Medication Therapy Problems and Vaccine Needs Identified During Appointment-Based Medication Synchronization Enrollment Visits
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Background: Medication synchronization is a strategy used by pharmacies to align prescription refills to a single date in order to promote adherence. An Appointment-Based Medication Synchronization (ABMS) model was implemented and evaluated in a district of 16 supermarket pharmacies in Central Virginia over the course of 3 months. Pharmacist using the ABMS model schedules patients for an initial enrollment visit where they receive an updated medication list and a comprehensive medication review (CMR) from a pharmacist. During the CMR, medication therapy problems (MTPs) are identified and an immunization check-up is completed. In this study, MTPs were classified using the American Society of Health-System Pharmacists’ (ASHP) established classification. MTPs were defined as any event or circumstance involving medication therapy that actually or potentially interferes with an optimal outcome for a specific patient.

Objective: To characterize MTPs identified by pharmacists and evaluate numbers of vaccines recommended and administered by pharmacists during ABMS enrollment visits, in a community pharmacy setting.

Methods: A retrospective observational study that evaluated ABMS enrollment visits documented by pharmacists in 16 supermarket chain pharmacies in Central Virginia from September to December 2017. Enrollment visit documentations were reviewed to obtain patient demographics, MTPs identified, as well as vaccines recommended and administered. Other data collected from the enrollment visits included number of medications synchronized and average time spent during the visits. MTP classification used for the study include adherence (overuse and underuse), adverse drug reaction, cost efficacy management, drug interactions (drug-drug and drug-disease), excessive dose/duration, needs therapy (for chronic conditions), suboptimal drug selection and unnecessary therapy. The data collected was analyzed using descriptive statistics and Wilcoxon-Mann-Whitney test was used to compare group differences. The study was approved by the VCU Institutional Review Board.

Results: One hundred eighty-four patients received an ABMS enrollment visit, of which 118 were females and 66 males. The mean age (in years) for females was 70 and 65 for males (p<0.08). Disease states documented during the visits included asthma, benign prostatic hyperplasia, chronic pain, epilepsy, depression, diabetes mellitus, dementia, gastroesophageal reflux disease, history of myocardial infarction, human immunodeficiency virus, hyperlipidemia, and hypertension. The number of disease states documented during enrollment visits was significantly higher among females than males (p<0.03) A total of 37 MTPs were identified during the enrollment visits. There was no statistical difference in the number of MTPs identified during enrollment visits between males and females in the study (p<0.98). Pharmacists reported spending an average of 17 minutes with patients during enrollment visits with an average number of six medications synchronized per patient. Six hundred thirty-three vaccines were recommended, with 51 overall administered during the visits.

Conclusion: ABMS enrollment visits facilitated pharmacists in detecting medication therapy
problems, which may ultimately contribute to the enhancement of optimal patient outcomes. Although total vaccines administered were lower than the number recommended, community pharmacists continue to play an important role in preventive health through vaccine screenings and recommendations.

References: