2-YEAR PERSISTENCE WITH DIFFERENT ANTIOSTEOPOROSIS MEDICATIONS: A POPULATIONBASED COHORT STUDY

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Objective: To estimate the 2-year persistence amongst incident users of different anti-osteoporosis medications.

Material and methods: Cohort study based on the SIDIAP database (www.sidiap.org). Inclusions: women aged ≥50 years, incident users of any anti-osteoporosis medication (2012) and with data available for at least 12 months prior to therapy initiation. Exclusions: those with bone diseases/treatments (other than osteoporosis) and drugs with <100 users. Follow up: from 1st pharmacy dispensation until end of follow-up (death, moving out or data extraction date, switching or treatment cessation, whichever came first). Persistence definition: concatenated pharmacy dispensations of index drug (90 days permissible gap). Users of alendronate were compared to other oral bisphosphonates, strontium ranelate, SERMs, teriparatide and denosumab. Multivariable Cox regression models were used to estimate hazard ratios of therapy cessation according to drug used.

Results: 19,267 women were included. Unadjusted 2-year persistence [95%CI] ranged from 10.3%[9.1%-11.6%] for strontium ranelate to 45.4%[43.1%-47.8%] for denosumab. After multivariable adjustment, only denosumab users had a reduced cessation risk at the end of the 2nd year (HR of 0.60, 95% CI 0.56-0.64). Conversely, ibandronate, risedronate and strontium ranelate users had an increased risk of discontinuation. All other drugs had persistence similar to that of alendronate users.

Conclusions: Unadjusted 2-year persistence ranged from 10% (strontium ranelate) to 45% (denosumab users). Only denosumab users had an improved 2-year persistence. Unresolved confounding by indication (i.e., imbalanced disease severity) might partially explain our findings.

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