COVID-19: updates on follow-up & long-term effects

August 13th 2020

**STRATEGY UNIT RAPID SCAN**

**Title:** REHABILITATION NEEDS AND POST-ICU RECOVERY FOR SEVERE COVID-19 PATIENTS: RAPID SCAN

Source: The Strategy Unit | Last updated 7th August 2020

**Rapid reviews**  
[**Systematic review of changes and recovery in physical function and fitness following Severe Acute Respiratory Syndrome-related Coronavirus (SARS-CoV) infection: Implications for COVID-19 rehabilitation.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=7e6ffaacd8&e=87eaa0b9d4) Rooney S et al., Physical Therapy, pzaa129. (Uncorrected Manuscript).   
  
**Emerging evidence**  
[**Multi-Inflammatory Syndrome in Children related to SARS-CoV-2 in Spain.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=5344a3f0e4&e=87eaa0b9d4) Moraleda C et al., Clinical Infectious Diseases.  
  
[**Symptom Duration and Risk Factors for Delayed Return to Usual Health Among Outpatients with COVID-19 in a Multistate Health Care Systems Network — United States, March–June 2020.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=6bf29f0356&e=87eaa0b9d4) CDC Morbidity and Mortality Weekly Report.  
[**Respiratory rehabilitation for post-COVID19 patients in spa centers: first steps from theory to practice.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=cf97c63f6c&e=87eaa0b9d4) Antonelli M & Donelli D. International Journal of Biometeorology.  
[**Outcomes of Cardiovascular Magnetic Resonance Imaging in Patients Recently Recovered From Coronavirus Disease 2019 (COVID-19).**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=dbcc821e66&e=87eaa0b9d4) Puntmann VO et al., JAMA Cardiology.

[**Impacts of Covid-19 on the immune, neuromuscular, and musculoskeletal systems and rehabilitation.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=582ee6169b&e=87eaa0b9d4) D’Andréa Greve JM et al., Rev Bras Med Esporte.  
  
[**Anxiety and depression in COVID-19 survivors: role of inflammatory and clinical predictors.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=d808725c1a&e=87eaa0b9d4) Mazza MG et al., Brain, Behavior, and Immunity.  
  
[**Post-discharge symptoms and rehabilitation needs in survivors of COVID-19 infection: a cross-sectional evaluation.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=d5a679e687&e=87eaa0b9d4) Halpin SJ et al., Journal of Medical Virology. [First UK data: abstract below]  
  
[**Symptom Duration and Risk Factors for Delayed Return to Usual Health Among Outpatients with COVID-19 in a Multistate Health Care Systems Network - United States, March-June 2020.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=deccd67f44&e=87eaa0b9d4) Tenforde MW et al., MWWR Morbidity and Mortality Weekly Report.  
  
[**Why Rehabilitation must have priority during and after the COVID-19-pandemic: A position statement of the Global Rehabilitation Alliance.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=300a4badae&e=87eaa0b9d4) Gutenbrunner C et al., J Rehabil Med.  
[**COVID-19 “Long Hauler” Symptoms Survey Report**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=f8ddfed70d&e=87eaa0b9d4)**.** Lambert NJ & Survivor Corps. Indiana University. (non-peer reviewed).  
  
[**COVID-19 Guide for the Rehabilitation Clinician. A Review of Nonpulmonary Manifestations and Complications.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=381d8767ce&e=87eaa0b9d4) Lopez M et al., Am J Phys Med Rehab.

**Commentaries**  
[**Patients with COVID-19 Face Prolonged Neurocognitive Recovery After Ventilation.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=07da565c9a&e=87eaa0b9d4) Hurley D. Neurology Today. (published online 23/7/20).  
  
[**Covid-19 Long Haulers: Meaning, Symptoms, Support Groups. Conte**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=fc1c9ca463&e=87eaa0b9d4) Jr. RL. COVID.US.ORG. (published online 12/7/20).

[**From ‘brain fog’ to heart damage, COVID-19’s lingering problems alarm scientists.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=f0bad7c6ce&e=87eaa0b9d4) Couzin-Frankel J. Science. (published online 31/7/20).  
  
[**Persistent self-reported changes in hearing and tinnitus in post-hospitalisation COVID-19 cases.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=83ed14de7a&e=87eaa0b9d4) Munro KJ et al., Int J Audiology. (published online 31/7/20).  
  
[**Cardiac rehabilitation in the time of COVID19.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=05ad05cd47&e=87eaa0b9d4) Babu AS. Global Heart. (published online 14/7/20).  
  
[**Characteristics of ischaemic stroke associated with COVID-19.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=1fff54d989&e=87eaa0b9d4) Beyrouti R et al., J Neurosurg Psychiatry.

View the updated tracker for latest evidence: <https://www.strategyunitwm.nhs.uk/covid19-and-coronavirus#evidence>, which updates: [Rapid scan 2: rehabilitation needs and post-ICU recovery for severe COVID-19 patients](https://www.strategyunitwm.nhs.uk/sites/default/files/2020-05/20200513%20Evidence%20rapid%20scan%202%20-%20Rehab.pdf) (13th May).

**national policy, initiatives & guidance**

Title:After-care needs of inpatients recovering from COVID-19 – version 2

Source: NHS England & NHS Improvement| First published 5th June; updated 2nd version published 3rd August 2020

This [updated] guidance supports primary care and community health services to meet the immediate and longer-term care needs of patients discharged following an acute episode of COVID-19, by describing the typical expected health care needs of these patients, post-discharge.

Updates highlighted in yellow:   
<https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/06/C0705-aftercare-needs-of-inpatients-recovering-from-covid-19-aug-2020.pdf>

**research papers**

**Title:** Post‐discharge symptoms and rehabilitation needs in survivors of COVID‐19 infection: a cross‐sectional evaluation

Source: Journal of Medical Virology| 30th July 2020

Background: There is currently very limited information on the nature and prevalence of post‐COVID‐19 symptoms after hospital discharge. Methods: A purposive sample of 100 survivors discharged from a large University hospital were assessed 4‐ 8 weeks after discharge by a multidisciplinary team of rehabilitation professionals using a specialist telephone screening tool designed to capture symptoms and impact on daily life. EQ‐5D‐5L telephone version was also completed. Results: Participants were between 29 and 71 days (mean 48 days) post‐discharge from hospital. Thirty‐two participants required treatment in intensive care (ICU group) and 68 were managed in hospital wards without needing ICU care (ward group). New illness‐related fatigue was the most common reported symptom by 72% participants in ICU group and 60.3% in ward group. The next most common symptoms were breathlessness (65.6% in ICU group; 42.6% in ward group) and psychological distress (46.9% in ICU group; 23.5% in ward group). There was a clinically significant drop in EQ5D in 68.8% in ICU group and in 45.6% in ward group. Conclusions: This is the first study from the United Kingdom (UK) reporting on post‐discharge symptoms. We recommend planning rehabilitation services to manage these symptoms appropriately and maximise the functional return of COVID‐19 survivors.

<https://onlinelibrary.wiley.com/doi/abs/10.1002/jmv.26368>

**Title:** Rehabilitation and Covid-19: the Cochrane Rehabilitation 2020 rapid living systematic review: UPDATED 24th JULY 2020

Source: European Journal of Physical and Rehabilitation Medicine| 24th July 2020

INTRODUCTION: This paper improves the methodology of the first edition of the rapid living systematic review started in April 2020, with the aim to gather and present the current evidence informing rehabilitation of patients with COVID-19 and/or describing the consequences due to the disease and its treatment. METHODS: The Cochrane methodology for a rapid living systematic review was applied. Primary research papers, published from January 1st to June 30th, 2020, reporting patients' data, with no limits of study design were included. Studies were categorized for study design, research question, COVID-19 phase, limitations of functioning (disability) of rehabilitation interest and type of rehabilitation service involved. Methodological quality assessment was based on the Cochrane Risk of Bias tools, and the level of evidence table (OCEBM 2011) for all the other studies. RESULTS: Thirty-six, out of 3703 papers, were included. One paper was of level 2 (RCT), 7 were of level 3 (2 cohort studies, 2 cross-sectional studies and 3 case-control studies), and 28 papers of level 4 (descriptive studies); 61% of papers reported epidemiological data on clinical presentations, 5 investigated natural history/determining factors, 1 searched prevalence, 2 studies reported on intervention efficacy (though not on harms), and 5 studies looked at health service organization.

DISCUSSION: Main issues emerging from the review: it is advised to test for COVID-19 people with neurological disorders presenting with symptom changes; dysphagia is a frequent complication after oro-tracheal intubation in COVID-19 patients admitted to the ICU; after discharge, COVID-19 survivors may report persistent restrictive ventilatory deficits regardless of disease severity; there is only sparse and low quality evidence concerning the efficacy of any rehabilitation intervention to promote functional recovery; a substantial increase in resource (staff and equipment) is needed for rehabilitation.

<https://www.minervamedica.it/en/journals/europa-medicophysica/article.php?cod=R33Y9999N00A20072401>

**Title:** RECOVERY FROM SEVERE COVID-19: LEVERAGING THE LESSONS OF SURVIVAL FROM SEPSIS

Source: JAMA| August 2020

…What Are Best Practices to Promote Recovery?  
Despite limited data specific to recovery from COVID-19, the practices that are recommended to enhance recovery from sepsis are applicable to patients recovering from severe COVID-19 (eTable in the Supplement).1 Patients with viral sepsis from COVID-19 should receive these recommended practices, including anticipatory guidance regarding potential new problems, screening for new impairments at hospital discharge and early outpatient follow-up, anticipation and mitigation of risk for common and preventable health deterioration, medication optimization, and referral or instructions for a structured exercise program. Patients have an increased risk of mortality for at least 2 years after sepsis, and in patients with declining health leading to hospitalization for COVID-19, it is important to consider transitioning to a palliative focus of care.

<https://jamanetwork.com/journals/jama/fullarticle/2769290>

**Title:** LOW PHYSICAL FUNCTIONING AND IMPAIRED PERFORMANCE OF ACTIVITIES OF DAILY LIFE IN COVID-19 PATIENTS WHO SURVIVED THE HOSPITALISATION

Source: European Respiratory Journal| Published online 6th August 2020

Discussion:   
This is the first study to report a low physical functioning and an impaired performance of ADLs in COVID-19 patients who survived the hospitalisation. Therefore, it seems fair to conclude that COVID-19 patients discharged home after hospitalisation in an acute and subsequent post-acute ward, have a clear need for rehabilitative interventions. Indeed, a first recovery under the treatment/supervision of the inpatient physiotherapy team was noticed during the post-acute hospitalisation. However, physical functioning and performance of ADLs were still significantly hampered at discharge home. The current results resemble findings in patients with chronic obstructive pulmonary disease (COPD), who are weakened, have a low physical functioning and a poor performance of ADLs at discharge home following an exacerbation-related hospitalisation [[**10**](https://erj.ersjournals.com/content/early/2020/07/23/13993003.02096-2020#ref-10)–[**11**](https://erj.ersjournals.com/content/early/2020/07/23/13993003.02096-2020#ref-11)]. Interestingly, early post-hospitalisation pulmonary rehabilitation has shown to be safe and beneficial (e.g., better physical functioning and quality of life) in patients with COPD [[**12**](https://erj.ersjournals.com/content/early/2020/07/23/13993003.02096-2020#ref-12)]. Timely referral to post-hospitalisation rehabilitative interventions in Northern Italy seems very difficult, as present accessibility is limited. Actually, many specialised pulmonary rehabilitation facilities are currently used for COVID-19 care, as the one in Veruno. Moreover, the number of post-COVID-19 patients in need of rehabilitation will likely outnumber the regular capacity of specialised pulmonary rehabilitation clinics. Finally, a lock-down does not seem to be an encouraging environment to become physically active [[**13**](https://erj.ersjournals.com/content/early/2020/07/23/13993003.02096-2020#ref-13)]. Therefore, it seems reasonable to hypothesise that these elderly, multimorbid post-COVID-19 patients will have a slow and/or incomplete post-hospitalisation recovery. This may have detrimental consequences for patient's autonomy and participation, cause both caregiver burden for family and friends and increased health care resource utilisation.

Interestingly, only 12 of the 103 patients were mechanically ventilated in the acute care hospital, which suggests that hospitalised COVID-19 patients without mechanical ventilation merit post-hospital follow up. The retrospective study did not capture any details on the physical functioning before the hospitalisation, which may already have been impaired. Also, patients’ emotional and social status are unknown, but deserve adequate diagnostics and treatment. Indeed, the post-COVID-9 patients with multiple physical, emotional and social treatable traits may be excellent candidates for a comprehensive pulmonary rehabilitation program, including also occupational therapy and dietary interventions [[**14**](https://erj.ersjournals.com/content/early/2020/07/23/13993003.02096-2020#ref-14)]. The current sample of patients with confirmed COVID-19 seems representative for the hospitalised patients in Italy. Then again, the current sample seems older of age and have a lower mean body mass index than US-treated hospitalised COVID-19 patients [[**15**](https://erj.ersjournals.com/content/early/2020/07/23/13993003.02096-2020#ref-15)].

To conclude, post-COVID patients can have an impaired physical functioning when they are discharged home, even after early mobilization/bedside physiotherapy. These data suggest that early referral to rehabilitative intervention options in the post-hospitalisation phase should be considered.

**Title:** MANAGEMENT OF POST-ACUTE COVID-19 IN PRIMARY CARE: PRACTICE POINTER

Source: BMJ| Published online 11th August 2020

* Management of covid-19 after the first three weeks is currently based on limited evidence
* Approximately 10% of people experience prolonged illness after covid-19
* Many such patients recover spontaneously (if slowly) with holistic support, rest, symptomatic treatment, and gradual increase in activity
* Home pulse oximetry can be helpful in monitoring breathlessness
* Indications for specialist assessment include clinical concern along with respiratory, cardiac, or neurological symptoms that are new, persistent, or progressive

<https://www.bmj.com/content/370/bmj.m3026>

**Title:** SIX LESSONS FOR COVID-19 REHABILITATION FROM hiv REHABILITATION

Source: Physical Therapy| Published online 31st July 2020

COVID-19 is increasing the burden of disease and disability and will continue to do so 5 . Rehabilitation has played and will continue to play a vital role in case management 6 . Although the long-term consequences of COVID-19 remain largely unknown, evidence from the HIV experience could inform the evolving practice of COVID-19 rehabilitation.

<https://academic.oup.com/ptj/advance-article/doi/10.1093/ptj/pzaa142/5879295>

**Title:** LONG-TERM RESPIRATORY COMPLICATIONS OF COVID-19 (EDITORIAL)

Source: BMJ| Published online 3rd August 2020

Substantial population morbidity is likely  
The extent and severity of the long term respiratory complications of covid-19 infection remain to be seen, but emerging data indicate that many patients experience persistent respiratory symptoms months after their initial illness.1 Recently published guidance by the NHS lays out the likely aftercare needs of patients recovering from covid-19 and identifies potential respiratory problems including chronic cough, fibrotic lung disease, bronchiectasis, and pulmonary vascular disease. The evidence for these possible sequelae is largely derived from acute manifestations of covid-19, along with extrapolations from the 2003 outbreak of severe acute respiratory syndrome (SARS) and data on acute respiratory distress syndrome (ARDS)…

<https://www.bmj.com/content/370/bmj.m3001>

**Title:** COVID-19 Guide for the Rehabilitation Clinician: A Review of Nonpulmonary Manifestations and Complications

Source: American Journal of Physical Medicine & Rehabilitation; | Published online August 2020

Abstract: Severe acute respiratory syndrome coronavirus 2-also known as COVID-19-is primarily known for respiratory illness. Although it is clear that patients with moderate to severe cases of COVID-19 will require pulmonary rehabilitation, physiatrists will need to consider effective management plans for COVID-19 survivors with extrapulmonary involvement. This report will summarize key non-pulmonary considerations to guide rehabilitation clinicians who may be involved in the care of COVID-19 survivors with the best available early evidence.

<https://journals.lww.com/ajpmr/Fulltext/2020/08000/COVID_19_Guide_for_the_Rehabilitation_Clinician__A.2.aspx>

**Title:** Post-intensive care syndrome and COVID-19 - Implications post pandemic

Source: Cleveland Clinic Journal of Medicine | Published online 29th July 2020

**Abstract:** Post-intensive care syndrome (PICS) describes new or worsening physical, cognitive, or mental impairments in a patient following critical illness or intensive care. The COVID-19 pandemic will likely result in many more patients with PICS and its associated health and economic challenges. Screening and assessment tools done during hospitalization, at discharge, and post discharge should be utilized to facilitate services and strategies to improve PICS outcomes for patient and their families.

<https://www.ccjm.org/content/early/2020/07/29/ccjm.87a.ccc055>

**Title:** Post-discharge thrombosis and hemorrhage in patients with COVID-19

Source: Blood| Published online August 2020

**Abstract:** Coronavirus Disease-2019 (COVID-19) is associated with a prothrombotic state with a high incidence of thrombotic events during hospitalization; however there are limited data examining rates of thrombosis after discharge. We conducted a retrospective observational cohort study of discharged patients with confirmed COVID-19 not receiving anticoagulation. The cohort included 163 patients with median time from discharge to last recorded follow up of 30 days (IQR 17-46). The median duration of index hospitalization was 6 days (IQR 3-12) and 26% required intensive care. The cumulative incidence of thrombosis (including arterial and venous events) at day 30 following discharge was 2.5% (95% CI 0.8-7.6); the cumulative incidence of venous thromboembolism alone at day 30 post-discharge was 0.6% (95% CI 0.1-4.6). The 30-day cumulative incidence of major hemorrhage was 0.7% (95% CI 0.1-5.1) and clinically relevant non-major bleeds was 2.9% (95% CI 1.0-9.1). We conclude that the rates of thrombosis and hemorrhage appear to be similar following hospital discharge for COVID-19, emphasizing the need for randomized data to inform recommendations for universal post-discharge thromboprophylaxis.

<https://ashpublications.org/blood/article/doi/10.1182/blood.2020007938/461763/Post-discharge-thrombosis-and-hemorrhage-in>

**Title:** Post-critical illness vulnerability

Source: Current Opinion in Critical Care; | Published online August 2020

**Abstract:** PURPOSE OF REVIEW Critical illness survivorship is associated with new and worsening physical, cognitive, and emotional status. Survivors are vulnerable to further health set-backs, most commonly because of infection and exacerbation of chronic medical conditions. Awareness of survivors' challenges are important given the anticipated rise in critical illness survivors because of SARS-CoV-2 viral sepsis. RECENT FINDINGS Studies continue to document challenges of critical illness survivorship. Beyond the cognitive, physical, and mental health sequelae encompassed by post-intensive case syndrome, patients commonly experience persistent immunosuppression, re-hospitalization, inability to resume prior employment, and reduced quality of life. Although recommended practices for enhancing recovery from sepsis are associated with better outcomes, only a minority of patients receive all recommended practices. ICU follow-up programs or peer support groups remain important interventions to learn about and address the multifaceted challenges of critical illness survivorship, but there is little evidence of benefit to date. SUMMARY Survivors of sepsis and critical illness commonly experience impaired health status, reduced quality of life, and inability to return to prior employment. Although the challenges of critical illness survivorship are increasingly well documented, there are relatively few studies on enhancing recovery. Future studies must focus on identifying best practices for optimizing recovery and strategies to promote their implementation.

<https://journals.lww.com/co-criticalcare/Abstract/9000/Postcritical_illness_vulnerability.98985.aspx>

**Title:** Does SARS-CoV-2 infection cause chronic neurological complications?

Source: GeroScience | Published online August 2020

Abstract: The current pandemic caused by severe acute respiratory syndrome coronavirus (SARS-CoV)-2 has created an unparalleled health crisis. Besides the acute respiratory infection, CoVs are neuroinvasive causing additional inflammation and neurodegeneration. This is likely also true of SARS-CoV-2 given reports of neurological manifestations in coronavirus disease 2019 (COVID-19) positive patients. Older adults > 65 years of age constitute a high-risk group prone to severe infection and death. Despite the higher mortality rate, a majority of cases are expected to recover and survive from this viral outbreak. But, the long-term consequences of SARS-CoV-2 neuroinfection are unknown. We discuss these potential chronic changes to the central nervous system (CNS) in relation to accelerated brain aging and age-related neurodegenerative disorders.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7247778/#:~:text=Since%20ACE2%20is%20found%20on,even%20slowly%20deteriorate%20over%20time.>

**Title:** Outcomes of Cardiovascular Magnetic Resonance Imaging in Patients Recently Recovered From Coronavirus Disease 2019 (COVID-19)

Source: Jama Cardiology; July 2020

Abstract: Importance Coronavirus disease 2019 (COVID-19) continues to cause considerable morbidity and mortality worldwide. Case reports of hospitalized patients suggest that COVID-19 prominently affects the cardiovascular system, but the overall impact remains unknown. Objective To evaluate the presence of myocardial injury in unselected patients recently recovered from COVID-19 illness. Design, Setting and Participants In this prospective observational cohort study, 100 patients recently recovered from COVID-19 illness were identified from the University Hospital Frankfurt COVID-19 Registry between April and June 2020 … Conclusions and Relevance. In this study of a cohort of German patients recently recovered from COVID-19 infection, CMR revealed cardiac involvement in 78 patients (78%) and ongoing myocardial inflammation in 60 patients (60%), independent of pre-existing conditions, severity and overall course of the acute illness, and time from the original diagnosis. These findings indicate the need for ongoing investigation of the long-term cardiovascular consequences of COVID-19.

<https://jamanetwork.com/journals/jamacardiology/fullarticle/2768916>

**Title:** LUNG ULTRASOUND IN COVID-19 A ROLE BEYOND THE ACUTE PHASE?

Source: Journal of Ultrasound in Medicine, Aug 2020

**Abstract:** OBJECTIVES Coronavirus disease 2019 (COVID-19) is a viral illness caused by severe acute respiratory syndrome coronavirus 2. With the increasing number of improved and discharged patients with COVID-19, the definition of an adequate follow-up strategy is needed. The purpose of this study was to assess whether lung ultrasound (LUS) is an effective indicator of subclinical residual lung damage in patients with COVID-19 who meet discharge criteria. METHODS We prospectively enrolled 70 consecutive patients with COVID-19 who had a prolonged hospitalization with inpatient rehabilitation between April 6 and May 22, 2020. All of the patients underwent an LUS evaluation at discharge. Data of patients with more severe disease during the acute phase (ie, required ventilatory support) were compared to those of patients with milder disease. RESULTS Among the 70 patients with COVID-19 (22 women and 48 men; mean age ± SD, 68 ± 13 years), the LUS score before discharge was still frankly pathologic and higher in patients who had more severe disease during the acute phase compared to patients with milder disease (median [interquartile range], 8.0 [5.5-13.5] versus 2.0 [1.0-7.0]; P < .001), even when both categories met internationally defined discharge criteria. CONCLUSIONS Lung ultrasound can identify the persistence of subclinical residual lung damage in patients with severe COVID-19 even if they meet discharge criteria. Considering the low cost, easy application, and lack of radiation exposure, LUS seems the ideal tool to be adopted in outpatient and primary care settings for the follow-up of patients with COVID-19.

<https://onlinelibrary.wiley.com/doi/pdf/10.1002/jum.15425>

**ongoing research**

**Title:** STUDY OF POST COVID REHABILITATION WITH A VOCATIONAL ASPECT

Source: University of Nottingham | Published online August 2020

‘We are just embarking on a study of post Covid rehabilitation with a vocational aspect’

<https://twitter.com/Rehab_Research/status/1293436219783892992>

TITLE: TAI CHI FOR CORONAVIRUS DISEASE 2019 IN RECOVERY PERIOD: A PROTOCOL FOR SYSTEMATIC REVIEW AND META ANALYSIS

Source: Medicine, vol 99 (no 32) | Published online August 2020

**Abstract:** BACKGROUND Assessing the effectiveness and safety of Tai Chi for coronavirus disease 2019 (COVID-19) in recovery period is the main purpose of this systematic review protocol. METHODS The following electronic databases will be searched from inception to April 2020: MEDLINE, Ovid, EMBASE, the Cochrane Library, the Allied and Complementary Medicine Database, Chinese National Knowledge Infrastructure, Chinese Biomedical Literature Database, VIP Database and Wanfang Database. In addition, Clinical trial registries, like the Chinese Clinical Trial Registry, the Netherlands National Trial Register and ClinicalTrials.gov, will be searched for ongoing trials with unpublished data. No language restrictions will be applied. The primary outcome will be the time of disappearance of main symptoms (including fever, asthenia, cough disappearance rate, and temperature recovery time), and serum cytokine levels. The secondary outcome will be the accompanying symptoms (such as myalgia, expectoration, stuffiness, runny nose, pharyngalgia, anhelation, chest distress, dyspnea, crackles, headache, nausea, vomiting, anorexia, diarrhea) disappear rate, negative COVID-19 results rate on 2 consecutive occasions (not on the same day), CT image improvement, average hospitalization time, occurrence rate of common type to severe form, clinical cure rate, and mortality. Two independent reviewers will conduct the study selection, data extraction and assessment. Review manager software V.5.3 will be used for the assessment of risk of bias and data synthesis. RESULTS The results will provide a high-quality synthesis of current evidence for researchers in this subject area. CONCLUSION The conclusion of the study will provide an evidence to judge whether Tai Chi is effective and safe for COVID-19 in recovery period. ETHICS AND DISSEMINATION This protocol will not evaluate individual patient information or infringe patient rights and therefore does not require ethical approval. Results from this review will be disseminated through peer-reviewed journals and conference reports. PROSPERO registration number CRD42020181456.

<https://journals.lww.com/md-journal/Fulltext/2020/08070/Tai_Chi_for_coronavirus_disease_2019_in_recovery.15.aspx>

**podcasts**

**Title:** COVID19 Lessons Learnt from London

Source: AHP Leader | 3rd August 2020

The COVID19 Lessons Learnt from London podcast aims to capture the experiences, learning and reflections of allied health professionals across the capital. This session focuses on the role of crucial role of Physiotherapists across the patient pathway from Critical Care to the Community.

<https://www.youtube.com/watch?v=o3DobRbMpVg>

**news items & SERVICE DEVelopments in the uk**

**Title:** We need dedicated post COVID clinics set up with MDT approach

Source: Amy Small, GP | Published online 7th August 2020

‘We need dedicated post COVID clinics set up with MDT approach - cardiac, ENT, resp, neuro, physio, OT, and psychology input. The government needs to invest heavily in this and in the social structure around these patients to protect them from loss of income and more’.

<https://twitter.com/amyismall/status/1291690355130355712>

**Title:** Half a million patients have 'long Covid', with after-effects lingering for months

Source: The Telegraph | Published online 5th August 2020

GPs are regularly misdiagnosing ongoing problems from Covid-19 as anxiety or ME, telling some patients it's 'all in their head'

<https://www.telegraph.co.uk/politics/2020/08/05/mps-hear-aftereffects-coronavirus-can-linger-months-cause-lasting/>

**Title:** We give patients their voices back': the speech therapists on the Covid-19 frontline

Source: The Guardian | Published 30th July 2020

‘The work of speech and language therapists like Sally Archer is often overlooked, but they have been vital in fighting Covid-19…’

<https://www.theguardian.com/society/2020/jul/30/give-patients-voices-back-speech-language-therapists-covid-19-frontline>

**Title:** ‘Yet another successful video clinic providing Respiratory Physiotherapy treatment to patients recovering from #COVID-19’

Source: Respiratory Physiotherapist at UCLH | Published online 29th July 2020

‘Here is my learning: 1) we’ve been able to provide the majority of treatments effectively by video. Both breathing pattern retraining and airway clearance.

2) video clinics suit many patients. 3) lots of patients have embraced virtual consults, where we may previously have identified barriers. 4) our patients have been very patient, understanding and flexible whilst we’ve been finding our feet. 5) it has reduced our DNA rate but only because we can now do video consults whilst patients walk the dog/ do the school run/ take the train inter city- a whole new set of challenges! 6) we’ve seen really good effects of breathing pattern retraining post COVID via video. 7) ask your patient to count the number of sit to stands when exercise testing because your video quality might not hold out’.

<https://twitter.com/RebeccaMLiv/status/1288570425144999936>

**Title:** OVER 100 POST COVID FOLLOW UPS COMPLETED

Source: East Sussex and North East Essex AHPs | Published online 6th August 2020

‘Great to feel we’re making progress. Over 100 post covid follow ups completed by the brilliant @ESNEFT\_AHPs at Ipswich. More work to do but so proud of this team doing really important work’.

<https://twitter.com/inspirebreath/status/1291447312447950855>

**patient information:**

TITLE: TAKING COVID-19 CARE: SUPPORTING YOUR RECOVERY JOURNEY: COMMUNITY REHABILITATION ADVICE FROM OUR SPECIALIST HEALTHCARE PROFESSIONALS

Source: Midlands Partnership NHS Foundation Trust, August 2020  
  
Supporting your recovery journey from COVID-19 – Eating and drinking to recover.   
This booklet is here to help your recovery from COVID-19. It contains information for you and your family/carers if you have had COVID-19 and were not admitted to intensive care. It provides a brief overview of the common physical and emotional problems you may be experiencing.

<https://www.mpft.nhs.uk/application/files/5015/9560/0366/COVID-19_-_Supporting_Your_Recovery_Journey.pdf>

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We

[TRFT Library & Knowledge Service](https://www.trftlibraryknowledge.com/) aim to bring together the latest guidelines, research and news on Covid-19 through our [Covid-19 portal](https://www.trftlibraryknowledge.com/coronavirus.html). For daily updates on Covid-19 visit our '[Latest Health](https://trfthealthweeklydigest.wordpress.com/)' newsfeed, or use the hashtag [#covid19rftlks](https://twitter.com/hashtag/covid19rftlks?src=hashtag_click) to see our latest tweets on Covid-19 research, guidelines and news.

We also produce a range of subject-specific news feeds to ensure our clinical and professional teams stay up to date with developments in their work areas. Please visit our [website](http://www.trftlibraryknowledge.com/) for more information

<https://www.trftlibraryknowledge.com/health-newsfeeds.html>