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PROLONGED USE OF BENZODIAZEPINES IN THE ELDERLY: ADVERSE EFFECTS, CLINICAL IMPLICATIONS AND MANAGEMENT RECOMMENDATIONS

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Abstract: The prolonged use of benzodiazepines (BZDs) among elderly individuals is still a recurring practice in clinical practice, despite recommendations to the contrary issued by various national and international scientific societies. These drugs, usually prescribed for sleep disorders, anxiety disorders and other psychiatric conditions, have a proven association with significant adverse effects, such as excessive sedation, cognitive impairment, increased risk of falls, development of chemical dependency and greater demand for health services. The maintenance of prolonged prescription is often related to the presence of psychiatric comorbidities, barriers to de-prescription and the absence of structured clinical protocols. The aim of this integrative review was to analyze the adverse effects resulting from the chronic use of BZDs in the elderly, discuss their clinical implications and present current management recommendations, based on the evidence available in the scientific literature, conducted through a systematized search in the PubMed and SciELO databases, in addition to consulting official documents from the Ministry of Health and Brazilian medical societies. Twenty references considered central were included, published between 2017 and 2025, with an emphasis on clinical guidelines and highly relevant observational studies. The results show that, despite the well-documented risks, the continued use of benzodiazepines remains high in this population. It is therefore essential to implement safe and individualized deprescribing strategies, combined with ongoing education for health professionals and the adoption of non-pharmacological therapeutic approaches. These measures are fundamental for promoting healthy ageing, with a focus on therapeutic safety and rationalizing the use of medicines in the elderly.
Keywords: Benzodiazepines; Elderly; Adverse effects; Overprescription; Geriatrics.

INTRODUCTION

The ageing of the world's population has had a significant impact on clinical practice in healthcare, and contrary to popular belief, geriatrics is very much a part of the psychiatrist's daily routine. It is estimated that in Brazil around 14% of the population is made up of people aged 60 or over, a group that has a high prevalence of psychiatric disorders such as depression, anxiety, insomnia and dementia. In this scenario, it is essential to understand the clinical, social and pharmacological particularities in order to work in geriatric psychiatry (IBGE, 2021; SBGG, 2020).

One of the main challenges in the psychiatric management of this population is the rational prescription of psychotropic drugs. Benzodiazepines, traditionally used to treat anxiety disorders and insomnia, are still among the most prescribed drugs for the elderly, despite growing evidence pointing to important risks associated with their prolonged use (Freire et al., 2022; Davies et al., 2022). Pharmacokinetic and pharmacodynamic changes in aging make the elderly more vulnerable to the adverse effects of these medications, causing cognitive decline, dependence, tolerance, increased risk of falls, fractures and greater morbidity and mortality (Reimers, Odin & Ljung, 2025; Amari et al., 2022; Na et al., 2022).

International organizations and scientific societies, such as the American Geriatrics Society and the Brazilian Society of Geriatrics and Gerontology (SBGG), contraindicate the use of this class of drugs as a first-line treatment for insomnia and anxiety in the elderly, recommending preference for non-pharmacological approaches and gradual deprescribing when possible (SBGG, 2020; American Geriatrics Society, 2019). In addition, recent studies have also reinforced the urgency of this paradigm shift, with evidence of the association between the use of benzodiazepines

and impaired cognition, balance and cardiovascular outcomes (Solanki et al., 2023; Tavares et al., 2021).

Recognizing the role of the elderly as active subjects in psychiatric care and understanding the risks inherent in the inappropriate use of benzodiazepines in this population are fundamental for safe, humanized and evidence-based medical care. Given this problem, this article aims to review recent literature on the adverse effects and clinical implications of long-term benzodiazepine use in the elderly, emphasizing outcomes such as cognitive decline, falls and dependence, as well as discussing current management recommendations (Domingues & Gomes, 2018; Na et al., 2022; Roncero et al., 2025; Melcarne et al., 2025; Universidade Aberta do SUS, 2023).

METHODOLOGY

The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) methodology was used to prepare this integrative review on the long-term use of benzodiazepines in the elderly, a protocol widely adopted to ensure rigor, transparency and quality in the selection and analysis of scientific articles.

The research was carried out by means of a bibliographic survey in the PubMed and Scientific Electronic Library Online (SciELO) databases, covering the last ten years (2015 to 2025). Official documents from the Ministry of Health, the Brazilian Society of Geriatrics and Gerontology (SBGG) and the Open University of the Unified Health System (UNA-SUS) were also consulted, considering the latest versions or updates available up to the time of the research,

The eligibility criteria were: Articles with free access to the full text; Publications in Portuguese or English; Studies that specifically addressed the prolonged use of benzodiazepines in the elderly; Works that discussed adverse effects, clinical outcomes, functional impact or management and safety strategies related to the topic; Texts that presented quantitative or qualitative data relevant to the topic. Therefore, the following were excluded Articles without access to the full text; Duplicate studies; Works which, after full reading, did not correspond to the objective of this review.

The search strategy was structured using the following descriptors and combinations: ("Benzodiazepines" OR "Benzodiazepines") AND ("Elderly" OR "Elderly"); ("Long-term use" OR "Long-term use") AND ("Benzodiazepines" OR "Benzodiazepines") and ("Adverse effects" OR "Adverse effects") AND ("Benzodiazepines" OR "Benzodiazepines") AND ("Elderly" OR "Elderly"). Thus, the selection of evidence was guided by the PICO strategy.

The article selection process took place in three stages:

1. Reading the titles and abstracts, excluding those that did not address the proposed theme.
2. Full reading of the selected texts, keeping those that discussed the prolonged use of benzodiazepines in the elderly and their clinical consequences.
3. Thematic categorization of the articles included, organized into predominant topics: adverse effects, cognitive impact, risk of dependence, falls and quality of life.

The critical analysis of the selected articles sought to identify the main adverse effects associated with the prolonged use of benzodiazepines in the elderly, their clinical implications and the recommendations described in the literature. Thus, from the initial sample of 220 articles, 29 articles were selected because they were directly relevant to the topic.

The construction of the research question and the definition of the objectives of this study were based on the FINER strategy (Feasible, Interesting, Innovative, Ethical and Rele-

vant), as described by Farrugia et al. (2010), ensuring the relevance and applicability of the topic investigated.

RESULTS

In the search and selection process (Figure 1), 29 articles were included, which are analyzed in Table 1, which shows the description of the studies according to: author, year of publication, type of study, objectives, results found and conclusion.

Initially, the search terms "Benzodiazepines", "Elderly", "Long-term use" and "Adverse effects" identified 220 articles, all of which were located in the PubMed and SciELO databases, with filters applied for publications from the last ten years (2015-2025), in English and Portuguese, and study types: clinical trial, review, systematic review and meta-analysis.

Next, duplicate articles (6), those not directly related to the proposed topic and those with insufficient methodology or that did not meet the eligibility criteria (137) were excluded. After reading the titles and abstracts, 29 articles were selected for detailed review and analysis.

The following flowchart (Figure 1) illustrates the process of selecting studies according to the PRISMA criteria.

The following table (Table 1) describes the articles selected according to: title, author/year of publication, type of study, objective, results found and conclusion.

According to the thematic analysis of the studies, the results were organized into five categories: Profile of use and associated factors; Adverse effects and functional impact; Falls, drug interactions and adverse events; Implications for the health system and guidelines; and Management and safety strategies.

The prevalence of benzodiazepine use among the elderly population is high and tends to increase with age. In a study carried out in Juiz de Fora (MG), with a sample of 400 elderly people, it was found that 18.3% used benzodiazepines (BZDs), of which 85.5% had been using these drugs for more than six months, thus characterizing chronic use. This use was associated with polypharmacy, with a prevalence ratio (PR) of 3.03, and an average of 6.6 drugs per patient (Freire et al., 2022).

With regard to adverse effects, the most frequently reported include sedation, confusion, daytime sleepiness, functional impairment and cognitive decline. According to the Paraná Guidelines, chronic use of benzodiazepines is associated with an increased risk of developing Alzheimer's, physical dependence and adverse psychomotor reactions (Brazil, 2018).

In the study conducted by Alvim et al. (2021), it was identified that 69.9% of BZD users had potential drug interactions (PDIs), and 92.3% of these interactions were classified as clinically significant (level 1 or 2 according to Micromedex). The main risks associated with the use of BZDs include central nervous system (CNS) depression, hypotension and psychomotor impairment. In addition, approximately 59.2% of the participants used benzodiazepines with a long half-life, which increases the risk of falls. These findings are reinforced by studies linking the use of BZDs to a higher risk of central nervous system depression, hypotension and psychomotor impairment (Na et al., 2022; Amari et al., 2022).

The Elderly Health Guideline, published in 2018 (Brazil, 2018), emphasizes the importance of continuous reassessment of pharmacotherapy and safe prescribing, recommending the gradual deprescribing of benzodiazepines whenever feasible. The Mental Health Guideline suggests that the use of BZDs should be restricted to acute and short-term situations, and should be avoided in chronic cases and replaced by selective serotonin reuptake inhibitors (SSRIs) and non-pharmacological therapies (SBGG, 2020).

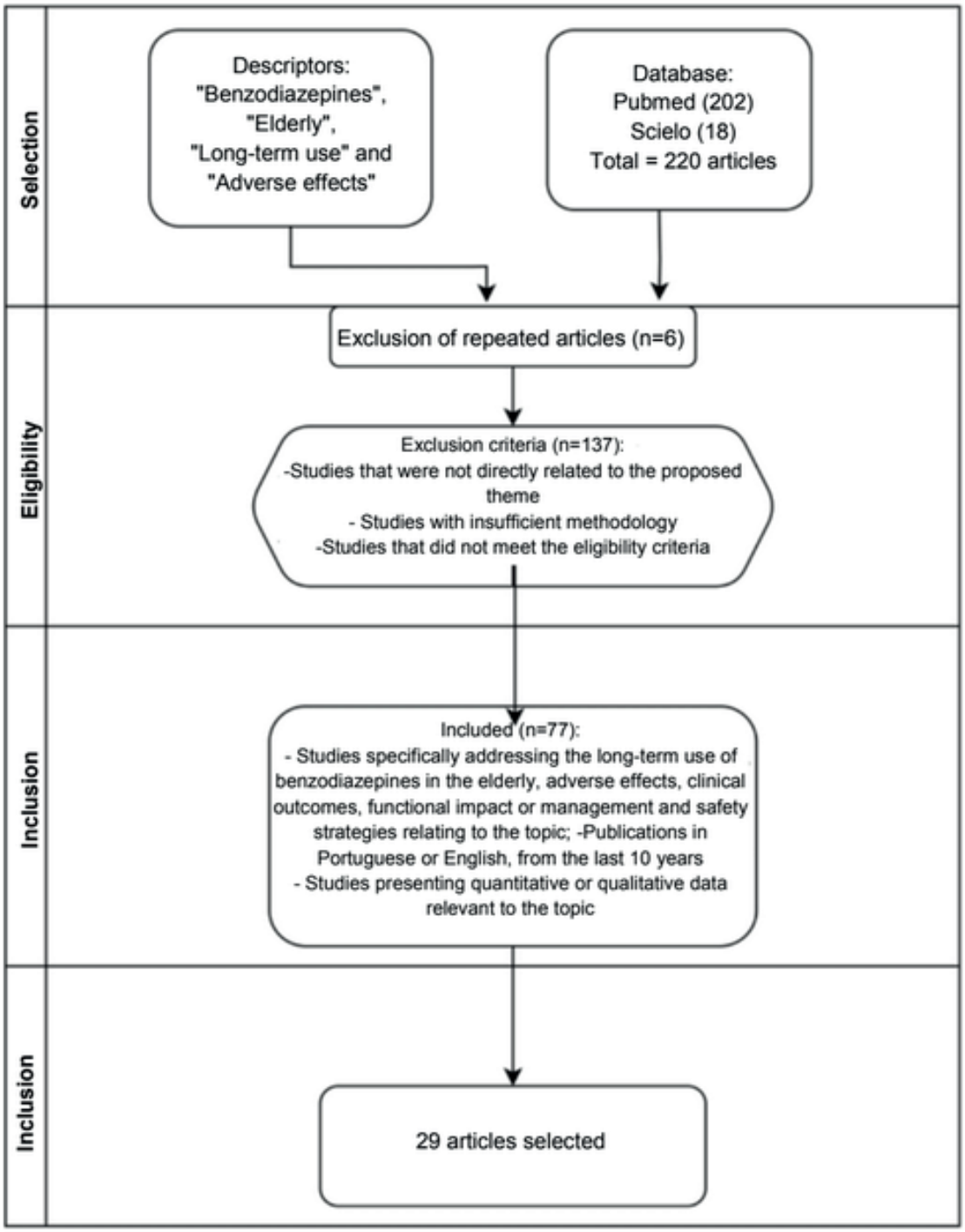

Figure 1. Flowchart of the search and selection of articles. Source: Author.

Description of the articles used for the review				
TITLE	**AUTHOR AND DATE**	**METHOD**	**OBJECTIVES**	**CONCLUSION**
Falls, healthcare resources and costs in older adults with insomnia treated with zolpidem, trazodone, or benzodiazepines	Amari et al., 2022	Retrospective observational study	To compare falls and healthcare costs in elderly people with insomnia treated with different drugs	Benzodiazepine users had a higher risk of falls and higher costs compared to zolpidem or trazodone
Consumption patterns and factors associated with inappropriate prescribing of benzodiazepines in Primary Health Care settings	Barboza Zanetti et al., 2024	Cross-sectional study	To assess consumption patterns and factors associated with inappropriate prescribing of benzodiazepines	Inappropriate prescribing associated with female gender, psychiatric comorbidities and lack of de-prescribing protocols
The impact of pharmacological and non-pharmacological interventions on physical health outcomes in people with mood disorders across the lifespan	Croatto et al., 2023	Review of randomized clinical trials	To assess the impact of interventions on the physical health of people with mood disorders	Non-pharmacological interventions reduce physical risks, reinforcing alternatives to BZDs
Comparative safety of chronic versus intermittent benzodiazepine prescribing in older adults	Davies et al., 2022	Population-based cohort study	Comparing the safety of chronic versus intermittent BZD use in older adults	Chronic use is associated with a higher risk of hospitalizations and adverse events than intermittent use
Benzodiazepines and Sleep Architecture: A Systematic Review	De Mendonça et al, 2023	Systematic review	To evaluate the effects of BZDs on sleep architecture	BZDs alter deep sleep phases, impairing recovery and cognition, especially in the elderly
Benzodiazepines and risk of dementia: what is the evidence?	Domingues; Gomes, 2018	Narrative literature review	To investigate the association between the use of BZDs and the risk of dementia	Evidence suggests a possible increased risk of dementia with prolonged use, especially in the elderly
Benzodiazepines utilization in Brazilian older adults: a population-based study	Freire et al., 2022	Population-based study	To assess the prevalence and characteristics of BZD use in the elderly in Brazil	Use prevalent in 18.3% of the elderly; associated with polypharmacy and prolonged use (≥6 months)

Benzodiazepine consumption in depressed elderly people	Gonçalves et al., 2017	Descriptive observational study	To assess the pattern of BZD use in elderly people with depression	Frequent use, often chronic, associated with worsening depressive symptoms and greater dependence
Factors associated with long-term benzodiazepine and Z-drug use: a Swedish nationwide study	Isomura et al., 2023	Retrospective nationwide study	To identify factors associated with long-term use of BZDs and Z-drugs	Chronic use associated with female gender, previous mental disorders and inadequate initial prescription
Evolving Trends and Economic Burden of Benzodiazepine Use: Insights From a 10-Year Predictive Model	Koren et al, 2024	Predictive study based on retrospective data	Estimate trend and economic impact of BZD use over 10 years	Continued use raises public health costs; reinforces need for control and management strategies
Effects of tranquilization therapy in elderly with chronic diseases: A meta-analysis	Li et al, 2023	Review Meta-analysis	Evaluating the effects of tranquilizers (including BZDs) in the elderly with chronic diseases	BZDs associated with excessive sedation, higher risk of adverse events and clinical worsening
Polymedication in the elderly: perception of family doctors	Martins et al., 2023	Qualitative, cross-sectional study	To investigate doctors' perception of polymedication in the elderly	Doctors recognize polymedication as a problem, but face barriers to reviewing conducts
Deprescription of benzodiazepines and its management according to an overlapping strategy with a low-dose multicomponent medication: a Delphi consensus	Melcarne et al, 2025	Delphi consensus study	Discuss safe strategies for deprescribing benzodiazepines	Overlapping approach with multicomponent medication was considered safe and feasible
Reducing the risks when using benzodiazepines to treat insomnia: A public health approach	Modesto-Lowe et al., 2024	Review article with a public health approach	Reducing the risks when using BZDs for insomnia with public strategies	Reinforces safe clinical practices, medical education and vigilance in prescribing

Analysis of potentially inappropriate medications prescribed to older patients in a hospital setting	Mónico et al., 2020	Retrospective observational study	Analyzing the use of inappropriate medications in hospitalized elderly patients	BZDs among the most inappropriate drugs; recommendation for prescription review
Benzodiazepine Consumption, Functionality, Cognition, and Somnolence in Older Adults at a Tertiary Care Psychiatric Hospital in Mexico City	Montes--Castrejón et al., 2024	Cross-sectional study	To evaluate the effects of BZD use on cognition and functionality	Chronic use associated with sleepiness and cognitive decline
Risk of Falls Associated with Long-Acting Benzodiazepines or Tricyclic Antidepressants Use in Community-Dwelling Older Adults	Na et al., 2022	Case-crossover study	To assess the risk of falls with the use of BZDs and tricyclic antidepressants	Long-acting BZDs increase the risk of falls in the elderly
Potentially inappropriate medications in community-dwelling elderly: longitudinal analysis of the IMIAS study	Pineda et al, 2024	Longitudinal study	Assessing the use of inappropriate medication in the elderly	BZDs are among the most frequently prescribed inappropriate drugs
Benzodiazepine use in Spain: risks and perspectives on the current situation and proposals for their rational use	Roncero et al., 2025	Review with population data	Evaluate BZD use in Spain and propose recommendations	Excessive use; recommendations for rationalization and medical training
Effect of perioperative benzodiazepine use on intraoperative awareness and postoperative delirium: a systematic review and meta-analysis of randomized controlled trials and observational studies	Wang et al, 2023	Systematic review and meta-analysis	To evaluate the effects of BZDs on postoperative delirium and intraoperative awareness	Increases risk of delirium, without reducing intraoperative consciousness events
Benzodiazepine Usage, Healthcare Resource Utilization, and Costs Among Older Adults Treated with Common Insomnia Medications	Wickwire et al, 2023	Retrospective cohort with administrative data	To assess the impact of BZDs on costs and resource utilization in older adults	Associated with higher costs and higher hospitalization rates compared to other drugs

Efficacy and tolerability of pharmacological treatments for insomnia in adults: A systematic review and network meta-analysis	Yue et al, 2023	Systematic review with meta-analysis	Comparing efficacy and tolerability of drugs for insomnia	BZDs have moderate efficacy but poor tolerability in long-term use
Benzodiazepines Reduce Blood Pressure in Short Term: A Systematic Review and Meta-analysis	Solanki et al, 2023	Systematic review and meta-analysis	To evaluate the effect of benzodiazepines on blood pressure in the short term	Benzodiazepines significantly reduce blood pressure in the short term and may be useful in specific contexts
A network meta-analysis of the long- and short-term efficacy of sleep medicines in adults and older adults	Wang et al., 2021	Systematic review with meta-analysis	Comparing the efficacy of insomnia medications in different age groups and durations	Hypnotic drugs, including BZDs, show variable efficacy according to time of use; prolonged use has less benefit and greater risk
Buprenorphine versus methadone for the treatment of opioid dependence	Degenhardt et al, 2023	Systematic review and meta-analysis of randomized studies	Comparing buprenorphine and methadone in the treatment of opioid dependence	Both are effective; buprenorphine has a lower risk of overdose and is a safer alternative in certain contexts
Remimazolam vs. propofol for general anesthesia in elderly patients	Pereira et al, 2024	Meta-analysis with sequential analysis of clinical trials	Comparing remimazolam and propofol in general anesthesia in the elderly	Remimazolam has a safer profile in the elderly, with less hemodynamic instability and faster recovery
The Psychopharmacology Algorithm Project: behavioral and psychological symptoms in dementia	Chen et al, 2021	Review of clinical guidelines	Updating algorithms for managing behavioral symptoms in dementia	BZDs should be avoided in the elderly with dementia; other pharmacological and non-pharmacological options are preferred

Cognitive and balance dysfunctions due to the use of zolpidem in the elderly: a systematic review	Tavares et al, 2021	Systematic review	Analyzing cognitive and balance dysfunctions associated with the use of zolpidem in the elderly	Zolpidem can impair cognition and balance in the elderly, with an increased risk of falls
Potentially Inappropriate Medications Use and Related Costs Among the Elderly	Malakouti et al, 2021	Systematic review	Investigating potentially inappropriate medication use and related costs among the elderly	Inappropriate use, including of BZDs, is prevalent and increases healthcare costs; deprescribing strategies are needed

Table 1. Description of the articles used for the review. Source: Author

Therefore, current literature recommends supervised deprescribing, preferably in a multi-professional setting, using strategies such as gradual overlap with low-risk medications, cognitive-behavioral therapy and sleep re-education (Melcarne et al., 2025; Modesto-Lowe et al., 2024). In addition, the involvement of clinical pharmacists and the application of scales such as the IVCF-20 are fundamental for identifying fragile and vulnerable patients, thus promoting therapeutic safety (UNA-SUS, 2023).

DISCUSSION

OVERVIEW OF THE LONG-TERM USE OF BENZODIAZEPINES IN THE ELDERLY

The chronic use of benzodiazepines (BZDs) among the elderly remains significant, even in the face of the contraindications indicated by international guidelines. The American Geriatrics Society's Beers Criteria classify BZDs as potentially inappropriate medications for the elderly, mainly due to the increased risk of falls, mental confusion, cognitive impairment and dependence, and recommend avoiding them, especially in prolonged treatments (American Geriatrics Society, 2019). This phenomenon is even more relevant given Brazil's population ageing process, which projects an accelerated growth in the proportion of elderly people in the coming decades, according to data from the Brazilian Institute of Geography and Statistics (IBGE, 2021).

In Brazil, population data shows a high prevalence of BZD use in the elderly, often associated with females, advanced age, low schooling and sleep or anxiety disorders. One study found that approximately 9% of the elderly population made continuous use of these drugs, with persistent prescription even without periodic clinical reassessment (Freire et al., 2022; Lima et al., 2017). Similarly, data from the IMIAS longitudinal study reveals the high use of potentially inappropriate medications, including BZDs, among elderly people living in the community, showing the persistence of the problem in various sociocultural contexts (Pineda et al., 2024). In addition, a systematic review and meta-analysis indicates that the perioperative use of BZDs may be associated with an increased risk of postoperative delirium in the elderly, reinforcing the need for caution in their use in hospital settings (Wang et al., 2023).

This pattern is also observed in European countries, considering the analysis of the situation in Spain, which highlights the urgent need to rationalize the use of benzodiazepines, due to the negative impact on public health and the persistence of prescriptions even in the face of safer therapeutic alternatives (Roncero et al., 2025; Koren et al., 2024). Recent reviews also point out that pharmacological and non-pharmacological interventions aimed at the mental health of the elderly have a significant impact on physical outcomes, emphasizing that the inappropriate use of BZDs can worsen clinical conditions and reduce functionality (Croatto et al., 2023).

FACTORS ASSOCIATED WITH LONG-TERM USE

Several factors contribute to the perpetuation of long-term BZD use in the elderly. These include the lack of discontinuation protocols, lack of professional training and inadequate management of mental disorders in primary care. In addition, inappropriate prescribing is strongly associated with females, the presence of psychiatric comorbidities and the concomitant use of other psychotropic drugs (Barboza Zanetti et al., 2024; Freire et al., 2022). The literature also points out that family doctors' own perception of polymedication in the elderly often contributes to the maintenance of these drugs, highlighting gaps in training and therapeutic review strategies (Martins et al., 2023).

In this respect, incident users of BZDs tend to progress to long-term use, especially when they have a history of mood disorders, anxiety or previous consumption of psychoactive substances, indicating a silent and persistent transition from acute to chronic use, according to a study based on Swedish records (Isomura et al., 2023).

CLINICAL ADVERSE EFFECTS

Prolonged use of benzodiazepines in the elderly is associated with significant clinical adverse effects. Among the most frequent are daytime sleepiness, impaired functionality, altered alertness and cognitive impairment. Thus, institutionalized elderly people under chronic use of BZDs have higher rates of cognitive and functional dysfunction, as well as a higher risk of accidents (Montes-Castrejon et al., 2024; Na et al., 2022).

In addition, it should be noted that benzodiazepines are among the main drugs associated with drug-induced cognitive deterioration in the elderly, with important implications for autonomy and quality of life (Reimers, Odin and Ljung, 2025; Davies et al., 2022). A review published in Portugal reinforces this point by discussing the association between prolonged use of BZDs and the risk of dementia, warning of the need for caution when prescribing these drugs (Domingues and Gomes, 2018). Another recent study reinforces that benzodiazepines significantly alter the architecture of sleep, affecting the deep and restorative phases, with direct impacts on cognition and the functional state of the elderly (de Mendonça et al., 2023). Similarly, systematic reviews also point to impaired balance and an increased risk of falls with the use of hypnotics, such as zolpidem and benzodiazepines (Tavares et al., 2021).

The pharmacokinetics of benzodiazepines show significant variations between the different molecules in terms of elimination half-life, which has relevant clinical implications for the elderly. Long-acting benzodiazepines, such as diazepam and clonazepam, are associated with a higher risk of accumulation, prolonged sedation and falls, while short-acting ones, such as oxazepam and lorazepam, tend to cause fewer residual effects, but still present risks when used for prolonged periods (Reimers, Odin and Ljung, 2025; Ame-

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rican Geriatrics Society, 2019). Unfortunately, many studies do not distinguish between the types of BZDs when analyzing risks, limiting the clinical applicability of the data. Therefore, the choice of the type of benzodiazepine and its duration of use should take into account the clinical condition, half-life, hepatic metabolism and drug interaction profile, especially in situations of polypharmacy (Na et al., 2022; Wickwire et al., 2023). Hospital evidence also shows a high frequency of prescribing potentially inappropriate BZDs in elderly inpatients, suggesting that the problem persists even in controlled environments (Mónico et al., 2020). In addition, elderly patients with chronic diseases who are excessively sedated and use tranquilizers, such as BZDs, contribute to clinical worsening and an increased risk of adverse events (Li et al., 2023).

RISK OF FALLS AND SERIOUS ADVERSE EVENTS

Falls are one of the most serious adverse outcomes associated with the chronic use of benzodiazepines in the elderly, considering that elderly patients treated with BZDs had a significantly higher risk of falls and use of emergency services compared to users of zolpidem or trazodone (Amari et al., 2022; Wickwire et al., 2023).

These findings are reinforced by the significant increase in the risk of falls in elderly people using long-acting benzodiazepines, especially in home settings and without constant supervision (Na et al., 2022; Isomura et al., 2023).

ECONOMIC AND HEALTH SYSTEM IMPLICATIONS

The prolonged use of benzodiazepines also represents a considerable economic burden, given the increase in medical costs associated with hospitalizations, examinations, falls and clinical worsening resulting from the adverse effects of BZDs, when using predictive models to estimate the financial cost of this therapeutic pattern over ten years (Koren et al., 2024; Davies et al., 2022).

Similarly, elderly chronic users of BZDs have a higher frequency of use of health resources compared to patients treated with other medications for insomnia, generating a direct impact on the sustainability of the system (Wickwire et al., 2023; Amari et al., 2022).

COMPARISON BETWEEN CHRONIC AND INTERMITTENT USE

Studies comparing continuous and intermittent use of benzodiazepines show that chronic use is associated with worse clinical outcomes. Thus, a population-based cohort study showed that elderly people on continuous use had a higher risk of hospitalization and adverse events, even after controlling for age, comorbidities and the use of other medications (Davies et al., 2022; Montes-Castrejon et al., 2024).

In addition, reviews with a meta-analysis network indicate that the use of benzodiazepines is less effective in the long term, especially when compared to non-benzodiazepine interventions, with a greater cumulative risk of adverse events (Wang et al., 2021), and the literature also indicates that prolonged use may be related to the worsening of depressive symptoms, as evidenced in depressed elderly people who make continuous use of BZDs (Gonçalves et al., 2017).

MANAGEMENT GUIDELINES AND STRATEGIES

Given this scenario, national and international guidelines call for caution in prescribing and progressive discontinuation of BZDs in the elderly. The Brazilian Society of Geriatrics and Gerontology, through the Choosing Wisely movement, recommends that BZDs should not be maintained for long periods

in the elderly, except in exceptional conditions, and always with periodic reassessment (SBGG, 2020; Melcarne et al., 2025).

Since the Ministry of Health, through the Elderly Health Guideline, emphasizes the prioritization of non-pharmacological approaches in the management of mild insomnia and anxiety, associated with the constant reassessment of the need for psychotropic drugs, deprescribing strategies have been shown to be effective, especially when combined with an overlapping approach of low-dose and multicomponent drugs, facilitating the gradual withdrawal process. Thus, this approach not only minimizes withdrawal symptoms, but also ensures greater clinical safety for elderly patients, reducing the risk of complications associated with prolonged use of benzodiazepines (Brasil, 2018; Freire et al., 2022; Melcarne et al., 2025).

In this respect, a public health approach centered on educating professionals and patients and strengthening psychological interventions can be effective substitutes for benzodiazepines (Modesto-Lowe et al., 2024; Roncero et al., 2025). In this sense, experiments with other pharmacological classes for substance use disorders, such as the use of buprenorphine and methadone in opioid dependence, have shown good clinical results and can serve as a model for the gradual replacement of benzodiazepines in vulnerable populations (Degenhardt et al., 2023).

Finally, the importance of continuing education for health professionals should be highlighted, especially in primary care, where most prescriptions occur. The implementation of care protocols, combined with raising awareness among doctors, patients and family members about the risks of prolonged use, can contribute to changing the prescribing paradigm. UNA-SUS (Universidade Aberta do Sistema Único de Saúde, 2023) stresses that safe withdrawal should be individualized, with a structured plan, close monitoring and interdisciplinary support, taking into account the elderly person's clinical history, comorbidities and psychosocial profile. In this way, the therapeutic transition becomes safer and more effective, preserving the functionality and quality of life of the elderly (UNA-SUS, 2023; Brasil, 2018; Lima et al., 2017).

In parallel, a recent meta-analysis reinforces that in contexts such as general anesthesia in the elderly, the use of benzodiazepines such as remimazolam may be inferior to alternatives such as propofol in terms of safety and cognitive recovery (Pereira et al., 2024). In addition, the efficacy and tolerability of treatments for insomnia in adults favor non-benzodiazepine alternatives with a better safety profile, reinforcing the importance of therapeutic substitution strategies in the elderly (Yue et al., 2023).

Similarly, in episodes of bipolar depression, current evidence highlights the greater efficacy of other pharmacological classes compared to benzodiazepines for managing anxious symptoms and insomnia, suggesting that these drugs should only be considered in specific contexts and for a limited time (Yildiz et al., 2023).

MULTIPROFESSIONAL APPROACH TO MANAGING LONG-TERM BENZODIAZEPINE USE

The effectiveness of strategies for deprescribing benzodiazepines in the elderly depends on the work of multi-professional teams. The prescribing doctor is fundamental, but the clinical pharmacist is also important in reviewing pharmacotherapy and identifying drug interactions (Melcarne et al., 2025).

Psychologists and occupational therapists help implement non-pharmacological interventions, such as cognitive-behavioral therapy (CBT), which is effective in managing insomnia and mild anxiety in the elderly (Mo-

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desto-Lowe et al., 2024). They also help with sleep re-education and maintaining patients' autonomy. The nursing team is also essential, as they can monitor withdrawal symptoms, support adherence to treatment and guide family members. In addition, updated therapeutic algorithms for the management of behavioral symptoms in elderly people with dementia suggest that the use of benzodiazepines should be avoided or restricted to exceptional situations (Chen et al., 2021).

De-prescription programs with multi-professional support show a higher success rate and better patient compliance, as well as reducing the reintroduction of benzodiazepines. Working together, especially in primary care, facilitates the creation of individualized therapeutic plans, promoting safety and quality of life for the elderly (UNA-SUS, 2023; Melcarne et al., 2025; Freire et al., 2022).

CONCLUSION

The prolonged use of benzodiazepines in the elderly represents a critical public health issue, due to the numerous adverse effects associated with this practice, including an increased risk of falls, cognitive impairment, physical and psychological dependence, as well as greater use of health resources. Even in the face of international recommendations, such as the Beers Criteria, and the national guidelines of the Brazilian Society of Geriatrics and Gerontology and the Ministry of Health, the continuous prescription of these drugs is still frequent, especially among women, older people and individuals with sleep disorders or persistent anxious symptoms (American Geriatrics Society, 2019; Brazil, 2018; Brazilian Society of Geriatrics and Gerontology, 2020).

The maintenance of this practice is related not only to the subjective demand of patients, but mainly to the lack of structured protocols for deprescribing, the insecurity of professionals in carrying out the withdrawal and the scarcity of alternative therapeutic interventions implemented systematically in the health system. Furthermore, this prescription pattern is rooted in clinical practices that are not up to date, especially in primary care settings (Barboza Zanetti et al., 2024).

In addition to individual harm, prolonged use puts a strain on the health system, with a greater number of falls, hospitalizations and associated costs. These economic impacts, combined with progressive functional and cognitive losses, reinforce the need to transform the care model, with a focus on patient safety and promoting autonomy in aging (Koren et al., 2024; Wickwire et al., 2023). It should also be noted that the use of benzodiazepines among the elderly has been shown to be not only clinically inappropriate, but also economically unsustainable, considering the significant financial impact revealed by the use of potentially inappropriate drugs in this population (Malakouti et al., 2021).

Faced with this panorama, the implementation of safe management strategies, such as gradual withdrawal with clinical follow-up, the use of lower-risk therapeutic alternatives and the integration of non-pharmacological approaches, such as cognitive-behavioral therapies and sleep programs, becomes essential. Successful experiences of deprescribing show that the process can be viable, safe and effective when conducted with planning and multi-professional support (Melcarne et al., 2025).

The integrated work of doctors, pharmacists, psychologists and caregivers, together with the continued training of professionals and the awareness of the elderly themselves about the risks of prolonged use, are key elements in reversing this scenario. UNA-SUS reinforces that the approach must be humanized, respecting the patient's history and prioritizing their quality of life, with a focus on individualizing care (Universidade Aberta do Sistema Único de Saúde, 2023).

Therefore, reducing the long-term use of benzodiazepines in the elderly is not just a clinical choice, but an ethical and health imperative. It is necessary to review established behaviors, strengthen public policies, invest in health education and value evidence-based strategies. Only in this way will it be possible to promote healthier, safer and more functional ageing, in line with the principles of elderly-centered care (Modesto-Lowe et al., 2024).

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