INPLASY

POTENTIALLY INAPPROPRIATE MEDICATIONS IN HOSPITALIZED ELDERLY PEOPLE AND OUCOMES DURING THE HOSPITALIZATION – A SYSTEMATIC REVIEW

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - The review has not yet started.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 10 September 2024 and was last updated on 10 September 2024.

INTRODUCTION

Review question / Objective The acronym PECO was used to prepare the research question as follows:
PECO
Population – hospitalized elderly people
Exposure – Previous use of potentially inappropriate medications for the elderly
Comparator – no previous use of potentially inappropriate medications for the elderly
Outcome – hospital outcome.
What is the prevalence of the use of potentially inappropriate medications in hospitalized elderly people and hospital outcomes?
The objective of this research is to analyze the prevalence of the use of potentially inappropriate medications in hospitalized elderly people and hospital outcomes, through a systematic literature review.

Rationale Drug therapy use increases with advancing age and with increased use comes an increased risk of adverse events. Given that we are about to become a super-aged society, with 20% of our population aged 65 years and over, tools that clinicians can use to guide appropriate prescribing are more valuable than ever. Among various drugs used by older patients, the potential adverse risks of a certain medication may exceed the expected benefits; such drugs are referred to as potentially inappropriate medications (PIMs). The use of potentially inappropriate medications (PIMs) is widespread yet continues to receive little attention in outpatient and patient services.

Condition being studied The previous use of potentially inappropriate medications in hospitalized elderly people and hospital outcomes.

METHODS

Search strategy After creating the search strategy with the terms MESH, the strategy was translated into the specific terms DECS and EMTREE.
Mesh Terms:

#1 "Aged"[Mesh] OR (elderly) OR "Aged, 80 and over"[Mesh] OR (Oldest Old)
AND
#2 "Hospitalization"[Mesh] OR (Hospitalizations) OR "Inpatients"[Mesh] OR (Inpatient)
AND
#3 "Potentially Inappropriate Medication List"[Mesh] OR (Potentially Inappropriate Medication) OR (Potentially Inappropriate Medications) OR (Inappropriate Medication, Potentially) OR (Inappropriate Medications, Potentially) OR (Medication, Potentially Inappropriate) OR (Medications, Potentially Inappropriate) OR (Potentially Inappropriate Medication) OR (PIM List) OR (PIM Lists) OR (Medication Appropriateness Index) OR (Appropriateness Index, Medication) OR (Appropriateness Indices, Medication) OR (Index, Medication Appropriateness) OR (Indices, Medication Appropriateness) OR (Medication Appropriateness Indices) OR (Beers Criteria) OR (de Beers Criteria) OR (Beers Criteria, de) OR (Beers Potentially Inappropriate Medications) OR (STOPP (Screening Tool of Older Person's Potentially Inappropriate Prescriptions)) OR (STOPPs (Screening Tool of Older Person's Potentially Inappropriate Prescriptions)) OR (STOPP START Criteria) OR (Criterias, STOPP START) OR (Criteria, STOPP START) OR (START Criterias, STOPP) OR (START Criteria, STOPP) OR (STOPP START Criterias) OR (STOPP) OR (Screening Tool of Older Person's Potentially Inappropriate Prescriptions)
AND
("Patient Outcome Assessment"[Mesh] OR Assessments, Patient Outcome OR Outcome Assessments, Patient OR Patient Outcome Assessments OR Assessment, Patient Outcome OR Assessment, Patient Outcomes OR Patient Outcomes Assessment OR Outcome Assessment, Patient OR Outcomes Assessments, Patient OR Patient-Centered Outcomes Research OR Patient Centered Outcomes Research OR Research, Patient-Centered Outcome) OR ("Outcome Assessment, Health Care"[Mesh] OR Assessment, Outcomes OR Assessments, Outcomes OR Outcomes Assessments OR Outcomes Assessment OR Assessment, Outcome OR Assessments, Outcome OR Outcome Assessments OR Outcome Assessment OR Outcome Assessment (Health Care) OR Assessment, Outcome (Health Care) OR Assessments, Outcome (Health Care) OR Outcome Assessments (Health Care) OR Outcome Measures OR Measure, Outcome OR Measures, Outcome OR Outcome Measure OR Outcomes Research OR Research, Outcomes OR Outcome Studies OR Outcome Study OR Studies, Outcome OR Study,

Outcome) OR ("Fatal Outcome"[Mesh]) OR Fatal Outcomes OR Outcome, Fatal OR Outcomes, Fatal) OR ("Treatment Outcome"[Mesh] OR Outcome, Treatment OR Treatment Efficacy OR Efficacy, Treatment OR Clinical Efficacy OR Efficacy, Clinical OR Rehabilitation Outcome OR Outcome, Rehabilitation OR Clinical Effectiveness OR Effectiveness, Clinical OR Treatment Effectiveness OR Effectiveness, Treatment OR Patient-Relevant Outcome OR Outcome, Patient-Relevant OR Outcomes, Patient-Relevant OR Patient Relevant Outcome OR Patient-Relevant Outcomes) OR ("Adverse Outcome Pathways"[Mesh] OR Adverse Outcome Pathway).

Participant or population Hospitalized elderly people over 60 years of age.

Intervention None.

Comparator Previous use or not of potentially inappropriate medications for the elderly.

Study designs to be included Observational or interventional studies.

Eligibility criteria Observational or intervention studies that include hospitalized elderly people ≥ 60 years of age, have endorsed the previous use of PIM, which includes in-hospital outcome assessment.

Information sources A specific search strategy for the language of each database was developed using, initially, the Medical Subject Headings (MEsH) descriptor and later translated to specific descriptors (Descriptors in Health Sciences (DeCS) and Embase Subject Headings (Emtree)). The search strategy will be applied by the researchers in the MEDLINE databases through the Pubmed Portal; Scopus; EMBASE, CINAHL, Web of Science through the CAPES Journal Portal.

Main outcome(s) Estimate the prevalence and synthesize evidence on the past use of potentially inappropriate medications in hospitalized elderly people and hospital outcomes. Once the data record is released, it will search the databases and, if possible, perform a meta-analysis.

Quality assessment / Risk of bias analysis Newcastle-Ottawa scale.

Strategy of data synthesis Information including age, percentage of female, authors, years, country, participant type, potentially inappropriate medications, polypharmacy prevalence sample

size and data. Data will independent extracted by 2 authors.

Subgroup analysis We will conduct a subgroup based in past use of potentially inappropriate medications (PIM) in hospitalized elderly people to show if the use of PIM change the outcomes during the hospitalization. Outcomes: delirium, death, prolonged hospital length-of-stay.

Sensitivity analysis To assess if the study results were stable, we will conduct a sensitivity analyses and will find if the pooled effects size did not have a material change.

Language restriction There will be no language restrictions.

Country(ies) involved Brazil.

Keywords Elderly; Potentially Inappropriate Medication List; Hospitalization; Patient Outcome Assessment; Prevalence.

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