ducted using patient costs from billing records, and three different effectiveness measures [all based on a 0 (worst) to 100 (best) scale]. The primary CE analysis used Subject General Well Being score (SGWB), which was a general health assessment question. Two other effectiveness measures were β-mediated treatment effect (BMTE) and Disease Symptom Assessment (DSA) scores. **RESULTS:** LEV patients required fewer total nebulizations (median 10 vs 12; p = 0.031), and the two groups were not statistically different with respect to the number of rescue nebulizations, length of hospital stay, and total hospital cost. For the primary CE analysis, LEV was as effective (70.0 vs 68.3) and cost $164 less per patient compared with RAC. For CE analyses using BMTE and DSA, LEV was again as effective (86.9 vs 79.0 and 59.2 vs 57.2, respectively) and cost $174 less per patient. Bootstrap re-sampling analyses found that approximately 65%–77% of the 10,000 simulations for LEV fell within the dominant quadrant on a CE plane. **CONCLUSION:** In this study, LEV patients required significantly fewer total nebulizations without an increased need for rescue nebulizations. CE analysis indicated that LEV was at least as effective as RAC with a $164 savings in costs.

PAA8

QUALITY-ADJUSTED LENGTH OF STAY ANALYSIS OF HOSPITALIZED PATIENTS WITH ASTHMA OR COPD TREATED WITH LEVALBUTEROL OR RACEMIC ALBUTEROL

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OBJECTIVES: This was a prospective, randomized, multicenter, open label study to determine the cost-effectiveness (CE) of levalbuterol versus racemic albuterol in patients hospitalized for acute asthma or COPD; here we present a subset CE analysis which focuses on quality-adjusted length of stay (QLOS) as a measure of effectiveness. **METHODS:** Patients were randomized to either levalbuterol (n = 241) or racemic albuterol (n = 238). We conducted an exploratory CE analysis using QLOS, which was developed to reflect the relative rapidity of symptom resolution over the patient's hospital stay, conceptually similar to Q-TWiST. A measure of overall HRQoL based on daily responses to the Subject General Well-Being (SGWB) score was used as the utility value. An overall value was obtained by calculating the sum over the time period, resulting in the QLOS score. QLOS was also calculated for two other effectiveness measures, Disease Symptom Assessment (DSA) and beta-mediated treatment effects (BMTE). Hospital charges obtained from billing records were converted to costs by applying cost-to-charge ratios. A cost/QLOS comparison was made between treatment groups. Sensitivity analyses examined different time periods and measures of effectiveness. Bootstrap sampling was used to generate 10,000 samples for each analysis. **RESULTS:** When SGWB was the effectiveness measure, levalbuterol compared to racemic albuterol was associated with lower costs ($3676 vs. $3841, respectively) and slightly better cumulative effectiveness (11.99 vs. 12.68, respectively; lower value better health). Similar results were observed using other time periods and BMTE as the effectiveness measure. Results from bootstrap sampling showed that, in the majority of samples, levalbuterol was associated with better health and lower costs than racemic albuterol. When DSA was used, racemic albuterol was slightly more effective but more costly than levalbuterol. **CONCLUSION:** In this study using prospectively collected cost data and QLOS scores, levalbuterol was at least as effective as racemic albuterol, with total costs that were $165 less.

PAA9

A 4-YEAR ASSESSMENT OF SEVERE AND NON-SEVERE ASTHMA IN A REAL-WORLD SETTING

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OBJECTIVES: To examine health outcomes and costs for patients with severe and non-severe asthma in a managed care setting over a 4-year period. **METHODS:** An administrative claims database (8.8 million lives) was analyzed (June 2000–May 2004). Patients aged ≥12 years with an ICD-9 code for asthma and ≥2 claims/year for asthma medication were included; those with other significant respiratory conditions were not. Patients using omalizumab, continuous oral corticosteroids (OCS), Advair 500/50, or high-dose inhaled corticosteroids in combination with any other asthma medication were considered to have severe asthma. Outcomes in years 2–4 for patients with severe asthma in year 1 were compared with those of patients with non-severe asthma in year 1. Lack of control was defined as an asthma-related hospitalization or emergency department (ED) visit, OCS burst for asthma, more than 4 clinic visits for asthma per year or more than 2 per quarter, or more than 5 prescriptions for asthma rescue medication per year. **RESULTS:** Of 3998 patients identified (mean age = 41 years, 65% female), 594 (15%) had severe asthma in year 1. Patients with severe asthma had significantly more hospitalizations per 1000 patients per year (7.2 vs 4.3; p < 0.001), ED visits per 1000 patients per year (8.8 vs 6.1; p = 0.004), clinic visits for asthma per patient per year (2.93 vs 1.98; p < 0.001), asthma costs per patient per year ($1331 vs $817; p < 0.001), and lack of control events per 1000 patients per year (547 vs 462; p < 0.001) than patients with non-severe asthma. **CONCLUSION:** Patients with severe asthma used significantly more health care resources than patients with non-severe asthma. In addition, a significant number of patients in both groups met the definition for lack of control.

PAA10

ALLERGY IMMUNOTHERAPY: PATTERNS AND OUTCOMES OF CARE FOR ALLERGIC RHINITIS

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OBJECTIVES: To examine patterns and economic outcomes of allergy immunotherapy (IT) care among children with allergic rhinitis (AR). **METHODS:** We examined the 1997–2004 Florida Medicaid dataset to identify children (<18 years) who received an AR diagnosis and IT. Those receiving IT who were continuously enrolled and had data ≥4 years following and ≥1 year prior to initial AR diagnosis were included in clinical and economic subanalyses. **RESULTS:** There were 104,963 children diagnosed with AR; 5532 (5.3%) received IT. Mean age at IT initiation was 8.2 years (SD 3.5). Compared to those with AR who did not receive IT, children who received IT were significantly older (mean age 7.7 versus 7.0, SD 3.6, p = 0.001). Significantly less patients receiving IT were female or Caucasian (p ≤ 0.001). The average number of IT administrations was 22 (SD 27.0); approximately half of patients (45.2%) received less than 10 IT administrations. Average treatment duration was 1 year (SD 15.8 months); more than half (51.2%) of patients received IT for less than 6 months, and only 1 in 12 patients (8.7%) completed the