Evaluation of Drug-Disease Interactions' Association with Unplanned Hospital Readmission: STOPP Version 2 Criteria, a Retrospective Cohort Study

Lau HM(1), Tenney J(2)
(1) North District Hospital, Sheung Shui, Hong Kong
(2) School of Pharmacy, Faculty of Medicine, Chinese University of Hong Kong, Shatin, Hong Kong

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Introduction
Early hospital readmission is a common problem among geriatric patients and it is an indicator of poor patient health outcomes. Due to age-related physiological changes, polypharmacy, and multiple comorbidities, geriatric patients are more susceptible to adverse drug events, which are associated with increased hospital admission, mortality and healthcare costs. Limited staffing and resources create difficulties in the implementation of comprehensive STOPP version 2 criteria assessment into clinical practice.

Objectives
The objective of the study is to examine the association between exposure to potentially inappropriate medications (PIMs) under selected STOPP version 2 criteria related to drug-disease interactions and unplanned early hospitalization in elderly.

Methodology
This retrospective single-center study reviewed patients greater than or equal to 75 years of age that were discharged with 5 or more medications including at least one selected medication listed in the STOPP version 2 criteria relating to drug-disease interactions.

Result
A total of 182 patients with a mean age of 83.5 years were included in the study. 17 patients were excluded due to incomplete data (1) or death (16). The most common PIM(s) were related to the use of anticholinergics (22.4%). PIM(s), gout, and gastrointestinal disease were shown to increase risk of 28-day readmission, whereas all other factors assessed did not.

A rapid evaluation of elderly patient discharge medications and concomitant disease states by a healthcare professional with the aid of the STOPP version 2 criteria could potentially reduce hospital readmissions or emergency department visits.