Rehabilitation for Patients with COVID-19

Guidance for Occupational Therapists, Physical Therapists, Speech-Language Pathologists, and Assistants

Endorsed by:

[Logos of CAOT - ACE, Canadian Association of Occupational Therapists; Canadian Physiotherapy Association; SAC/OAC, Speech-Language & Audiology Canada]
Rehabilitation for Patients with COVID-19
Guidance for Occupational Therapists, Physical Therapists, Speech-Language Pathologists, and Assistants

PURPOSE: There is an urgent need to guide rehabilitation practice during the COVID-19 crisis. Informed by the best available evidence, including consultation with the clinical community, this living document consolidates findings from resources for frontline rehabilitation professionals.

STEP 1 – Determine risk: Prioritization should consider the risk of a patient not receiving immediate rehabilitation on critical outcomes (i.e., risk of hospitalization, extended hospital stay). If proceeding with a rehabilitation assessment or treatment session, point-of-care risk assessments (PCRA) should be conducted prior to each patient interaction.

STEP 2 – Do as much as possible without patient contact: Do not routinely enter an isolation area just to screen a patient with COVID-19. Gather information without direct patient contact for your subjective review: premorbid status, pre-treatment screening, and/or discharge planning. Consider telerehabilitation tools to observe and communicate directly with patients and/or staff already in isolation areas (e.g., use of data-secure cameras, such as iPads and baby monitors). In some instances, these tools can assess dysphagia, communication, mobility, and cognition.

STEP 3 – Based on a PCRA, determine type of Personal Protective Equipment (PPE) needed for patient contact: Aerosol Generating Procedures (AGPs) require airborne precautions. Other procedures may require droplet and contact protection only.

Aerosol Generating Procedures (AGPs)
There are two considerations that determine whether a procedure is aerosol generating -- the type of oxygen therapy the patient is receiving, and the type of procedure being conducted.

The following therapies require airborne precautions:
- High flow nasal oxygen (e.g., Airvo, Optiflow)
- Non-invasive ventilation (e.g., BiPAP, CPAP)
- Nebulizer treatments
- Tracheostomy tubes with/without mechanical ventilation requiring open suctioning, trach mask trials, cuff inflation/deflation, and tube changes (note: In-line suctioning is not an aerosol-generating procedure)

Procedures that induce sputum require airborne precautions. Examples include:
- Respiratory physiotherapy (e.g., airway clearance techniques, “chest physiotherapy”, open suctioning, nasopharyngeal suctioning, mechanical in-exsufflation (cough-assist)).
- Swallowing and select speech assessments and treatments at bedside (e.g., oral mechanism exams, bolus trials, laryngectomees with/without mechanical ventilation, or tracheostomies with/without mechanical ventilation or speaking valves as part of a multidisciplinary team). Instrumental swallowing assessments should be avoided.
- Any activity that can result in expectoration of sputum, including moving from lying to sitting, walking, and/or bedside ADLs. Also, prone positioning (with or without mechanical ventilation), and/or where a patient may be inadvertently disconnected from the ventilator.

Additional considerations before beginning direct contact treatment:
1. Ensure a step-by-step process for donning and doffing PPE to avoid contamination.
2. Identify the minimum number of people required to safely conduct a session.
3. Consider bundling care with other healthcare professionals (e.g., coordinating activities; grouping care for all patients with COVID-19).
4. Carefully consider equipment use and discuss with infection control services to ensure it can be properly decontaminated. Avoid moving equipment between infectious and non-infectious areas. Wherever possible, single patient use, disposable equipment is preferred (e.g., low-tech AAC equipment that can be discarded after use, theraband rather than hand weights).
# COVID-19 CONSIDERATIONS BY SPECIFIC REHABILITATION PROFESSIONS

Exact treatments may vary based on patient need, clinician experience and local protocols.

## Acute Care: Rehabilitation & COVID-19

| Occupational Therapy | - Prevention, detection, and monitoring of delirium\(^4\)  
|                      | - Assessment and management of impairments in physical and cognitive functions\(^5\)  
|                      | - Optimize bed and seating positioning using pressure relief principles (e.g., mattress)\(^6\)  
|                      | - Assessment and management of ADLs to encourage early mobilization\(^4\)  
|                      | - Provision of assistive devices for ADLs, communication, seating and mobility\(^6\)  
|                      | - Consider and assess mental health and emotional coping strategies for patients\(^7\) |
| Physical Therapy     | - Detailed recommendations are available to guide physiotherapists in acute hospital settings: Physiotherapy Management for COVID-19 in Acute Hospital Settings: English\(^8\) |
| Speech-Language Pathology | - Assessment and management of dysphagia post-extubation\(^9\)  
|                      | - Assessment and management of dysphagia upon decompensation  
|                      | - Assessment and management of dysphagia upon respiratory compromise  
|                      | - Assessment of basic cognitive\(^10\) and communication\(^11\) functions  
|                      | - Provision of primarily low-tech AAC\(^12\) equipment that can be discarded after use |

## Post-Acute Care: Rehabilitation & COVID-19 (General principles across settings)

| Occupational Therapy\(^13,14\) | - Re-assess and address any cognitive changes to facilitate functional independence  
|                                | - Preparation and planning for discharge, including home safety and caregiver supports  
|                                | - Consider social determinants of health when discharge planning (e.g., income)  
|                                | - Re-assessment and management of ADLs, including adaptive strategies, such as assistive devices and energy conservation, that encourage functional independence  
|                                | - Address mental health and psychosocial needs of patients and/or caregivers |
| Physical Therapy               | Detailed recommendations from the European Respiratory Society\(^15\) include:  
|                                | - Assessment of exercise and functional capacity  
|                                | - Monitoring of pre-existing comorbid conditions  
|                                | - Exercise training and/or physical activity coaching |
| Speech-Language Pathology      | - Assessment and rehabilitation of dysphagia\(^16\) and voice due to prolonged intubation  
|                                | - Assessment and rehabilitation of cognitive communication due to brain hypoxia  
|                                | - Assessment and management of respiratory strength and coordination  
|                                | - Management of tracheostomies |


All practitioners are invited to visit [https://srs-mcmaster.ca/covid-19/](https://srs-mcmaster.ca/covid-19/) for updates. If you have any questions in regards to the above information, please contact srscovid@mcmaster.ca.

**Acknowledgements:** We are grateful for rapid feedback from 33 stakeholders (17 OT, 10 PT, 6 SLP), including frontline clinicians and academics, representing 2 countries (US, Canada), 2 provinces (Ontario, Alberta), 10 institutions and 1 national organization on this document.
Rehabilitation for Patients with COVID-19
Guidance for Occupational Therapists, Physical Therapists,
Speech-Language Pathologists, and Assistants

References


