



Author: Nicky Barratt

Email: Nicole.Barratt@health.nsw.gov.au
ECLP Cohort: 21

Phone: 4295 2440

Position: Physiotherapy Unit Head, Shellharbour Hospital, Kiama Ward and Kiama Integrated Primary & Community Health Centre

Aim Statement: Within 12 months 100% of community dwelling adults admitted to Shellharbour Hospital medical ward who are suitable for medical activity will be active for a minimum of 15 minutes – 30 minutes of activity per day.

Background to problem worth solving: Hospital associated deconditioning is due to a lack of activity and leads to muscle wasting (sarcopenia). A deconditioned patient loses their ability to participate in day-to-day function and increases the burden of care for nurses, staff and family. It is disempowering for patients and delays timely discharge home. Frail patients are more prone to deconditioning and are over-represented in our systems for ED presentations, SAC reviews, readmissions and falls.

Team members:

- Tegan Brazier, Social Worker
- Marion Dawson, Physiotherapist
- Michael Fuary, Physiotherapist
- Catherine McPhail, Aged Care CNC

Executive Sponsors:

- Anne Smith, ISLHD Head of Discipline, Physiotherapy
- Amanda Paloff, Operations Manager, Southern Illawarra Hospital Group

Project Team

- Team Leader – Nicky Barratt
- QI Advisors – Gaye Sykes and Margaret Gill
- Consumers – families and patients of Shellharbour Hospital medical ward

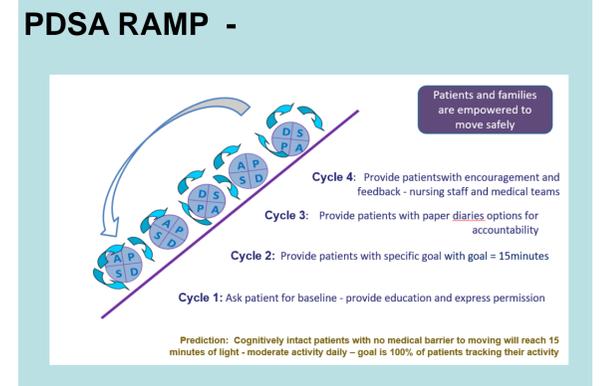
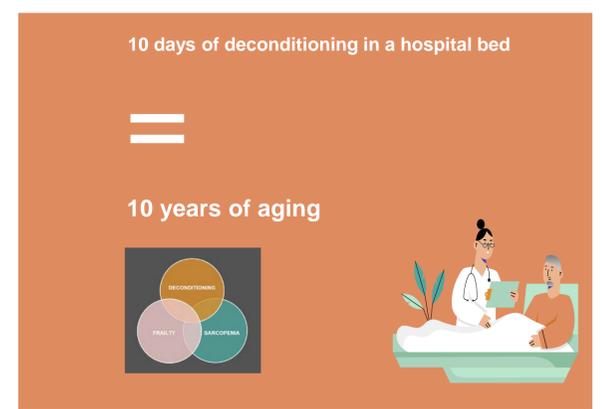
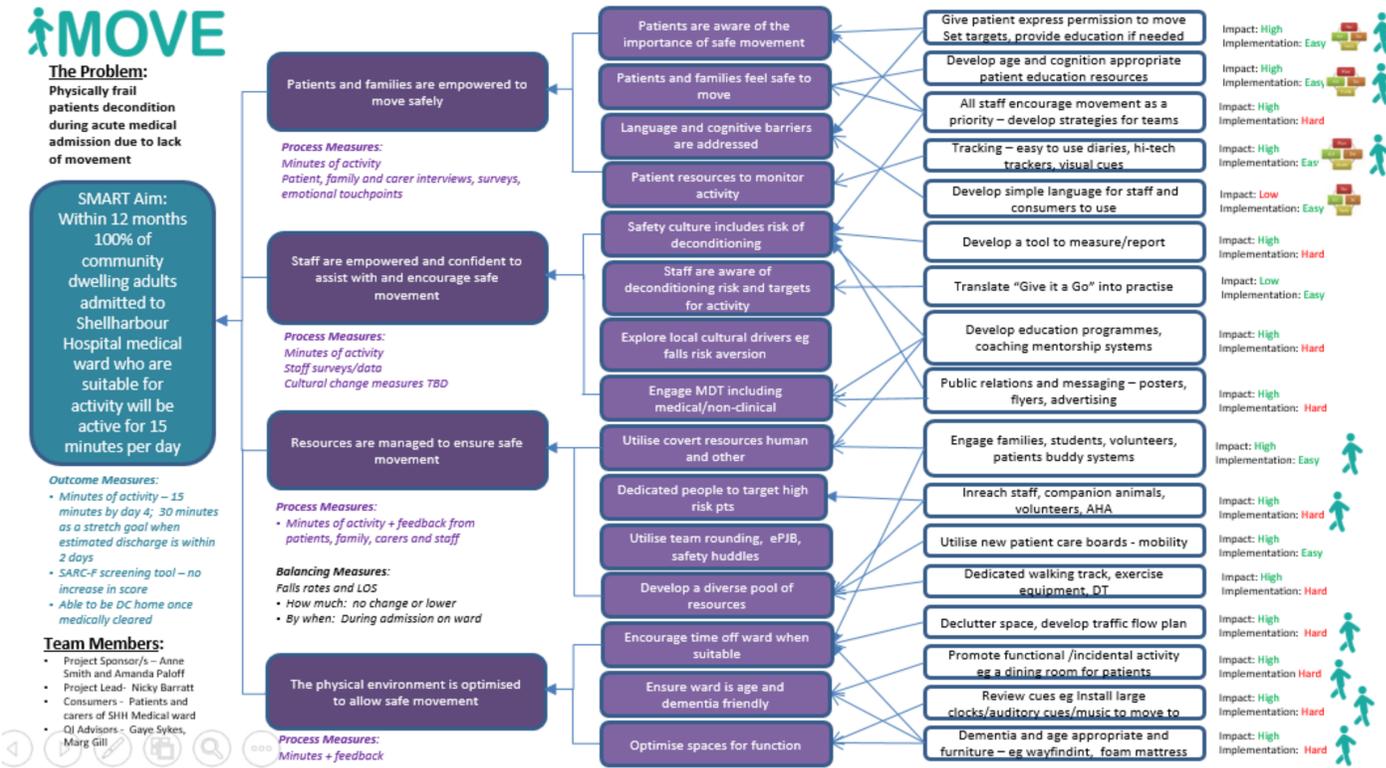
Thanks to Amanda Bates for the accelerometers, Tish Toaetolu for data collection, Think Tank team members Gavin Booth (PT) and Anthony Tyson (EP) Cassandra Brien (AHA) for graphic design.

Links to national standards and strategic priorities:

- ✓ In line with ISLHD Fit for Frailty Project
- ✓ ISLHD Strategic Priority (SP1.2, 2019-2020)
- ✓

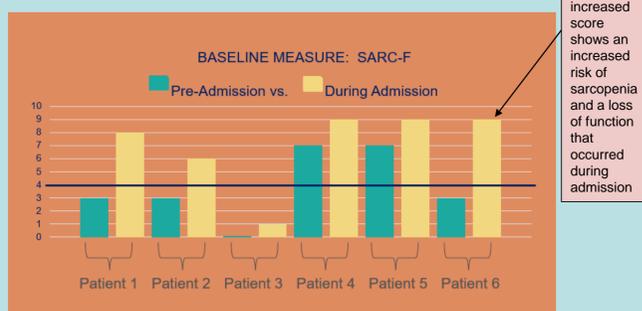
Literature review:

- Moreno et al, (2019). *Physiotherapist advice to older inpatients about the importance of staying physically active during hospitalisation reduces sedentary time, increases daily steps, and preserves mobility: a randomised trial.* Australian Journal of Physiotherapy.
- Morley, J. (2016). *Frailty and Sarcopenia: The New Geriatric Giants*, Rev Inves Clin.
- Marzett et al; (2017) *Physical activity and exercise as countermeasures to physical frailty and sarcopenia.* Aging Clin Exp Res.
- Chan et al (2017). *Integrated care for geriatric frailty and sarcopenia: a randomized control trial.* Journal of Cachexia, Sarcopenia and Muscle.
- Vellas et al (2018) *Implications of ICD-10 for Sarcopenia clinical practise and clinical trials: report by the international conference on frailty and sarcopenia research task force.* The Journal of Frailty and Aging.
- *The Business Case for Becoming an Age-friendly Health System*, Institute for Healthcare Improvement, Report.

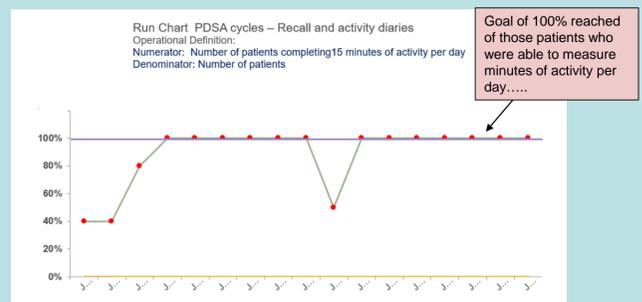


Results - measures

SARC-F Baseline screen for increased sarcopenia during admission

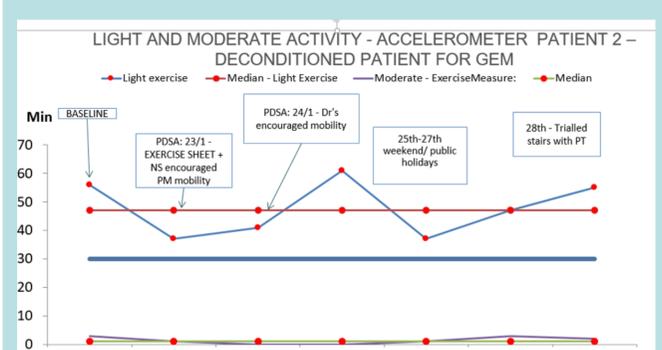


Process measure: Minutes of activity per day



...however, did not represent the majority of the patients who were unable to measure with low-tech devices (e.g. diaries)

Results continued Trial of using accelerometer to measure change ideas



Balancing measures – Falls and LOS



Discussion

The driver diagram process was key in diagnosing the problem. Consumers were involved throughout and had multiple change ideas that were incorporated. A simple measuring device (accelerometer) shows promise to be a feasible tool to measure patient activity objectively during the next phase of change ideas. This will allow ideas to be tested accurately and will likely lead to a more sustainable and measurable change.

Overall Outcomes of Project:

Simple measures that addressed the primary drivers relating to people (consumers and staff) such as giving express permission, education, goal-setting, self-monitoring tools, feedback and encouragement resulted in 100% of patients reaching 15 – 30 minutes of activity. However this was an under-representation of the cohort of patients on the ward. Most patients were not able to measure their own activity due to cognition, age and language barriers. In addition it was noted that patient's self-tracking was inaccurate (comparison of a paper diary compared to a high-tech wearable tracking device) even in cognitively intact patients.

\$ Potential cost saving

Will be investigated as project develops – areas to be explored will be utilisation of ICD-10 code for sarcopenia, reduced adverse outcomes (eg falls) or need for services for reconditioning such as rehabilitation.

Plans for the future: 30 wearable tracking devices (accelerometers) with software have been borrowed for possible use for ongoing change idea testing. This will allow accurate assessment and a much more detailed review of each change idea in relation to patient activity (sedentary, light, moderate activity). Infection control has given approval, ethics review is pending.