Objective:

The growing ageing population and increasing prevalence of chronic diseases requires the simultaneous use of drugs, leading to issues of polypharmacy and potential interactions and inappropriate use.

Purpose:

To evaluate the prevalence of polypharmacy and potentially inappropriate medication (PIM) use and the association between these and number of prescribing medications and number of physician office visits in older adults.

Methods:

Using the Healthcare Information System (HIS) in Taipei City Hospital, we enrolled 159 elderly adults (aged >80 years) who had been prescribed 10 or more chronic medications (drugs prescribed for ≥28 days) and visited three or more different physician offices from 1 April 2016 to 30 June 2016. The EU(7)-PIM list was used to determine the potential inappropriateness of prescribed medications. Data were analysed using multiple regression analysis by the SPSS 22. A value of p < 0.05 was considered statistically significant.

Results:

We enrolled 159 patients in our study where the ratio of males: females were 89:70. The mean(SD) age of our patients was 85.8(10.2) years old. The mean rate of prescribing medications is 14.1(2.7) (maximum=28) orders per day, and number of physician office visits is 3.5(0.5) (maximum=6). In the study, PIM use was common (94.5%) in geriatric outpatients and the number of PIM is 2.9(0.5) (maximum=8). The most commonly prescribed PIM was sennoside (13.1%), theophylline (8.0%), piracetam (7.7%), and PPI (>8 weeks) (6.0%). In multiple regression analysis, PIM use was significantly associated with number of prescribing medications (p=0.001) and number of physician office visits in older adults (p=0.028).

Conclusions:

Of the 159 elderly persons in the study population, 150 (94.5%) received at least one PIM. Maybe we will establish computerised warning system and embed this into the HIS to decrease the medication number and PIM. The mainstay for preventing and managing polypharmacy remains heightened awareness of patients at risk. Pharmacovigilance is required by the patient, physician and pharmacist in thoroughly reviewing and reconciling the patient’s medication regimen at every opportunity.

Acknowledgements:

We thank the Centre for Public Health, Department of Education and Research, Taipei City Hospital, Taiwan for their valuable contributions in data management and statistical analysis.