INTRODUCTION
Non adherence to treatment is an important predictor of long term outcomes in patients with osteoporosis. The percentage of patients persisting with therapy after one year has been between 40-70%. Osteoporosis Patient Targeted and Integrated Management for Active Living (OPTIMAL) is a fracture prevention program instituted in the public hospitals of Singapore since 2008. The program included patients over 50 years of age with either history of previous vertebral or non vertebral fragility fracture or WHO-FRAX score for 10 year probability of a major fracture >/= 20% or hip fracture >/= 3% (3) or both. The program constituted osteoporosis education, falls assessment, falls prevention exercises and pharmacotherapy. Additionally case managers followed up the patients with six follow up encounters over 2 years. We aim to describe the 2 year outcome of patients aged > 50 and recruited based solely on WHO-FRAX score for 10 year probability of major fracture >/= 20% or hip fracture >/= 3%. This represents primary fracture prevention and we wish to evaluate the effect of structured education, falls assessment and falls prevention exercises and regular case manager follow up on adherence to medication and lifestyle measures in patients treated for primary prevention of osteoporotic fractures.

METHODS:
Patients were interviewed by an investigator (not the assigned case manager) and falls, fracture and compliance to medication and exercise was evaluated. Compliance to medication was assessed by medication possession ratio and verified via patient interview.

RESULTS:
753 patients have been recruited into OPTIMAL at our hospital since 2008 and 297 are on active follow up. 99 patients were recruited based on WHO FRAX for primary fracture prevention and 97 patients are currently on active follow-up. 95 patients had completed a 2-year follow-up at the hospital as of October 2013 and were evaluated as part of this study. 77.89% of the patients reported compliance with an exercise program over the 2-year follow-up. 5 patients (5%) reported falls with 1 patient (1%) reporting a fracture in 2 years. Good compliance to osteoporosis medications (MPR >80%) was achieved in 77.89% after 2 years. The commonest reasons for non adherence to treatment are not seeing the importance of medication and fear of side effects.

CONCLUSION:
Our report suggests that a fracture prevention program with structured education and case management can be effective in improving treatment rates. However, the ultimate success of this program will be determined by 10 year fracture outcomes and cost effectiveness.

combines results from various studies to provide summary results pertaining to compliance, persistence and adherence.
(2) Chandran M, Tan MZW et al: Secondary prevention of osteoporotic fractures - an OPTIMAL model of care in Singapore