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

July 30th2020

**STRATEGY UNIT RAPID SCAN**

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

Source: The Strategy Unit | Last updated 24th July 2020

**Emerging evidence:**
[**The central role of clinical nutrition in COVID-19 patients during and after hospitalization in intensive care unit.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=62238474a7&e=87eaa0b9d4)Ferrara F et al., SN Comprehensive Clinical Medicine.

[**COVID-19 Ischemic Strokes as an emerging rehabilitation population: a case series.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=f6d8566947&e=87eaa0b9d4)Diaz Segarra N et al., Am J Phys Med Rehab.

**Commentaries:**
[**COVID-19 fatigue: not so fast.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=5dce178a1c&e=87eaa0b9d4) O’Connor C et al., JACC Heart Fail, 8(7). (published online July 2020).

[**COVID-19: a major cause of cachexia and sarcopenia?**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=fc05c3ace7&e=87eaa0b9d4) Morley JE et al., Journal of Cahexia, Sarcopenia & Muscle.
[**Rehab facilities face COVID-19 crunch as more patients recover.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=6ebd315a31&e=87eaa0b9d4) Daniel A. CMAJ, 192(26).
[**Recovery after COVID-19: The potential role of pulmonary rehabilitation**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=6854afffe9&e=87eaa0b9d4)**.**Grigoletto I et al.,Braz J Phys Ther.

**Useful resources:**[**Support for Rehabilitation Self-Management after COVID-19- Related Illness.**](https://nhs.us6.list-manage.com/track/click?u=08639bcc803b15ab3fd9dc55e&id=3689f5b89b&e=87eaa0b9d4) WHO Regional Office for Europe.

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:NICE advises against using graded exercise therapy for patients recovering from covid-19

Source: BMJ| Published online 21st July 2020

Graded exercise therapy may not be appropriate for treating post-viral fatigue in patients recovering from covid-19, the National Institute for Health and Care Excellence (NICE) has told doctors.

In a statement NICE said that it was aware of concerns related to the impact of graded exercise therapy (GET) for managing post-viral fatigue in patients recovering from covid-19. It noted that its current advice on managing chronic fatigue may not be appropriate for this group of patients and acknowledged that it could also be out of date for other groups
<https://www.bmj.com/content/370/bmj.m2912>

Title:your covid recovery: online resource goes live

Source: NHS| Launched 29th July 2020

As you find yourself recovering from COVID-19 you may still be coming to terms with the impact the virus has had on both your body and mind.

These changes should get better over time, some may take longer than others, but there are things you can do to help.

Your COVID Recovery helps you to understand what has happened and what you might expect as part of your recovery

Launch of Phase 1 29th July. Phase 2 (to follow) will be an interactive tool for local services to use with their patients.

<https://www.yourcovidrecovery.nhs.uk/>

<https://www.england.nhs.uk/2020/07/nhs-to-launch-ground-breaking-online-covid-19-rehab-service/>

**research papers**

**Title:** Survivorship after COVID-19 ICU stay

Source: Nature Reviews Disease Primers volume 6, Article number: 60 | Published online 15th July 2020

Prior studies of patient survivorship after an intensive care unit (ICU) stay suggest that many critically ill patients with COVID-19 will face long-lasting physical, cognitive and/or mental health impairments. This anticipated survivorship experience highlights the importance of collaboration between the fields of critical care and rehabilitation to optimize post-COVID-19 recovery.

<https://www.nature.com/articles/s41572-020-0201-1>

**Title:** Covid-19: What do we know about “long covid”?

Source: BMJ | Published online 15th July 2020

As recognition grows that many patients have long lasting effects, Elisabeth Mahase examines the evidence and the response.

<https://www.bmj.com/content/370/bmj.m2815>

**Title:** Early rehabilitation in post-acute COVID-19 patients: data from an Italian COVID-19 rehabilitation unit and proposal of a treatment protocol. A cross-sectional study

Source: Eur J Phys Rehabil Med 2020 | Published online 15th July 2020

Abstract: BACKGROUND Coronavirus Disease 2019 (COVID-19) pandemic is quickly spreading, putting under heavy stress health systems worldwide and especially Intensive Care Units (ICU). Rehabilitation Units have a crucial role in reducing disability in order to reintroduce patients in the community.

AIM To characterize pulmonary function and disability status and to propose an early rehabilitation protocol in a cohort of post-acute COVID-19 patients admitted to an Italian Rehabilitation Unit. DESIGN Cross-sectional observational study. SETTING Inpatients Rehabilitation Unit. POPULATION Post-acute COVID-19 patients.

METHODS Demographic, anamnestic and clinical characteristics, laboratory exams and medical imaging findings were collected for the entire cohort. Outcome measures evaluated at the admission in Rehabilitation Unit were: type of respiratory supports needed, fraction of inspired oxygen (FIO2), partial pressure of oxygen (PaO2), FIO2/PaO2, Barthel Index (BI), modified Medical Research Council (mMRC) Dyspnoea Scale, and 6-Minute Walking Test (6-MWT). Furthermore, we proposed an early rehabilitation protocol for COVID-19 patients based on baseline FiO2.RESULTSWe included 32 post-acute COVID-19 patients (22 male and 10 female), mean aged 72.6 ± 10.9 years. BI was 45.2±27.6, with patients in need of higher FIO2 (≥ 40%) showing lower values: 39.6 ± 25.7 vs 53.3 ± 29.3. All patients had grade 4 or 5 on the mMRC Dyspnoea Scale. Only 14 COVID-19 patients were able to walk (43.7%). 6-MWT was feasible in 6 (18.8%) patients with a mean distance of 45.0±100.6 meters.

CONCLUSIONS Taken together, our findings suggest that post-acute COVID-19 patients suffered from dyspnoea and shortness of breath even for minimal activities, with a resulting severe disability, and only a few of them were able to perform 6-MWT with poor results. An early rehabilitation protocol was proposed according to the baseline conditions of the patients.

CLINICAL REHABILITATION IMPACT This study could provide an accurate description of COVID-19 subacute patients admitted to a Rehabilitation Unit along with a proposal of treatment to help physicians to tailor the best possible rehabilitative treatment.

<https://pubmed.ncbi.nlm.nih.gov/32667150/>

**Title:** In-ICU COVID-19 patients’ characteristics for an estimation in post-ICU rehabilitation care requirement

Source: Anaesthesia, Critical Care & Pain Medicine| Published online 13th July 2020

Due to the emergence of a virus outbreak in Mulhouse, a city located 100 km south of Strasbourg, Alsace was one of the first regions in France to be affected by SARS-CoV-2 and people developed a new coronavirus disease (COVID-19). Strasbourg University Hospital increased more than twice its intensive care bed capacity (+140%). At the time of writing this article, six weeks after the start of the epidemic, 998 hospital deaths were counted in the region, i.e., an intrahospital mortality rate linked to COVID-19 of 0.53 deaths per 100,000 inhabitants (https://dashboard.covid19.data.gouv.fr/). Currently, a large number of patients with severe COVID-19 remain hospitalised in our intensive care unit (ICU). Many of these patients have severe damages to one or more organs, suggesting that certain patients will need higher post-resuscitation care in active post-resuscitation care (APRC) unit or more classic rehabilitation care in a follow-care and rehabilitation service. The purpose of this letter is to succinctly estimate the need for post COVID-19 resuscitation rehabilitation care before conduct wider study to definitively assess post COVID-19 rehabilitation care requirements.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7293481/#!po=8.33333>

**Title:** Functional and cognitive outcomes after COVID-19 delirium

Source: European Geriatric Medicine | Published online July 2020

Abstract: PURPOSE To ascertain delirium prevalence and outcomes in COVID-19.

METHODS We conducted a point-prevalence study in a cohort of COVID-19 inpatients at University College Hospital. Delirium was defined by DSM-IV criteria. The primary outcome was all-cause mortality at 4 weeks; secondary outcomes were physical and cognitive function.

RESULTS In 71 patients (mean age 61, 75% men), 31 (42%) had delirium, of which only 12 (39%) had been recognised by the clinical team. At 4 weeks, 20 (28%) had died, 26 (36%) were interviewed by telephone and 21 (30%) remained as inpatients. Physical function was substantially worse in people after delirium - 50 out of 166 points (95% CI - 83 to - 17, p = 0.01). Mean cognitive scores at follow-up were similar and delirium was not associated with mortality in this sample.

CONCLUSIONS Our findings indicate that delirium is common, yet under-recognised. Delirium is associated with functional impairments in the medium term.

Primary Author Affiliation: Department of Medicine for the Elderly, University College London Hospitals NHS Foundation Trust, London, UK.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7358317/>

TITLE: EXTRA-PULMONARY COMPLICATIONS OF COVID-19: A MULTI-SYSTEM DISEASE?

Source: Journal of Medical Virology| Published online 10th July 2020

Abstract: The outbreak of coronavirus disease 2019 (COVID-19), caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has been recently declared a pandemic by the World Health Organization. In addition to its acute respiratory manifestations, SARS-CoV-2 may also adversely affect other organ systems. To date, however, there is very limited understanding of the extent and management of COVID-19-related conditions outside of the pulmonary system. This narrative review provides an overview of the current literature about the extra-pulmonary manifestations of COVID-19 that may affect the urinary, cardiovascular, gastrointestinal, hematological, hematopoietic, neurological, or reproductive systems. This review also describes current understanding of the extra-pulmonary complications caused by COVID-19 in order to improve the management and prognosis of patients with COVID-19.

<https://onlinelibrary.wiley.com/doi/10.1002/jmv.26294>

**Title:** Addressing male sexual and reproductive health in the wake of COVID-19 outbreak

Source: Journal of Endocrinological Investigation | Published online 13th July 2020

Abstract: PURPOSE The COVID-19 pandemic, caused by the SARS-CoV-2, represents an unprecedented challenge for healthcare. COVID-19 features a state of hyperinflammation resulting in a "cytokine storm", which leads to severe complications, such as the development of micro-thrombosis and disseminated intravascular coagulation (DIC). Despite isolation measures, the number of affected patients is growing daily: as of June 12th, over 7.5 million cases have been confirmed worldwide, with more than 420,000 global deaths. Over 3.5 million patients have recovered from COVID-19; although this number is increasing by the day, great attention should be directed towards the possible long-term outcomes of the disease. Despite being a trivial matter for patients in intensive care units (ICUs), erectile dysfunction (ED) is a likely consequence of COVID-19 for survivors, and considering the high transmissibility of the infection and the higher contagion rates among elderly men, a worrying phenomenon for a large part of affected patients.

METHODS A literature research on the possible mechanisms involved in the development of ED in COVID-19 survivors was performed. RESULTS Endothelial dysfunction, subclinical hypogonadism, psychological distress and impaired pulmonary hemodynamics all contribute to the potential onset of ED. Additionally, COVID-19 might exacerbate cardiovascular conditions; therefore, further increasing the risk of ED. Testicular function in COVID-19 patients requires careful investigation for the unclear association with testosterone deficiency and the possible consequences for reproductive health. Treatment with phosphodiesterase-5 (PDE5) inhibitors might be beneficial for both COVID-19 and ED. CONCLUSION COVID-19 survivors might develop sexual and reproductive health issues. Andrological assessment and tailored treatments should be considered in the follow-up.

<https://link.springer.com/article/10.1007/s40618-020-01350-1>

**Title:** Autoimmune and rheumatic musculoskeletal diseases as a consequence of SARS-CoV-2 infection and its treatment

Source: Rheumatology International | Published online 14th July 2020

Abstract: The coronavirus disease-2019 (COVID-19) pandemic is likely to pose new challenges to the rheumatology community in the near and distant future. Some of the challenges, like the severity of COVID-19 among patients on immunosuppressive agents, are predictable and are being evaluated with great care and effort across the globe. A few others, such as atypical manifestations of COVID-19 mimicking rheumatic musculoskeletal diseases (RMDs) are being reported. Like in many other viral infections, severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infection can potentially lead to an array of rheumatological and autoimmune manifestations by molecular mimicry (cross-reacting epitope between the virus and the host), bystander killing (virus-specific CD8 + T cells migrating to the target tissues and exerting cytotoxicity), epitope spreading, viral persistence (polyclonal activation due to the constant presence of viral antigens driving immune-mediated injury) and formation of neutrophil extracellular traps. In addition, the myriad of antiviral drugs presently being tried in the treatment of COVID-19 can result in several rheumatic musculoskeletal adverse effects. In this review, we have addressed the possible spectrum and mechanisms of various autoimmune and rheumatic musculoskeletal manifestations that can be precipitated by COVID-19 infection, its therapy, and the preventive strategies to contain the infection.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7360125/>

TITLE: 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

Source: CDC| Published online 24th July 2020

Relatively little is known about the clinical course of COVID-19 and return to baseline health for persons with milder, outpatient illness. What is added by this report? In a multistate telephone survey of symptomatic adults who had a positive outpatient test result for SARS-CoV-2 infection, 35% had not returned to their usual state of health when interviewed 2–3 weeks after testing. Among persons aged 18–34 years with no chronic medical conditions, one in five had not returned to their usual state of health.

What are the implications for public health practice? COVID-19 can result in prolonged illness, even among young adults without underlying chronic medical conditions. Effective public health messaging targeting these groups is warranted.

<https://www.cdc.gov/mmwr/volumes/69/wr/mm6930e1.htm>

**Title:** Characteristics, comorbidities, 30-day outcome and in-hospital mortality of patients hospitalised with COVID-19 in a Swiss area - a retrospective cohort study

Source: Swiss Medical Weekly | Published online July 2020

Abstract: BACKGROUND Since its first description in December 2019, coronavirus disease 19 (COVID-19) has spread worldwide. There is limited information about presenting characteristics and outcomes of Swiss patients requiring hospitalisation. Furthermore, outcomes 30 days after onset of symptoms and after hospital discharge have not been described. AIMS To describe the clinical characteristics, outcomes 30 days after onset of symptoms and in-hospital mortality of a cohort of patients hospitalised for COVID-19 in a Swiss area. METHODS In this retrospective cohort study, we included all inpatients hospitalised with microbiologically confirmed COVID-19 between 1 March and 12 April 2020 in the public hospital network of a Swiss area (Fribourg). Demographic data, comorbidities and outcomes were recorded. Rate of potential hospital-acquired infection, outcomes 30 days after onset of symptoms and in-hospital mortality are reported.

RESULTS One hundred ninety-six patients were included in the study. In our population, 119 (61%) were male and the median age was 70 years. Forty-nine patients (25%) were admitted to the intensive care unit (ICU). The rate of potential hospital-acquired infection was 7%. Overall, 30 days after onset of symptoms 117 patients (60%) had returned home, 23 patients (12%) were in a rehabilitation facility, 18 patients (9%) in a medical ward, 6 patients (3%) in ICU and 32 (16%) patients had died. Among patients who returned home within 30 days, 73 patients (63%) reported persistent symptoms. The overall in-hospital mortality was 17%.

CONCLUSION We report the first cohort of Swiss patients hospitalised with COVID-19. Thirty days after onset of the symptoms, 60% had returned home. Among them, 63% still presented symptoms. Studies with longer follow-up are needed to document long-term outcomes in patients hospitalised with COVID-19.

<https://smw.ch/article/doi/smw.2020.20314>

**Title:** Chest CT and Clinical Follow-up of Discharged Patients with COVID-19 in Wenzhou City, Zhejiang, China

Source: Annals of the American Thoracic Society | Published online July 2020

Abstract: RATIONALE Many clinical studies focused on the epidemiological and clinical characteristics of the inpatients with COVID-19. However, there are few reports about clinical follow-up about discharged patients. OBJECTIVES This paper aimed to describe the follow-up of patients with COVID-19 in Wenzhou city, Zhejiang, China.

METHODS We retrospectively reviewed 4-week follow-ups in patients with COVID-19, including CT chest scanning, blood test, and oropharyngeal swab test of SARS-CoV-2 RNA. The chest CT scan and blood test were performed on the last day before discharge, two weeks and four weeks after discharge. The oropharyngeal swab test was performed on both one week and two weeks after the discharge. Fifty-one common COVID-19 patients were enrolled in the study. All the CT and clinical data were collected between January, 23 and March, 28, 2020.

RESULTS Compared with the last CT scan before discharge, the abnormalities in lungs were gradually absorbed in the first and second follow-ups after discharge. The cases with focal ground-glass opacity (GGO) reduced from 17.7% to 9.8%. The cases with multiple GGO decreased from 80.4% to 23.5%. The cases with consolidation reduced from 49.0% to 2.0%. The cases with interlobular septal thickening reduced from 80.4% to 35.3%. The cases with subpleural lines reduced from 29.4% to 7.8%. The cases with irregular lines reduced from 41.2% to 15.7%. The lung lesions of 25.5% patients were fully absorbed in the first CT scans after discharge and the rate of lung recovery increased to 64.7% after the second follow-up. Nucleic acid tests turned recurrently positive in 17.6% discharged patients, in which only 33.3% patients complained clinical symptoms. There were no differences in the characteristics of the last CT before discharge between the patients with recurrently positive test and patients with negative test. The lung damages were fully absorbed in 55.6% discharged patients with recurrence of positive SARS-CoV-2 RNA.

CONCLUSIONS The lung damage due to COVID-19 could be reversible for the common COVID-19 patients. A few cases showed recurring positive results of nucleic acid tests after discharge.

<https://www.atsjournals.org/doi/pdf/10.1513/AnnalsATS.202004-324OC>

**Title**: SARS-CoV-2 and Male Infertility: Possible Multifaceted Pathology

Source: Reproductive sciences (Thousand Oaks, Calif.) | Published online July 2020

Abstract: The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) causing the coronavirus disease 2019 (COVID-19) has been declared a pandemic by the World Health Organization (WHO) on 11th March 2020. Bulk of research on this virus are carried out to unveil its multivariate pathology. Surprisingly, men are reportedly more vulnerable to COVID-19 even with higher fatality rate compared to women. Thus, it is crucial to determine whether SARS-CoV-2 infection can even affect male fertility as an immediate or long-term consequence of the disease. Among the discrete data available, an important finding is that angiotensin converting enzymes 2 (ACE2) receptor, that aids the SARS-CoV-2 entry into host cells, is profoundly expressed in testicular cells. In addition, the endogenous androgen milieu and its receptors are associated with ACE2 activation reflecting that enhanced testosterone levels may trigger the pathogenesis of COVID-19. In contrary, hypogonadism has also been reported in the acute phase of some COVID-19 cases. Moreover, SARS-CoV-2 infection-induced uncontrolled inflammatory responses may lead to systemic oxidative stress (OS), whose severe disruptive effects on testicular functions are well-documented. This article aims to precisely present the possible impact of COVID-19 on male reproductive functions, and to highlight the speculations that need in-depth research for the exact underlying mechanisms how COVID-19 is associated with men's health and fertility.

**ongoing research**

**Title:** Effects of respiratory rehabilitation on patients with novel coronavirus (COVID-19) pneumonia in the rehabilitation phase: protocol for a systematic review and meta-analysis.

Source: BMJ Open vol 10 (no 7) | Published online July 2020

Abstract: INTRODUCTION The recent viral pneumonia caused by the COVID-19 has gained the attention of the people all over the world. We aim to investigate the effects of respiratory rehabilitation therapy on patients infected with the novel coronavirus by conducting a systematic review and meta-analysis.

METHODS AND ANALYSIS This systematic review and meta-analysis have been registered in the International Prospective Register of Systematic Reviews (PROSPERO). The PubMed, Embase, Web of Science, the Cochrane Central Register of Controlled Trials, Chinese Biomedical Literature Database, China National Knowledge Infrastructure, Wanfang Data and Viper information databases will be searched from inception time to date without restricting research types to find relevant studies. We will also look into reference lists of relevant trials and reviews, and manually search grey literature, such as trial registries. Two reviewers will independently extract data and perform quality assessment of included studies. Review Manager V.5.3 (Cochrane Collaboration) and Stata V.16.0 software will be used to conduct this meta-analysis. The mean difference or standardised mean difference with 95% CIs is used in the computation of continuous variables to synthesise data.

ETHICS AND DISSEMINATION Ethical approval is not required due to the nature of this meta-analysis, which is based on published papers. The results of this systematic review and meta-analysis will be published in a peer-reviewed journal once we finish this study. PROSPERO REGISTRATION NUMBERCRD42020180214

<https://bmjopen.bmj.com/content/10/7/e039771>

TITLE: The efficacy of acupuncture for improving the side effects of COVID-19 western medicine treatments: A protocol for a systematic review and meta-analysis

Source: Medicine, vol 99 (no 28) | Published online July 2020

Abstract: BACKGROUND Coronavirus disease 2019 (COVID-19) is an acute respiratory infectious disease, which is pandemic, infectious, and high mortality. Many commonly discussed medications being used to treat COVID-19 are not without potentially harmful side effects such as heart, liver, kidney problems, or other clinical symptoms. Acupuncture is a nonpharmacological method. When a needle is inserted into an acupuncture point, traumatic physical stimulation occurs, and then the neuroendocrine immune regulation network is activated. This study aimed to evaluate the efficacy of acupuncture for improving the side effects of COVID-19 western medicine treatments.

METHODS From their inception to December 10, 2020, the following electronic databases will be searched to identify relevant studies: MEDLINE, PubMed, EMBASE, the Cochrane Library, Chinese National Knowledge Infrastructure (CNKI), and the Chinese Biomedical Literature Database (CBM), without any language restrictions. Randomized controlled trials and credible clinical observations without randomization include patients diagnosed with COVID-19, and receiving western medicine treatments or acupuncture, with no restrictions on disease stage, age, sex, or ethnicity. Primary outcomes would be used to evaluate the mortality rate, C-reactive protein (CRP), creatine, troponin, liver enzymes (aspartate aminotransferase and alanine aminotransferase), blood pressure, clinical symptoms (including fever, fatigue, myalgia, cough, skin rash, nausea, vomiting, and diarrhea), and serum cytokine levels. Secondary outcome would be used to evaluate the adverse events of acupuncture. Risk of bias will be assessed by 2 review authors independently according to the guidelines set out in the Cochrane Handbook for Systematic Reviews of Interventions.

DISCUSSION This is the first to evaluate the efficacy of acupuncture for improving the side effects of COVID-19 western medicine treatments. A longer follow-up should be considered in future studies. CONCLUSION This systematic review and meta-analysis would provide evidence of acupuncture specifically focused on its effectiveness and safety for patients with COVID-19 western medications adverse effects. REGISTRATION Registered in the PROSPERO database (CRD42020189494).

**blogs & COMMENTARIeS**

**Title:** Nisreen A Alwan: What exactly is mild covid-19?

Source: BMJ Opinion | 28th July 2020

…What is now becoming clear is that mortality is not the only adverse outcome of this infection and our surveillance systems must keep up and reflect that. I am advocating for precise case definitions for covid-19 morbidity that reflect the degree of severity of infection and allow us to measure moderate and long term health and wellbeing outcomes. At this stage of the pandemic, it is vital that we accurately measure and count all degrees of infection, not only in research cohorts, but as part of population-based routine surveillance systems. This includes people like me who were not tested at the time of their initial infection. Death is not the only thing to count in this pandemic, we must count lives changed. We still know very little about covid-19, but we do know that we cannot fight what we do not measure.

<https://blogs.bmj.com/bmj/2020/07/28/nisreen-a-alwan-what-exactly-is-mild-covid-19/>

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

**Title:** New service launched in Newport to help Covid patients recover

Source: Channel 4 News | Published online 27th July 2020

For coronavirus patients who have been treated in hospital, being discharged is often not the end of their ordeal. Especially for the thousands of people who have been critically ill and ventilated, many of them needing extensive rehabilitation. At the national velodrome of Wales in Newport, a new service has been launched to help people through their physical and psychological recovery. It is also enabling survivors to share their experiences with others going through the same process.

<https://www.channel4.com/news/new-service-launched-in-newport-to-help-covid-patients-recover>

**Title:** FIRST FACE TO FACE POST COVID CRITICAL CARE REHAB CLASS

Source: Nottingham University Hospitals NHS Trust | Published online29th July 2020

‘First face to face post COVID crit care rehab class today!! So amazing to see these patients back and the camaraderie was so great to see’. Clair Martin, Critical Care AP Physio

<https://twitter.com/ClairMcBain1/status/1288532870038986752>

**Title:** first assessments for post COVID rehab: University Hospitals, Leicester

Source: Nottingham University Hospitals NHS Trust | Published online 13th July 2020

‘Today we completed our first assessments for post COVID rehab. Still lots of rehab needs and lots for us to learn. Inspiring outlook from patients. Looking forward to helping the patients on their journey to recovery.’

Enya Daynes, Specialist Pulmonary Rehabilitation and Research Physiotherapist. UHL/NIHR BRC

<https://twitter.com/EnyaDaynesPT/status/1282670348475998208>

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‘First face to face post COVID crit care rehab class today!! So amazing to see these patients back and the camaraderie was so great to see’. Clair Martin, Critical Care AP Physio

<https://twitter.com/ClairMcBain1/status/1288532870038986752>

**Title:** virtual follow up clinic, University hospitals Plymouth

Source: University Hospitals Plymouth | Published online 16th July 2020

‘Had a virtual follow up clinic today with some of our post ICU #COVID19 patients. It was amazing to hear they are smashing their rehab’

<https://twitter.com/PaulPhysioMinty/status/1283807166915371009>

**Title:** "SHOCKING": NEARLY ALL WHO RECOVERED FROM COVID-19 HAVE HEALTH ISSUES MONTHS LATER

Source: NL Times (The Netherlands). 12th June 2020

Many recovered coronavirus patients who did not need to be hospitalized are still facing serious health problems months later, according to a study commissioned by the Longfonds. While 94 percent say they do not feel as healthy as they did before the viral infection, some 60 percent of this group said they still have breathing symptoms which make it difficult to take a walk, and nearly half are unable to exercise, Longfonds director Michael Rutgers said in a statement. "We find this really shocking."

The Longfonds, treatment center CIRO, and Maastricht University surveyed 1,600 people who reported they had symptoms after recovering from the coronavirus. Rutgers said it was the first time that these patients have really come into the picture, as most were never treated in medical centers. Longfonds and CIRO said 91 percent of respondents were not hospitalized, and 43 percent were never formally tested for Covid-19, the respiratory disease caused by this SARS-CoV-2 coronavirus.

These recovered patients told researchers that they still suffer from symptoms like tightness in the chest, fatigue, headaches, or shortness of breath almost three months after recovering. 85 percent of participants said they were in good health before getting the coronavirus. Only six percent said that their health is back to what it was before their infection. The average age of those surveyed was 53.

<https://nltimes.nl/2020/06/12/shocking-nearly-recovered-covid-19-health-issues-months-later>

TITLE: THINK A 'MILD' CASE OF COVID-19 DOESN’T SOUND SO BAD? THINK AGAIN

Source: The Guardian | Published online 6th July 2020

Otherwise healthy people who thought they had recovered from coronavirus are reporting persistent and strange symptoms - including strokes. (References the Dutch Longfonds study).

<https://www.theguardian.com/commentisfree/2020/jul/06/coronavirus-covid-19-mild-symptoms-who>

**patient information:**

TITLE: after discharge with covid-19: website from chesterfield royal

Source: Chesterfield Royal NHS Foundation Trust, July 2020

Website linking to national resources and locally produced handouts (‘Life after COVID-19 General Ward’ and ‘Life after COVID-19 ICU’).

<https://www.chesterfieldroyal.nhs.uk/patients-and-visitors/coronavirus/after-discharge>

TITLE: Respiratory Physio: Breathlessness Management

Source: University Hospitals Birmingham, June 2020

# Video to support patients experiencing breathlessness from University Hospitals Birmingham

<https://vimeo.com/429276231/b183f5b265>

Title:your covid recovery: online resource goes live

Source: NHS| Launched 29th July 2020

As you find yourself recovering from COVID-19 you may still be coming to terms with the impact the virus has had on both your body and mind.

These changes should get better over time, some may take longer than others, but there are things you can do to help.

Your COVID Recovery helps you to understand what has happened and what you might expect as part of your recovery

Launch of Phase 1. Phase 2 will be an interactive tool for local services to use with their patients.

<https://www.yourcovidrecovery.nhs.uk/>

<https://www.england.nhs.uk/2020/07/nhs-to-launch-ground-breaking-online-covid-19-rehab-service/>

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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>