Introduction

- Primary medication non-adherence (PMN) is any instance whereby patients fail to initiate a pharmacotherapy regimen after receiving a prescription for new therapy. As the use of e-prescribing increases, PMN is receiving more attention. Currently, there is little in the literature that provides information on how to measure PMN across pharmacies reliably and what factors are related to PMN.
- The Pharmacy Quality Alliance (PQA) has developed a standardized definition for PMN and a quality measure to assess the rates of PMN in community pharmacies.
- The PQA PMN measure is calculated by dividing the number of unclaimed (not picked up after 30 days) electronic prescriptions for newly initiated drug therapy (or appropriate alternative) by the total number of electronic prescriptions for newly initiated drug therapy during the measurement period (for patients 18 and over). The measure only includes drugs from the following drug categories and therapeutic classes (combination products containing drugs from these categories/classes were also included):
  - HMG-CoA reductase inhibitors
  - ACE inhibitors
  - ARBs
  - INHIBitors
  - Thiazolidinediones

This study is one of the first to use pharmacy prescription data to calculate PMN using the PQA standardized measure and to identify prescription and store factors associated with PMN.

Objectives

- To measure PMN in a pharmacy grocery chain using data available from the pharmacy dispensing system.
- To identify the prescription-level (prescriber and patient) and store characteristics associated with unclaimed e-prescriptions.

Methods

- The study was approved by the University of Mississippi IRB. A data use agreement was signed between the University and the pharmacy grocery chain.
- Measuring PMN
  - The pharmacy grocery chain provided de-identified, transactional data for calendar years 2009 through January 2012 (de-identified, unique patient and store codes were available) for 100 pharmacies. The PQA-developed PMN measure was used and PMN rates were calculated for each pharmacy in the large grocery chain as well as an overall PMN rate.
  - Investigators examined adult individuals with a new electronic prescription for any of the included drugs during the measurement period and determined whether the medication or an appropriate alternative within the therapeutic class was claimed within 30 days.

Results

- Of the e-prescriptions received by the pharmacy grocery chain during the one-year observation period, 29,184 were for new therapy as defined by the PQA measure, and 3,516 (12.1%) of those new prescriptions (or drug alternatives) were not claimed within the 30-day period. There was significant variability among the 100 pharmacies, ranging from 4.9% to 77.9% among the 100 pharmacies.

Discussion

- Based on the calculated rates, PMN is a significant problem in this setting. Efforts directed at further understanding this behavior and how to reduce its occurrence are warranted.
- This analysis was from the perspective of the pharmacy chain; given the limitations associated with the use of pharmacy dispensing data, it is possible that patients claimed their prescriptions at another setting and never informed the pharmacy.
- Understanding the prescription characteristics associated with unclaimed prescriptions is helpful when developing interventions targeted at patients at high-risk for PMN. It is also important to understand how prescription and store characteristics could influence PMN. Further research concerning the impact of other store characteristics would be important to understand how prescription and store characteristics could influence PMN.

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