

# The Prevalence of Polypharmacy In Older Europeans: A Multi-country Database Study of General Practitioner Prescribing

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## Abstract

**Aim:** To measure the prevalence of polypharmacy and describe the prescribing of potentially inappropriate medication (PIM) in older people with polypharmacy in primary care. **Methods:** A multi-country retrospective cohort study across six countries: Belgium, France, Germany, Italy, Spain, UK. We used anonymized longitudinal patient level information from general practice databases hosted by IQVIA. Patients  $\geq 65$  years were included. Polypharmacy was defined as having 5-9, and  $\geq 10$  distinct drug classes (ATC Level 3) prescribed during a 6-month period. PIM defined: opioids, antipsychotics, proton pump inhibitors (PPI), benzodiazepines (ATC Level 5). We included country experts on the health care context to interpret findings. **Results:** Age and gender distribution was similar across the six countries (mean age 75-76 years; 54-56% female). The prevalence of polypharmacy of 5-9 drugs was 22.8% (UK) to 58.3% (Germany);  $\geq 10$  drugs from 11.3% (UK) to 28.5% (Germany). In the polypharmacy population prescribed  $\geq 5$  drugs, opioid prescribing ranged from 11.5% (France) to 27.5% (Spain). Prescribing of PPI was highest with almost half of patients receiving a PPI, 42.3% (Germany) to 65.5% (Spain). Benzodiazepine prescribing showed a marked variation between countries, 2.7% (UK) to 34.9% (Spain). The health care context information explained possible underreporting for PIM. **Conclusion:** We have found a high prevalence of polypharmacy with more than half of the older population being prescribed  $\geq 5$  drugs in four of the six countries. Whilst polypharmacy may be appropriate in many patients, worrying high usage of PIM (PPIs and benzodiazepines) supports current efforts to improve polypharmacy management across Europe.

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