Safe prescribing in older populations

Prescribing is a critical component of care for older people. Ageing and multimorbidity often require older patients to take multiple medicines (polypharmacy) for long periods of their lives. While polypharmacy is in many cases justified for the management of multiple conditions, inappropriate polypharmacy increases the risk of adverse drug events (ADEs), medication error and harm, resulting in falls, episodes of confusion and delirium. Various initiatives to improve medication safety and prevent harm involve regular medicine reviews and increased coordination between prescribing networks of doctors and pharmacists along the patient care pathway. ADEs cause 8.6 million unplanned hospitalisations in Europe every year (Mair et al., 2017[1]). Polypharmacy is one of the three key action areas of the third WHO Global Patient Safety Challenge (WHO, 2019[2]).

Across a selection of 14 countries with broader data coverage, polypharmacy rates among older people vary more than 11-fold across countries with broader data coverage, with Turkey reporting the lowest rates, and Luxembourg the highest. Among countries with only primary care data, polypharmacy rates vary almost three-fold, with Finland reporting the lowest rate and Korea the highest (Figure 11.11). These large variations can be explained in part by the establishment of targeted polypharmacy initiatives in some countries, including related reimbursement and prescribing policies. Countries that cannot separate prescription data from primary and long-term care show higher average and larger variation of polypharmacy rates than countries with only primary care data.

Opioids are often used to treat pain (see indicators "Opioids use" in Chapter 4 and "Safe primary care - prescribing" in Chapter 6) and are associated with high rates of emergency admissions caused by ADEs among older adults (Lown Institute, 2019[3]). Figure 11.12 indicates that across all countries except Canada, the overall volume of opioids consumed is highest among older people. On average across OECD countries, older people consume 1.5 times more than the average volume of those aged 50-69, and nearly five times more than the volume consumed by those aged 18-49. Luxembourg shows the highest opioids volumes among older adults, and Turkey the lowest. This variation can be explained in part by differences in clinical practice in pain management, as well as differences in regulation, legal frameworks of opioids, prescribing policies and treatment guidelines.

Despite the risk of adverse side effects such as fatigue, dizziness and confusion, benzodiazepines are often prescribed for older adults for anxiety and sleep disorders. Long-term use of benzodiazepines can lead to adverse events (falls, road accidents and overdoses), tolerance, dependence and dose escalation. As well as the period of use, there is concern about the type of benzodiazepine prescribed, with long-acting types not recommended for older adults because they take longer for the body to eliminate (OECD, 2017[4]). Inappropriate prescribing of benzodiazepines has been targeted as a priority area to improve the rational use of medicines among older populations by Choosing Wisely (2019[5]).

There was a decline in the use of benzodiazepines between 2012 and 2017 across OECD countries on average (Figure 11.13). The largest decline in chronic usage was seen in Iceland and Finland, and Korea and Norway experienced the largest decline in usage of long-acting benzodiazepines. The large variation can be explained in part by different reimbursement and prescribing policies for benzodiazepines, as well as by differences in disease prevalence and treatment guidelines.

Definition and comparability

See the "Definition and comparability" box on "Safe primary care – prescribing" in Chapter 6 for more details regarding the definition and comparability of prescription data across countries.

References

[5] Choosing Wisely (2019), *Choosing Wisely*, *https://www.choosingwisely.org/*.

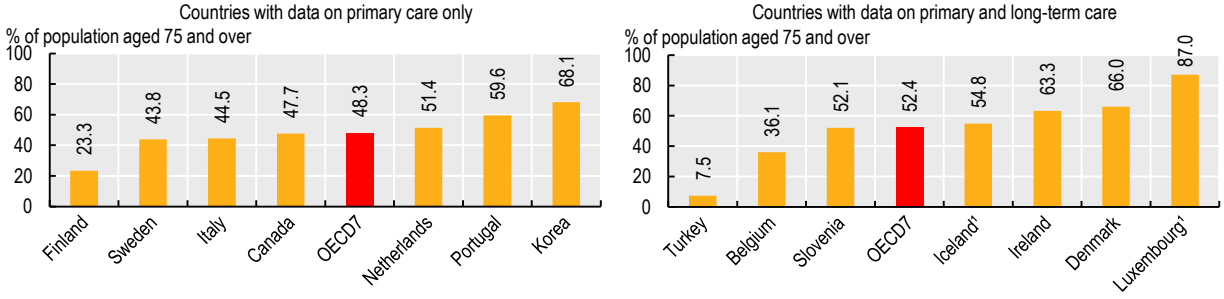
[3] Lown Institute (2019), *Medication Overload: America's Other Drug Problem*, *https://lowninstitute.org/wp-content/uploads/2019/04/medication-overload-lown-web.pdf*.

[1] Mair A, F., H. Alonso A and E. al. (2017), *The Simpathy consortium. Polypharmacy Management by 2030: a patient safety challenge*, SIMPATHY Consortium, Coimbra, *http://www.simpathy.eu/*.

[4] OECD (2017), *Tackling Wasteful Spending on Health*, OECD Publishing, Paris, *https://dx.doi.org/10.1787/9789264266414-en*.

[2] WHO (2019), *The Pursuit of Responsible Use of Medicines: Sharing and Learning from Country Experiences*, *https://www.who.int/medicines/areas/rational_use/en/*.

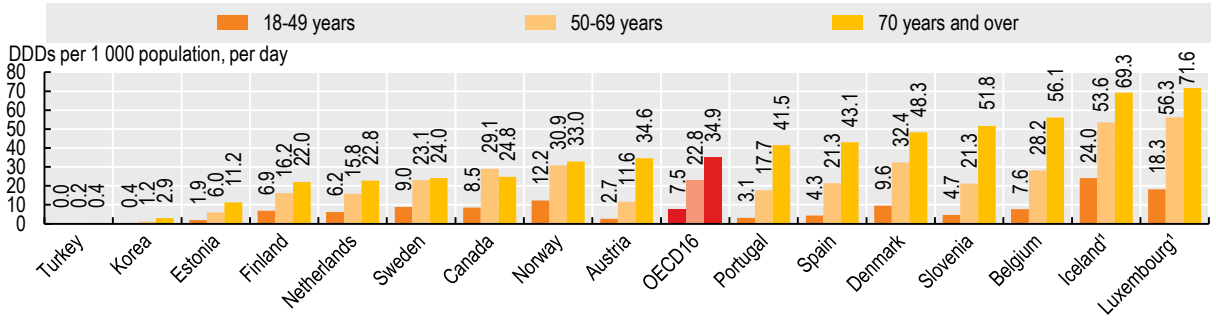
Figure 11.11. **Polypharmacy in adults aged 75 and over: primary and long-term care, 2017 (or nearest year)**



Note: Chronicity defined based on use above 90 DDDs/days in a given year, except in results for Turkey, Ireland, Denmark, Finland and Portugal which instead use number of prescriptions (four and over) in a given year. Dermatologicals for topical use are excluded.
1. Three-year average.
Source: OECD Health Statistics 2019.

StatLink https://doi.org/10.1787/888934018450

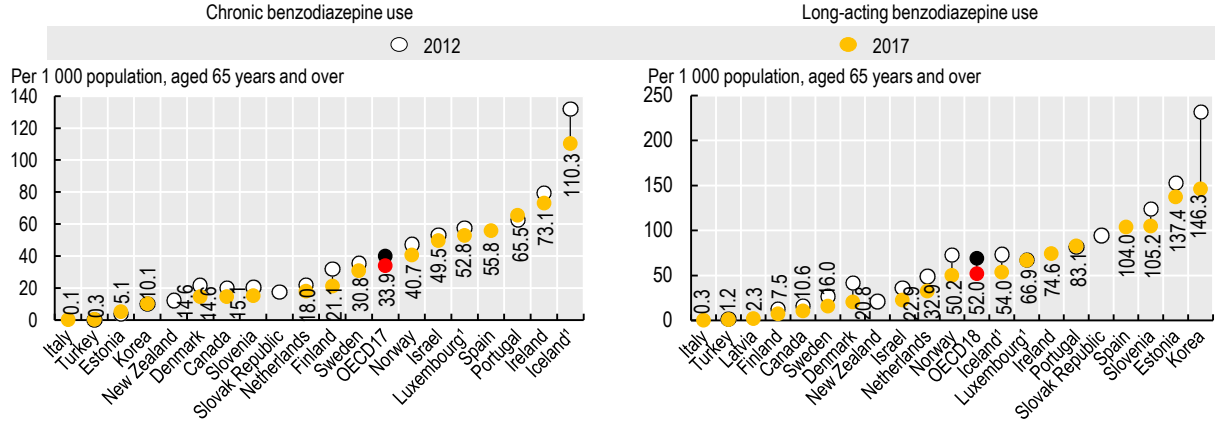
Figure 11.12. **Opioid prescriptions across age groups, 2017 (or nearest year)**



Note: Data excludes products used in the treatment of addiction.
1. Three-year average.
Source: OECD Health Statistics 2019.

StatLink https://doi.org/10.1787/888934018469

Figure 11.13. **Trends in benzodiazepine use in adults aged 65 and over, 2012-17 (or nearest years)**



1. Three-year average.
Source: OECD Health Statistics 2019.

StatLink https://doi.org/10.1787/888934018488