CONFERENCE PROCEEDINGS

Poster Presentations

POSTER SESSION I

HEALTH CARE USE & POLICY STUDIES—Adherence/Compliance

EFFECT OF PRESCRIPTION COPAY ON MEDICATION UTILIZATION

Gause D, Doyle JJ, Plauschinat C
Novartis Pharmaceuticals, East Hanover, NJ, USA

OBJECTIVE: To assess impact of change in prescription copay on change in medication utilization among patients taking three common brand name medications: atorvastatin for dyslipidemia, pioglitazone for diabetes, or valsartan for hypertension.

METHODS: The Medstat MarketScan database was used to identify patients taking a study drug (atorvastatin, pioglitazone, or valsartan) in both 2003 and 2004. Patients had to have continuous pharmacy coverage, at least one fill in each year, and be <65 years of age. The total copay for study drug was divided by the total number of prescription fills to calculate average copay for each patient in each year. Regression and partial correlation analysis was used to estimate the association between changes in copay and days supply, adjusting for age and gender.

RESULTS: Among 9342 valsartan patients, 4622 (49%) patients had an increase in average copay and for these patients there was on average 32 fewer days on drug in 2004 compared to valsartan patients without an increase in copay (Spearman Rho = -0.14, p-value < 0.01). There was also a negative association between copay and days supply in patients receiving atorvastatin or pioglitazone: 15 days less on pioglitazone and 18 days less on atorvastatin for patients having an increase in average copay for 2004. Among patients using mail order prescriptions with fills for >30 day supply the impact of copay on days supply was less but still statistically significant. CONCLUSION: Policy and benefit decision makers need to consider the impact of patient copay on persistence for chronic diseases such as diabetes, hyperlipidemia, and hypertension.

ADHERENCE TO EVIDENCE-BASED GUIDELINES AND MEDICATION COMPLIANCE FOR MULTIPLE CHRONIC DISEASES IN A MANAGED CARE DATABASE

Burch SP, Priest JL, Cook CL, Cantrell CR
GlaxoSmithKline, Research Triangle Park, NC, USA

OBJECTIVE: To examine both adherence to treatment guidelines and medication compliance for commercially insured patients with common chronic conditions including asthma, chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), coronary artery disease (CAD), depression, diabetes, hyperlipidemia, and hypertension.

METHODS: A retrospective cohort analysis of claims data was conducted using the IHCIS Impact National Benchmark database representing >45 million lives. Patients were selected with evidence of disease condition(s) between 2002 and 2006 who had >6 months of data available post identification with coverage through December 31, 2006. All analyses were conducted in 2006 and all costs were annualized. Proportion of Days Covered was measured to calculate compliance (between first and last fill) and persistence (first fill through end of year) using an 80% cutoff. RESULTS: For diabetes patients, 54% received no HbA1c test in 2006 and only 33% received the ADA recommended 2 tests (measure required patients to be continuously eligible during 2006 and have prior evidence of diabetes). The percentage of patients filling any acceptable disease specific prescription in 2006 was 80% for CHF, 68% for CAD, 60% for diabetes, 57% for depression, 44% for asthma and 36% for COPD. Of patients filling medication, compliance ranged from 75% for diabetes and CHF down to 49% and 36% for COPD and asthma respectively. Persistence rates ranged from 77% for CAD to 23% for asthma. CHF, COPD and CAD had the most expensive per-patient-per-year total medical and pharmacy costs averaging $24,540, $14,169, and $13,627 respectively. CONCLUSION: Across all eight conditions, the percent of patients filling any acceptable medication per treatment guidelines was low. Of those filling medication, compliance and persistence rates were sub-optimal. With the prevalence of chronic diseases increasing and the cost associated rising dramatically, improvements in care per guidelines and medication compliance could potentially benefit patients, reduce costs and improve outcomes.

IS THERE AN ACCEPTABLE LEVEL OF MEDICATION ADHERENCE? A REVIEW OF RETROSPECTIVE ADHERENCE EVALUATION STUDIES

Visaria J, Seoane-Vazquez E, Schwartzbaum J, Zeinbach SL
The Ohio State University, Columbus, OH, USA

OBJECTIVE: The rationale for selection of a cut-point between acceptable and unacceptable medication adherence has not been previously evaluated. The objectives of this study were to describe the dichotomized measures for medication adherence and assess the rationale for selection of the cut-point. METHODS: A systematic Medline review and examination of studies assessing adherence using pharmacy claims from January 1997–June 2007 was performed. Studies containing partial or incomplete methods for measuring adherence were excluded. A sub-analysis of articles was conducted to determine the rationale for selection of the cut-point. RESULTS: The review identified 98 studies with 103 measures of adherence. These studies investigated adherence to cardiovascular drugs (39.8%), hormones and synthetic substitutes (33.0%) and others (28.2%). The following types of measures were used: medication possession ratio (MPR) (45.6%), fixed gap between refills (38.8%), proportion of days covered (7.8%) and others (7.8%). Dichotomous measures were used by 32.0% of the studies. A cut point was specified for 35.9% measures of adherence. The mean cutoff value was 76.0% ± 12.9%; with a median of 80.0%, and a range of 20.0–90.0%. The sub-analysis contained 28 articles of which 35.7% refer to cut-points derived from previous clinical studies, 21.4% selected the cutpoint arbitrarily and 14.3% offered no explanation, 7.1% provided clinical evidence, and 7.1%