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## P148

### Exploring the holistic long-term impact on COVID-19 in a post-hospitalised patient cohort: A service improvement project

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**Keywords:** Holistic Management; COVID-19; Functional Recovery

**Purpose:** The first surge of COVID-19 caused disruption to healthcare services during the pandemic, leaving many vulnerable patients in the community without access to routine healthcare. The long-term effect of COVID-19 on patient's holistic wellbeing is unknown and there were no established recovery pathways in place. As a tertiary cardiothoracic centre in the Northwest of England we wanted to identify further therapeutic needs that would require signposting or referral to optimise recovery.

**Methods:** Aim: To ensure that discharged patients post hospitalisation with COVID-19 had their holistic needs assessed to optimise functional recovery in the community to prevent deterioration or readmission to acute care.

Population: Patients admitted or transferred to the cardiothoracic centre and positive for COVID-19 at level 3 ITU ( $n = 8$ ) or level 1 Ward ( $n = 6$ ), over an 8-month period.

Outcomes: Berg Balance Scale (BBS), one-minute sit to stand test (1MSTS), Fatigue Severity Scale (FSS), Traumatic Screening Questionnaire (TSQ), Patient Health Questionnaire 9 (PHQ-9), Generalized Anxiety Disorder 7 (GAD-7). Feedback questionnaire via telephone consultations.

Data collection: On discharge, 6- and 12-week via follow-up home visits. The TSQ, PHQ-9 and GAD-7 were collected at week 6- and 12-weeks post discharge.

**Results:** New referrals or signposting at discharge: community physiotherapy ( $n = 1$ ), occupational therapy ( $n = 1$ ); 6 weeks: community physiotherapy ( $n = 5$ ), occupational therapy ( $n = 2$ ), psychology ( $n = 1$ ), pulmonary rehabilitation ( $n = 5$ ); 12 weeks: psychology ( $n = 2$ ), physiotherapy ( $n = 2$ ).

The ITU patient's subjective measures deteriorated on clinical presentation (FSS  $7.5 \pm 21$ ) but showed no statistically significant improvement over time ( $P = 0.26$ ), however, objective scores for BBS ( $8.5 \pm 12.5$ ,  $P = 0.026$ ) and STS ( $7.5 \pm 8.25$ ,  $P = 0.018$ ) improved. Between discharge and 12 weeks, ITU patients showed improvements in BBS ( $P = 0.007$ ) and STS ( $P = 0.007$ ) but not in FSS ( $P = 0.312$ ), although average FSS score deteriorated from 37.12 to 46.25.

There was no significant difference between any of the reported measures comparing ward versus ITU at discharge and 12 weeks, but the ward patients' average scores were

better than the ITU cohort (BBS  $3.5 \pm 6.5$ , STS:  $3 \pm 10.2$ , FSS:  $12 \pm 22.5$ ) with significant improvement over time in BBS ( $P = 0.026$ ).

**Conclusion(s):** Despite a small sample size, we found clinical deterioration in patient holistic wellbeing, highlighting a continued need for therapeutic referrals 12 weeks post discharge. This emphasises the physical and mental vulnerability patients may experience after hospitalisation for COVID-19, although this may not be reflected in standard scoring systems such as BSS and STS. A support pathway upon discharge would be beneficial up to and beyond 12 weeks, to ensure patients' needs are met in the community and prevent readmissions.

**Impact:** Although objective measures improved, and subjective self-reported measures were not significantly worse, onward referrals were still required based on clinical judgement. An evaluation exceeding 12 weeks post discharge, with a larger sample size, would be beneficial to highlight further long-term effects of COVID-19; ensuring optimisation of function and patient needs are met within the community.

**Funding acknowledgements:** Work was not funded.

<https://doi.org/10.1016/j.physio.2021.12.154>

## P149

### Gait impairment in traumatic brain injury: A systematic review

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**Keywords:** Traumatic-Brain-Injury; Gait; Rehabilitation

**Purpose:** The severity of traumatic brain injury (TBI) ranges from mild (mTBI) to severe, with impairment in motor function across the spectrum. TBI can transcend from acute (days to weeks) to chronic (months to years) time periods, significantly impacting physical function and quality of life. Traditional TBI functional assessment is based on subjective self-reporting and episodic clinical testing. Recent evidence suggests that objective gait assessment may be a surrogate marker of recovery in neurological injury. However, the precise metrics and optimal method of gait assessment are not well understood in TBI. Therefore, the purpose of this systematic review is to examine the effect of TBI on gait characteristics to provide evidence of whether specific gait characteristics could be used as a diagnostic or rehabilitation outcome.

**Methods:** PubMed, AMED, and CINAHL databases were independently searched by a single reviewer (TD) with a search strategy containing key search terms for TBI and gait.

