Introduction
Exercise not only helps to maintain or improve bone density, it is also effective in preventing osteoporotic-related fractures through improving individual's balance and muscle strength. Physiotherapy intervention for this group of patients in TWEH has been focusing on pain relief with limited exercise component. This was identified as a service gap. Therefore, an osteoporosis patient empowerment program was launched since September 2015. This program emphasized on enhancing exercise knowledge and compliance, in which every participant was given the chance to learn and practice a whole set of disease specific exercise.

Objectives
(1) To enrich clinical management pathway for patients with osteoporosis in TWEH
(2) To empower patients with knowledge and skills in osteoporosis specific exercise
(3) To improved clinical outcomes and exercise compliance for patients with osteoporosis

Methodology
Patients from the osteoporosis clinic of TWEH who can walk independently and are cognitively well were recruited to the program via a referral system from clinic physicians. The 2-session program included educational talks and exercise education with practical sessions emphasized on muscle strengthening, weight bearing and balance training as major components. Educational talks were incorporated into the program covering the topics on fall prevention, osteoporosis and exercise. Multi-faceted assessments on patient's demographic data, exercise compliance, balance and functional mobility were conducted as outcome measures.

Result
Osteoporosis patient empowerment program improved patients' balance and functional mobility through engaging patients to practice a set of disease specific
exercise. Patients were empowered with a better insight into their conditions and a regular exercise habit to manage their own health. A total of 26 patients completed the program by March 2016. The first and 3-month follow up assessments were completed. Hand grip strength, functional reach and timed up & go test were conducted to detect changes in patients’ muscle strength, balance and functional mobility.

Paired T-test was applied for outcome analysis. Significant improvements (P<0.05) were found in both functional reach and timed up & go test among patients at 3-month follow up.

Although no statically significant change was detected in hand grip strength, around 75% of patients have recorded increase in grip strength upon completion of the program.

All patients agreed that the osteoporosis patient empowerment program improved understanding on their own condition and over 92% of participants were able to continue regular disease specific home exercises.