



Clinical Practice Guidelines for Covid-19 Physiotherapy Treatment in Acute Hospital Environment

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Introduction

In the acute hospital environment, this research presents guidelines for COVID-19 physiotherapy treatment. It provides suggestions for physiotherapy workforce planning and preparation, as well as a screening tool for identifying the need for physiotherapy and suggestions for physiotherapy treatments and personal protective equipment. It is designed for use by physiotherapists and other key stakeholders caring for adult patients with confirmed or suspected COVID-19 in the acute care environment. SARS-CoV-2 (Severe Acute Respiratory Syndrome Coronavirus 2) is a novel coronavirus that first appeared in 2019. It causes coronavirus illness (COVID-19) [1]. The SARS-CoV-2 virus is very infectious. Human-to-human transmission tends to occur around 2 to 10 days prior to the individual becoming ill, which sets it apart from other respiratory viruses [2, 3, 4]. The virus is passed from one individual to the next by respiratory secretions. Coughing, sneezing, or rhinorrhoea cause large droplets to fall on surfaces within 2 meters of the sick individual. On hard surfaces, SARS-CoV-2 can survive for at least 24 hours and up to 8 hours, whereas on soft surfaces it can survive for up to 8 hours [5]. The virus is passed from one person to another by touching their mouth, nose, or eyes after contacting a contaminated surface with their hands. Infected aerosol particles generated during a sneeze or cough can survive in the air for up to three hours. SARS-CoV-2 particles in the air can be inhaled by someone else or settle on the mucosal membranes of the eyes.

Individuals with COVID-19 can have an influenza-like illness and a respiratory tract infection, with symptoms such as fever (89%), cough (68%), exhaustion (38%) sputum production (34%), and shortness of breath (34%). (19 percent) [4]. The condition can range in severity from an asymptomatic infection or mild upper respiratory tract illness to severe viral pneumonia, which can lead to respiratory failure and death. According to current research, 80 percent of cases are asymptomatic or mild; 15% are severe (requiring oxygen); and 5% are critical (requiring ventilator and life support) [2].

According to preliminary findings, chest radiographs in COVID-19 may have diagnostic limitations [6]. Multiple mottling and ground glass opacity are common abnormalities on lung computed tomography (CT) scans, which clinicians should be aware of. With observations of multi-lobe distribution of B-lines and widespread lung consolidation, lung ultrasonography is also being employed at the bedside [7, 8].

In comparison to influenza, which has a fatality rate of roughly 0.1 percent, the present mortality rate is 3 to 5%, with fresh reports of up to 9% [2]. Intensive care unit (ICU) admissions account for around 5% of all hospital admissions [4]. Approximately 42% of hospitalized patients will require oxygen treatment. Individuals who are older, male, have at least one co-existing comorbidity, higher severity of illness scores (measured via SOFA scores), elevated D-dimer levels, and/or lymphocytopenia are at the highest risk of developing severe COVID-19 disease requiring hospitalisation and/or ICU support, according to emerging data [9, 10].

Purpose

The purpose here is providing information to physiotherapists and acute care healthcare facilities about the potential role of physiotherapy in the management of hospital-admitted patients with confirmed or suspected COVID-19.

Patients admitted to hospitals with confirmed or suspected COVID-19 are likely to be managed by physiotherapists who work in primary healthcare institutions. Physiotherapy is a well-known profession all around the world. Physiotherapists operate in acute hospital wards and intensive care units all around the world. Cardiorespiratory physiotherapy, in particular, focuses on the care of acute and chronic respiratory disorders, with the goal of improving physical recovery after an illness. Patients with COVID-19 may benefit from physiotherapy for respiratory treatment and physical rehabilitation. Physiotherapy may be required if individuals with COVID-19 present with abundant airway secretions that they are unable to clear on their own, despite the fact that a productive cough is a less prevalent symptom (34 percent). This might be assessed on a case-by-case basis, and treatments based on clinical indicators implemented. Patients at high risk, such as those with comorbidities that may be linked to hyper secretion or inefficient coughing, may also benefit (eg: neuromuscular disease, respiratory disease and cystic fibrosis). Physiotherapists who work in the ICU can help with airway clearance strategies for ventilated patients who exhibit indicators of poor airway clearance, as well as situating patients with COVID-19-related severe respiratory failure, such as the use of the prone position to improve oxygenation.

Because certain COVID-19 patients require intense medical care, such as extended protective lung ventilation, sedation, and the use of neuromuscular blocking medications, individuals admitted to the ICU may be at a greater risk of acquiring ICU-acquired weakness, which might aggravate their morbidity and mortality [11, 12]. To decrease the degree of ICU-acquired weakness and promote quick functional recovery, it is critical to begin early rehabilitation following the initial period of respiratory distress. Physiotherapy will play a role in delivering exercise, mobilisation, and rehabilitation therapies to survivors with COVID-19-related severe illness so that they may return home functionally.

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