



Functional Exercise Capacity in Patients with COVID-19: Telerehabilitation improves functional exercise capacity of COVID-19 patients

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European Respiratory Journal 2021 58: PA2109; DOI: 10.1183/13993003.congress-2021.PA2109

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Abstract

Background: The impact of the COVID-19 pandemic on functional exercise capacity seemed quickly clinically evident.

Aim: To assess the functional exercise capacity of patients with severe COVID-19 and to evaluate the effect of a telerehabilitation program in the specific context of COVID-19 pandemic.

Methods: The functional exercise capacity (one-minute sit-to-stand test (STST)) was prospectively quantified at discharge in patients hospitalized for severe or critical COVID-19. A telerehabilitation program was then proposed to all these patients. A control group was composed with the patients refusing the program.

Results: At discharge, none of the 48 recruited patients had a STST higher than the 50th percentile and 77% of them were below the 2.5th percentile. SpO₂ was $92.6 \pm 3.0\%$ after STST and 15 patients had oxygen desaturation. After 3-months of follow-up, the number of repetitions during STST significantly increased either in telerehabilitation (n=14)(p<0.001) or in control groups (n=13)(p=0.002) but only one patient had a result higher than the 50th percentile (in Telerehabilitation group) and 37% of them were still under the 2.5th percentile for this result. The improvement was significantly and clinically greater after the telerehabilitation program (p=0.005). No adverse events were reported by the patients during the program.

Conclusions: Patients hospitalized for COVID-19 have a low functional exercise capacity at discharge and the recovery after three months is poor. The feasibility and the effect of a simple telerehabilitation program was verified, this program being able to substantially improve the functional recovery after three months.

Covid-19 Physical activity Physiotherapy care

Footnotes

Cite this article as: European Respiratory Journal 2021; 58: Suppl. 65, PA2109.

This abstract was presented at the 2021 ERS International Congress, in session “Prediction of exacerbations in patients with COPD”.

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ISSN

Print ISSN: 0903-1936
Online ISSN: 1399-3003

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