Statin Medication Adherence Association with Hospitalizations or Emergency Room Visits and Total Costs of Care Over Two Years

Background

- Prime’s 2011 commercial book of business cholesterol cost trend ideas included the following:
  - Cholesterol medication costs per claim increased
  - Generic utilization rate was 58 percent, an increase from 54 percent in 2010
  - Overall average per person two year total cost of care for those with less than 80 percent statin medication proportion was $18,034 versus $12,487 for those with ≥80 percent.

Methods

- The retrospective cohort study cohort utilized administrative medical and pharmacy claims data from a commercial Blue Cross and Blue Shield (BCBS) Plan in the Central U.S. with Prime Therapeutics pharmacy benefits covering approximately 1 million lives at any time during 2008/2010.
- Members were required to be continuously enrolled from January 1, 2009 through December 31, 2010.
- Members were required to have either two separate hypolipidemic medication fills in a one year period leading to a hospitalization or ER visit in a hospitalization or emergency room visit year.
- The non-adherent medication proportion was defined as the index date.
- Members were required to have a supply statistic on their index date or have been identified as having a high-risk condition diagnosis at any time from January 1, 2007, through their index date in a hospitalization defined as diabetes mellitus (DM), coronary artery disease (CAD), embolic stroke, or peripheral vascular disease (PVD).
- All members were followed for two years post their 2008 index date.

Objective & Purpose

- To measure the association between medication adherence and non-adherent hospitalization or ER visit and total costs of care among individuals adherent and non-adherent to their statin medications.

Limitations

- Administrative pharmacy and medical claims data have the potential to include and exclude assumptions of medical accuracy.
- Data are limited to a commercial population in the Central U.S. and therefore findings may not be generalized to Medicare or Medicaid populations or other geographic regions.
- Differences found in medical events and costs between the adherent and non-adherent populations may be influenced by healthcare lifestyles. Lifestyle characteristics that were not captured in the data and therefore could not be included as covariates in the study.
- Prime defined adherence using the PDC ≥80 percent which is an arbitrary cut point. However the cut point has frequently been used in previous research.
- Adherence was determined using only statin claims and not other cholesterol lowering medications.

Conclusions

- In this two year total cost of care analysis, individuals adherent to statin medication had an associated lower total medical cost than non-adherent hospitalization or ER visit rate, which remained a significantly lower percent lower after adjusting for group differences.
- Individuals with hyperlipidemia, total annual cost of care was higher in the statin-adherent group. These higher total costs were the result of higher pharmacy costs and non-higher medical costs. Our findings differ from previous research and may be related to younger age.
- Future research is required to determine if longer follow up will identify lower total cost of care among individuals adherent to their statin medication.

References

- Prime Therapeutics LLC internal data, 2012.
- Prime Therapeutics LLC. 2013. Prime Therapeutics LLC, Eagan, MN, USA. 55121