in the ICS group, the difference in mortality rate was not statistically significant (Hazard Ratio: 0.77 CI: 0.52; 1.15). However, there was a significant quality-of-life benefit in favor of ICS.

CONCLUSIONS: Despite a lack of significance in survival benefits, joint considerations of quality of life and survival indicate that ICS could be considered potentially cost-effective. Imputation methods can be employed to address missing data issues when the extent of missingness is not too extreme.

**PCO4**

**EPISODES OF RESPIRATORY CARE FOR MANAGED CARE PATIENTS WITH COPD: ASSESSING THE ECONOMIC BURDEN**

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**OBJECTIVES:** The study objective was to use administrative claims to create episodes of acute respiratory care as a means of better understanding the economic burden of acute treatment of COPD. **METHODS:** Respiratory-related medical (ICD-9-CM 480.xx–519.xx) and pharmacy claims were extracted from a managed care database for all patients 30 years of age or more who were diagnosed with COPD (ICD-9-CM 491.xx, 492.xx, and 496.xx) between 1997 and 2001. Acute respiratory-related services were categorized as inpatient treatment, emergency room (ER) treatment, or an office visit combined with an antibiotic or oral steroid dispensed within three days of the visit. Episodes of care were created by continuously combining acute medical claims until a gap of 14 days or longer was found between claims. Acute services after such a gap began a new episode. Each patient was tracked longitudinally and all episodes during the study period were included. Study measures included service location, duration, and health plan payments (in 2002 $US). **RESULTS:** The average age of the 164,566 patients was 68 years, and 50% were male. Patients received more than $10,000 unique acute respiratory medical services; 37% were inpatient, 22% ER, and 41% office visits. These services were combined to create 385,352 episodes (1.3 unique medical services per episode), of which 45% involved inpatient care. The average duration of episodes involving hospitalization was 10.6 days, with a mean payment of $12,661. These episodes lasted 2.6 days longer and payments were 12% more than individual hospital stays. Approximately 10–15% of outpatient episodes involved multiple ER or office visits. Mean payments for office visit and ER episodes, including acute drug costs, were $231 and $841, respectively. **CONCLUSIONS:** Combining individual claims for acute respiratory services into episodes of care provide a more comprehensive estimate of the costs of respiratory exacerbations for patients with COPD.

**PCO5**

**ECONOMIC BURDEN OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) IN A STATE HEALTH INSURANCE PROGRAM**

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**OBJECTIVE:** Chronic obstructive pulmonary disease (COPD) is the fourth-leading cause of death in the United States and accounts for about 14 billion dollars annually. This study assesses the economic burden of COPD in a state health insurance program in terms of medical resources and pharmacotherapy from a payer perspective. **METHODS:** Outpatient, hospital and emergency department (ED) claims with a primary ICD-9 code for chronic bronchitis (491.xx), emphysema (492.xx), and chronic airways obstruction (496.xx) dated between July 1, 2001 and June 30, 2003 were extracted from the claims database of a state health insurance program. Unique recipient identifiers obtained from these claims were then used to extract COPD-related prescription claims. Payer reimbursements were used to calculate costs. Rates of use of maintenance medications was assessed for the following therapeutic classes: 1) use of any inhaled anti-inflammatory therapy (inhaled corticosteroids, cromolyn, nedocromil, and 2) use of “other” maintenance drugs such as long-acting beta-agonists, leukotriene modifiers, anticholinergics, and theophylline agents. **RESULTS:** Overall, COPD prevalence was 52.2/1000 recipients. Of the 7165 recipients identified with COPD, 11.8% (N = 848) received inhaled anti-inflammatory drugs, and 19.4% (N = 1389) received “other” maintenance medications for COPD. The hospitalization rate was 7.9 hospitalizations/10,000 recipients, at a mean cost of $1322 (SD = $1025) per visit per recipient (pvpr). The rates of outpatient and ED use were 112 outpatient visits/1000 recipients, and 56 ED visits/10,000 recipients, respectively. The mean cost pvpr for outpatient and ED use was $51 (SD = $72) and $69 (SD = $80), respectively. The total COPD-related annual average expenditures to the payer were $10,051,244 of which prescription use accounted for 95%, followed by outpatient use (4%), hospitalizations (0.7%), and ED use (0.3%). **CONCLUSIONS:** COPD exerted a significant burden on the payer. Although prescription use accounted for the most dollars, hospital use and costs were significantly lower than national estimates.

**CHRONIC OBSTRUCTIVE PULMONARY DISEASE**

**CHRONIC OBSTRUCTIVE PULMONARY DISEASE—Quality Of Life Studies**

**PCO6**

**HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH CHRONIC RESPIRATORY DISEASE**

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**OBJECTIVE:** Chronic respiratory illnesses such as asthma and chronic obstructive pulmonary disease (COPD) not only impact economic outcomes, but they also impact patients’ health-related quality of life (HRQL). The objective of this study was to assess HRQL in patients with asthma and COPD. **METHODS:** All employees receiving health benefits through a state health insurance program constituted the study population. Recipients having medical claims with a primary ICD-9 code for asthma (493.xx), chronic bronchitis (491.xx), emphysema (492.xx), or chronic airways obstruction (496.xx) between July 1st, 2001 and June 30th, 2003, were selected. These patients were classified as having asthma-only, COPD-only, or having both asthma and COPD, based on ICD9 codes. These patients were mailed the St. George’s Respiratory Questionnaire (SGRQ), which has been validated for measuring HRQL in patients with asthma as well as COPD. The SGRQ consists of 3 subscales: symptoms, activity, and impacts, as well as a summary score, each ranging from 0 to 100, with higher scores indicating worse HRQL. T-tests and ANOVAs were used to compare HRQL between the 3 groups. **RESULTS:** Overall prevalence of chronic respiratory disease was 69.9/1000 recipients (asthma n = 1493; COPD n = 7165; both n = 940). Overall survey response rate (RR) was 22.6% (asthma
ear/eye/skin diseases or disorders

Objectives: To examine the persistence and adherence with glaucoma therapy among patients with at least one claim for latanoprost, travoprost, or bimatoprost from September 31, 2001 through March 31, 2002. Patients were on current therapy or had not been on therapy for at least 3 months before the index date. The index date was defined as the date of the first prescription claim for an ophthalmic drug of interest, with no evidence of ophthalmic drug use during that time. These patients were defined as “new therapy starts.” Persistence at 12 months and number of days of adherence was determined for new or current therapy for at least 3 months of therapy following the index date. Due to potential inconsistencies with days supply reporting at the pharmacy level, a clinical algorithm was developed to compute days on therapy. Results: At total of 3822 glaucoma patients were identified with at least one claim for latanoprost, travoprost, or bimatoprost. Patients were on average 73.1 years (SD = 10.1, range = 15–88) and 53.1% female. A total of 2562 (66.8%) completed the first three months. A total of 70.1% were persistent with therapy at 12 months and were adherent 83.1% of the time. Using the quantity dispensed and the number of days between refills yielded an average of 8 days of therapy per 1-mL of ophthalmic solution. The mean number of days on therapy for bimatoprost was significantly greater than latanoprost (p < 0.05). Conclusions: This retrospective database analysis assessed persistence and adherence for glaucoma patients using latanoprost, travoprost, and bimatoprost for 12 months. Although most patients were persistent and adherent to their therapy for at least 3 months and then at 12 months there may still be opportunities to improve persistence and adherence with these important ophthalmic therapies.

Medication adherence rates and disease severity changes in psoriasis

Objectives: To determine the impact of patient diagnosis of acne on the probability of retinoid prescription for acne. The study found that there was negligible prescription of topical retinoids for non-acne related conditions (Risk Ratio [RR] for topical retinoid prescription with acne diagnosis: 58.8, 95% CI: 33.4, 103.7). This finding held when individual retinoids (tretinoin and adapalene) were examined separately. Clear age-related prescription trends were observed, with significant decrease in prescriptions beyond the teen years. Conclusions: The data do not support a need for general prior authorization of topical retinoids. Prior authorization requirements for topical retinoids may not be necessary in young patients, given the very small probability of non-acne related use. In older patients, prior authorization, if needed at all, should focus only on those topical retinoids for which there is evidence of efficacy in treatment of cosmetic photoaging.