Total Joint Replacement

Addendum to the Rehabilitative Care Best Practice Framework in the Context of COVID-19

INTENT OF THIS ADDENDUM

- Provide additional recommendations on the provision of total joint replacement (TJR) best practice rehabilitative care that complement the existing RCA evidence-based best practice framework while aligning with current pandemic restrictions
- Offer considerations regarding flexible models of care delivery for the provision of TJR best practice rehabilitative care in light of the current COVID-19 restrictions

SECTION 1: CURRENT COVID-19 CONTEXT: THE NEED FOR TJR REHABILITATIVE CARE

On March 15, 2020, Ontario hospitals were directed to ramp down scheduled surgeries and other non-emergent activities to preserve capacity to care effectively for patients with COVID-19. Surgical volumes were significantly reduced, in many cases to only "life and limb" surgical procedures, leading to 62,614 fewer adult non-oncology surgeries between March 16 and April 26, 2020 compared to volumes in the same time-period in 2019.[1] During this time, patients awaiting scheduled total hip and knee replacements were found to have increased anxiety, increased hip/knee arthritis pain, decreased activity levels and increased isolation and loneliness; most reported that they would reschedule their surgery in the near future despite COVID-19 restrictions.[2]

On May 26, 2020, the gradual restart of deferred health care services in Ontario was announced, including scheduled surgeries. A feasibility assessment for the reopening of surgical procedures was developed, and included the confirmation of availability of post-acute care outside the hospital to support patients after discharge.[1] High-level recommendations for the resumptions of these services were outlined as follows:

- Maximize virtual care services that appropriately reduce in-person visits
- Conduct an organizational risk assessment and take a comprehensive approach to infection prevention and control where care is provided in-person
- Ensure appropriate personal protective equipment (PPE) is available to all staff wherever there is risk of exposure to an infection
- Assess the health human resources required to increase care activity
- Ensure delivery of services that support patients' full continuum of care, and avoid unintended community-wide consequences of increasing care
- Communicate regularly with patients and care partners
- Monitor the level of COVID-19 disease burden in the community
- Apply an ethical strategy to the prioritization of patient care activities.[3]

Rehabilitative care following TJR is essential for successful patient outcomes.[4] [5] [6] [7] However, current infection prevention and control practices contribute to reduced capacity for post-acute

rehabilitative care services to provide in-person care. Alternate modes of rehabilitative care options are required, such as virtual care. Guidance specific to rehabilitative care following total joint replacement is therefore necessary to meet the above recommendations and ensure that best practice care continues to be provided.

SECTION 2: TJR REHABILITATIVE CARE BEST PRACTICES IN THE CONTEXT OF COVID-19

As part of its efforts to standardize rehabilitative care for TJR patients, the Rehabilitative Care Alliance (RCA) developed the *Rehabilitative Care Best Practices for Patients with Hip & Knee Replacement Framework* last revised in November 2019. This framework provides a basis for informing and improving quality care to support better patient outcomes, increased efficiencies and bundled care.

However, the COVID-19 pandemic has created an urgent need for best practice guidance while meeting reopening recommendations. In response, the RCA has summarized key best practices, considerations and approaches below.

1. TJR Rehabilitative Care is Essential

1.1 Recognize that rehabilitative care resources are an essential aspect of surgical ramp-up planning and reopening. Post-surgical patient outcomes are dependent on timely access to best practice rehabilitative care.[4 5 6 7]

1.2 Ensure community-based rehabilitative care, including care delivered in-home and ambulatory clinics, has the capacity to provide necessary services when planning surgical ramp-up and reopening.[1] There is currently lower capacity due to space and group therapy restrictions and increased time required per patient due to virtual care and infection prevention and control practices.

1.3 Ensure health professionals are available to deliver conservative, pre- and post-acute rehabilitative care in both inpatient and community-based settings.

2. Care Partners are Essential

2.1 Recognize that care partners are essential and are key in many settings to the provision of care. Care partners are defined by the patient and are often family members or friends. They serve as a liaison between patients and clinicians, and are essential for day-to-day decision-making, care delivery, transition care planning and system navigation. [8 9]

2.2 Care partners should be included in the health care team's communication and care planning. Care partners should also be given access to necessary resources. In the context of the current pandemic, care partners will require protective personal equipment (PPE) with instruction in proper donning and doffing techniques. [8 9]

2.3 Designated care partners should be allowed access to inpatient health care organizations where visits are paramount to the patient's fundamental care needs, mental health and emotional support, and to enable process of care and patient flow and discharge.[8 9] Designated care partners who provide care to maintain the patient's mental and physical health are not simply visitors and are essential to rehabilitation and transition care planning for the TJR population.[9]

3. Transition Care Planning

3.1 While awaiting surgery, provide timely access, education and conservative treatment for managing pain and maintaining mobility.[4] [10]

3.2 Start transition care planning during pre-operative care, including the identification of post-operative rehabilitation needs and mode of delivery, ensure booking and communication of community-based rehabilitative care appointment and discuss needs such as equipment, home management and environment plans and transportation, in light of current COVID-19 restrictions.[4] [5] [6] [7]

3.3 Before transitioning, patients and care partners should be offered education and training to manage health care needs, including medications and pain control.[11] [12]

4. Post-Surgical Acute Care & Inpatient Rehabilitation

4.1 As noted above, care partners are essential to care and recovery. To balance the need to follow organizational and IPAC policies and continue to engage care partners, organizations should work with the patient to identify a designated care partner(s).

4.2 Health professionals should follow organizational and infection prevention and control (IPAC) policies and designated care partners should be given the necessary resources and instruction.

4.3 Access to inpatient rehabilitation post TJR should remain consistent with pre-COVID recommendations, i.e., inpatient rehabilitation may be required for those patients who are unable to transfer in/out of bed, are unable to ambulate with a gait aid sufficiently for household mobility and are unable to ascend/descend stairs with 1-assist, if needed.[13]

5. Community-based Rehabilitation

5.1 Access to community-based rehabilitation is a priority as per current best practice and quality-based procedure recommendations. This should include timely assessment and triage.[13]

5.2 Health professionals should follow organizational and IPAC policies with respect to the provision of in-person visits.[14]

5.3 Consider virtual care options for rehabilitation, provided that patients' rehabilitative care needs can be met.[3] The patient's preference and/or need for in-person visits should be continually reassessed throughout the course of treatment.[15]

6. Virtual Care

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."[16] Each of the regulated health professional colleges have statements and guidelines regarding the use of virtual care as an alternate mode of service delivery to traditional rehabilitation services. Health professionals must be able to maintain appropriate rehabilitative and regulatory standards of care.

6.1 Organizations should ensure that front line providers have access to the supports required to deliver effective virtual care (e.g., technology, training, etc.).[15]

6.2 Decisions to utilize virtual care must take into consideration both the feasibility of delivering the specific therapy needs; as well as individual patient characteristics (e.g., access to technology, care partner supports, patient preference, etc.).[16] [17]

6.3 Prior to providing virtual care, detailed information regarding what is "virtual care" and how to access it, the potential privacy/security risks and the scope of care provision should be made available to the patient and/or care partner, and consent to provide care using virtual care electronic communication tools should be obtained and documented in the patient chart. [18]

SECTION 3: CONSIDERATIONS RE: FLEXIBLE MODELS OF CARE DELIVERY

Flexible models of delivery are needed in response to the COVID-19 pandemic. Virtual care may be considered as a potential strategy to provide TJR rehabilitative care.[1] [19] Virtual care can be utilized for various aspects of patient care, including the patient interview, physical assessment and diagnosis, treatment, maintenance activities, consultation, education and training. However, virtual care is not appropriate for all rehabilitative care needs and should therefore be utilized at the recommendation of the regulated rehabilitative care professional in consultation with the patient and care partner, and based on the needs, preferences and ability of the patient.

The following factors should be considered when considering virtual care delivery of rehabilitation interventions:

- Access to technology and internet and other practical limitations (e.g., communication abilities).[20]
- Potential safety issues. Engage and train care partners to provide assistance for both the safety of tasks during intervention and/or technical support.[20] [21]
- Difficulty with hearing, vision or language barriers and the impact this will have on their ability to participate.[20]
- Cognitive ability and how it may impact their safety, ability to complete a self-directed program and the carry-over advice that is provided.[20]
- Confidentiality issues. Patients may be at home with many other people or in a virtual group therapy session, which can impact confidentiality. Additional sessions may be required for sensitive issues, e.g., phone call or private in-person visits. Patients may need to sign consents and/or paperwork. Additional time for mailing may be needed.[18]
- Need for flexible hours to accommodate the needs of patients and their care partners. Allow for extra time to build rapport and trust and for potential technical issues.[20]
- Virtual care is more than video or phone visits. It includes digital supports for self-care, online education and self-management tools, provider-to-provider and provider-to-patient supports via messaging, email, text, apps, etc. and remote sensor monitoring.[3] [22] [23] [24] [25]

When the above considerations for virtual care cannot be met, patients and their care partners will need in-person assessment and intervention, i.e., ambulatory or in-home rehabilitation. Hybrid models which include both in-person and virtual care may also be considered (e.g., virtual assessment with in-person follow up, if required). In this case, health care providers will require

the necessary equipment (PPE) and must maintain physical distancing as per public health recommendations. The following tables list interventions and clinical activities to consider when delivering care virtually versus in-person.

Table 1: List of TJR interventions and clinical activities to consider delivering in a virtual capacity

Interventions and Clinical Activities

• Intake/history assessment, including preoperative assessment and care[26]
• Review of educational materials including benefits of a healthy active lifestyle, therapy goals and treatment expectations. Help patient progress his/her home exercise program, discharge criteria and address any concerns.[4]
• Assessment of the home environment, including home equipment and safety check[27]
• Assessment and provision of feedback for functional tasks, exercises and range of motion[19] [28] [29]
• Provision of individual or group rehabilitative care programs with regulated rehabilitative care professional supervision that is matched to the patient's needs[18] [19] [30] [31] [32]
• Provision of complementary exercise programs and/or services extending beyond the average duration of rehabilitative care[33] [34]
• Administration of outcome measures, assessment and screening tools.
  ○ Performance Outcome Measure examples:
  • Activity & Range of Motion (ROM) using sensor technology[22] [23] [24] [25]
  • 30 Second Chair Stand Test[35]
  • Timed Up and Go
  ○ Patient Reported Outcome Measures examples:
  • EQ-5D-5L™
  • Oxford Hip & Knee Score[36]
  • Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC)
  • Lower Extremity Functional Scale (LEFS)
  • Pain Visual Analogue Scale (VAS)/Numeric Pain Rating Scale (NPRS)
  • Hip Disability and Osteoarthritis Outcome Score (HOOS)/Knee Injury and Osteoarthritis Score (KOOS)

Table 2: List of TJR clinical needs or interventions requiring in-person assessment and/or treatment

Clinical Needs or Interventions
• Hands on therapy, as required • Hands on care partner teaching where required to support rehabilitation goals • Cognitive, perceptual or emotional difficulties that limit independence and/or there is no care partner/family available to assist[16] • Change in status requiring in-person visits to assess and treat[16]

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