital leadership to determine the best approach to provide patient care. For those that did not have local/regional guidance it was suggested to:

- Defer all new assessments at the PL level for the next 3 weeks;
- Re-direct new or follow up PL/Advanced Practice Provider (APP) assessments, as appropriate, for further evaluation;
- PL and APP follow up assessments can be done virtually by telephone and documented in the Case Management System;

.../2

RAC Leads

- Fixed rate APPs in a hospital setting follow the same guidelines as the PLs and hospital policy; and
- Variable rate APPs in private practice follow their own clinics' practices for new patients, however follow up ISAEC patients can be seen virtually.

Some hospital sites have ramped down local programs within the framework of their existing pandemic plans with staff being redeployed to other daily duties as needed. We are seeing some regional variation on service delivery as a result.

To help offset some of the challenges, the ISAEC operations team has engaged PLs and received consensus to develop a plan for conducting virtual visits. This is an opportunity to innovate in a standardized way to help patients self-manage until they can see a clinician, thereby avoiding further backlogs, and unnecessary Emergency Department visits.

We are asking that you now share your Low Back RAC status with the ISAEC operations team during the current COVID-19 impact to provide a picture of provincial operations and identify gaps in services that may need to be addressed. Ensuring your referring Primary Care Providers are updated on the status of local RAC operations will also help to ensure continued sector engagement when operations ramp back up.

Please submit by April 7, 2020 your current Low Back RAC status, or any questions, to ISAEC@uhn.ca. PL related questions can be directed to Marcia.Correale@uhn.ca.

For further information from the ministry, please contact Mansur Rahim, Senior Program Consultant at Mansur.Rahim@ontario.ca.

Thank you again for your continued support.



Dr. Raja Rampersaud MD, FRCSC
Provincial Clinical Lead, Low Back Pain
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Toronto Western Hospital, UHN



Allison Costello, Director
Implementation and Supports Branch
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RAPID
LESS CLINICS
NEW BACK PAIN

Appendix B: Virtual Care Checklist and Flow Diagrams

MC
LBP
FO

Virtual Care Checklist

Introducing the patient to virtual care - APP or PL Admin

APP/PL reviews referral	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Patient has computer, phone, tablet with microphone and video	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Patient has secure internet access	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Patient provides phone number as alternative contact	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Patient is explained risks and benefits of virtual care (contacted using Virtual Care Transition Script)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Patient consents to email correspondence	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Patient is agreeable to virtual care	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Patient provides address of assessment, in case of emergency	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Patient provides contact person information, in case of emergency	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Patient provides PCP contact information, in case of emergency	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Setting up your appointment – APP or PL Admin

Complete Patient Intake Form and upload to CMS	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Complete Patient Consent to Virtual Assessment and upload to CMS	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Complete Patient Consent to Email Correspondence and upload to CMS	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Schedule virtual appointment	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Send Patient Instructions: Preparing for your Virtual Assessment and connecting to the Virtual Appointment Instructions (as per platform) to patient	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Send Patient Education Video and tips to prepare for the appointment to patient	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Conducting your appointment – APP or PL

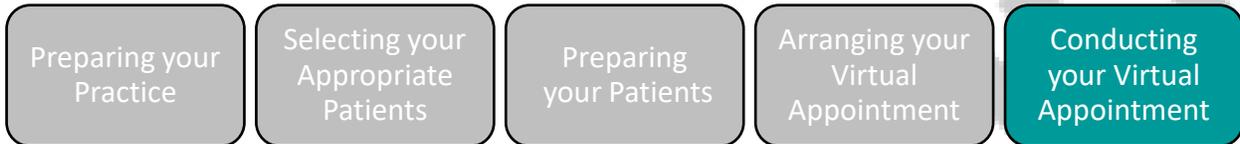
APP/PL introduces themselves	<input type="checkbox"/> Yes	<input type="checkbox"/> No
APP/PL confirms identity of patient	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Patient provides consent for others in the room	<input type="checkbox"/> Yes	<input type="checkbox"/> No
APP/PL obtains consent for virtual assessment	<input type="checkbox"/> Yes	<input type="checkbox"/> No
APP/PL reviews the Patient Intake Form and completes a subjective assessment	<input type="checkbox"/> Yes	<input type="checkbox"/> No
APP/PL performs a Virtual RAC LBP Spine Assessment	<input type="checkbox"/> Yes	<input type="checkbox"/> No
APP/PL provides appropriate exercise videos	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Completes treatment plan and emails to patient	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Completes consultation note and faxes to PCP	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Completes APP/PL assessment documentation	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Advises patient to contact office for follow-up appointment	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Virtual Care Flow: Preparing for Virtual Care and Arranging your Appointment



Role	Responsibility
CIO/PL/PL Admin	<ul style="list-style-type: none"> Review number of referrals currently on HOLD at both the APP/PL level Identify patients to be re-scheduled to a virtual appointment
APP/PL Admin	<ul style="list-style-type: none"> Contact patient and receive approval to transition care to virtual appointment
APP/PL Admin	<ul style="list-style-type: none"> Review Virtual Care Transition Script for virtual assessment with patient and obtain approval to proceed Obtain verbal consent to email correspondence Add email address to patient record on CMS Send virtual care intake documents for patient to complete.
Patient	<ul style="list-style-type: none"> Complete and return virtual care intake documents to APP/PL Admin
APP/PL Admin	<ul style="list-style-type: none"> APP/PL Admin receives and uploads virtual care intake documents to CMS Schedule patient appointment with APP/PL Confirm address of assessment, alternate contact information, emergency contact Send Patient Education Video to patient

Virtual Care Flow: Conducting your Virtual Appointment



Role	Responsibility
Patient	<ul style="list-style-type: none"> ▪ Review the Patient Education Video and tips to optimize a virtual assessment ▪ Test video, microphone and camera for appropriate set-up ▪ Ensure adequate space to complete assessment free of clutter, noise and distractions ▪ Wear appropriate clothing for performance of movements ▪ Connect on virtual platform before appointment time to ensure everything is working
APP/PL	<ul style="list-style-type: none"> ▪ Connect with patient on virtual platform ▪ Review Consent for Virtual Assessment and consent for anyone in the room ▪ Confirm alternative contact, address of assessment and emergency contact ▪ Ensure appropriate lighting, space, camera angle, video volume, internet bandwidth to perform the assessment ▪ Conduct a comprehensive standardized subjective exam (intake from + assessment for IBP, opioid addiction, risk of chronicity, yellow flags, red flags) ▪ Conducts a comprehensive standardized Virtual RAC LBP Spine Assessment. ▪ Demonstrate appropriate exercises for patient through the website exercise videos ▪ Recommend self-management strategies, positions of rest, and online resources

RAPID
LESS CLINICS
W BACK PAIN

Appendix C: Virtual Care Transition Script

MC
LBI
FC

Virtual Care Transition Script

This has been adapted from OTN¹ to suit the needs of RAC LBP

Topic	Script Response
Introduction	Hello, this is <APP/PL/ PL Admin NAME>, calling from the Rapid Assessment Clinic for Low Back Pain at <INSERT HOSPITAL/CLINIC NAME>. May I speak with <PATIENT NAME>? We are calling to discuss changes in the way your care will be delivered during the COVID-19 outbreak.
Confirm patient identity	To protect your privacy, we would like to make sure that we are speaking to the right person. Could you please tell me your full name and date of birth? (Note: If further information is needed to confirm patient's identity, ask for OHIP# or name of primary care provider)
Introduce virtual care	To protect patients from COVID-19 the Low Back Rapid Assessment Clinic is now offering virtual care. Virtual care means you will have a virtual appointment, using audio-video conferencing software on a computer or smart phone, to participate in a virtual assessment with an APP. The virtual appointment will occur using a secure, video conferencing tool service provided by <INSERT VIRTUAL CARE PLATFORM>.
Explain what to expect	The virtual care appointment is very similar to an onsite appointment. The clinician will speak with you to gather all the relevant information. They may ask you to perform a series of movements on camera to assess your mobility. The information they gather will help the clinician better understand your condition, prescribe the appropriate exercises, and make recommendations to manage your symptoms. If during your virtual assessment, the APP feels an in-person assessment is required, they will speak with you about how to arrange this care.
Explain appointment process	If you agree to a virtual appointment, I will need a contact email address to send you the virtual care intake documents. Once this is completed and returned by email, we will contact you to book your virtual appointment. We will send a second email with the name of the APP, date and time of your virtual appointment as well as instructions on how to connect to your virtual appointment and how best to prepare for your virtual assessment.

¹ <https://otn.ca/providers/>

We ask that you please also provide a preferred telephone number in case there are technical difficulties during the virtual appointment and we must reach you by phone instead.

(APP/PL Admin to add telephone number into CMS, if not already in system)

Protecting your privacy

Just like online shopping, virtual care has some inherent privacy and security risks. There is a risk your health information may be intercepted or unintentionally disclosed. We want to make sure you understand this before we proceed.

For information about virtual care and how to protect your privacy during virtual appointment and when using the internet and email please **<INSERT PROVIDER/REGION SPECIFIC PROTOCOL>**.

In case of an emergency

You should also understand that virtual care is not a substitute for attending the Emergency Department, if your symptoms severely worsen and urgent care is needed. We may also send you appointment reminders via email and information regarding your treatment plan. Please **DO NOT** send emails in urgent or emergency situations. If you require urgent assistance, please proceed to your nearest hospital or urgent care centre.

Obtaining consent

Would you like to continue with your virtual care set-up? Do you have any questions?

(APP/PL Admin to answer questions)

Are you comfortable consenting to:

Virtual appointments	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Telephone assessments	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Email Correspondence	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Next steps

I will now send you an email with the documents that needs to be completed and returned, so we can schedule your virtual appointment. Can you provide your email address please?

Also, just so you are aware, you may withdraw your consent for virtual appointments at any time by calling our office.

Closing statement

Please call our office **<INSERT CONTACT INFORMATION>** if you do not receive the email or if you have any questions regarding your virtual care.

Thank you

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Appendix D: Consent Templates

MC
LBP
FC

Patient Consent to Virtual Assessment Template

Please modify the template to suit the needs of the RAC LBP regional hub.

Please check each of the boxes below to acknowledge you have read and understood the statements:

- I acknowledge there are **limitations** to virtual assessment. This includes but is not limited to the inability to provide hands-on assessment or subsequent treatment.
- I acknowledge there is a **risk to my safety** within the context of my home or work environment (ex: slipping while executing a movement). To protect my personal health information, I will communicate by email at an email address that is **password protected**, and is accessible only by myself.
- I acknowledge there is a possibility of technical difficulties during a virtual assessment and will prepare an **alternate communication plan**

In case of an emergency or the event we experience technical difficulties, please provide the following information: and an emergency contact.

Address (where you will be performing your virtual assessment)

Telephone number (where you can be reached during the virtual assessment)

Emergency contact:

Name: _____

Telephone number: _____

I consent to receive a virtual assessment

Patient name: _____

Signature: _____

Date: _____

Patient Consent to Email Correspondence Template

This was adopted from the UHN consent form, to accommodate RAC LBP.
Please modify the template to suit the needs of the regional hub.

Patient name:

E-mail address:

<INSERT CLINIC/DEPARTMENT NAME> can communicate with you or others named below by e-mail (e.g. family member, friend, lawyer, etc.) using e-mail about your appointment times and appointment details but you need to understand the risks using e-mail:

Please note that the security of e-mail messages is not guaranteed. Messages sent to, or from, your care provider may be seen by others using the Internet. Email is easy to forge, easy to forward, and may exist indefinitely. For this reason, do not use e-mail to discuss information you think is sensitive, such as information related to a mental health, HIV/AIDS or pregnancy status. Do not use e-mail in an emergency since e-mail can be delayed for many reasons.

By replying to this message, you acknowledge that you have read and accept the risks of using e-mail. The next time you appointment the hospital, you will be asked to sign a consent form about email.

I understand that the following types of information may not be communicated to me by unencrypted ("regular") email:

- a. Personal health information (i.e. diagnostic results)
- b. Clinical information (i.e. chart documentation)

I understand that email will be used for collecting relevant information to enable a virtual assessment, including the Patient Intake form, signed consent form and connecting to the virtual platform

I consent to the following information be communicated by email:

- Scheduling appointment
- Accessing the virtual platform
- Patient Intake form
- Patient consent form
- Exercise program
- Generic educational material

By replying to this message, you acknowledge that you have read and accept the risks of using e-mail.

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Appendix E: Patient Instruction Templates

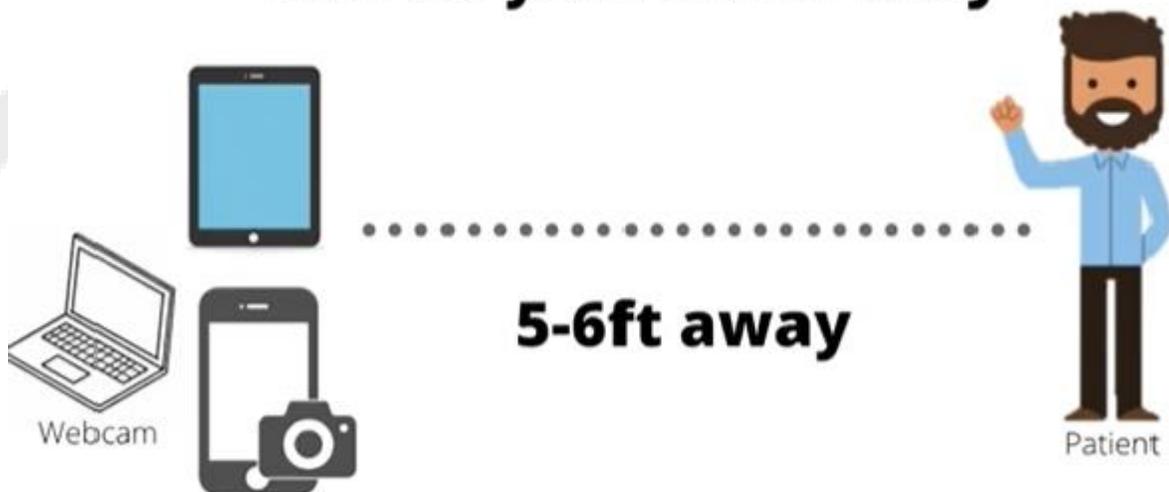
MC
LBP
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Patient Instructions: Preparing for your Virtual Assessment

Device set-up and camera angle

- A **phone or tablet** is the best way to communicate via a virtual assessment. Please have an appropriate way to support your device that allows you to participate, while allowing the clinician to see you.
- Think about the angle of your camera during the virtual assessment. You will be asked to perform various movements and the clinician needs to see your full body and foot movements. Placing the camera at **hip height** is optimal. Ensure you have enough space to take 10 steps forward and back. Have a chair or table nearby to hold for support, if needed. You may also be asked to adjust your camera angle to focus on a specific body part.
- To better visualize your movements during the assessment, a **second person** can hold and adjust the angle of your device.

Position yourself so that the clinician can see your entire body



Headphones with microphone

- For the best quality audio, we recommend you use headphones with a microphone. If you don't have these, check that the microphone on your phone or tablet works and is set at the highest volume.

Home assessment space

- Make sure you have a quiet environment. Treat the session as you would if your clinician came to your house. Try and find a quiet room, away from any distractions pets, colleagues and children.
- Make sure the room is free from clutter and tripping hazards, to allow you to move around appropriately.
- Make sure your home space has adequate lighting, so the clinician can see all of your movements.

Appropriate clothing

- Wear appropriate clothing so that adequate observations can be made by your clinician and you can execute the movements/exercises comfortably.
- If possible, please be in bare feet so we can properly assess foot and ankle movements

Assessment video

- Please review the assessment video sent to you, prior to your virtual assessment. This video reviews some of the movements the clinician will ask you to perform. Please be familiar with these movements and ensure you have enough space to perform these movements safely.

EXAMPLE: OTN Virtual Platform Patient Instructions and Troubleshooting

Each virtual platform will have their own email correspondence to instruct patients on how to connect to a virtual appointment using their technology system. These instructions are emailed to a patient when booking the RAC LBP virtual appointment. Please find below the email correspondence used by the OTN virtual platform.¹

Dear <INSERT PATIENT NAME>,

<INSERT NAME OF APP/PL> will see you for an appointment over videoconference using the Ontario Telemedicine Network (OTN). It uses software and the internet which is secure, private and confidential. Below is important information for your videoconferencing appointment.

You will need the following:

- Personal computer/laptop, android tablet or iPad (with webcam, speaker and microphone or headset)
- Internet connection (wired or wireless)
- Internet browser: Chrome, Firefox, Internet Explorer 11 or Safari (9 or higher)
- A valid Ontario health card (OHIP). Have your OHIP with you on the day of your videoconferencing appointment.

How to connect to your videoconference appointment

- You will receive an email invitation with the subject title “**Video eVisit Invitation-Event ID**”. If you do not see it in your email inbox, please check your junk folder.
- This email invitation will contain the date and time of your videoconferencing appointment, and preparation instructions.
- ****Please follow the instructions within the email invitation. We recommend that you test your device in advance of your visit. Please click the test your device link within the email. If you have any trouble, please contact the clinician well in advance of your appointment.**
- On the day and time of your appointment,  click in the email invitation to join the meeting.

¹ <https://otn.ca/providers/>

- There is a support documents within the email invitation that will help you if you have any trouble. For additional video instructions, please click [Home Video Visit](#).

How to protect your privacy

- When receiving your email invitation, **do not share** the invitation email, invitation link URL or PIN with anyone.
- Make sure the email originates from either the clinician or the following address: do-not-reply-otninvite@otn.ca.
- **Do not open any attachments.** A videoconference email invitation from OTN will never contain attachments.
- **Do not reply to the email invitation.** The email will never ask you to disclose any personal or sensitive information.

Other tips

- Never use personal and/or portable videoconferencing technology in a public or unsecure environment (e.g., airport, internet café or open area).
- Ensure you announce any others that are in the same room as you to the clinician and that you are not taping (audio or video) the session.
- For additional information and privacy tips please click <https://dropbox.otn.ca/pcvc-help/otn-evisitv-guest-privacy.pdf>

How to change your appointment

- Please contact the clinic **<INSERT CONTACT NAME AND PHONE NUMBER>** if you need to change your appointment.

If you have any questions or concerns, please contact: **<INSERT CONTACT NAME AND PHONE NUMBER>**.

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Appendix F: Virtual RAC LBP Spine Assessment

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Virtual RAC LBP Spine Assessment

Developed by: Correale M and Rampersaud R

Dr. Raja Rampersaud and Marcia Correale developed the Virtual RAC LBP Spine Assessment in collaboration with the regional PLs throughout the province. In addition to the tests outlined below, please refer to the Muscle Grading Scale for Virtual Assessment and the Resistance Testing in Virtual Care tables for further clarification on grading for Lumbar and Cervical Spine Myotomes.

Virtual RAC LBP Functional Assessment	
<p>The Virtual RAC LBP Spine Assessment will be utilized by all APPs and PLs for all RAC LBP virtual assessments. A thorough exam will provide the patient and provider with confidence that a comprehensive virtual assessment was completed. This virtual assessment provides the assessor with the clinical information necessary to make recommendations regarding abilities and limitations of the patient and directs individual treatment recommendations.</p> <p>During the virtual assessment, observe for:</p> <ul style="list-style-type: none"> General willingness to move/engage in assessment Quality of movements Potential functional abilities Potential functional difficulties Pain behaviours Areas that require further assessment (e.g. virtual hip exam) 	
Test Item	Clinical Information
B. Gait Activities	
Standing	
Gait	Antalgic, broad-based, Trendelenburg
Heel/Toe Walking	Strength of dorsi and plantar flexors, balance
Tandem Gait	Balance, LE strength and upper motor neuron screen
C. Functional/Strength Testing Movements	
Standing	
Squat (side view / holding chair if required)	ROM – ankle, knee hip; strength hip and knee
Sit to stand (without hands) from chair (alternative if unable to squat)	ROM – hip, knee; strength hip and knee
Single leg standing hip/knee to 90°/90° (holding chair if required)	Balance, ROM – hip and knee flexion ipsilateral hips flexors, contralateral (i.e. standing leg) hip abductor and glutei strength (Trendelenburg)
Options for high functioning individuals to further assess LE strength	
Single leg squat (use chair for support)	LE strength, LE ROM, Balance (without chair)
Single leg calf raise (use chair for support)	Balance, LE strength and ROM

D. Range of Motion	
Standing	
Lumbar Spine ROM (sagittal or coronal view) <ul style="list-style-type: none"> • Flexion • Extension • Side flexion • Rotation 	Lumbar spine – available range of motion, reproduction of back/leg pain, willingness to move, strength, flexibility
Sitting	
Lumbar spine ROM <ul style="list-style-type: none"> • Rotation • Flexion (if needed) 	Lumbar spine – available range of motion, reproduction of back/leg pain, willingness to move, strength, flexibility
Hip ROM <ul style="list-style-type: none"> • Flexion (if needed) • External rotation • Internal rotation • Seated FABERS 	Hip range of motion, strength, flexibility, reproduction of pain
Knee ROM <ul style="list-style-type: none"> • Extension (active SLR) • Flexion 	Knee range of motion, strength, flexibility, reproduction of pain, neural tension
Ankle and Foot ROM <ul style="list-style-type: none"> • Dorsiflexion • Plantarflexion • Toe Flexion • Toe Extension 	Foot and ankle range of motion, strength
<p>This is a preliminary list on how to perform a focused virtual low back exam.</p> <p>Core strength testing may also need to be assessed as part of exercise prescription, modification and progression.</p> <p>Please use your clinical expertise to further evaluate a patient's symptoms and functional limitations.</p> <p>Additional testing may be required to determine if the symptoms are spine or peripheral joint related. This can include self-palpation for joint line tenderness, self-resistance, and modified orthopaedic tests (i.e. Thessaly's, active prone knee bend etc.). These additional tests should be performed based on patient reported history and/or functional limitations.</p>	
E. Body Part Specific Assessment (not already covered by virtual RAC LBP spine assessment)	
Observation	Deviations, swelling, incisions, colour changes
Range of motion	Active range of motion of a joint with self administered overpressure
Strength	Functional movements, AROM against gravity, or self administered resistance
Self-palpation/point to max. area of tenderness	Self-palpation joint line, tendon, muscle belly
Repeated movement testing	Limitations with ROM, centralization or peripheralization of symptoms, directional preference
Modified Orthopaedic testing	i.e. Thessaly's, Slump, muscle length/tissue tightness

If you suspect cervical myelopathy – i.e. broad based gait, limitations with tandem gait, reports of UE clumsiness and/or paresthesia than the following questions and tests can be done to further screen the cervical spine	
DOWN Questionnaire¹ – 3 out of 4 should be considered highly suspicious for cervical myelopathy and further imaging should be obtained	
1. Have you noticed you are dropping things or your hands feel clumsy?	
2. Have you felt more off-balance or unsteady on your feet?	
3. Do you feel weakness in one or both of your arms or hands?	
4. Do you feel numbness or tingling in one or both of your arms or hands?	
Special Tests	
Finger Escape ² (Wartenberg's Sign) Involuntary abduction of little finger caused by unopposed action of the extensor digiti minimi	Weakness of hand intrinsics: Cervical Myelopathy, Ulnar neuropathy, Upper Motor Neuron Disorder
Rapid Alternating Movements	
Rapid Open/Close Fist	Cervical Myelopathy, Upper Motor Neuron Lesion
Rapid Finger Tapping	Cervical Myelopathy, Upper Motor Neuron Lesion
Rapid Foot Tapping ³ Significant if less than 18 taps in 10 seconds	Cervical Myelopathy, Upper Motor Neuron Lesion
Rapid Forearm Pronation/Supination	Cervical Myelopathy, Upper Motor Neuron Lesion
Range of Motion	
Cervical Spine <ul style="list-style-type: none"> • Flexion • Extension • Rotation • Side flexion 	Cervical spine range of movement, reproduction of pain or paresthesia, flexibility, willingness to move
Cervical Spine Myotomes: Please see Cervical Spine Myotomes Resistance Testing table	

¹ **The DOWN Questionnaire.** Barkoh, K., Ohiorhenuan, I. E., Lee, L., Lucas, J., Arakelayn, A., Ornelas, C., Buser, Z., Hsieh, P., Acosta, F., Liu, J., Wang, J. C., & Hah, R. (2018). The DOWN questionnaire: A novel screening tool for cervical spondylotic myelopathy. *Global Spine Journal*, 9(6), 607-612. <https://doi.org/10.1177/2192568218815863>

² **Finger Escape Sign.** Ono, K., Ebara, S., Fuji, T., Yonenobu, K., Fujiwara, K., & Yamashita, K. (1987). Myelopathy hand: New clinical signs of cervical cord damage. *The Journal of Bone and Joint Surgery*, 69(2), 215-219. <https://doi.org/10.1302/0301-620X.69B2.3818752>

³ **Rapid Foot Taping.** Numasawa, T., Ono, A., Wada, K., Yamasaki, Y., Yokoyama, T., Aburakawa, S., Takeuchi, K., Kumagai, G., Kudo, H., Umeda, T., Nakaji, S., & Toh, S. (2012). Simple foot tapping test as a quantitative objective assessment of cervical myelopathy. *Spine*, 37(2), 108-113. <https://doi.org/10.1097/BRS.0b013e31821041f8>

Virtual RAC LBP Spine Assessment

Developed by: Clark J, Stafford D, Correale M, Rampersaud R

Myotome or muscle strength testing is a mandatory component of the RAC LBP Standardized Low Back Assessment. The test is performed by having a patient resist movement against a clinician's manual pressure, and the level of strength is graded using a scale from 0-5. Given the nature and grading of this test, there exists a need to standardize the approach to testing muscle strength, interpreting findings and appropriately grading strength within a virtual environment. To standardize care across the province, Dr. Rampersaud and Marcia Correale, in collaboration with Physiotherapists, Jennifer Clark and Darlene Stafford from The Ottawa Hospital, devised the following guidelines for the grading of muscle strength as part of the Virtual RAC LBP Spine Assessment.

Muscle Grading Scale for Virtual Assessment: Quick Reference

Developed by: Dr. Raja Rampersaud

Standard Grade*	Movement:	Modified Virtual Grading (V*)	Clinical Action
0	No contraction observed	<3-V	Depending on clinical/functional significance, timely in-person assessment and/or further diagnostic investigations are recommended. Appropriate restrictions and splint(s) as indicated.
1	Evidence of slight contractility without joint motion		
2	Complete range of motion with gravity eliminated		
3	Complete range of motion against gravity	3-V	As above and as indicated targeted rehabilitation of affected muscle group(s) depending on functional significance. Appropriate restrictions and splint(s) as indicated.
4	Complete range of motion against gravity with some resistance	4-V	As above and as indicated targeted rehabilitation to improve functional strength of affected muscle group(s). Appropriate limitations and functional splinting as indicated.
5	Complete range of motion against gravity with full resistance or functional range and functional resistance**	5-V	None

*Based on Stanley Hoppenfeld's *Physical Examination of the Spine & Extremities* text

**Modified for muscle groups where functional requirements exceed manual resistance (e.g. calf or quads)

V = Virtual Assessment. The ability to detect the presence or absence of any contraction vs. some contractility is not feasible virtually. Determination of full ROM with gravity eliminated will also be unreliable or not possible for many muscle groups therefore we recommend virtual grading as <3. Additionally, it may be difficult to differentiate weakness based on pain inhibition vs. true deficit during a virtual exam, in this scenario must assume true deficit.

Modified Muscle Strength Grading in Virtual Care: Tips for Determination of Modified Virtual Grade

Developed by: Clark J, Stafford D, Correale M, Rampersaud R

The goal of strength testing is to reliably identify if there is weakness to determine need for appropriate investigation or further assessment and/or underpin the rationale for restriction and treatment recommendations.

Grade:	Definition:	Description:
<3V	Unable to move actively through full ROM against gravity	<ul style="list-style-type: none"> • If the muscle is less than a 3, further virtual distinction is not feasible or reliable (see quick reference table). • If the patient cannot actively achieve functional range against gravity, the patient should be asked what stops them from moving further. • If it is pain (i.e. there was good initiation of movement and sudden giving way), the limitation is more likely due to pain inhibition and not likely true weakness. • If they do not report pain limitation, the patient should be asked to assist the affected limb passively (where possible) to see if more range is achievable. • If more range is achievable passively, the grade = <3. If not, the limitation is structural, so the muscle is at least a 3. • If unable to determine, record as such, and recommend timely in-person and/or surgeon assessment for functionally significant myotome(s).
3V	Able to move actively through full available range against gravity without additional resistance	<p>If the patient achieves full functional range against gravity.</p> <p>OR</p> <p>Is able to lift through some range against gravity to a pain limited point.</p> <p>OR</p> <p>Is able to lift through some range against gravity to a structurally limited point.</p> <p>BUT</p> <p>The patient cannot move against gravity with resistance, grade=3.</p>
4V	Able to move actively through full available range against gravity with some resistance	<p>The muscle takes some resistance against gravity (see tables below for examples).</p> <p>AND</p> <p>Shows evidence of weakness compared to the normal side (deviation, compensation, trembling, patient perception of a difference R to L with self-resistance, inability to sustain resistance on the affected side, or describes a subjective functional limitation which can be attributed to weakness in this muscle).</p> <ul style="list-style-type: none"> - Describe in the notes section of the assessment form why a grade of 4 was assigned (e.g. lifted 1kg weight but quickly fatigued compared to the other side with repetition).
5V	Full active range of motion against gravity with full resistance	<p>The muscle can take normal resistance against gravity (isometric hold or repetitions with a reasonable functional weight for specific patient need or body weight, and patient indicates normal ability with functional activities involving this muscle).</p> <ul style="list-style-type: none"> - Please indicate how this was determined in the notes section of the assessment form.

Virtual Care Resistance Testing

Developed by: Clark J, Stafford D, Correale M, Rampersaud R

The charts below provide examples of how to assess with resistance when manual resistance cannot be provided by the assessor. Weights in the home can include a water bottle (1litre = 1kg), or a 1-2kg bag of sugar, rice, beans, or depending on the patient's normal abilities and what is safe given the current condition, greater weights such as paint cans with handles or actual weights if available. In the absence of other options, resistance bands can be Thera-band or elastic tights, or even the elastic waistband of a pair of gym shorts or swim trunks and thick elastic band or hair tie for hand function. Whenever possible test strength with functional movement vs. self-resistance. Feel free to use your professional judgement as long as grading fits the definitions above and testing has been done appropriately with the patient. Please record how testing was done in your assessment documentation.

Cervical Spine Myotomes

Observe for symmetry and fatigue with 5-second hold.

Myotome:	Movement:	Examples of Resistance Options:
C4	Shoulder elevation	Standing holding approximately 1 kg weights in hands, elevate shoulders.
C5	Shoulder abduction	Holding weights, abduct shoulders to 90 with elbows extended.
C6	Elbow flexion, wrist extension	Holding weights in hand with elbow flexion at 90 and full pronation – perform wrist extension.
C7	Elbow extension, wrist flexion	Elbow extension with elbow pointing to ceiling, stabilizing proximal arm with opposite hand (as required), and using a weight. OR Holding weights in hand with elbow flexed at 90 and full supination – perform wrist flexion
C8	Finger flexion, thumb extension/abduction	Hook flexed fingers (flexed DIP + PIP and extended MCPs) together and pull apart looking for asymmetry. OR Resisting thumbs against each other into extension or abduction, check for asymmetry.
T1	Abduction and/or adduction of fingers	Open hands facing patient, press opposite abducted fingers (ulnar aspect of opposite little fingers in contact) against each other. OR Holding a folded piece of paper between the adducted little and ring fingers resist pulling the paper away. Look for asymmetry.
C8+T1	Functional grip	Grip a water bottle or rolling pin – can the patient pull it out of the gripping hand with the unaffected hand? Do they feel a difference right and left?

Virtual Care Resistance Testing

Developed by: Clark J, Stafford D, Correale M, Rampersaud R

Lumbar Spine Myotomes

Myotome	Movement	Resistance Options
L2	Hip flexion	Standing with tested leg hip and knee flexed at 90-90, hold for 5 sec. OR Self-resisted hip flexion in sitting hold for 5 sec.
L3	Knee extension	Single leg sit to stand from chair ¹ OR Single leg squat checking for equality of depth, control R=L (ensure that patient is stabilized using a chair, counter etc. to prevent fall) OR Self-resisted knee extension with opposite leg in sitting, holding for 5 sec.
L4	Ankle dorsiflexion	Heel walking minimum 10 steps or self-resisted in sitting.
L5	Great toe extension/ hip abduction	Self-resisted with hands. If patient can reach, then instruct to bring foot up to opposite knee. Can also assess with hip abduction and resisted band or the presence or absence of a Trendelenburg sign.
S1	Ankle plantar flexion	Single leg heel raises (5 full raises = 4/5, 10 raises = 5/5) toe walking 10 steps.

If appropriate, the single leg sit to stand test is a reliable test for assessing L3, L4 (quadriceps) strength in patients who present with radiculopathy.

¹ Rainville, J., Jouve, C., Finno, M., & Limke, J. (2003). Comparison of four tests of quadriceps strength in L3 or L4 radiculopathies. *Spine*, 28(21), 2466-2471. <https://doi.org/10.1097/01.BRS.0000090832.38227.98>