

# Potentially inappropriate medication associated with a higher risk of fractures and mortality

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A recent study published in the *European Journal of Health Economics* finds that the initiation of potentially inappropriate medication (PIM) is associated with a higher risk of fracture-specific hospitalizations and mortality. Initiation of a PIM is also associated with higher hospital costs. The study was conducted on the basis of collaboration between the University of Eastern Finland, Fimea and The Social Insurance Institution of Finland.

PIMs are defined as medications whose potential risks are higher than their clinical benefits. In this study, PIMs were defined according to the Meds75+ database maintained by the Finnish Medicines Agency (Fimea). Medications are divided into four categories: (A) "Suitable for the older persons," (B) "There is little evidence, practical evidence or efficacy in older persons," (C) "Suitable for older persons, with specific cautions," and (D) "Avoid use in [older persons](#)." The most commonly used international criteria (Beers, STOPP/START and Laroche) were taken into account when creating the database.

Nationwide registers were used to follow over 20,000 community-dwelling people aged  $\geq 65$  years between the years 2002 and 2013. Matching persons were identified from the non-users group for those persons who purchased PIMs during the 12-year follow-up.

The study indicates that the risk of fracture-specific hospitalization and

mortality is higher when initiating PIMs. Previous studies conducted in Europe have not investigated hospital costs associated with PIM use with as long a follow-up as this study.

PIM prescription always requires clinical grounds, which take account of the risks related to [medication](#) treatments. The purpose of the Meds75+ database is to support clinical decision-making on the pharmacotherapy of patients over 75 years of age and to improve the safety of medication in [primary health care](#). Meds75+ is available free of charge.

**More information:** Virva Hyttinen et al. The association of potentially inappropriate medication use on health outcomes and hospital costs in community-dwelling older persons: a longitudinal 12-year study, *The European Journal of Health Economics* (2018). [DOI: 10.1007/s10198-018-0992-0](#)

Provided by University of Eastern Finland

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