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 during evaluation and treatment: 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, laryngectomies 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

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

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

<table>
<thead>
<tr>
<th>Profession</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
| **Occupational Therapy**<sup>13,14</sup> | - 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<sup>15</sup> 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<sup>16</sup> 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.

References