



# REVISIÓN BIBLIOGRÁFICA **ABRIL 2019**: Selección de artículos

## **REVISTAS GERIÁTRICAS**

### **DRUGS AND AGING**

#### **Effect of a Pharmacist-Driven Medication Management Intervention Among Older Adults in an Inpatient Setting**

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##### **Abstract**

##### **Background**

Older adults have a seven times greater risk than younger adults of being hospitalized due to an adverse drug event.

##### **Objective**

The objective of this study was to compare the number of potentially inappropriate medications (PIMs) on admission to the number of PIMs on discharge following pharmacist intervention.

##### **Patients and Methods**

This was a prospective, single-center pilot study performed at a tertiary medical center. Eighty-two adults aged 65 years or older on five or more medications who were admitted to the general medicine floor between December 2016 and May 2017 were included in the analysis. Pharmacists completed a review of prior admission medications and identified PIMs. Recommendations for PIMs were communicated to the medical team and documented in the patient's electronic medical record. PIMs were measured by the use of validated screening tools and an assessment of patient-specific parameters.

##### **Results**

Fifty-two percent of our patients were taking at least one PIM. The average number of PIMs on admission was found to be  $0.84 \pm 1.12$ . Pharmacist intervention resulted in a statistically significant reduction to an average of  $0.56 \pm 0.91$  PIMs ( $P < 0.01$ ). The mean time to complete the medication therapy management (MTM) process was  $49.39 \pm 16.2$  min per patient.

##### **Conclusion**

While pharmacist-driven MTM significantly reduced PIMs in our study, the implementation of this model in the inpatient setting faces several challenges.

Disponible en: <https://link.springer.com/article/10.1007/s40266-018-00634-9>



# **EUROPEAN GERIATRIC MEDICINE**

## **Older HIV-infected adults: complex patients (III)—polypharmacy**

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### **Abstract**

Polypharmacy is a well-described problem in the geriatric population. It is a relatively new problem for people living with HIV (PLWH), as this group now has a life expectancy approaching that of the general population. Defining polypharmacy for PLWH is difficult, since the most common traditional definition of at least five medications would encompass a large percentage of PLWH who are on antiretrovirals (ARVs) and medications for other medical comorbidities. Even when excluding ARVs, the prevalence of polypharmacy in PLWH is higher than the general population, and not just in resource-rich countries. Using a more nuanced approach with “appropriate” or “safer” polypharmacy allows for a better framework for discussing how to mitigate the associated risks. Some of the consequences of polypharmacy include adverse effects of medications such as increased risk of geriatric syndromes, drug–drug interactions, decreased adherence, and over- and undertreatment of medical comorbidities. Interventions to combat polypharmacy include decreasing pill burden—specifically with fixed-dose combination tablets—and medication reconciliation/de-prescription using established criteria. The goal of these interventions is to decrease drug interactions and improve quality of life and outcomes. Some special populations of interest within the community of PLWH include those with chronic pain, substance abuse, or requiring end of life care. A final look into the future of antiretroviral therapy shows the promise of possible two-drug regimens, which can help reduce the above risks of polypharmacy.

Disponibile en: <https://link.springer.com/content/pdf/10.1007%2Fs41999-018-0139-y.pdf>



# **JOURNAL OF THE AMERICAN GERIATRICS SOCIETY**

## **Hypertension Treatment and Control and Risk of Falls in Older Women**

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### **Abstract**

#### **BACKGROUND/OBJECTIVES**

A lower risk of falls is commonly cited as a reason to treat hypertension conservatively in older individuals. We examined the effect of hypertension treatment and control status and measured blood pressure (BP) level on the risk of falls in older women.

#### **DESIGN/SETTING**

Prospective cohort study.

#### **PARTICIPANTS**

A total of 5971 women (mean age 79 years; 50.4% white, 33.1% black, 16.5% Hispanic/Latina) enrolled in the Women's Health Initiative and Objective Physical Activity and Cardiovascular Health study.

#### **MEASUREMENTS**

BP was measured by trained nurses, and hypertension treatment was assessed by medication inventory. Participants mailed in monthly calendars to self-report falls for 1 year.

#### **RESULTS**

Overall, 70% of women had hypertension at baseline (53% treated and controlled, 12% treated and uncontrolled, 5% untreated). There were 2582 women (43%) who reported falls in the 1 year of surveillance. Compared with nonhypertensive women, when adjusted for fall risk factors and lower limb physical function, the incidence rate ratio (IRR) for falls was 0.82 (confidence interval [CI] = 0.74-0.92) in women with treated controlled hypertension ( $p = .0008$ ) and 0.73 (CI = 0.62-0.87) in women with treated uncontrolled hypertension ( $p = .0004$ ). Neither measured systolic nor diastolic BP was associated with falls in the overall cohort. In women treated with antihypertensive medication, higher diastolic BP was associated with a lower risk of falls in a model adjusted for fall risk factors (IRR = 0.993 per mm Hg; 95% CI = 0.987-1.000;  $p = .04$ ). The only class of antihypertensive medication associated with an increased risk of falls compared with all other types of antihypertensive drugs was  $\beta$ -blockers.

#### **CONCLUSION**

Women in this long-term research study with treated hypertension had a lower risk of falls compared with nonhypertensive women. Diastolic BP (but not systolic BP) is weakly associated with fall risk in women on antihypertensive treatment (<1% decrease in risk per mm Hg increase).

Disponible en: <https://onlinelibrary.wiley.com/doi/10.1111/jgs.15732>



## **American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults**

By the 2019 American Geriatrics Society Beers Criteria® Update Expert Panel

### **Abstract**

The American Geriatrics Society (AGS) Beers Criteria® (AGS Beers Criteria®) for Potentially Inappropriate Medication (PIM) Use in Older Adults are widely used by clinicians, educators, researchers, healthcare administrators, and regulators. Since 2011, the AGS has been the steward of the criteria and has produced updates on a 3-year cycle. The AGS Beers Criteria® is an explicit list of PIMs that are typically best avoided by older adults in most circumstances or under specific situations, such as in certain diseases or conditions. For the 2019 update, an interdisciplinary expert panel reviewed the evidence published since the last update (2015) to determine if new criteria should be added or if existing criteria should be removed or undergo changes to their recommendation, rationale, level of evidence, or strength of recommendation. *J Am Geriatr Soc* 67:674–694, 2019.

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## **REVISTAS FARMACÉUTICAS**

### **EUROPEAN JOURNAL OF CLINICAL PHARMACOLOGY**

#### **Medication use in older patients and age-blind approach: narrative literature review (insufficient evidence on the efficacy and safety of drugs in older age, frequent use of PIMs and polypharmacy, and underuse of highly beneficial nonpharmacological strategies)**

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#### **Abstract**

##### **Introduction**

The importance of rational drug therapy is increasing with the aging of the population. Since one of the main reasons for inappropriate drug prescribing is also the “age-blind” approach, which results in ageist practices, this narrative literature review focuses on the description of the main barriers related to insufficient individualization of drug regimens associated with such age-blind approaches.



## **Methodology**

A narrative literature review using the PubMed, WoS, Embase, and Scopus databases was conducted by the EU COST Action IS1402. Experts in different scientific fields from six countries (the Czech Republic, Spain, Portugal, Hungary, Serbia, and Turkey) worked in four specific areas: (1) underrepresentation of older adults in clinical trials and clinical and ethical consequences; (2) insufficient consideration of age-related changes and geriatric frailty in the evaluation of the therapeutic value of drugs; (3) frequent prescribing of potentially inappropriate medications (PIMs); and (4) frequent underuse of highly beneficial nonpharmacological strategies (e.g., exercise).

## **Results**

Older patients are underrepresented in clinical trials. Therefore, rigorous observational geriatric research is needed in order to obtain evidence on the real efficacy and safety of frequently used drugs, and e.g. developed geriatric scales and frailty indexes for claims databases should help to stimulate such research. The use of PIMs, unfortunately, is still highly prevalent in Europe: 22.6% in community-dwelling older patients and 49.0% in institutionalized older adults. Specific tests to detect the majority of age-related pharmacological changes are usually not available in everyday clinical practice, which limits the estimation of drug risks and possibilities to individualize drug therapy in geriatric patients before drug prescription. Moreover, the role of some nonpharmacological strategies is highly underestimated in older adults in contrast to frequent use of polypharmacy. Among nonpharmacological strategies, particularly physical exercise was highly effective in reducing functional decline, frailty, and the risk of falls in the majority of clinical studies.

## **Conclusion**

Several regulatory and clinical barriers contribute to insufficient knowledge on the therapeutic value of drugs in older patients, age-blind approach, and inappropriate prescribing. New clinical and observational research is needed, including data on comprehensive geriatric assessment and frailty, to document the real efficacy and safety of frequently used medications.

Disponible en: <https://link.springer.com/content/pdf/10.1007%2Fs00228-018-2603-5.pdf>



# **INTERNATIONAL JOURNAL OF CLINICAL PHARMACY**

## **DEFEAT-polypharmacy: deprescribing anticholinergic and sedative medicines feasibility trial in residential aged care facilities**

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### **Abstract**

#### **Background**

Prolonged use of anticholinergic and sedative medicines is correlated with worsening cognition and physical function decline. Deprescribing is a proposed intervention that can help to minimise polypharmacy whilst potentially improving several health outcomes in older people.

#### **Objective**

This study aimed to examine the feasibility of implementing a deprescribing intervention that utilises a patient-centred pharmacist-led intervention model; in order to address major deprescribing challenges such as general practitioner time constraints and lack of accessible deprescribing guidelines and processes.

#### **Setting**

Three residential care facilities.

#### **Methods**

The intervention involved a New Zealand registered pharmacist utilising peer-reviewed deprescribing guidelines to recommend targeted deprescribing of anticholinergic and sedative medicines to GPs. Main outcome measure The change in the participants' Drug Burden Index (DBI) total and DBI 'as required' (PRN) was assessed 3 and 6 months after implementing the deprescribing intervention.

#### **Results**

Seventy percent of potential participants were recruited for the study (n = 46), and 72% of deprescribing recommendations suggested by the pharmacist were implemented by General Practitioners (p = 0.01; Fisher's exact test). Ninety-six percent of the residents agreed to the deprescribing recommendations, emphasising the importance of patient centred approach. Deprescribing resulted in a significant reduction in participants' DBI scores by 0.34, number of falls and adverse drug reactions, 6 months post deprescribing. Moreover, participants reported lower depression scores and scored lower frailty scores 6 months after deprescribing. However, cognition did not improve; nor did participants' reported quality of life.

#### **Conclusion**

This patient-centred deprescribing approach, demonstrated a high uptake of deprescribing recommendations and success rate. After 6 months, significant benefits were noted across a range of important health measures including mood, frailty, falls and reduced adverse reactions. This further supports deprescribing as a possible imperative to improve health outcomes in older adults.

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# The association between polypharmacy and late life deficits in cognitive, physical and emotional capability: a cohort study

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## Abstract

### Background

Polypharmacy is a growing health concern for older adults and is associated with poorer clinical outcome.

### Objective

This study aim is to investigate the association between polypharmacy and impairment in cognitive, physical and emotional capability controlling for the confounding effect of co-morbidities.

### Setting

The Aberdeen 1936 Birth Cohort from 1999 to 2004.

### Method

Recruited were 498 dementia free participants around 64 years old and recruited into wave one. Linear regression and structural equation models were used. Models were adjusted for the effect of age, gender, childhood IQ, education and Body Mass Index. A triad of impairment was defined as a composite measure of impairment in cognitive, physical and emotional function. Main outcome measure The relationships between polypharmacy, co-morbidity and triad of impairment.

### Results

The prevalence of polypharmacy was 12.3% in this relatively healthy sample. Polypharmacy was significantly associated with increased impairment in cognitive, physical and emotional ability ( $\beta = 3.6$ ,  $p = 0.003$ ) after controlling for the effect of comorbidities and other confounding variables. As expected, higher childhood IQ and educational achievement had protective effects against impairment while higher comorbidity score and Body Mass Index were associated with increased impairment in this population.

### Conclusions

The independent association of polypharmacy and reduced cognitive, physical and emotional capability makes this a promising target for predicting and potentially reducing the risk of impairment and associated healthcare costs in older adults. Longitudinal studies are required to investigate the underlying mechanisms for the observed relationships further.

Disponibile en: <https://link.springer.com/content/pdf/10.1007%2Fs11096-018-0761-2.pdf>