Service Priorities and Programmes

Electronic Presentations

Convention ID: 839
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Enhancing mobility recovery by a physiotherapist-led intensive care unit-based rehabilitation programme (PTLI-ICURP) in adult intensive care unit (AICU)

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Keywords:
ICU
early rehabilitation

Introduction

ICU-acquired weakness affects 25-60% of critically ill patients associated with a prolonged duration of mechanical ventilation and hospital length of stay (LOS). Studies showed that ICU-based rehabilitation enhanced mobilization milestones, muscle strength and functional status of patients, as well as reducing LOS in ICU and hospital. A PTLI-ICURP has been launched in the AICU of QMH in 2014.

Objectives

To assess the impact of a PTLI-ICURP in the AICU

Methodology

A PTLI-ICURP has been implemented since October, 2014 in the AICU of QMH. Patients who had received operations, with mechanical ventilation for more than 48 hours, and referred for pulmonary physiotherapy interventions were recruited into the programme. Early and timely mobilization interventions were provided to critically ill patients according to their muscle strength and conscious level. Outcomes measures including hospital LOS, ICU LOS, mobilization milestones, mobility status and muscle strength of patients were taken from mid-November 2014 to end-December 2014. All adverse events were recorded.

Result

There were 117 admissions to AICU from mid-November to end-December 2014. 91 patients (78%) were recruited into the programme. The average age was 59.7 +/- 17.6 and 63.7% were men. With the implementation of the programme, there was a 15% increment in the number of patients who were mobilized out of bed by physiotherapists. There was a 2% and a 2.5 % increment in the muscle strength and in the mobility status of the patients respectively. 81.5% of patients returned to their premorbid status before the hospital discharge. The average ICU LOS and hospital

LOS were compared with the data collected from June to July 2014 retrospectively. The average hospital LOS was reduced by 2 days whereas the average ICU LOS was similar between the two periods of time. There was only one episode of adverse event (atrial fibrillation) in 268 patient days. Conclusion: PTLI-ICURP enhanced the participation of patients in early rehabilitation in AICU without limited by life support equipment including ventilators. It improved patients' mobility status and facilitated them to return to their premorbid status. It is safe to implement in a critical care setting.