



Early Rehabilitation in Critical care

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Back ground

Critical care has changed to include a focus on recovery as well as survival without a resultant increase in therapy staff^{1,2,3}.

There is increasing evidence to suggest that early, MDT focused rehabilitation reduces complication and length of stay (LOS) for this patient group.

A trust initiative introduced Trainee Assistant Practitioners (TAP's) to critical care at Doncaster Royal Infirmary.

In order to develop a job role within critical care we first looked at the current gaps within our service.

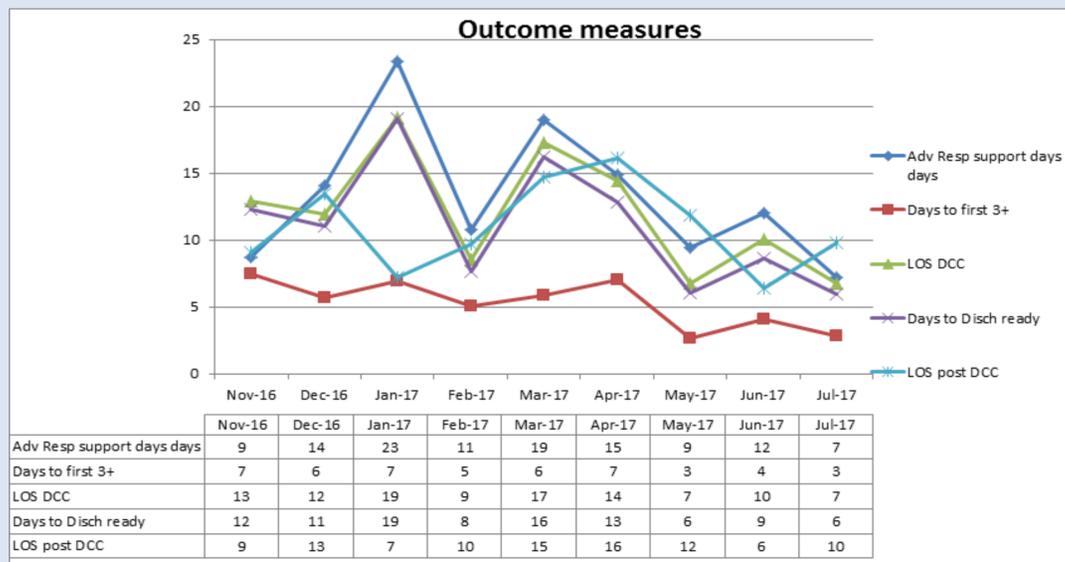
Gaps in Service

- Physical Rehabilitation - Physiotherapy
- Functional Rehabilitation – Occupational therapy
- Swallow & communication support SALT support
- Nutrition & Dietician support
- Cognitive stimulation
- Delirium management

What we did

- Reviewed evidence base and guidelines^{1,2,3}
- Reviewed Equipment; Grip dynamometer, Chairs, Helmets
- Re-launched Documentation - Rehab IPOC MDT document
- Developed rehabilitation focused protocols for TAP's
- Provided Education- updated CPD for PT staff, Tuesday afternoon teaching ('Myth Buster' presentation), on the job education
- Established safety and feasibility of mobilising ventilated patients
- Introduced new outcome measure⁴ (See figure 1)

Results



Results so far

Currently shows:

- *Patients are mobilising sooner (from 6 to 3 days on average)
- *A reduction in LOS
- *A trend towards reduced number of advanced ventilation day



Discussion

- Positive results
- Significant reduction in time taken to mobilise the patients
- Data collection period from winter to summer – may affect casemix and outcome measures
- More data required to establish the ongoing trend
- TAP's still training

The Future

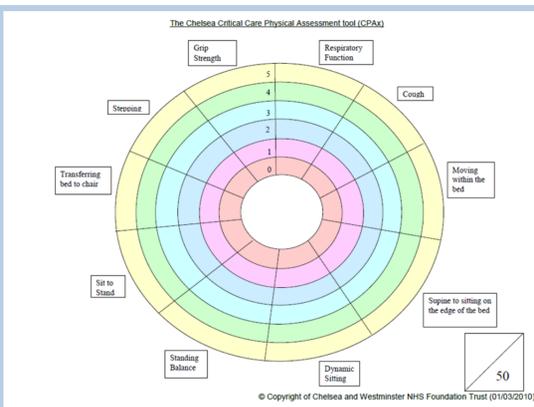
- Continue to share experience within North Trent Critical Care Network
- Develop and deliver a standardised MDT training day for early rehab within North Trent
- Trial of exercise equipment (e.g. MOTomed®)
- TAP's to complete their 18 month training program and increased independent working
- Develop support for long term patients at step down to ward.
- Engage patients in future development and evaluation of the service.

Conclusions

As a result of this quality improvement project, our critical care unit has become more rehab focused. All MDT members are engaged with this work and have recognised the positive impact that this has on patient outcomes.

The TAP's still have 9 months left of their training program however we are already able to demonstrate how valuable their input is. The TAP's are facilitating earlier mobilisation, beginning to increase the amount of rehab time and are supporting all AHP's with patient care.

We plan to continue collecting rehabilitation data in order to monitor trends and to continue to evaluate service developments.



References

- 1 The National Institute for Health and Care Excellence (2009) Rehabilitation after Critical illness in adults (NICE Guideline CG83) available at: <http://www.nice.org.uk/guidance/cg83>
- 2 The Faculty of Intensive Care Medicine (2015) Guidelines for the Provision of Intensive Care Services (GPICS) Available at: <http://ficm.ac.uk/standards-and-guidelines/gpics>
- 3 McWilliams D, et al, 2014 Enhancing rehabilitation of mechanically ventilated patients in the intensive care unit: A quality improvement project, J Crit Care (2014), <http://dx.doi.org/10.1016/j.jcrrc.2014.09.018>
- 4 EJ Corner et al, 2014, The Chelsea Critical Care Physical Assessment Tool (CPAx): validation of an innovative new tool to measure physical morbidity in the general adult critical care population; an observational proof-of-concept pilot study, Physiotherapy, Volume 99, Issue 1, March 2013, Pages 33-41



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Figure 1. Example of CPax chart