Prevalence and Predictors of Polypharmacy Among Elderly Patients: A Population-Based Cohort Study

Nakorn SL, Pluso V, Abouzaid S, Temple M

Thomson University, Philadelphia, PA, USA, Ortho-McNeil Japan Scientific Affairs, LLC, Tsuchido, NJ, USA

OBJECTIVES: We sought to evaluate the prevalence of polypharmacy in the elderly population of Emilia-Romagna, Italy. METHODS: We conducted a retrospective cohort study of the 2007 Emilia-Romagna outpatient pharmacy database linked with patient information available from a demographic file of approximately 1 million Emilia-Romagna residents aged 265 years. The cohort was comprised of 887,165 elderly patients who had at least one prescription filled during the study period. RESULTS: The World Health Organization’s Defined Daily Dose (DDD) to determine the duration of treatment for a given drug, we defined a polypharmacy episode as overlapping treatment with 5 or more medications occurring for at least one day. The prevalence of polypharmacy was measured among patient subgroups. CONCLUSIONS: This study provides evidence that the prevalence of polypharmacy in the elderly in Emilia-Romagna is substantial. Educational programs targeting primary care physicians should be developed to make them aware of the magnitude of polypharmacy phenomenon, as well as patient characteristics associated with polypharmacy to ensure safe, effective, and appropriate use of medication in the elderly population.