Potentially Inappropriate Prescribing in Domiciliary Hospitalization – Medication Review using GheOP^{3}S tool

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Introduction: The Portuguese Health Care System (PHCS), although considered efficient, can improve in hospital care provision [(1)]. A new model of hospitalization, shifting care to the community, has emerged, named Domiciliary Hospitalization (DH) [(2)]. This study aimed to determine the prevalence of Potentially Inappropriate Prescribing (PIP) in elders referred to DH.
Materials and Methods: An exposure cohort was created, including patients hospitalized from August to September 2016 (n=33). Clinical and therapeutic information was obtained through the hospital database and information on actual drug use was acquired by overt observation at the patient's home. Inclusion criteria were to have been transferred from conventional hospitalization to DH; being ≥ 65 years. Patients without ambulatory medication and those where the pharmaceutical visit occurred during the first day of DH were excluded. The PIP were analyzed using the GheOP^{3}S Screening tool [(3)]. Spearman's rho was used to test the association between polypharmacy and PIP (SPSS v.24.0).
Results: A sample of 17 patients met the inclusion criteria; with a mean age of 77.1 years {65-94; SD=8.8}, 76.5% being male. Mean number of hospitalization days was 11.3±7.1, during which patients were prescribed approximately 9.9±3.9 drugs. A total of 167 drugs were analysed, 55 of which considered PIP (32.9%). Among these, 40% were inappropriate independent of the diagnosis (PIP-ID), 23.6% were inappropriate dependent on the diagnosis, 25.5% were drug-drug interactions and 10.9% were potential prescribing omissions. The excessive use of benzodiazepines remains alarming, since among 21 PIP-ID, 47.6% were benzodiazepines, mostly intermediate acting (lorazepam and bromazepam). The use of antidepressants for longer periods than 1 year is also worrisome corresponding to 6 PIP-ID (28.6%). 57% of drug-drug interactions were between antidiabetic or insulin and beta-blockers (35.7% cardio selective). The number of PIP was strongly correlated with the number of prescribed drugs ($r= 0.648$, $p = 0.005$).
Discussion and Conclusions: Medication review enabled the detection of various PIPs in patients discharged from the DH. The inclusion of a pharmacist in this unit was determinant to increase patient safety. The impact of this intervention is substantial on patients' health (reduction of adverse effects and increased adherence to therapy) but also on the economy of the PHCS (reduction in drug costs and hospital readmissions) [(4)].

References:

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Acknowledgements: The authors acknowledge the Domiciliary Hospitalization Unit team for sharing their data.