ABSTRACT:

Title: Low – Value Prescribing in geriatrics: A Lebanese cross sectional study.

Background: An unfavorable patient experience involving drug therapy that "actually or potentially interferes with a desired patient outcome" and that interferes with achieving the anticipated therapeutic goals is referred to as a Medication-related problem. Inappropriate medication use and polypharmacy (the use of more than five medications) are common in older adults as a result of low-value prescribing (LVP), which is defined as the use of drugs whose costs or harms outweigh their potential benefits. In Lebanon, there is no study addressing low value prescription using the EVOLV-RX tool among hospitalized elderly patients. The aim of this study was to assess the prevalence of low value prescription and its association with polypharmacy in elderly patients using the EVOLV-RX tool.

Methods: This cross-sectional study was conducted on all patients having different comorbid diseases and aged 60 years and above, in Dar al ajaza hospital Beirut, Lebanon from October 2022 to December 2022.Medications, sociodemographic and clinical characteristics were collected from patients' medical files and entered into a google form sheet. The EVOLV-RX tool was applied to evaluate low value prescribing and their prevalence. Descriptive statistics were used to describe independent variables. Bivariate analysis followed by binary logistic regression were performed to identify factors associated with low value prescription.

Results: The study included 180 patients, with a mean age of 75±9 years, 52.8% are females, 46.1% having schizophrenia, 67.2% having polypharmacy, 53.3% were dependent .For the low value prescription (EVOLV-RX) 128 (71.1%) patients were having low value prescriptions .The most frequent low value was the PPI use for more than 2 consecutive months 57 (31.7%), followed by the concomitant use of highly anticholinergic drugs 47 (26.1%), therapeutic duplication of antipsychotics & sleep medications (13.9%), and therapeutic duplication of antipsychotics 22 (12.2%).The Bivariate analysis results showed that smoking ($p=0.01$) and polypharmacy ($p < 0.001$) is clinically significant with low value prescription. In the regression analysis, we have only smoking (OR= 2.796 (95%CI 1.268-6.163), $p= 0.011$), polypharmacy (OR= 0.152 (95%CI 0.073-0.315), $p < 0.001$) clinically significant in accordance with the low value prescription (EVOLV-Rx).

Conclusion: Low value prescription was highly prevalent among hospitalized Lebanese elderly. Polypharmacy was the major determinant of low value prescription. LVP can be solved and managed by introducing the clinical pharmacist role and knowledge into older adult's care centers and hospitals, and shedding the light more on LVP.

Keywords: Low value prescription, EVOLV-RX, older adults, Polypharmacy, Potentially inappropriate medications, elderly care centers, multimorbidity, Lebanon.

Author:

Fatima Hassane

Pharm D Candidate 2022/2023 at Lebanese International University Beirut, Lebanon

Email: fatimahassane296@gmail.com

Coordinator: Dr. Bahia Chahine

RPh, PharmD, MSc, BCPS, PharmD program Coordinator at Lebanese International University Beirut, Lebanon

Email: bahia.chahine@liu.edu.lb