

TWO-FOLD REGIONAL VARIATION IN INITIATION OF ANTI-OSTEOPOROSIS MEDICATION AFTER HIP FRACTURE IN THE UK

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Objective

Describe UK regional variation in prescription of anti-osteoporosis drug therapy before and after a primary hip fracture during 1999–2013.

Materials and Methods

We used primary care data (Clinical Practice Research Datalink) to identify patients with a hip fracture and primary-care prescriptions of any anti-osteoporosis drugs (bisphosphonates, strontium, denosumab, oestrogen therapy, SERMS, teriparatide) prior to primary hip fracture and up to five years after. Regional variations in prescribing before and after generic oral bisphosphonates were analysed. Multivariable logistic regression models were adjusted for gender, age and indices of deprivation.

Results

13,069 patients (mean age 82 years, 76 % female) diagnosed with a primary hip fracture during 1999–2013 were identified. 11 % had any prescription in the six months prior to primary hip fracture with no significant regional variation. In the 0–4 months following a hip fracture 5 % of patients were prescribed an anti-osteoporosis drug in 1999, which increased to 51 % in 2011 and decreased to 39 % in 2013. 15 % of patients remained on treatment by 60 months. Independent predictors of treatment initiation included men (OR = 0.42 95%CI: 0.36–0.49), increasing BMI (OR = 0.98 95%CI: 0.97–1.00) and region (OR = 1.28 95 % CI: 0.88–1.87 North East vs. OR = 0.57 95%CI: 0.77–1.14 South West). Regional differences in prescribing persisted over the 5-year follow-up. If all patients were treated at the rate of the highest performing region, then nationally 3,214 additional hip fracture patients would be initiated on therapy every year.

Conclusion

Significant regional differences exist in post-hip fracture prescribing of anti-osteoporosis drugs despite adjustment for potential confounders at the patient level. While a significant increase was observed after 2005, the rate of treatment initiation was still low. Further work examining differences in health care provision may inform strategies to improve in secondary fracture prevention after hip fracture.