Results Of patients admitted between March and August 2020 with COVID-19, 908 were eligible for follow-up. 643 (71%) have been assessed thus far. 133 (15%) declined or were unreachable. Patients' demographic data are summarised in table 1. All patients, including the 5.4% who received CPAP/NIV and 11.1% admitted to intensive care, were offered virtual follow-up.

Median follow-up was 63 (54–79) days from discharge. Persistent symptoms (i.e. same or worse since admission) included cough (23.0%), breathlessness (16.5%), myalgia (15.7%) and fatigue (14.4%). Some patients developed new symptoms including 'fuzzy head' (12%), diarrhoea or abdominal pain (8%). 11% and 9.3% were at risk of depression and post-traumatic stress disorder respectively. Under half (44.5%) felt they had fully recovered. Of the 363 who were eligible to return to work, 31.4% felt able to do so.

57.9% were immediately discharged from secondary care after their follow-up assessment. 28% had further virtual follow-up arranged, while 20.8% were scheduled for face-to-face respiratory follow-up. 23.5% had a subsequent repeat CXR or CT scan arranged. Patients who scored highly on mental health questionnaires were offered referral to local psychology services and 49% (n=64) agreed.

Discussion Our data demonstrates a significant proportion of hospital inpatients develop physical or psychological sequelae after COVID-19, 'Long-COVID'. A significant number felt unable to return to work 9 weeks after discharge. Our virtual clinic provided a structured way to identify patients' on-going symptoms and demonstrates the importance of establishing structured multi-disciplinary pathways, particularly with referrals to physiotherapy, cardiology and neurology. We strongly recommend the development of clear follow-up protocols prior to the next wave of disease.

S55 CLINICAL, RADIOLOGICAL, FUNCTIONAL AND PSYCHOLOGICAL CHARACTERISTICS OF SEVERE COVID-19 PNEUMONIA SURVIVORS: A PROSPECTIVE OBSERVATIONAL COHORT STUDY

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Introduction The 'Long COVID' syndrome, where symptoms persist beyond the acute illness with severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2/COVID-19), is anecdotally described. However, a comprehensive report of clinical, radiological, functional and psychological recovery from COVID-19 is currently lacking. We present a detailed radiological, patient-reported and physiological characterisation of patients attending face-to-face assessment following hospitalisation with COVID-19 pneumonia.

Methods Prospective single-centre observational cohort study at an inner-city South London teaching hospital. All patients admitted with severe COVID-19 pneumonia (admission duration ≥48 hours, oxygen requirement ≥40% or critical care admission) were invited to attend Post-COVID Clinic 6–8 weeks following hospital discharge. Primary outcome: radiological resolution of COVID-19 pneumonitis. Secondary outcomes: demographics and anthropometrics, inpatient clinical course, patient-reported and physiological outcomes at follow-up (symptoms, functional disability, mental health screening, 4-metre gait speed (4MGS), 1-minute sit-to-stand (STS) test).

Results 119 consecutive patients attended clinic between 3rd June and 2nd July 2020, at median (IQR) 61 (51–67) days post discharge. Baseline characteristics are presented in table 1. Despite apparent radiographic resolution of lung infiltrates in the majority (RALE score <5 in 87% of patients), patients commonly reported persistent fatigue (78/115 (67.8%;95%CI 60.0–76.5)), sleep disturbance (65/115 (56.5;47.3–66.1)) and breathlessness (37/115 (32.2;25.2–40.0)). mMRC breathlessness score was above pre-COVID baseline in 55/115 (46.2;37.8–54.6). Burdensome cough was less common (8/115 (7.0; 3.5–10.4)). 56 thoracic computed tomography scans were performed, of which 75% demonstrated COVID-related interstitial lung disease and/or airways disease. Significant depression (PHQ-9 ≥9) or anxiety (GAD-7 ≥9) were present in 20/111 (18.0;11.7–23.4) and 25/113 (22.1;15.0–29.8), respectively. The Trauma Screening Questionnaire was positive (≥6) in 28/113 (24.8;18.1–31.9). Post-COVID functional scale was ≥2 in 47/115 (40.9;33.0–47.8). 4MGS was <0.8 m/s in 44/115 (38.3;29.6–46.1), 39/109 (34.5;26.5–41.6) desaturated by ≥4% during STS, 25/32 (78.1;62.5–93.1) who desaturated also had abnormal CT findings.

Conclusions Persistent symptoms, functional limitation and adverse mental health outcomes are common 8 weeks after severe COVID-19 pneumonia. Follow-up chest radiograph is a poor marker of recovery. Physiological testing to identify oxygen desaturation is useful for triaging patients for further

Abstract S55 Table 1 Baseline characteristics

Age (years)	58.7 ± 14.4
Sex	
Female	45 (37.8; 29.4–46.2)
Male	74 (62.2; 53.8–70.6)
Ethnicity	
BAME (Yes/No)	83 (69.7; 61.3–78.2)
White	36 (30.3; 22.6–37.8)
Black	52 (43.7; 36.1–51.3)
Asian	18 (15.1; 10.1–20.2)
Mixed race	5 (4.2; 1.7–6.7)
Other	8 (6.7; 3.4–10.9)
Index of multiple deprivation score (n=115)	26.6 ± 9.7
Body Mass Index (kg/m^2) (n=118)	30.0 (25.9–35.2)
Charlson comorbidity index	2 (1–4)
Admission PaO_2:FiO_2	168.8 (105.9–272.3)
Critical care admission	41 (34.5; 26.9–42.9)
COVID-19 complications	
None during admission	49 (41.2; 33.6–48.7)
Venous thromboembolism	27 (22.7; 16.8–29.4)
Pulmonary embolism	23 (19.3; 12.6–26.1)
Deep vein thrombosis	6 (5.0; 2.5–7.6)
Acute kidney injury	41 (34.5; 25.2–43.7)
Deranged liver function	17 (14.3; 9.2–20.2)
Delirium	18 (15.1; 10.1–20.2)

Data presented as mean ± SD, median (IQR) or frequency (%; 95% confidence interval). Abbreviations: BAME = Black, Asian or Minority Ethnic, PaO_2:FiO_2 = ratio of arterial partial pressure of oxygen to fraction of inspired oxygen.

investigation. Face-to-face or virtual clinical assessments are recommended to facilitate early recognition and management of post-COVID sequelae in this vulnerable cohort.

S56 FEASIBILITY AND USAGE OF ONE MINUTE SIT-TO-STAND TEST, AS A MEASURE OF RECOVERY IN POST-ACUTE COVID 19 PATIENTS, FOLLOWING HOSPITAL DISCHARGE

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Background Patients discharged from hospital following treatment for COVID-19 infection, experience ongoing breathlessness during recovery.[1] One minute sit-to-stand test (1MSTS) has been recommended to identify desaturation in these patients during acute and post-acute phase.[2] We aimed to assess the feasibility of 1MSTS to monitor recovery in COVID-19 patients following hospital discharge.

Methods All patients admitted to our hospital, with COVID-19 were offered clinic review approximately 6–8 weeks post discharge. This clinical assessment included 1MSTS, bloods and imaging. If ongoing clinical concern, a second review was offered at 3 months.

We reviewed the 1MSTS in terms of (a) ability to complete test (b) oxygen desaturation $\geq$3%[2] (c) longitudinal improvement in 1MSTS repetitions.

Fisher's exact and Mann-Whitney tests were used to compare variables.

Results 366/413(88%) COVID-19 patients reviewed at initial follow-up clinic completed a 1MSTS and 141 repeated 1MSTS at 3 months. Those who were unable to complete a 1MSTS at initial clinic were older, frailer and had longer hospital admissions with COVID-19 (table 1).

77/366 (21%) patients had desaturation of $\geq$3% on 1MSTS at initial follow-up, which was associated with severe disease during admission (p=0.051) and persisting radiographic abnormalities (p=0.0018). No association between desaturation and symptom burden was noted.

Clinicians found 1MSTS with no desaturation to be helpful in the discharge process if other investigations were normal. Desaturation during initial clinic was not predictive of abnormal cardiac and respiratory investigations at 3 month follow-up (p=0.317).

An improvement in number of repetitions/minute between clinic visits did not correlate with an improvement in VAS breathlessness (p=0.099), MRC score (p=0.267) or imaging (p=0.448).

Conclusion The majority of patients recovering from COVID-19 can perform 1MSTS at follow-up clinic. Those unable were generally more frail, older and with co-morbidities.

1MSTS helped with discharge decisions at 6–8 weeks. However, the wider utility of the 1MSTS results is limited in COVID-19 follow-up. Serial measurements were not helpful in predicting symptomatic or radiological improvement.

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S57 THE DEVELOPMENT AND IMPLEMENTATION OF A VIRTUAL DISCHARGE WARD FOR PATIENTS WITH COVID-19 PNEUMONIA: DATA ON THE FIRST 300 PATIENTS

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Introduction There is little described in the current COVID-19 literature about the outcomes of patients discharged from hospital following COVID-19 pneumonia. We describe the rapid establishment of a 'virtual ward' (VW) for follow-up of patients with a suspected or confirmed diagnosis of COVID-19 pneumonia or pneumonitis upon hospital discharge, characteristics and outcomes for the first 300 patient referrals.

Abstract S56 Table 1 Demographics and clinical descriptors of patients completing and not completing 1MSTS at initial COVID-19 follow-up clinic

	1MSTS completed	1MSTS not completed	p value
Total	366	47	
Male	228 (62%)	19 (40%)	P=0.0067
Age	59 (IQR 50 – 71)	73 (IQR 65.5 – 82)	p=<0.0001
Frailty score	1 (IQR 1-2)	4 (3-6)	p=<0.0001
Presence of ≥ 1 respiratory comorbidity	87 (24%)	16 (34%)	P=0.1510
Presence of ≥ 1 cardiovascular co-morbidity	47 (13%)	12 (25%)	P=0.264
Length of hospital admission (days)	5 (IQR 2-9)	8 (IQR 4-17)	p=0.0005
Max FiO2 requirement during admission ≤ 40%	287 (78%)	35 (74%)	p=0.5753

Fisher's exact and Mann-Whitney test