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

9th November 2020

**guidance**

**Title:** **NICE, SIGN AND RCGP SET OUT FURTHER DETAILS ABOUT THE UK GUIDELINE ON MANAGEMENT OF THE LONG-TERM EFFECTS OF COVID-19**

**Source**: NICE, 30th October 2020

The guideline scope published today defines post-COVID syndrome (also known as Long COVID) as signs and symptoms that develop during or following an infection consistent with COVID-19 which continue for more than 12 weeks and are not explained by an alternative diagnosis. It says the condition usually presents with clusters of symptoms, often overlapping, which may change over time and can affect any system within the body. It also notes that many people with post-COVID syndrome can also experience generalised pain, fatigue, persisting high temperature and psychiatric problems.

<https://www.nice.org.uk/news/article/nice-sign-and-rcgp-set-out-further-details-about-the-uk-guideline-on-management-of-the-long-term-effects-of-covid-19>

<https://www.nice.org.uk/guidance/gid-ng10179/documents/final-scope>

**evidence collections**

**Title:** **CORONAVIRUS (COVID-19): EVIDENCE RELEVANT TO CLINICAL REHABILITATION**

**Source:** Cochrane Library, 21 October 2020

This Special Collection is the result of collaboration within Cochrane Rehabilitation, with rigorous involvement from stakeholders: the Steering Committee of the REH-COVER (Rehabilitation COVID-19 Evidence-based Response) action and the Cochrane Rehabilitation Advisory Board. The agreed list of relevant conditions is the product of a structured prioritization process for identifying the list of conditions, and subsequently review inclusion, except post-traumatic stress disorder (PTSD), for which Cochrane Mental Health and Neuroscience was consulted.

This collaborative work identified the following conditions as relevant to the WHO rehabilitation programme:   
Acute respiratory distress syndrome (ARDS) and pulmonary restrictive syndrome  
Post-intensive care syndrome (PICS)  
Post-extubation swallowing disorders  
Multiple organ failure and shock  
PTSD, in the context of rehabilitation.

The Special Collection focuses on rehabilitation interventions for each of these conditions.

<https://www.cochranelibrary.com/collections/doi/SC000047/full>

**research papers**

**TITLE:** **RESPIRATORY FOLLOW-UP OF PATIENTS WITH COVID-19 PNEUMONIA**   
[REVIEW & GUIDANCE DOCUMENT]

Source: Thorax; Nov 2020; vol. 75 (no. 11); p. 1009-1016  
Author(s): George, Peter M; Barratt, Shaney L; Condliffe et al.

Abstract: The COVID-19 pandemic has led to an unprecedented surge in hospitalised patients with viral pneumonia. The most severely affected patients are older men, individuals of black and Asian minority ethnicity and those with comorbidities. COVID-19 is also associated with an increased risk of hypercoagulability and venous thromboembolism. The overwhelming majority of patients admitted to hospital have respiratory failure and while most are managed on general wards, a sizeable proportion require intensive care support. The long-term complications of COVID-19 pneumonia are starting to emerge but data from previous coronavirus outbreaks such as severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) suggest that some patients will experience long-term respiratory complications of the infection. With the pattern of thoracic imaging abnormalities and growing clinical experience, it is envisaged that interstitial lung disease and pulmonary vascular disease are likely to be the most important respiratory complications. There is a need for a unified pathway for the respiratory follow-up of patients with COVID-19 balancing the delivery of high-quality clinical care with stretched National Health Service (NHS) resources. In this guidance document, we provide a suggested structure for the respiratory follow-up of patients with clinicoradiological confirmation of COVID-19 pneumonia. We define two separate algorithms integrating disease severity, likelihood of long-term respiratory complications and functional capacity on discharge. To mitigate NHS pressures, virtual solutions have been embedded within the pathway as has safety netting of patients whose clinical trajectory deviates from the pathway. For all patients, we suggest a holistic package of care to address breathlessness, anxiety, oxygen requirement, palliative care and rehabilitation.

<https://thorax.bmj.com/content/75/11/1009.full>

**TITLE: BIDIRECTIONAL ASSOCIATIONS BETWEEN COVID-19 AND PSYCHIATRIC DISORDER: RETROSPECTIVE COHORT STUDIES OF 62 354 COVID-19 CASES IN THE USA**

Source: The Lancet Psychiatry, 9th November 2020

Summary. Background: Adverse mental health consequences of COVID-19, including anxiety and depression, have been widely predicted but not yet accurately measured. There are a range of physical health risk factors for COVID-19, but it is not known if there are also psychiatric risk factors. In this electronic health record network cohort study using data from 69 million individuals, 62 354 of whom had a diagnosis of COVID-19, we assessed whether a diagnosis of COVID-19 (compared with other health events) was associated with increased rates of subsequent psychiatric diagnoses, and whether patients with a history of psychiatric illness are at a higher risk of being diagnosed with COVID-19.

Methods: We used the TriNetX Analytics Network, a global federated network that captures anonymised data from electronic health records in 54 health-care organisations in the USA, totalling 69·8 million patients. TriNetX included 62 354 patients diagnosed with COVID-19 between Jan 20, and Aug 1, 2020. We created cohorts of patients who had been diagnosed with COVID-19 or a range of other health events. We used propensity score matching to control for confounding by risk factors for COVID-19 and for severity of illness. We measured the incidence of and hazard ratios (HRs) for psychiatric disorders, dementia, and insomnia, during the first 14 to 90 days after a diagnosis of COVID-19.

Findings: In patients with no previous psychiatric history, a diagnosis of COVID-19 was associated with increased incidence of a first psychiatric diagnosis in the following 14 to 90 days compared with six other health events (HR 2·1, 95% CI 1·8–2·5 vs influenza; 1·7, 1·5–1·9 vs other respiratory tract infections; 1·6, 1·4–1·9 vs skin infection; 1·6, 1·3–1·9 vs cholelithiasis; 2·2, 1·9–2·6 vs urolithiasis, and 2·1, 1·9–2·5 vs fracture of a large bone; all p<0·0001). The HR was greatest for anxiety disorders, insomnia, and dementia. We observed similar findings, although with smaller HRs, when relapses and new diagnoses were measured. The incidence of any psychiatric diagnosis in the 14 to 90 days after COVID-19 diagnosis was 18·1% (95% CI 17·6–18·6), including 5·8% (5·2–6·4) that were a first diagnosis. The incidence of a first diagnosis of dementia in the 14 to 90 days after COVID-19 diagnosis was 1·6% (95% CI 1·2–2·1) in people older than 65 years. A psychiatric diagnosis in the previous year was associated with a higher incidence of COVID-19 diagnosis (relative risk 1·65, 95% CI 1·59–1·71; p<0·0001). This risk was independent of known physical health risk factors for COVID-19, but we cannot exclude possible residual confounding by socioeconomic factors.

Interpretation: Survivors of COVID-19 appear to be at increased risk of psychiatric sequelae, and a psychiatric diagnosis might be an independent risk factor for COVID-19. Although preliminary, our findings have implications for clinical services, and prospective cohort studies are warranted.

<https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(20)30462-4/fulltext>

**TITLE: PERSISTENT SYMPTOMS AFTER COVID-19: QUALITATIVE STUDY OF 114 “LONG COVID” PATIENTS AND DRAFT QUALITY CRITERIA FOR SERVICES**

E. Ladds, A. Rushforth, S. Wieringa, S. Taylor, C. Rayner, L. Husain, T. Greenhalgh.

Source: Non peer-reviewed preprint from the medRxiv server | Published online 14th October 2020

[*This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should*not*be used to guide clinical practice.*](https://www.medrxiv.org/content/what-unrefereed-preprint)

Abstract Background Approximately 10% of patients with Covid-19 experience symptoms beyond 3-4 weeks. Patients call this “long Covid”. We sought to document the lived experience of such patients, their accounts of accessing and receiving healthcare, and their ideas for improving services. Method We held 55 individual interviews and 8 focus groups (n = 59) with people recruited from UK-based long Covid patient support groups, social media and snowballing. We restricted some focus groups to health professionals since they had already self-organised into online communities. Participants were invited to tell their personal stories and comment on others’ stories. Data were audiotaped, transcribed, anonymised and coded using NVIVO. Analysis incorporated sociological theories of illness, healing, peer support, the clinical relationship, access to care, and service redesign. Results The sample was 70% female, aged 27-73 years, and comprised White British (74%), Asian (11%), White Other (7%), Black (4%), and Mixed (4%). 27 were doctors and 23 other health professionals. 10% had been hospitalised. Analysis revealed a confusing illness with many, varied and often relapsing-remitting symptoms and uncertain prognosis; a heavy sense of loss and stigma; difficulty accessing and navigating services; difficulty being taken seriously and achieving a diagnosis; disjointed and siloed care (including inability to access specialist services); variation in standards (e.g. inconsistent criteria for seeing, investigating and referring patients); variable quality of the therapeutic relationship (some participants felt well supported while others felt “fobbed off”); and possible critical events (e.g. deterioration after being unable to access services). Emotional touch points in participants’ experiences informed ideas for improving services. Conclusion Quality principles for a long Covid service should include ensuring access to care, reducing burden of illness, taking clinical responsibility and providing continuity of care, multi-disciplinary rehabilitation, evidence-based investigation and management, and further development of the knowledge base and clinical services.

<https://www.medrxiv.org/content/10.1101/2020.10.13.20211854v1>

**TITLE:** **REHABILITATION AND COVID-19: A RAPID LIVING SYSTEMATIC REVIEW 2020 BY COCHRANE REHABILITATION FIELD. UPDATE AS OF SEPTEMBER 30TH, 2020**

Source: European Journal of Physical and Rehabilitation Medicine; Oct 2020

Abstract: BACKGROUND The COVID-19 outbreak response requires identifying and understanding the long-term consequences of this new pathology, and how to manage these. This living systematic review presents the most current and seminal information coming from the scientific literature. It is the monthly update of the second edition of the rapid living systematic review 2020 conducted by Cochrane Rehabilitation REH-COVER Action Steering Committee. OBJECTIVE The aim of this review is to update the monthly COVID-19 and rehabilitation literature research up to September 30th, 2020…

CONCLUSIONS The most recently published COVID-19 research focuses more on describing the clinical presentations and the natural history of the pathology, rather than rehabilitation interventions or service delivery. Studies with high levels of evidence regarding the efficacy of interventions, long-term monitoring, or new organization models remain lacking.

<https://pubmed.ncbi.nlm.nih.gov/33118719/>

**TITLE:** **NEUROCOVID-19: A CLINICAL NEUROSCIENCE-BASED APPROACH TO REDUCE SARS-COV-2 RELATED MENTAL HEALTH SEQUELAE**

Source: Journal of Psychiatric Research; Nov 2020; vol. 130 ; p. 215-217

Abstract: Coronavirus Disease 2019 (COVID-19), caused by SARS-CoV-2, is a disaster due to not only its psychosocial impact but it also to its direct effects on the brain. The latest evidence suggests it has neuroinvasive mechanisms, in addition to neurological manifestations, and as seen in past pandemics, long-term sequelae are expected. Specific and well-structured interventions are necessary, and that's why it's important to ensure a continuity between primary care, emergency medicine, and psychiatry. Evidence shows that 2003 SARS (Severe Acute Respiratory Syndrome) survivors developed persistent psychiatric comorbidities after the infection, in addition to Chronic Fatigue Syndrome. A proper stratification of patients according not only to psychosocial factors but also an inflammatory panel and SARS-Cov-2's direct effects on the central nervous system (CNS) and the immune system, may improve outcomes. The complexity of COVID-19's pathology and the impact on the brain requires appropriate screening that has to go beyond the psychosocial impact, taking into account how stress and neuroinflammation affects the brain. This is a call for a clinical multidisciplinary approach to treat and prevent Sars-Cov-2 mental health sequelae.

<https://www.sciencedirect.com/science/article/pii/S0022395620309195>

**TITLE:** **COVID-19 REHABILITATION DELIVERED VIA A TELEHEALTH PULMONARY REHABILITATION MODEL: A CASE SERIES**

Source: Respirology Case Reports; Nov 2020; vol. 8 (no. 8); p. e00669

Abstract: International statements have suggested the pulmonary rehabilitation (PR) model as an appropriate rehabilitation option for people recovering from coronavirus disease 2019 (COVID-19). In this case series, we present our COVID-19 telehealth rehabilitation programme, delivered within a PR setting, and discuss the management of our first three cases. All patients were male, with a median age of 73 years. Following hospital discharge, the patients presented with persistent limitations and/or symptoms (e.g. breathlessness, fatigue, and reduced exercise capacity) which warranted community-based rehabilitation. Patients were assessed and provided with an initial six-week rehabilitation programme supported via telehealth using a treatable traits approach. Patients demonstrated improvements in exercise capacity and breathlessness; however, fatigue levels worsened in two cases and this was attributed to the difficulties of managing returning to work and/or carer responsibilities whilst trying to recover from a severe illness. We found that PR clinicians were well prepared and able to provide an individualized rehabilitation programme for people recovering from COVID-19.

<https://onlinelibrary.wiley.com/doi/full/10.1002/rcr2.669>

**TITLE:** **LONG-TERM SEQUELAE FOLLOWING PREVIOUS CORONAVIRUS EPIDEMICS**

Source: Clinical Medicine (London, England); Nov 2020

Abstract: Before the current pandemic, there had been two global epidemics from major coronavirus outbreaks since the turn of the century: severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV). Both epidemics left survivors with fatigue, persistent shortness of breath, reduced quality of life and a significant burden of mental health problems. It is likely that some of the chronic problems encountered by survivors of SARS and MERS may be relevant for medical planning of the services required for survivors of coronavirus disease 2019 (COVID-19) caused by the novel coronavirus SARS-CoV-2. Given the similarities between the diseases, the recovery and rehabilitation of the survivors of COVID-19 is likely to be focused around cardiopulmonary sequelae, fatigue and the psychological burden of COVID-19, but in a much larger population.

<https://www.rcpjournals.org/content/clinmedicine/early/2020/11/02/clinmed.2020-0204>

**TITLE:** **DISCHARGE MAY NOT BE THE END OF TREATMENT: PAY ATTENTION TO PULMONARY FIBROSIS CAUSED BY SEVERE COVID-19**

Source: Journal of Medical Virology; Oct 2020

Abstract: Since December 2019, COVID-19 has rapidly swept the world. So far, more than 30 million people have been infected and nearly one million have died. Although the world is still in the stage of COVID-19 pandemic, the treatment of new cases and critically ill patients is the focus of the current work. However, COVID-19 patients lead to pulmonary fibrosis, such a serious threat to the prognosis of complications were also worthy of our attention. First of all, we proposed the possible mechanism of pulmonary fibrosis caused by SARS-CoV-2, based on the published data of COVID-19 (①Direct evidence: pulmonary fibrosis was found in autopsy and pulmonary puncture pathology.②Indirect evidence: increased levels of fibrosis-related cytokines[TGF- β, TNF- α, IL-6, etc.] in peripheral blood of severe patients.). What's more, we summarized the role of three fibrosis-related signaling pathways (TGF- β signal pathway, WNT signal pathway and YAP/TAZ signal pathway) in pulmonary fibrosis. Finally, we suggested the therapeutic value of two drugs (Pirfenidone and Nintedanib) for idiopathic pulmonary fibrosis in COVID-19-induced pulmonary fibrosis.

<https://onlinelibrary.wiley.com/doi/full/10.1002/jmv.26634>

**TITLE:** **CHEST PHYSIOTHERAPY: AN IMPORTANT ADJUVANT IN CRITICALLY ILL MECHANICALLY VENTILATED PATIENTS WITH COVID-19**

Source: Respiratory Physiology & Neurobiology; Nov 2020; vol. 282 ; p. 103529

Abstract: In late 2019, an outbreak of a novel human coronavirus causing respiratory disease was identified in Wuhan, China. The virus spread rapidly worldwide, reaching pandemic status. Chest computed tomography scans of patients with coronavirus disease-2019 (COVID-19) have revealed different stages of respiratory involvement, with extremely variable lung presentations, which require individualized ventilatory strategies in those who become critically ill. Chest physiotherapy has proven to be effective for improving long-term respiratory physical function among ICU survivors. The ARIR recently reported the role of chest physiotherapy in the acute phase of COVID-19, pointing out limitation of some procedures due to the limited experience with this disease in the ICU setting. Evidence on the efficacy of chest physiotherapy in COVID-19 is still lacking. In this line, the current review discusses the important role of chest physiotherapy in critically ill mechanically ventilated patients with COVID-19, around the weaning process, and how it can be safely applied with careful organization, including the training of healthcare staff and the appropriate use of personal protective equipment to minimize the risk of viral exposure.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7430249/>

**TITLE:** **CHEST CT FINDINGS AFTER 4 MONTHS FROM THE ONSET OF COVID-19 PNEUMONIA: A CASE SERIES**

Source: Diagnostics (Basel, Switzerland); Nov 2020; vol. 10 (no. 11

Abstract: Coronavirus disease 2019 (COVID-19) is an infectious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Although the reference standard for SARS-CoV-2 diagnosis is real-time reverse transcription polymerase chain reaction (RT-PCR), computed tomography (CT) is recommended for both initial evaluation and follow-up. There is a growing body of published evidence about CT evolution during the course of COVID-19 pneumonia. Here, we report six confirmed cases of COVID-19 patients who underwent unenhanced chest CT on admission and after 4 months from the onset of symptoms. Chest-CT at first admission showed the typical CT features of COVID-19. Interestingly, the follow-up CT revealed the persistence of lung abnormalities in five cases even if all the patients were completely asymptomatic. Further studies are needed for a comprehensive understanding of the disease progression and the resulting late imaging modifications.

**TITLE:** **COVID-19 CARDIAC INJURY: IMPLICATIONS FOR LONG-TERM SURVEILLANCE AND OUTCOMES IN SURVIVORS**

Source: Heart Rhythm; Nov 2020; vol. 17 (no. 11); p. 1984-1990

Abstract: Up to 20%-30% of patients hospitalized with coronavirus disease 2019 (COVID-19) have evidence of myocardial involvement. Acute cardiac injury in patients hospitalized with COVID-19 is associated with higher morbidity and mortality. There are no data on how acute treatment of COVID-19 may affect the convalescent phase or long-term cardiac recovery and function. Myocarditis from other viral pathogens can evolve into overt or subclinical myocardial dysfunction, and sudden death has been described in the convalescent phase of viral myocarditis. This raises concerns for patients recovering from COVID-19. Some patients will have subclinical and possibly overt cardiovascular abnormalities. Patients with ostensibly recovered cardiac function may still be at risk of cardiomyopathy and cardiac arrhythmias. Screening for residual cardiac involvement in the convalescent phase for patients recovered from COVID-19-associated cardiac injury is needed. The type of testing and therapies for post COVID-19 myocardial dysfunction will need to be determined. Therefore, now is the time to plan for appropriate registries and clinical trials to properly assess these issues and prepare for long-term sequelae of "post-COVID-19 cardiac syndrome."

<https://www.heartrhythmjournal.com/article/S1547-5271(20)30625-1/fulltext>

**TITLE:** **WHY SEVERE COVID-19 PATIENTS ARE AT GREATER RISK OF DEVELOPING DEPRESSION: A MOLECULAR PERSPECTIVE**

Source: The Neuroscientist : a review journal bringing neurobiology, neurology and psychiatry; Nov 2020 ; p. 1073858420967892

Abstract: The prevailing evidence suggests that patients with severe COVID-19 seem to have an overreaction of the immune system demonstrating exacerbated levels of inflammation caused by a "cytokine storm." At this early stage, the mechanisms underpinning COVID-19 are still subject to intense scrutiny and the long-term mental health consequences as a result of the disease are unknown. Here we discuss the hypothesis that patients who survive severe COVID-19 and who experience significant activation of the immune system, are at greater risk of developing depression. We posit that a phenomenon known as cytokine storm dramatically activates the enzyme indoleamine 2,3-dioxygenase (IDO-1), resulting in the increase in kynurenine metabolites. Kynurenine is metabolized by IDO-1 in the brain, producing chemokines, in which a prolonged exposure may result long-term brain impairment. In this article, we also propose the possibility that a SARS-CoV-2 neuroinvasion increases the local levels of angiotensin II by angiotensin-converting enzyme 2 down-regulation. Thereby, angiotensin II could increase kynurenine metabolites producing pro-oxidative and pro-inflammatory effects, resulting in impairment of cognitive function, enhanced oxidative stress and decreased brain-derived neurotrophic factor. It is our premise that patients who experience such a cytokine storm may be at increased risk of long-term mental illness, such as depression.

<https://pubmed.ncbi.nlm.nih.gov/33135582/>

**TITLE:** **SARS-COV-2 (COVID-19) AND THE ENDOCRINE SYSTEM**

Source: Journal of the Endocrine Society; Nov 2020; vol. 4 (no. 11); p. bvaa144

Abstract: As SARS-CoV-2 (COVID-19) overtakes the world, causing moderate to severe disease in about 15% of infected patients, COVID-19 is also found to have widespread effects throughout the body with a myriad of clinical manifestations including the endocrine system. This manuscript reviews what is known about the impact of COVID-19 on the pathophysiology and management of diabetes (both outpatient and inpatient) as well as pituitary, adrenal, thyroid, bone, and gonadal function. Findings in this area are evolving, and long-term effects of infection remain an active area of further research.

<https://academic.oup.com/jes/article/4/11/bvaa144/5916481>

**TITLE:** **COVERT SUBCLINICAL NEUROCOGNITIVE SEQUELAE DURING THE REHABILITATION COURSE OF SEVERE CORONAVIRUS DISEASE 2019: A CASE REPORT**

Source: American Journal of Physical Medicine & Rehabilitation; Oct 2020

Abstract: Apart from respiratory symptoms, encephalopathy and a range of central nervous system complications have been described in COVID-19 (Coronavirus Disease 2019). However, there is a lack of published literature on the rehabilitative course and functional outcomes of severe COVID-19 with encephalopathy. Additionally, the presence of subclinical neurocognitive sequelae during post-acute rehabilitation has not been described and may be under-recognized by rehabilitation providers. We report the rehabilitative course of a middle-aged male patient with severe COVID-19 who required intensive care and mechanical ventilation. During post-acute inpatient rehabilitation for severe ICU-related weakness, an abnormal cognitive screen prompted brain MRI imaging which revealed destructive leukoencephalopathy. Subsequently, detailed psychometric evaluation revealed significant impairments in the domains of processing speed and executive function. After 40 days of intensive inpatient rehabilitation, he was discharged home with independent function. This report highlights the need for an increased awareness of covert subclinical neurocognitive sequalae, the role of comprehensive rehabilitation and value of routine cognitive screening therein; and describes the neurocognitive features in severe COVID-19.

<https://journals.lww.com/ajpmr/Abstract/9000/Covert_Subclinical_Neurocognitive_Sequelae_during.97829.aspx>

**TITLE:** **LUNG ULTRASOUND MAY SUPPORT DIAGNOSIS AND MONITORING OF COVID-19 PNEUMONIA**

Source: Ultrasound in medicine & biology; Nov 2020; vol. 46 (no. 11); p. 2908-2917

Abstract: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) disease (COVID-19) is characterized by severe pneumonia and/or acute respiratory distress syndrome in about 20% of infected patients. Computed tomography (CT) is the routine imaging technique for diagnosis and monitoring of COVID-19 pneumonia. Chest CT has high sensitivity for diagnosis of COVID-19, but is not universally available, requires an infected or unstable patient to be moved to the radiology unit with potential exposure of several people, necessitates proper sanification of the CT room after use and is underutilized in children and pregnant women because of concerns over radiation exposure. The increasing frequency of confirmed COVID-19 cases is striking, and new sensitive diagnostic tools are needed to guide clinical practice. Lung ultrasound (LUS) is an emerging non-invasive bedside technique that is used to diagnose interstitial lung syndrome through evaluation and quantitation of the number of B-lines, pleural irregularities and nodules or consolidations. In patients with COVID-19 pneumonia, LUS reveals a typical pattern of diffuse interstitial lung syndrome, characterized by multiple or confluent bilateral B-lines with spared areas, thickening of the pleural line with pleural line irregularity and peripheral consolidations. LUS has been found to be a promising tool for the diagnosis of COVID-19 pneumonia, and LUS findings correlate fairly with those of chest CT scan. Compared with CT, LUS has several other advantages, such as lack of exposure to radiation, bedside repeatability during follow-up, low cost and easier application in low-resource settings. Consequently, LUS may decrease utilization of conventional diagnostic imaging resources (CT scan and chest X-ray). LUS may help in early diagnosis, therapeutic decisions and follow-up monitoring of COVID-19 pneumonia, particularly in the critical care setting and in pregnant women, children and patients in areas with high rates of community transmission.

<https://www.sciencedirect.com/science/article/pii/S0301562920303331#:~:text=LUS%20may%20be%20a%20first,high%20rates%20of%20community%20transmission>

**news, correspondence & SERVICE DEVelopments**

**TITLE: LONG COVID COULD BE FOUR DIFFERENT SYNDROMES, REVIEW SUGGESTS**

Source: BMA News | Published online 14th October 2020

Long covid, the name commonly used to explain lasting effects of covid-19, may actually be four different syndromes, according to a review by the National Institute for Health Research (NIHR). A team of researchers and doctors reviewed current evidence and interviewed post-hospitalised and non-hospitalised patients and reported that long covid did not seem to fit as one syndrome. They suggested that people experiencing long term effects of covid-19 may have different syndromes such as post-intensive care syndrome, post-viral fatigue syndrome, and long term covid syndrome.

<https://www.bmj.com/content/371/bmj.m3981>

**TITLE: CHARACTERISING NEUROPSYCHIATRIC DISORDERS IN PATIENTS WITH COVID-19 [CORRESPONDENCE]**

Source: BMA News | Published online 14th October 2020

Extract: As a group of senior National Health Service critical care psychologists and consultants, we would like to respond to the Article by Aravinthan Varatharaj and colleagues1 published in The Lancet Psychiatry. We congratulate the authors on conducting the first UK study of neurological and psychiatric complications of COVID-19 in 153 patients. However, we are concerned about the interpretation of the data on altered mental status, found in 37 patients. … Because the study was done with hospitalised patients who underwent only brief screening, the patients were likely to have been exhibiting acute symptoms, such as hallucinations and delusions, that are typical in patients with acute respiratory distress syndrome or other critical illness.2 Although these experiences are similar to positive psychosis symptoms, in critical care they are usually temporary aspects of delirium, a syndrome affecting 50% to 80% of intensive care unit (ICU) patients of all ages … The British Psychological Society and the Faculty of Intensive Care Medicine recommend that psychological difficulties following severe COVID-19 disease are managed by multidisciplinary rehabilitation teams with embedded psychologists. Large multicentre cohort studies of psychological outcomes and risk factors of patients with severe COVID-19 are urgently needed to provide more information.

<https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(20)30380-1/fulltext>

**TITLE: LONG-TERM HEALTH CONSEQUENCES OF COVID-19**

Carlos der Rio et al.  
Source: JAMA Viewpoint, 5th October 2020  
  
Extract:  
The most commonly reported symptoms after acute COVID-19 are fatigue and dyspnea. Other common symptoms include joint pain and chest pain. In addition to these general symptoms, specific organ dysfunction has been reported, involving primarily the heart, lungs, and brain. From a pathogenesis standpoint, these complications could be the consequence of direct tissue invasion by the virus (possibly mediated by the presence of angiotensin-converting enzyme 2 receptor), profound inflammation and cytokine storm, related immune system damage, the hypercoagulable state described in association with severe COVID-19, or a combination of these factors. [Article goes on to discuss cardiovascular, pulmonary, neurologic and emotional health and well-being long term effects].

<https://jamanetwork.com/journals/jama/fullarticle/2771581>

**TITLE: COVID RELATIVES PEER SUPPORT**

Fiona Hall, Senior ICU nurse at GICU University Hospitals Southampton, UK. Lead for icu follow up, patient experience team and post icu peer support,  
Source: Twitter, 5th November 2020

‘Covid Relatives peer support. Several spouses and children of covid patients (ventilated in ICU) met online. They found benefit in seeing others and discussing common issues and worries with those who have had a similar emotional journey’.

<https://twitter.com/followupfi/status/1324451530305638403>

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We

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