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To evaluate the effectiveness of specific exercise program targets at lower limbs strengthening and fall risk stratification
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Introduction
Falls** are common in elderly.   Tinietti and Williams (1997) stated that even one non-injuries fall during a one-year period is associated with a three-fold greater risk of nursing home placement.   King and Tinetti (1996) stated that falls are responsible for most hip fractures in older people and are the leading cause of accidental death in people over age 65.   In Hong Kong, it showed similar consequences of falls: 9.9% had bone fractures and 31.3% had soft tissue injuries (Chu etal, 1999).   For falls in hospital settings, it was found that fall rates were generally highest in long stay institutions with rehabilitation settings and lowest in acute settings (Morse 1997).   So it is crucial to promote a structural fall prevention program in our hospital to reduce the fall risk of patient.   **Falls is defined as a sudden and unintentional coming to rest at a lower level or on the floor. (Patterson and Torresin, 1989)

Objectives
To raise the awareness of patients in fall prevention, early identification on potential fallers or recurrent fallers. Provide the tools to educate the care-givers and outline strategies to develop individualized management plans of care to reduce fall risk for high risk patients.

Methodology
A pilot trial on fall prevention program in physiotherapy department which targeted at lower limbs strengthening and fall risk stratification was introduced in wards A1/F1 in TEH in 2013-14. To evaluate the effectiveness of the program, it was further rolled out to wards A2/F2. Berg Balance Scale was measured before and after the exercise program.   On-going feedbacks from colleagues were collected for modification. Problems identified and solutions –   1)Severe impaired cognitive function patients (e.g. non-communicable) cannot follow the exercises and showed difficulties to understand the fall prevention advice.   2)Increase workload   To improve the effectiveness of manpower, number of patients recruited should be prioritized. Thus, two exclusion criteria were added.   (a)Severe impaired cognitive function patients.

(b)Bed/Chair bound patients as their fall potential is comparatively low.   Berg Balance Scale was measured between Jun to Aug 2015 for data analysis.

Result

Around 55 patients were recruited. 29 of them completed data collection. [8 women / 21 men; mean age: 83.1   (range:69 - 95)].   The mean length of stay in TWEH was 10.14 days (range: 1 day to 27days). The mean length of stay in PYNEH was 5.45 days (range: 2 day to 24 days).   Initial assessment was done within 2 working days admitted TWEH.   T-test revealed that Berg Balance Scale were significant improved in High Risk group and Moderated Risk group. P-value = 0.006 (<0.05) and P-value = 0.03 (<0.05) respectively.   In Low Risk group, P-value = 0.4.   Conclusion and Recommendation: A fall prevention exercise program targets at lower limbs strengthening and balance training by a health professional is effective in improving balance.   The potential fallers should be identified at early stage to devise the appropriate intervention plan.