Physical Function in Critically Ill Patients during ICU Stay

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ABSTRACT

Background: Patients in Intensive Care Units (ICU) with critical illness are exposed to prolonged bed rest and immobilization, which further impacts physiological functioning of major body systems leading to loss of functional independence. Critical illness survivors face significant problems of impaired physical activity and functional ability due to inactivity. Physical function evaluation as a part of routine ICU assessment can help identify patients at risk of poor physical outcomes, monitors efficacy of intervention and informs recovery trajectories. Study objective was to assess physical functional functional limitations in patients at point of ICU discharge.

Materials And Methods: Following ethical approval, 100 patients (78 males, 22 females) admitted in Medical and Surgical ICUs were recruited. Daily scores on Functional Status Score in ICU (FSS-ICU) and Physical Function ICU Test (PFIT) were recorded from day of ICU admission/physiotherapy reference until ICU discharge.

Results: Pre-ambulatory and ambulatory categories of FSS-ICU demonstrated an upward improvement trajectory during the length of ICU stay. Upper and lower limb strength, sit to stand transfer and cadence reported statistically significant improvement from ICU admission to ICU discharge. Both FSS-ICU and PFIT scales demonstrated statistically significant (p<0.001) results and are capable of identifying functional limitations during ICU stay.

Conclusion: Functional limitations existing at point of ICU discharge warrant the need for early physiotherapy and mobilization intervention for patients in ICU. It also highlights the need for continuing physiotherapy during post-ICU hospital stay and further as long-term home-based rehabilitation.

Keywords: Physical functions, ICU patients

