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# Zolpidem in Insomnia Management: Considerations and Side Effects Associated with Long-Term Indiscriminate use

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## ABSTRACT

**Introduction:** Insomnia, characterized by difficulty initiating or maintaining sleep, is a common condition that significantly impacts individuals' quality of life and well-being. In the context of pharmaceutical treatment, zolpidem has emerged as a widely prescribed option for the effective management of sleep disorders. However, while this medication provides immediate relief for insomnia symptoms, growing concerns have been raised regarding its indiscriminate long-term use and potential side effects.

**Objectives:** This article aims to comprehensively explore the effectiveness of zolpidem in treating insomnia, while highlighting critical considerations and adverse effects associated with its prolonged use. By investigating the relationship between insomnia management with zolpidem and the implications of indiscriminate administration, this study seeks to provide a balanced perspective, fostering a deeper understanding of the risks and benefits involved in the long-term use of this medication.

**Keywords:** zolpidem, insomnia, and side effects.

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*Introduction: Insomnia, characterized by difficulty initiating or maintaining sleep, is a common condition that significantly impacts individuals' quality of life and well-being. In the context of pharmacological treatment, zolpidem has emerged as a widely prescribed option for the effective management of sleep disorders.*

*However, while this medication provides immediate relief for insomnia symptoms, growing concerns have been raised regarding its indiscriminate long-term use and potential side effects.*

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*Methods: The methodology involved a literature review of articles published on the "Scielo" and "Pubmed" websites from October 2013 to October 2023. The cited publications are presented in Portuguese and English.*

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## I. RESULTS

Zolpidem, belonging to the class of imidazopyridines, has emerged as an effective pharmacological option for the symptomatic treatment of insomnia. Its action occurs through

interaction with GABAergic receptors in the central nervous system, inducing a state of sedation that facilitates the initiation and maintenance of sleep. However, as its prescription has become more widespread, especially for cases of chronic insomnia, concerns regarding indiscriminate long-term use have been raised.

One central point in this discussion lies in the potential side effects associated with zolpidem when administered for prolonged periods. Studies have pointed to the possible occurrence of tolerance, dependence, and withdrawal syndrome, suggesting the need for caution in prolonged prescription. Psychological dependence may manifest with the development of compulsive behaviors to obtain the drug, while tolerance may require increasing doses to maintain the initial efficacy. Moreover, long-term use of zolpidem may be correlated with cognitive and psychomotor adverse effects, with reports of memory impairment, confusion, and falls in elderly patients. These implications underscore the importance of a thorough evaluation of benefits and risks before prescribing long-term zolpidem, particularly in more vulnerable populations.

Ethical considerations also emerge in the discussion of prolonged zolpidem use, especially when patients are not adequately informed about the potential associated risks. Patient autonomy must be respected, and shared decision-making between doctor and patient is crucial to ensuring a transparent and ethical approach. In light of these considerations, it is imperative to explore alternative strategies in insomnia management, including behavioral interventions, cognitive-behavioral therapies, and lifestyle modifications.

These approaches, when combined, can not only provide lasting benefits but also mitigate the potential risks associated with the long-term use of hypnotic medications.

## II. CONCLUSION

In conclusion, while zolpidem plays a crucial role in the immediate treatment of insomnia, it is essential to critically address the inherent challenges of its indiscriminate long-term use. The quest for a balance between clinical efficacy and long-term safety should guide clinical practices, promoting a holistic approach to caring for patients with sleep disorders. Interdisciplinary collaboration among physicians, psychologists, and other healthcare professionals is essential to ensure comprehensive and personalized management of insomnia, always respecting ethical principles and the quality of life of patients.

## REFERENCES

1. Oliveira Azevedo, B., Fernandes dos Santos, E., Silva Lima, G., Tavares Pujol, J., Alexandrino Antunes, A., & Oliveira Passos Jesus, L. (2022). Perfil farmaco- terapêutico do Zolpidem. *Revista Brasileira De Ciências Biomédicas*, 3(1), E0642022 – 1. <https://doi.org/10.46675/rbcm.v3i1.64>.
2. Foda NH, Ali SM. Zolpidem tartrate. Profiles Drug Subst Excip Relat Methodol. 2012; 37: 413-38. doi: 10.1016/B978-0-12-397220-0.00011-8. Epub 2012 Mar 19. PMID: 22469325.
3. Zhang J, Yetton B, Whitehurst LN, Naji M, Mednick SC. The effect of zolpidem on memory consolidation over a night of sleep. *Sleep*. 2020 Nov 12; 43(11): zsaa084. doi: 10.1093/sleep/zsaa084. PMID: 32330272; PMCID: PMC8064806.
4. Hoehns JD, Perry PJ. Zolpidem: a non-benzodiazepine hypnotic for treatment of insomnia. *Clin Pharm*. 1993 Nov; 12(11): 814-28. Erratum in: *Clin Pharm* 1993 Dec; 12(12):881. PMID: 8275648.
5. Castro, L. S., Otuyama, L. J., Fumo- dos-Santos, C., Tufik, S., & Poyares, D.. (2020). Sublingual and oral zolpidem for insomnia disorder: a 3-month randomized trial. *Brazilian Journal of Psychiatry*, 42(2), 175–184. <https://doi.org/10.1590/1516-4446-2019-0389>.
7. Sukys-Claudino, L., Moraes, W. A. dos S., Tufik, S., & Poyares, D.. (2010). Novos sedativos hipnóticos. *Brazilian Journal of Psychiatry*, 32(3), 288–293. <https://doi.org/10.1590/S1516-44462010000300014>.