

Early Mobilisation is Critical – the key to promoting Early Mobility on Intensive Care

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Purpose:

Physical rehabilitation in intensive care units (ICUs) is recommended by guidelines to reduce ICU-acquired weakness. Patients admitted to critical care suffer a significant loss of mobility, with reduction of muscle mass as high as 20% in the first 7 days of admission for those in multi organ failure. Early mobilisation is defined as “physical rehabilitation occurring as soon as clinically indicated with research showing this happens within the first 2-5 days of onset of critical illness.”

Aims:

We wanted to devise a functional and understandable method of data recording to improve clinical reasoning and promote early mobility as soon as clinically indicated within our ICU. With the aim of;

- 1) Increasing mobility level at point of discharge from ICU
- 2) Mobilising all patients as soon as clinically indicated
- 3) Reducing hospital LOS

Methods:

We created a key based upon the early mobility protocol guideline used with the trust stating contraindications to mobilisation alongside other frequently recorded barriers (Figure 1) Teaching took place for the team and to all junior members of staff regarding the new methods of data recording and collection. We collected and collated mobility status data from both 12 months prior and 12 months post implementation of this data collection sheet and recorded key themes.

1	Sedated and ventilated
2	FiO2 >0.6 or acutely worsening respiratory failure
3	CVS instability, i.e. - SpO2 below agreed parameters - MAP <65mmHg or below set parameters - HR <40 or >130 - RR <5 or >40 bpm Awaiting Cardio review
4	Significant or rising dose of Inotrope – maximum safe dose 5ml
5	Filler
6	Hb <80 (if no blood product required and patient non-symptomatic with low Hb consider gentle mobilisation)
7	Confirmed or 2PE/DVT
8	Epidural >10
9	Unstable spine or other fracture with mobilisation contraindicated and/or awaiting T-O review
10	A/W XR, MRI, CT that deem patient inappropriate to mobilise
11	Drowsy/Confused/Agitated
12	Nursing staff asked to leave (also state appropriate number as to why)
13	Patient refused
14	Therapy prescribed rest day
15	Other – must state reason
16	At mobility baseline / PTC

Figure 1 – Early mobility key

Top 3 barriers to early mobilisation on our ICU



1. Sedation



2. Non-compliance



3. Drowsiness /Agitation

Figure 4 – Early mobility top barriers

Results:

1) The average Manchester mobility score (MMS) on D/C from ICU increased from 4 to 5 following implementation of our data sheet (figure 2) An MMS score of 5 indicates a patient can physically transfer into a chair (with or without an aid or assistance).

2) Prior to implementation of our early mobility protocol, the average number of days taken prior to first mobilising was 5, in the 12 months following implementation this dropped to an average of 3 days (figure 3). Post implementation of our early mobility protocol only 26 out of 194 patients weren't mobilised prior to D/C from Intensive care. The top 3 barriers to early mobility for the 12 months are demonstrated in figure 4.

3) The average total LOS from admission to ICU to D/C from hospital reduced post-implementation of our mobility protocol (figure 5)

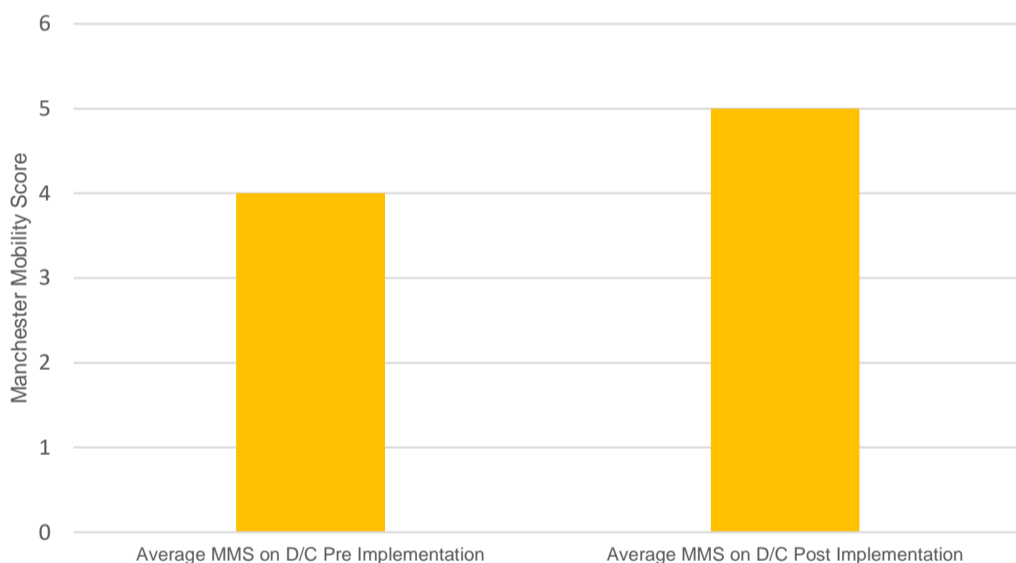


Figure 2 – Average MMS on D/C

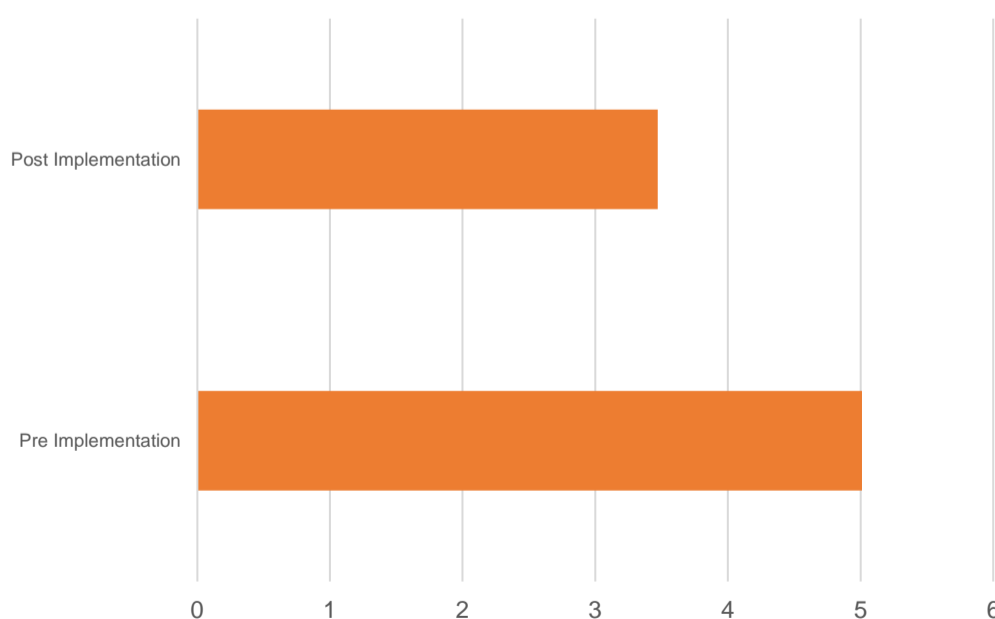


Figure 3– Average days taken to first mobilise on ICU

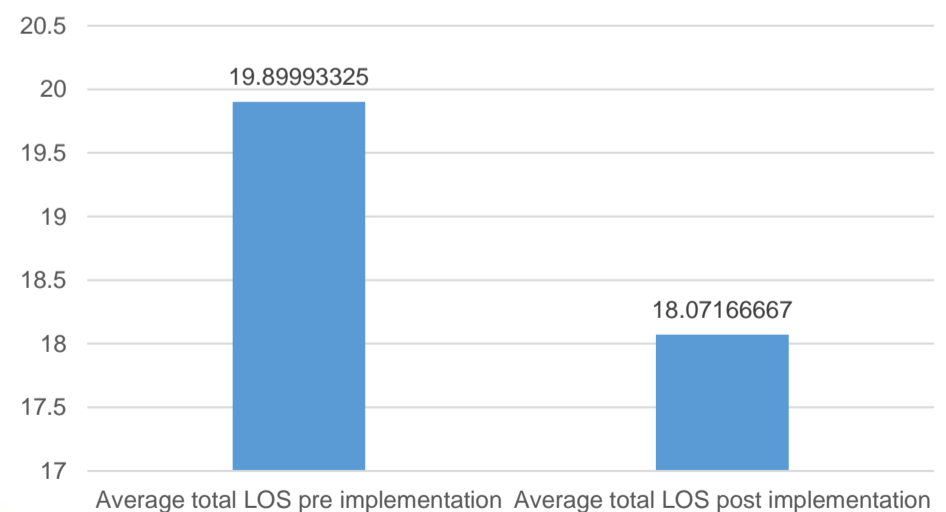


Figure 5– Average total LOS

Therapy Services / ICU Rehabilitation

This project has shown to meet all initial aims, mobility on discharge is increasing, more patients are being mobilised as soon as clinically indicated and has thus demonstrated a reduction in hospital LOS. We now must work collaboratively with the wider MDT to “break down” the barriers to prevention of early mobilisation to improve these results further

Working in partnership
The Royal Wolverhampton NHS Trust
Walsall Healthcare NHS Trust