PATTERNS OF ANTICOAGULANTS DEPRESCRIBING PRACTICES AFTER AN ED VISIT DUE TO GI BLEEDING

Ximena Oyarzun-Gonzalez,[1] Chien-Wei Chiang;[2] Mohaimenul Islam,[1] Kathleen T. Unroe,[3,4] Anna Sun,[5] Yuedi Yang;[5] Katherine Buck,[6] Jeffrey Caterino,[6,7] Lang Li,[2] Pengyue Zhang, PhD;[5] Macarius Donneyong[1]

1.Dr. Donneyong's Laboratory, Division of Outcomes and Translational Sciences, College of Pharmacy, The Ohio State University; 2. Department of Biomedical Informatics, The Ohio State University; 3. School of Medicine, Indiana University; 4. Center for Aging Research, Regenstrief Institute, Indianapolis, IN; 5. Department of Biostatistics and Health Data Science, Indiana University; 6. Department of Emergency Medicine, The Ohio State University; 7. Department of Internal Medicine, The Ohio State University.

Introduction: Polypharmacy is prevalent among the older population.[1] However, polypharmacy has been associated with undesirable outcomes such as adverse drug events.[2] One of the reasons for this association is that the more medications a patient uses, the higher the probability of higher dimension drug-drug interactions, i.e., interactions between 3 or more medications.[3] One group of medications that is associated with higher rates of adverse events due to interactions are anticoagulants.[4] Anticoagulants are commonly used to prevent stroke associated with Atrial fibrillation[5] and venous thromboembolism but are known to cause adverse bleeding events.[6] Deprescribing, defined as the process of medication withdrawal or dose reduction to correct or prevent undesired outcomes, is a common response to ADE.[7,8] However, quantification of these practices, particularly when patients take multiple concomitant medications is scarce, which makes safety indications regarding what medications can be safely combined with anticoagulants difficult to identify and implement.

Objective: To describe the patterns of anticoagulant deprescribing practices after an emergency department (ED) visit due to gastrointestinal (GI) bleeding among patients who concomitantly use anticoagulants and other medications.

Methods: Using Marketscan data from 2012 to 2020, patients 65 and older who visited the ED due to GI bleeding using an anticoagulant and at least two other concomitant medications were selected to create a cohort for analysis. We defined anticoagulant deprescribing as the discontinuation or dose adjustment of the anticoagulant being used before the ED visit or the switch of the anticoagulant used for another anticoagulant. Using a longitudinal self-controlled crossover pharmacoepidemiologic study we compared the rates of anticoagulant discontinuation, switching, or dose adjustment between the 30-day period before the ED visit and in the 30, 60, and 90-day period after. We quantified the frequency of the different deprescribing practices and estimated adjusted odds ratios to establish predictors of deprescribing. The variables evaluated as predictors included demographic characteristics and different comorbidities, which were evaluated in the 180-day period before the ED visit.

Results: Among 9607 patients who concomitantly used one anticoagulant and at least two other medications, 49% were female, 36% were from the north-central region of the USA and had a mean age of 84.5±8.2 years. Deprescribing practices were observed in about 53.3% of the cohort

(46.1% received an anticoagulant discontinuation, 2.5% were switched to a different anticoagulant and 4.8 were changed the dose of the anticoagulant). Being a male increases the odds of receiving a deprescribing practice by 14% (OR=1.14; 95% CI:1.03-1.26). However, having a diagnosis of cancer (OR:0.80; 95%CI:0.70-0.91), renal disease(OR: 0.88; 95%CI:0.77-0.99), COPD(OR: 0.81; 95%CI:0.73-0.91), dementia(OR:0.72; 95%CI:0.60-0.86), cerebrovascular disease(OR:0.88; 95%CI:0.78-0.99), and CHF(OR: 0.89; 95%CI:0.79-0.99), as well as visited the ED earlier in the study period, decreases the odds of receiving a deprescribing practice.

Conclusions: Anticoagulant discontinuation is the most common deprescribing practice after an ED visit due to GI bleeding, and having previous diagnosis of common chronic diseases among the elderly reduces the odds of receiving a deprescribing practice.

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