

## A RETROSPECTIVE ELECTRONIC MEDICAL RECORD DATABASE ANALYSIS

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### Objectives

- Osteoporosis (OP) has become an important health problem for the elderly in China. As the degree of aging becomes more serious, the incidence of postmenopausal osteoporosis is increasing year by year.
- At present, there is limited research on the economic burden of postmenopausal osteoporosis in China. Previous studies in China have focused on the overall evaluation of the economic burden of osteoporotic hip fractures, but little few researches was done on the economic burden of different fractures.
- The main purpose of this study is to retrospectively investigate treatment pattern and direct medical cost among fracture female patients with postmenopausal osteoporosis (PMOP) in China.

### Methods

- All data were derived from the Shanghai SuValue database, covering 195 hospitals in China.
- The fracture women over 50 years old with osteoporosis were identified for the first diagnosis time (index date) from January 1, 2014 to December 31, 2018.
- The study period was divided into baseline period (6 months before index date) and follow-up period (at least 12 months after index date).
- The treatment pattern included medication utilization and medication adherence.
- The direct medical cost of all-cause diseases and PMOP-related disease were evaluated within one year after the index date.

### Results

- A total of 31,247 patients were identified. Among them, 57.48% of patients were prescribed with anti-OP drugs.
- Among prescribed patients, the drugs frequently prescribed were calcium or vitamin D (74.51%) and alfacalcidol (31.36%).
- The initial medication with the largest number of patients were salmon calcitonin (61.18%). In patients prescribed with bone resorption inhibitors, the median time interval from first diagnosis to initial medication was 7 [0, 281] days.
- 98.06% of patients had low adherence (Medication Possession Ratio < 50%). Among the patients who prescribed with zoledronic acid for the first time, continuous users accounted for 86.17%.
- The annual all-cause hospitalization cost of hip fracture, vertebral fracture and multi-site fracture patients was 31,421 CNY, 18,068 CNY and 24,872 CNY respectively.
- The annual OP-related hospitalization cost of hip fracture, vertebral fracture and multi-site fracture patients was 27,554 CNY, 15,485 CNY and 21,096 CNY respectively.

Figure 1. Percentage of people using different anti-OP drugs and prescription frequency

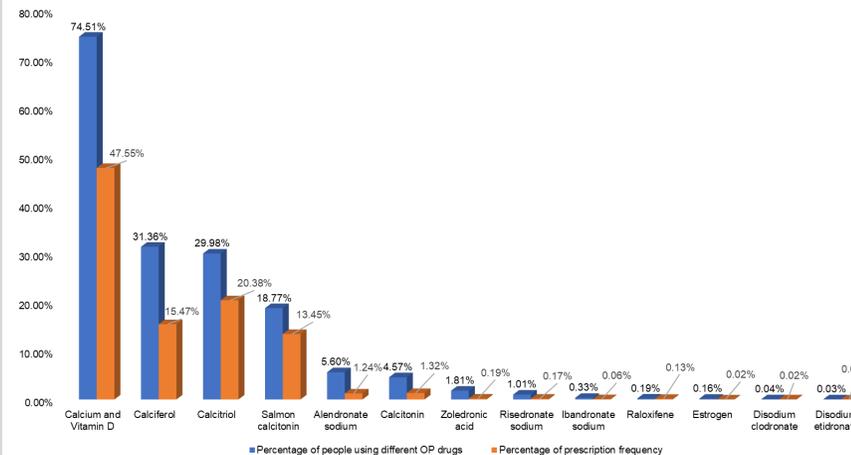
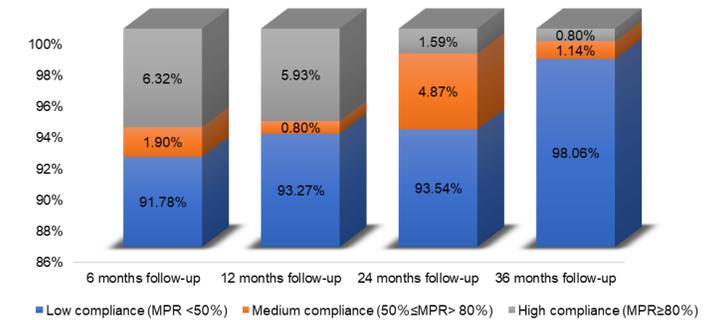


Figure 2. Patients distribution of medication adherence



### Conclusions

- The treatment rate of fracture patients with PMOP in China was low and the medication adherence was insufficient. The medical cost was still substantial burden for society. This research could guide clinical medication practice and provide cost parameters in support of health technology assessment.

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