

# Comparing EU (7) -PIM list, Beers criteria and STOPP criteria for identification of PIM in a hospitalized older adults sample

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**Background** Given the fragility associated with ageing, as well as possible comorbidities and the consequent poly medication, older patients are more prone to drug-related problems (DRP). Several tools have been used to identify potentially inappropriate medications (PIM) in older adults, with different criteria among them.

**Purpose** Analyze the medication of hospitalized older patients, using tools to detect PIM, namely the EU (7) -PIM list, Beers criteria and STOPP criteria.

**Method** A retrospective study was carried out, in which all patients over 65 years old, hospitalized in one medical ward from one hospital in the centre region of Portugal were included if hospital stay was longer than 4 days, during the 2019 year. The data were collected from the electronic records of the hospital and all data were coded. All prescribed drugs were analyzed and the PIM were identified using the the EU (7) -PIM list, the Beers 2019 criteria, and version 2 of the Screening Tool of Older Person's Prescriptions (STOPP) criteria.

**Findings** The study included 616 older patients, who have prescribed a total of 11159 medications during their hospital stay, corresponding to 285 different drugs. It was also prescribed 137 dietary supplements. Through the application of the EU (7) -PIM list, the Beers criteria, and the STOPP criteria it was observed that 79.7%, 92% and 76.5% of older patients had been prescribed, respectively, at least one PIM. Of the 285 drugs taken by older patients during their hospital stay, the EU (7) -PIM list identified 63 PIM, the Beers criteria identified 77 PIM and the STOPP criteria identified 95 PIM. When comparing the 3 lists, we find that the EU (7) -PIM list identified 42 PIM in common with the Beers criteria and 40 PIM in common with STOPP criteria, while the Beers criteria have identified 59 PIM in common with STOPP criteria. Thirty-four PIM were common to all the free criteria.

**Conclusion** It was observed a poor agreement between the different criteria applied to identify PIM, demonstrating the importance of studies in this area and the need of adapting the criteria to the hospital reality, more specifically in the medical services, where there is a frequent need of medication changes. This work was financially supported by the APIMedOlder project [PTDC/MED-FAR/31598/2017], funded by the operational programme of competitiveness and internationalization (POCI), in its FEDER/FNR component POCI-01-0145-FEDER-031598, and the Foundation for Science and Technology (Fundação Para a Ciência e Tecnologia - FCT).