RR = 25.1%; COPD RR = 16%; both RR = 24%). The summary HRQL score for recipients with both asthma and COPD was 43.8 (p < 0.0001), as compared to 36.4 for the COPD-only and 33.3 for the asthma-only groups. These differences persisted for each of the 3 subscales, with recipients having both asthma and COPD experiencing worse HRQL than those with asthma-only or COPD-only. CONCLUSIONS: Increase in disease severity (as indicated by the presence of both asthma and COPD as compared to either disease by itself) was associated with statistically as well as clinically significant worsening of HRQL.

**EAR/EYE/SKIN DISEASES OR DISORDERS**

**EAR/EYE/SKIN DISEASES OR DISORDERS—Clinical Outcomes Studies**

**PATIENTS’ PERSISTENCE AND ADHERENCE WITH GLAUCOMA THERAPY: A LONGITUDINAL RETROSPECTIVE DATABASE ANALYSIS OF OPHTHALMIC LIPIDS**

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**OBJECTIVES:** This study examined the persistence and adherence for patients using latanoprost, travoprost, and bimatoprost across multiple health plans over 12 months. METHODS: Glaucoma patients were identified from an employer-based database covering 1.8 million lives in 40 health plans. Patients with a glaucoma medical claim and a pharmacy claim for latanoprost, travoprost, or bimatoprost from September 31, 2001 through March 31, 2002 were eligible for study entry. Continuous eligibility was required 180 days prior to the index date, 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 starts with 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 2666 (69.8%) 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 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**

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**OBJECTIVE:** It is a commonly known fact among physicians that patients are non-adherent to medication regimens. In dermatology, there has been little study into the issue of medication non-adherence. This study examined trends in adherence behavior (measured electronically) to topical medication regimen over time in patients with psoriasis enrolled in a clinical study. Additionally, the association between adherence behavior and changes in severity of psoriasis was explored. METHODS: Twenty four subjects with psoriasis that were already enrolled in an 8-week study with salicylic acid and topical tacrolimus ointment combination therapy were given the salicylic acid in a bottle with the Medication Event Monitoring System (MEMS) cap. Electronic medication adherence was downloaded from the cap to a computer at each follow up visit. The primary outcome was the difference in the change from baseline in the disease severity (sum score of erythema, scale and thickness scores). RESULTS: Over the 8 week period the overall adherence rates declined by 50% from 75.6% to 51%. A significant correlation was found between increased adherence and decreased disease severity summary score in the first week of treatment (Pearson’s rho = 0.42, p = 0.02), after accounting for treatment effect. This relationship did not persist after week 1. CONCLUSIONS: The precipitous decrease in psoriasis medication adherence rates, even in clinical study settings is cause for concern. Benefits from these medications may decrease as a result of decreased adherence to prescribed regimens over time.