# Evidence Search Service Results of your search request

## [PH Bulletin] COVID post-discharge support

**ID of request:** 22718  
**Date of request:** 15th April, 2020  
**Date of completion:** 15th April, 2020

If you would like to request any articles or any further help, please contact:  Lisa Burscheidt at [library@nelft.nhs.uk](mailto:library@nelft.nhs.uk)

Please acknowledge this work in any resulting paper or presentation as: Evidence search: [PH Bulletin] COVID post-discharge support. Lisa Burscheidt. (15th April, 2020). ILFORD, UK: Aubrey Keep Library and Knowledge Service.

**Sources searched**  
2020 Mar 12 (1)

**Date range used** (5 years, 10 years): 2020-2020   
**Limits used** (gender, article/study type, etc.): English   
**Search terms and notes** (full search strategy for database searches below):

CEBM COVID searches: discharge. proportion

LitCovid: post-discharge, case fatality, recovery, discharge rate

CCG COVID for Commissioners site:

Data source: https://www.worldometers.info/coronavirus/

For more information about the resources please go to: <http://www.nelft.nhs.uk/library>.

## Summary of Results

There is little to no available reliable data on this. There are varying estimates of case fatality rates, explained in detail here:

https://www.cebm.net/covid-19/global-covid-19-case-fatality-rates/

A post from CEBM from two days ago states that we have no data on how many people are discharged with/after diagnosis of COVID https://www.cebm.net/covid-19/are-covid-19-patients-in-hospital-or-admitted-to-hospital/

Best evidence I can come up with:

[COVID-19 patients' clinical characteristics, discharge rate, and fatality rate of meta-analysis.](file:///C:\Users\elain\Downloads\index.php%3fPageID=literature_search_request_assigned&RequestID=22718) - this is an analysis of the Chinese situation. However this is from the early stages of the pandemic so there are papers in here where they might have kept patients in hospital (as you do with people with infectious diseases, so they can recover and not spread it to their communities) who would now be discharged once asymptomatic/recovered and told to self-isolate.

[Home and Community-Based Physical Therapist Management of Adults With Post-Intensive Care Syndrome.](file:///C:\Users\elain\Downloads\index.php%3fPageID=literature_search_request_assigned&RequestID=22718)

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## A. Original Research

1. **A Comprehensive Literature Review on the Clinical Presentation, and Management of the Pandemic Coronavirus Disease 2019 (COVID-19).**  
   Anon. Cureus 2020;:No page numbers.

Coronavirus disease 2019 (COVID-19) is a declared global pandemic. There are multiple parameters of the clinical course and management of the COVID-19 that need optimization. A hindrance to this development is the vast amount of misinformation present due to scarcely sourced manuscript preprints and social media. This literature review aims to presents accredited and the most current studies pertaining to the basic sciences of SARS-CoV-2, clinical presentation and disease course of COVID-19, public health interventions, and current epidemiological developments. The review on basic sciences aims to clarify the jargon in virology, describe the virion structure of SARS-CoV-2 and present pertinent details relevant to clinical practice. Another component discussed is the brief history on the series of experiments used to explore the origins and evolution of the phylogeny of the viral genome of SARS-CoV-2. Additionally, the clinical and epidemiological differences between COVID-19 and other infections causing outbreaks (SARS, MERS, H1N1) are elucidated. Emphasis is placed on evidence-based medicine to evaluate the frequency of presentation of various symptoms to create a stratification system of the most important epidemiological risk factors for COVID-19. These can be used to triage and expedite risk assessment. Furthermore, the limitations and statistical strength of the diagnostic tools currently in clinical practice are evaluated. Criteria on rapid screening, discharge from hospital and discontinuation of self-quarantine are clarified. Epidemiological factors influencing the rapid rate of spread of the SARS-CoV-2 virus are described. Accurate information pertinent to improving prevention strategies is also discussed. The penultimate portion of the review aims to explain the involvement of micronutrients such as vitamin C and vitamin D in COVID19 treatment and prophylaxis. Furthermore, the biochemistry of the major candidates for novel therapies is briefly reviewed and a summary of their current status in the clinical trials is presented. Lastly, the current scientific data and status of governing bodies such as the Center of Disease Control (CDC) and the WHO on the usage of controversial therapies such as angiotensin-converting enzyme (ACE) inhibitors, nonsteroidal anti-inflammatory drugs (NSAIDs) (Ibuprofen), and corticosteroids usage in COVID-19 are discussed. The composite collection of accredited studies on each of these subtopics of COVID-19 within this review will enable clarification and focus on the current status and direction in the planning of the management of this global pandemic.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=9b6d003b0d20071034a38b39b73c0c52)

1. **Are we facing a crashing wave of neuropsychiatric sequelae of COVID-19? Neuropsychiatric symptoms and potential immunologic mechanisms☆.**  
   Troyer EA 2020;(1090-2139 (Electronic)):No page numbers.

•The COVID-19 pandemic is a significant source of psychological distress globally.•The novel coronavirus and host immunologic response may also directly affect brain and behavior.•Acute and delayed neuropsychiatric sequelae have been associated with past viral pandemics.•Prospective monitoring of COVID-19 patients is needed to determine neuropsychiatric outcomes.•A psychoneuroimmunology perspective will aid in promoting post-pandemic public mental health.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=5f21c9933578184d3628c299e064673d)

1. **Baseline Characteristics and Outcomes of 1591 Patients Infected With SARS-CoV-2 Admitted to ICUs of the Lombardy Region, Italy.**  
   Anon. JAMA 2020;:No page numbers.

Importance: In December 2019, a novel coronavirus (severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2]) emerged in China and has spread globally, creating a pandemic. Information about the clinical characteristics of infected patients who require intensive care is limited. Objective: To characterize patients with coronavirus disease 2019 (COVID-19) requiring treatment in an intensive care unit (ICU) in the Lombardy region of Italy. Design, Setting, and Participants: Retrospective case series of 1591 consecutive patients with laboratory-confirmed COVID-19 referred for ICU admission to the coordinator center (Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy) of the COVID-19 Lombardy ICU Network and treated at one of the ICUs of the 72 hospitals in this network between February 20 and March 18, 2020. Date of final follow-up was March 25, 2020. Exposures: SARS-CoV-2 infection confirmed by real-time reverse transcriptase-polymerase chain reaction (RT-PCR) assay of nasal and pharyngeal swabs. Main Outcomes and Measures: Demographic and clinical data were collected, including data on clinical management, respiratory failure, and patient mortality. Data were recorded by the coordinator center on an electronic worksheet during telephone calls by the staff of the COVID-19 Lombardy ICU Network. Results: Of the 1591 patients included in the study, the median (IQR) age was 63 (56-70) years and 1304 (82%) were male. Of the 1043 patients with available data, 709 (68%) had at least 1 comorbidity and 509 (49%) had hypertension. Among 1300 patients with available respiratory support data, 1287 (99% [95% CI, 98%-99%]) needed respiratory support, including 1150 (88% [95% CI, 87%-90%]) who received mechanical ventilation and 137 (11% [95% CI, 9%-12%]) who received noninvasive ventilation. The median positive end-expiratory pressure (PEEP) was 14 (IQR, 12-16) cm H2O, and Fio2 was greater than 50% in 89% of patients. The median Pao2/Fio2 was 160 (IQR, 114-220). The median PEEP level was not different between younger patients (n = 503 aged </=63 years) and older patients (n = 514 aged >/=64 years) (14 [IQR, 12-15] vs 14 [IQR, 12-16] cm H2O, respectively; median difference, 0 [95% CI, 0-0]; P = .94). Median Fio2 was lower in younger patients: 60% (IQR, 50%-80%) vs 70% (IQR, 50%-80%) (median difference, -10% [95% CI, -14% to 6%]; P = .006), and median Pao2/Fio2 was higher in younger patients: 163.5 (IQR, 120-230) vs 156 (IQR, 110-205) (median difference, 7 [95% CI, -8 to 22]; P = .02). Patients with hypertension (n = 509) were older than those without hypertension (n = 526) (median [IQR] age, 66 years [60-72] vs 62 years [54-68]; P < .001) and had lower Pao2/Fio2 (median [IQR], 146 [105-214] vs 173 [120-222]; median difference, -27 [95% CI, -42 to -12]; P = .005). Among the 1581 patients with ICU disposition data available as of March 25, 2020, 920 patients (58% [95% CI, 56%-61%]) were still in the ICU, 256 (16% [95% CI, 14%-18%]) were discharged from the ICU, and 405 (26% [95% CI, 23%-28%]) had died in the ICU. Older patients (n = 786; age >/=64 years) had higher mortality than younger patients (n = 795; age </=63 years) (36% vs 15%; difference, 21% [95% CI, 17%-26%]; P < .001). Conclusions and Relevance: In this case series of critically ill patients with laboratory-confirmed COVID-19 admitted to ICUs in Lombardy, Italy, the majority were older men, a large proportion required mechanical ventilation and high levels of PEEP, and ICU mortality was 26%.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=4785bc3d1b51fe848377b29fe3df117d)

1. **COVID-19 patients' clinical characteristics, discharge rate, and fatality rate of meta-analysis.**  
   Anon. J Med Virol 2020;:No page numbers.

The aim of this study was to analyze the clinical data, discharge rate, and fatality rate of COVID-19 patients for clinical help. The clinical data of COVID-19 patients from December 2019 to February 2020 were retrieved from four databases. We statistically analyzed the clinical symptoms and laboratory results of COVID-19 patients and explained the discharge rate and fatality rate with a single-arm meta-analysis. The available data of 1994 patients in 10 literatures were included in our study. The main clinical symptoms of COVID-19 patients were fever (88.5%), cough (68.6%), myalgia or fatigue (35.8%), expectoration (28.2%), and dyspnea (21.9%). Minor symptoms include headache or dizziness (12.1%), diarrhea (4.8%), nausea and vomiting (3.9%). The results of the laboratory showed that the lymphocytopenia (64.5%), increase of C-reactive protein (44.3%), increase of lactic dehydrogenase (28.3%), and leukocytopenia (29.4%) were more common. The results of single-arm meta-analysis showed that the male took a larger percentage in the gender distribution of COVID-19 patients 60% (95% CI [0.54, 0.65]), the discharge rate of COVID-19 patients was 42% (95% CI [0.29, 0.55]), and the fatality rate was 5% (95% CI [0.01,0.11]).

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=1adda14ead249d963652bc247293d6dc)

1. **Home and Community-Based Physical Therapist Management of Adults With Post-Intensive Care Syndrome.**  
   Anon. Phys Ther 2020;:No page numbers.

More than 4 million adults survive a stay in the intensive care unit each year, with many experiencing new or worsening physical disability, mental health problems, and/or cognitive impairments, known as the post-intensive care syndrome (PICS). Given the prevalence and magnitude of physical impairments after critical illness, many survivors, including those recovering from COVID-19, could benefit from physical therapist services after hospital discharge. However, due to the relatively recent recognition and characterization of PICS, there may be limited awareness and understanding of PICS among physical therapists practicing in home healthcare and community-based settings. This lack of awareness may lead to inappropriate and/or inadequate rehabilitation service provision. While this perspective article provides information relevant to all physical therapists, it is aimed toward those providing rehabilitation services outside of the acute and post-acute inpatient settings. This article reports the prevalence and clinical presentation of PICS and provides recommendations for physical examination and outcomes measures, plan of care, and intervention strategies. The importance of providing patient and family education, coordinating community resources including referring to other healthcare team members, and community-based rehabilitation service options is emphasized. Finally, this perspective article discusses current challenges for optimizing outcomes for people with PICS and suggests future directions for research and practice.

1. **Novel Coronavirus Pneumonia (COVID-19) Progression Course in 17 Discharged Patients: Comparison of Clinical and Thin-Section CT Features During Recovery.**  
   Anon. Clin Infect Dis 2020;:No page numbers.

BACKGROUND: To retrospectively analyze the evolution of clinical features and thin-section CT imaging of novel coronavirus pneumonia (COVID-19) in 17 discharged patients. METHODS: Serial thin-section CT scans of 17 discharged patients with COVID-19 were obtained during recovery. Longitudinal changes of clinical parameters and CT pattern were documented in all patients during 4 weeks since admission. CT score was used to evaluate the extent of the disease. RESULTS: There was a marked improvement of fever, lymphocytes count, C-reactive protein and erythrocyte sedimentation rate within the first two weeks since admission. However, the mean CT score rapidly increased from the 1st to 3rd week, with a top score of 8.2 obtained in the 2nd week. During the 1st week, the main CT pattern was ground-glass opacities (GGO,76.5%). The frequency of GGO (52.9%) decreased in the 2nd week. Consolidation and mixed patterns (47.0%) were noted in the 2nd week. Thereafter, consolidations generally dissipated into GGO and the frequency of GGO increased in the 3rd week (76.5%) and 4th week (71.4%). Opacities were mainly located in the peripheral (76.5%), subpleural (47.1%) zones of the lungs, and presented as focal (35.3%) or multifocal (29.4%) in the 1st week and became more diffuse in the 2nd (47.1%) and 3rd week (58.8%), then showed reduced extent in 4th week (50%). CONCLUSIONS: The progression course of CT pattern was later than the clinical parameters within the first two weeks since admission; however, there was a synchronized improvement in both clinical and radiologic features in the 4th week.

1. **Post-discharge surveillance and positive virus detection in two medical staff recovered from coronavirus disease 2019 (COVID-19), China, January to February 2020.**  
   Xing Y. 2020;(1560-7917 (Electronic)):No page numbers.

Since December 2019, 62 medical staff of Zhongnan Hospital in Wuhan, China have been hospitalised with coronavirus disease 2019. During the post-discharge surveillance after clinical recovery, swabs were positive in two asymptomatic cases (3.23%). Case 1 had presented typical clinical and radiological manifestations on admission, while manifestation in Case 2 was very mild. In conclusion, a small proportion of recovered patients may test positive after discharge, and post-discharge surveillance and isolation need to be strengthened.

1. **Rehabilitation following critical illness in people with COVID-19 infection.**  
   Anon. Am J Phys Med Rehabil 2020;:No page numbers.

The current COVID-19 pandemic will place enormous pressure on healthcare systems around the world. Large numbers of people are predicted to become critically ill with acute respiratory distress syndrome (ARDS) and will require management in intensive care units (ICUs). High levels of physical, cognitive and psychosocial impairments can be anticipated. Rehabilitation providers will serve as an important link in the continuum of care, helping move patients on from acute sites to eventual discharge to the community. Likely impairment patterns, considerations for healthcare practitioner resilience, and organization of services to meet demand are discussed. Innovative approaches to care, such as virtual rehabilitation, are likely to become common in this environment.

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