

OSTEOPOROSIS**OSTEOPOROSIS—Health Policy**

POST7

PERSISTENCE AND COMPLIANCE WITH BISPHOSPHONATE THERAPY AMONG POST-MENOPAUSAL OSTEOPOROTIC WOMENCramer J¹, Amonkar MM², Hebborn A³, Suppanya N²¹Yale University, West Haven, CT, USA; ²GlaxoSmithKline, Collegeville, PA, USA; ³Hoffmann-La Roche, Nutley, NJ, USA

OBJECTIVES: To compare persistence and compliance of weekly and daily bisphosphonate regimens among post-menopausal osteoporotic women. **METHODS:** Post-menopausal osteoporotic women (>45 years) prescribed a once-weekly (QW) bisphosphonate (alendronate 35 or 70 mg) or once-daily (QD) bisphosphonate (alendronate 5 or 10 mg or risedronate 5 mg) were identified from an administrative claims database comprising 30 health plans. The QW and QD study cohorts were followed for 12 months after the index prescription. Medication possession ratio (MPR) was used to estimate compliance while persistence was calculated as the number of days from the initial prescription to a lapse of >30 days after completion of the previous refill. **RESULTS:** Between 1997 and 2002, a total of 2741 post-menopausal osteoporotic women who were prescribed a bisphosphonate (alendronate QW = 731; alendronate or risedronate QD = 2010) were identified (mean age = 63.7 years). Average MPR for the combined study cohorts was 60.6%. However, QW users had a significantly higher MPR than QD users (69.2% QW vs 57.6% QD, $t = -7.51$ $p < 0.0001$). Treatment persistence was significantly longer among the QW users than QD users (227 vs 185 days to discontinuation, respectively, log rank, $p < 0.0001$). Also, approximately 44% of weekly bisphosphonate users and 32% of daily bisphosphonate users persisted with their therapy at the end of 12 months. **CONCLUSIONS:** Post-menopausal women prescribed a weekly bisphosphonate regimen had significantly higher rates of compliance and longer persistence compared with those taking a more frequent, daily dosing regimen. However, rates for both regimens were less than desirable. These data demonstrate that less frequent dosing increases persistency, which is needed to obtain maximal long-term therapeutic benefits.

POS8

PERSISTENCE WITH BISPHOSPHONATE THERAPY AND THE IMPACT OF DOSING FREQUENCY IN PATIENTS WITH POST-MENOPAUSAL OSTEOPOROSISPenning-van Beest FJA¹, Goettsch WG², Erkens JA², Herings RMC²¹PHARMO Institute, Utrecht, The Netherlands; ²PHARMO Institute, Utrecht, The Netherlands

OBJECTIVES: The aim of this study was to compare the persistence of use of daily and weekly administered bisphosphonates. **METHODS:** Data were obtained from the PHARMO database, which includes linked drug-dispensing records and hospital records of more than one million subjects in defined areas in The Netherlands. New female users of alendronate, etidronate or risedronate aged 55 years and older in the period January, 2000–September, 2003, were included in the study cohort. One-year persistence of treatment was determined by using episodes of bisphosphonate treatment based on the method of Catalan. The effect of the dosing regimen and other determinants including age, co-medication and fractures, on persistence was assessed. **RESULTS:** The study cohort included 2124 new users of bisphosphonates. Overall, 1-year persistence of bisphosphonates was low; only 911 (43%) users were persistent.

Etidronate users were less persistent (30%) than alendronate and risedronate users (46% and 42%, respectively). Among alendronate users, patients on the weekly regimen were more persistent (52%) than those on the daily regimen (35%). A multivariate analysis including age, co-medication and fractures, showed that patients using alendronate weekly were 2.26 times more likely to be persistent (95%CI 1.66–3.09) compared to patients using alendronate daily. **CONCLUSIONS:** Our results indicate that persistence of bisphosphonate use is higher with a less frequent dosing regimen. The improved persistence of the weekly administered alendronate may theoretically be explained by a reduced frequency to experience drug-related acute adverse effects. However, persistence for both regimens can be considered to be suboptimal and leaves room for improvement.

POS9

EPIDEMIOLOGY OF OSTEOPOROSIS IN THE NETHERLANDS (1993–2002)Panneman MJM¹, Goettsch WG¹, Kramarz P², Herings RMC³¹PHARMO Institute, Utrecht, The Netherlands; ²Pfizer, Walton Oaks, UK; ³PHARMO Institute / Utrecht Institute for Pharmaceutical Sciences, Utrecht University, Utrecht, The Netherlands

OBJECTIVES: To assess the prevalence and incidence of osteoporosis, determine recent and predict future time trends in the Dutch population in the period 1993–2015. **METHODS:** Data were obtained from the PHARMO database, which includes linked drug-dispensing records and hospital records of more than 865,000 subjects in defined areas in The Netherlands. Patients (>45 years) who were hospitalised for osteoporosis (ICD9-CM: 733) or osteoporotic fractures (ICD-9-CM: 820, 812.0, 813.4, 805.2 and 805.4) and treated with glucocorticoids or anti-osteoporosis drugs (bisphosphonates, vitamin D, calcium, raloxifen, HRT) between 1993 and 2002 were included. Prevalence of osteoporosis was calculated as the total number of patients having osteoporosis on a single fixed day in a year (first Wednesday of October). Incidence of osteoporosis was computed as the number of new cases that met the inclusion criteria in a certain year divided by total person-time contributed by the population at risk. **RESULTS:** A total of 32,219 patients were included in this cohort. Prevalence of osteoporosis increased from 36 in 1994 to 56 in 2002 per 1000 inhabitants. Incidence declined in the same period from 8.7 to 7.0 (per 1000 inhabitants.). Extrapolations based on demographic changes in the future indicate that prevalence of osteoporosis will increase up to more than 65 (per 1000 inhabitants) in 2015. **CONCLUSIONS:** Prevalence of osteoporosis has been continuously increasing over the past decade. Our data show that the pace of this increase slowly declines probably due to increased awareness and screening that leads to a decrease in the size of the ‘pool’ of undetected osteoporotic patients. Ageing of the population is becoming the predominant contributor to a further increase of the osteoporosis prevalence in the future causing great social and economic burden to the society. Prevention of osteoporosis and its consequences is critical to reducing this burden.

PAIN**PAIN—Cost Studies**

PPN13

THE UNDER TREATMENT OF DEPRESSION IN CHRONIC PAIN

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OBJECTIVES: Depression has been reported to be highly associated with chronic pain. It is believed that chronic pain causes