



The Benefits of Early Rehabilitation on the Intensive Care Unit at Kingston Hospital NHS Foundation Trust

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Introduction

Skeletal muscle wastage and weakness are common features in survivors of critical illness. Research has identified a 1.3-3% loss of muscle mass per day for patients on the intensive care unit (ICU). As a result there is emerging evidence demonstrating early rehabilitation of patients in ICU is safe, effective and beneficial (Herridge et al, 2011, Morris et al, 2012, Schweickert et al, 2009). Rehabilitation has been associated with a decrease in ICU and hospital length of stay, functional outcome and improved peripheral and respiratory muscle strength. The NICE guidelines CG83 : rehabilitation after critical illness in adults (2009), advocates starting rehabilitation as early as possible in these patients. The Core standards for Intensive care units (2013) supports early rehab and recommends patients receive 45 minutes rehabilitation 5 days a week.

From July 2014 there has been a greater emphasis on rehabilitation on ICU. The aim of this audit was to investigate the effects of early rehabilitation on critically ill patients.

Audit Objective

To investigate the effects of ICU rehabilitation on

- Patients length of stay on ICU.
- Functional outcomes of patient leaving the ICU and ward.
- Patients total hospital length of stay.

Audit Standards

The NICE Guidelines CG 83 - rehabilitation after critical illness in adults (2009) recommend starting rehabilitation as early as possible on ICU.

The Core Standards for Intensive Care Units (2013) recommend patients receive 45 minutes rehabilitation 5 days a week.

Methodology and Sample

The following data was collected from patients admitted to ICU during the month of March 2013, March 2014 and March 2015

- Length of ITU & hospital stay.
- Functional scores at baseline, on leaving ICU and on leaving the hospital, based on the Manchester Mobility Scale (MMS).

Sample Analysed – Patients admitted in March

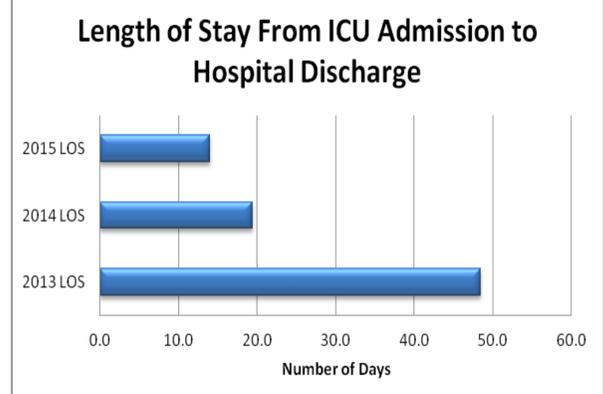
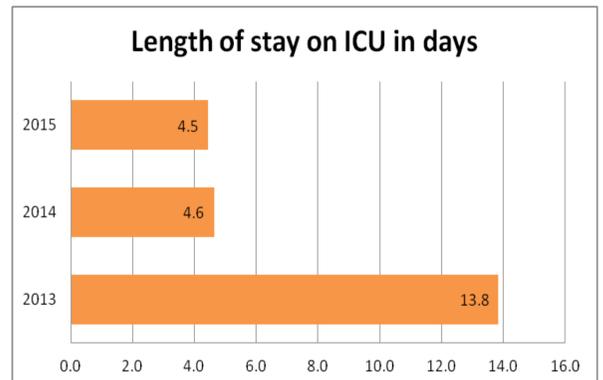
2013	2014	2015
35	51	54

Rehabilitation hierarchy applied to all stable critically ill patients to include

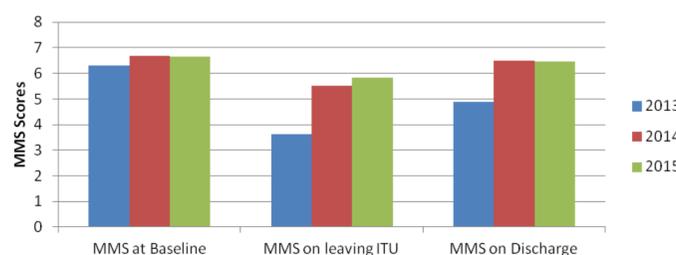


Results

- The length of stay on ICU has reduced by an average of 8 days.
- The average hospital length of stay has reduced from an average of 48 days to under 20 days.
- Patients now leave ICU stronger with improved functional scores and greater independence.

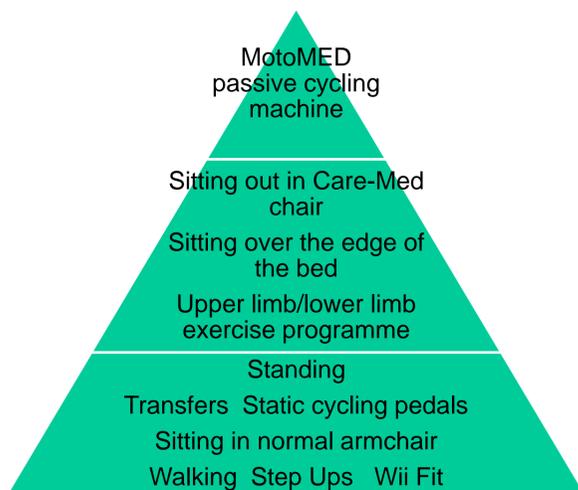


A comparison of ICU patients functional MMS scores on admission, on discharge from ICU and discharge from hospital



Manchester Mobility Score

- 1 - Bedbound
- 2 - Sitting on edge of bed
- 3 - Hoist into chair
- 4 - Standing practice
- 5 - Transfers with assistance
- 6 - Mobilises with/out aid
- 7 - Mobilises >30 m



Discussion

Since 2014 there has been a greater emphasis on rehabilitation on ICU in line with the ICU core standards (2013) and NICE Guidelines. The results show a reduction in length of stay despite ICNARC data stating national length of stay on ICU hasn't changed over the past 3 years.

Conclusion

This audit shows by increasing rehabilitation on ICU, patients become functionally stronger and leave ICU and hospital quicker.

Action Plan

- Increase physiotherapy staffing and rehabilitation equipment on ICU.
- Conduct a process audit as per the NICE Guidelines (2009) with a focus on goal setting.