



Medicine, Nursing and Health Sciences

The 6-PACK falls prevention project

Falls and bone health team



The 6-PACK project

- At the time the study was conducted, this study was the world's largest falls prevention randomised controlled trial (RCT);
- Includes more than 80,000 patient ward admissions from over 60,000 patients;
- Brings together researchers from across Australia to evaluate the effectiveness of the 6-PACK falls prevention program for reducing falls and fall-related injuries in acute hospitals.

Project aims

1. Determine if the 6-PACK program can achieve meaningful reductions in falls and fall-related injuries;
2. Determine the cost-effectiveness of the 6-PACK program; and
3. Investigate implementation of the 6-PACK program on the participating intervention wards including barriers, enablers and sustainability of the program.

The problem: Falls and fall injuries

The demand for an effective fall prevention program continues to be of interest to both Australian and international hospitals. This is fuelled by an increased awareness of the serious threat that falls pose to the healthcare system and wellbeing of older people.

Patient in-hospital falls are the most common patient adverse event accounting for almost 40 per cent of all reported incidents. They place a significant burden on clinical staff and the utilisation of hospital resources.¹ Patients who fall in hospital have up to an 11 day increase in their length of stay and double the hospitalisation costs of age and gender matched non-fallers.² Australian studies have reported that up to 60 per cent of falls in acute general medical and surgical wards result in injury.³

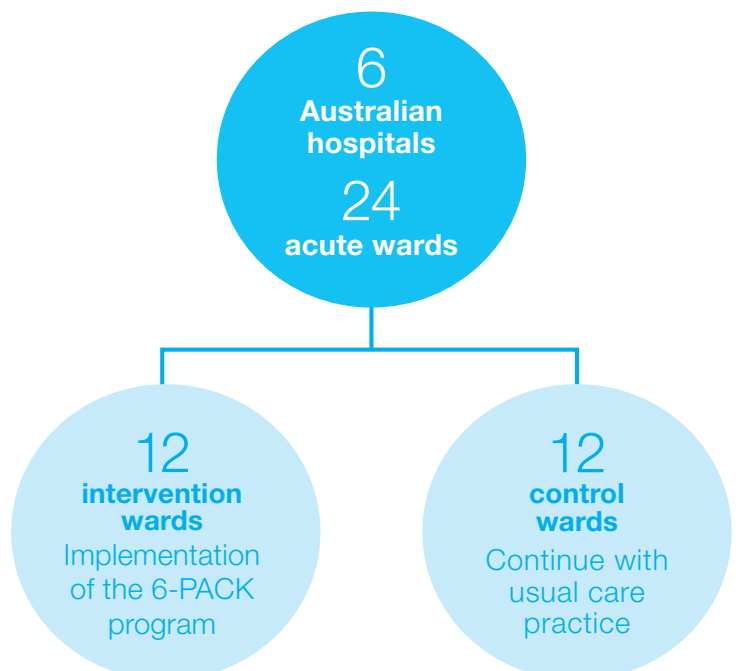
A prior 9-year evaluation of the 6-PACK program found a 50 per cent reduction of falls in the second year after implementation; this reduction was sustained for 5 years.⁴

Who was involved?

The cluster randomised controlled trial recruited 24 wards from six acute hospitals across Victoria and New South Wales. Wards that were found eligible to participate in the study had been identified by their associated hospital as having a problem with falls. Hospital ethics committees provided consent for all patients on participating wards to be included as participants of this study.



Wards were randomly allocated to either intervention (12 wards) or control (12 wards). Intervention wards implemented the 6-PACK falls prevention program while the control wards continued with usual care practice.



¹ Briggs K, Steel K. Falls in a hospital setting. J Am Geriatr Soc 2007;55:1676.

² Hill KD, Vu M, Walsh W. Falls in the acute hospital setting-impact on resource utilisation. Aust Health Rev 2007;31:471e7.

³ Cumming RG, Sherrington C, Lord SR, et al. Cluster randomised trial of a targeted multifactorial intervention to prevent falls among older people in hospital. BMJ

⁴ Barker A, Kamar J, Morton A, et al. Bridging the gap between research and practice: review of a targeted hospital inpatient fall prevention programme. Qual Saf Health Care 2009;18:467e72.



An important factor of the study was to integrate the 6-PACK program into usual work flow. The falls risk assessment tool and intervention strategies were therefore integrated into every daily patient care plan

and completed every shift. Upon completion, the patient's treating nurse updated the falls risk tool and applied a 'falls alert' sign and all relevant 6-PACK interventions for patients classified as high risk of falling.

The 6-PACK program is a targeted nurse delivered falls prevention program designed specifically for the acute hospital setting. The program includes a validated falls risk assessment tool (TNH-STRATIFY) and a selection from 6 simple nurse delivered interventions.



'Falls alert' sign



Supervision in the bathroom



Low-low bed



Bed/chair alarm



Walking aid within reach



Toileting regime

Implementation of the program was tailored to the needs of each hospital and supported by the research team with the use of a standardised implementation guide, hospital based

site clinical leader and ward champions. Key implementation strategies used by hospitals included staff education, practice audits, reminders, and feedback throughout the cluster RCT.

This project team brings together some of Australia's leading falls prevention researchers.

- A/Professor Anna Barker, Monash University
- A/Professor Caroline Brand, Monash University
- Professor Keith Hill, Curtin University
- Professor Terry Haines, Monash University
- Professor Sandy Brauer, The University of Queensland
- Professor Mari Botti, Deakin University
- Professor Robert Cumming, The University of Sydney
- Dr Silva Zavarsek, Monash University
- Professor Cathie Sherrington, The University of Sydney
- Professor Trish Livingston, Deakin University
- Ms Jeanette Kamar, Northern Health
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