



A PATIENT REPORT

Neurorehabilitation with Trainer module for Covid-19 patient with left-sided hemiplegia

Covid Pneumonitis with Neurological Impairments

Mr B, a 62-year-old man, was admitted to the hospital with Covid-19 pneumonitis requiring intubation on ICU for over two months. During his ICU stay, Mr B was diagnosed with a right parietal infarct and critical illness polyneuromyopathy. He was transferred to the post-acute neurorehabilitation unit for specialist neurorehabilitation three months after his original hospital admission.

Before his admission, Mr B had been fit, healthy, and independent with all daily activities. He was retired and enjoyed sports such as playing squash and running.

Mr B presented with left-sided hemiplegia, generalised weakness and severe deconditioning. He had weakness on his left side but was able to bend and straighten his leg in the bed and could hold objects in his left hand. His left shoulder was painful and stiff. He had poor sitting balance and became very breathless on exertion. Mr B also suffered from severe fatigue and became very dizzy and nauseous with exertion. Mr B was reliant on a hoist for transfers.

Rehabilitation aimed for Mr B to increase the activity in his left side and leg as well as to improve his overall strength and exercise tolerance, and become as independent as possible with his transfers. Mr B was keen to return home as soon as possible.

Physiotherapy took place four times a week with approximately two sessions a week incorporating the Trainer module. Mr B completed various functional and strengthening tasks with the assistance of the Trainer module; sit-to-stand-to-sit practise; standing work; lateral hip movements; squats; low pivot transfers.

He was able to complete these tasks with minimal assistance of two therapists whereas without the hoist Mr B required maximum assistance of two therapists or could not complete some of the tasks at all. Mr B was also able to stand from a standard chair height, which was not possible without the Trainer module.

SUMMARY

Previously fit and healthy Covid-19 patient was admitted to the Intermediate Neuro Rehabilitation Unit (INRU) for specialist neurorehabilitation a few months after falling ill and requiring intubation in the ICU. The INRU provides rehabilitation for people with complex neurological conditions. In this instance, the patient presented

with left-sided hemiplegia, generalised weakness and severe deconditioning. The rehabilitation goal was to increase activity in his left side, improve overall strength and exercise tolerance, and become as independent as possible during transfers. Using the Trainer module the patient progressed to being able to complete transfers with minimal assistance of one therapist, reduced breath-

lessness and fatigue during therapy sessions. He was able to access movements and positions that he otherwise would not have been able to manage. This improved his mood and overall well-being. As the patient required less support, the therapists also discovered they were able to be more specific with their handling.

Mr B progressed to being able to complete a low pivot transfer with minimal assistance of one therapist on discharge from hospital. Mr B experienced much less breathlessness during his therapy sessions and reduced fatigue due to the reduced effort that was required during the physical tasks. This resulted in him tolerating longer therapy sessions with fewer rests and he experienced no dizziness or nausea along with the tasks.

As Mr B required less support for the above tasks with the Trainer module the therapists found they were able to be more specific with their handling.

Mr B also improved on his objective outcome measures of the Barthel Index and EQ-5D and was able to achieve four sit-to-stands in 30 seconds. Mr B found the Trainer module helpful for enabling him to access movements and positions that he

otherwise would not have been able to manage. This aided his mood and overall emotional status giving him an increased sense of self-worth.

Amy Boyer, Senior Specialist Physiotherapist, Intermediate Neuro Rehabilitation Unit, Trafford General Hospital





About the Therapy Team at Intermediate Neuro Rehabilitation Unit

The Intermediate Neuro Rehabilitation Unit at Trafford General Hospital provides rehabilitation for people with complex neurological conditions.

The team develop rehabilitation goals with each person enabling the provision of individualised therapeutic interventions aimed at optimising each individual's functional independence and quality of life. The team's vision is to be a pioneer in neuro-rehabilitation within the UK and be the centre of excellence for patients, families, carers and staff.

The team are keen to explore innovative and new technologies to assist them in the provision of the most up to date and effective rehabilitation for patients. The addition of the Trainer module and Positioning lock to the ceiling hoist system has provided them with the opportunity to explore some rehabilitation activities sooner.

Due to its dynamic bodyweight support properties and the diversity of the system, the Trainer module allows therapists and patients the opportunity to explore movements earlier and more independently. These can range from simple bed based activities through to functional movements such as transfers, sit-to-stand and the exploration of standing and gait.