



MEDHEALTH

# LONG-COVID RESEARCH

UPDATE #1

ISSUE DATE: 14 DECEMBER 2021

The aim of this series of fortnightly research updates is to update the MedHealth specialist doctor panel on any relevant Long-COVID peer-reviewed research that is emerging. Doctors are invited to email through any specific topic requests that they would like to see covered.

## 1. Characterising Long-COVID: A living systematic review

**Michelen M et al.**

**September, 2021**

**BMJ Global Health**

*Original research article; City University of London, University of Oxford, UK*

This article further characterises Long-COVID, or the clinical sequelae of acute COVID-19, in order to help inform clinical management and rehabilitation strategies to improve long-term outcomes. It describes a systematic review of 39 studies, each of which included at least 100 people with confirmed or clinically suspected COVID-19 at 12 weeks or more post onset. Collectively, these studies reported on approximately 11,000 people across 12 countries (low-income countries excluded), with almost 80% of people previously hospitalised.

### KEY FINDINGS

- Reduced quality of life was reported in 37% of patients
- 26% of studies showed evidence of reduced pulmonary function
- Over 60 physical and psychological signs and symptoms were reported, confirming that Long-COVID is a multiorgan syndrome
- The most commonly reported symptoms were:
  - Weakness (41%)
  - General malaise (33%)
  - Fatigue (31%)
  - Concentration impairment (26%)
  - Breathlessness (25%)

Patients also reported a diverse range of less prevalent symptoms including sweating, chest pain, sore throat, smell and taste impairment, anxiety, sleep disorder and headaches.

### CONCLUSIONS

Long-COVID is a complex, long-term and heterogeneous condition that is not limited to those who were hospitalised with acute COVID-19. There is an urgent need for prospective, robust, controlled studies to identify risk factors and biomarkers that includes both hospitalised and non-hospitalised patients.

*\*This 'Living Systematic Review' will be updated every 6 months.*



[Click here to view](#)

## 2. A Multidisciplinary NHS COVID-19 Service to Manage Post-COVID-19 Syndrome in the Community

Parkin A et al.

March, 2021

*Journal of Primary Care & Community Health*

Case Study article; Leeds Teaching Hospitals & Community Healthcare, NHS Trust, UK

A unique integrated rehabilitation pathway has been developed based on extensive service evaluations by Leeds Primary Care Services, NHS Trust. The pathway aligns with the [NHS England 'Five-point plan'](#), to embed post-COVID-19 syndrome assessment clinics across England to facilitate the 'comprehensive medical assessment and rehabilitation' intervention.

The pathway includes a three-tier service model of care:

- Level 1 specialist multidisciplinary treatment (MDT) service model
- Level 2 community therapy teams
- Level 3 self-management

Of primary interest to the Long-COVID specialist panel is the Level 1 MDT service which brings together various disciplines with specialist skill sets to provide targeted and individualized interventions (see Table 1 for composition of MDT team). Entry criteria for this level of the care model are the most stringent (see Figure 1), requiring input from two or more health professionals, and/or meeting any of the criteria for escalation (Table 2).

A core set of outcome measures including the Yorkshire Rehabilitation Scale (C19-YRS) is used as the initial (baseline) screen to gauge symptom severity and level of functional disability, as well as acting as a triage tool to the most appropriate clinician / treatment services. This tool is already being used by NSW Health services as a resource for medical practitioners receiving potential Long-COVID referrals. Follow-up outcome measure assessments include a set of already validated tools (including the MRC, MIFS, EQ5D, 30 second sit-stand test, and follow-up C19-YRS; Table 3).

Individuals with low-moderate complexity (such as single discipline needs) enter the model of care at Level 2 and are supported by non-COVID specific care and allied health services (e.g. community occupational and physiotherapy).

As explained by the paper, "there is no current established evidence base for Post-COVID-19 syndrome", and as such, interventions must rely on appropriate assessment, experience and expert clinical judgement and reasoning. Exercise programs are prescribed, with caution, as well as referral to online health literacy resources and wellbeing classes such as the "Your COVID recovery", and "Coping with COVID-19". Also offered and described within the paper is a group therapy-based 'virtual fatigue management course' (see Table 5) delivered over 8 weeks covering principles of energy management, rest, optimal nutrition and physical maintenance. See Table 4 for a detailed mapping of symptoms to existing interventions.



### 3. Humility and Acceptance: Working within our limits with Long-COVID and Myalgic Encephalomyelitis/Chronic Fatigue Syndrome

Decary S et al.

May, 2021

*Journal of Orthopaedic & Sports Physical Therapy*

Editorial article; University of Sherbrooke, Canada

Conservative estimates indicate that approximately 10% of those diagnosed with COVID-19 will continue to experience symptoms for over 12 weeks. New evidence describes the prevalence of persistent symptoms after 6 months that impact returning to work and quality of life, even for many individuals who were previously fit and healthy.

#### SYNOPSIS

This expert opinion paper describes a growing number of patients with Long-COVID who experienced adverse effects from exercise therapy and who have developed symptoms similar to those of myalgic encephalomyelitis (ME) or chronic fatigue syndrome (CFS).

The key safety recommendation emerging from this editorial is *to allow time for patients to recover safely* and to develop strategies to adapt to a different 'normal', as required. That is, despite best efforts of health professionals and gold standard care, some patients are likely to be affected in the long-term by this debilitating condition that experts are only beginning to understand.

#### OTHER KEY DISCUSSION POINTS

- Accelerating recovery through exercise to fight fatigue may not be the best approach for those with Long-COVID, and care should be taken when prescribing exercise to ensure patient safety
- There are key similarities between ME/CFS and Long-COVID syndrome, both of which may be described as a multi-systemic disease characterized by the hallmark symptom of postexertional malaise (PEM)
- 80% of individuals with ME/CFS developed the syndrome following a known infection
- For those with ME/CFS, exercise can be harmful and should sometimes be avoided
- As clinicians, be humble and accept the limitations of the profession

#### KEY PATIENT-SAFETY ACTIONS PROPOSED

1. Screen/continuously monitor for the development of PEM, using a validated measure that measures the frequency and intensity of PEM symptoms.
2. Promote the message: "Stop. Rest. Pace" (Figure schematic). Pacing is an activity management approach that prevents triggering PEM.

