148 The Impact of Adherence and Disease Control on Resource Use and Charges in Mild Persistent Asthma Patients Managed on Inhaled Corticosteroid Inhaler Agents

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RATIONALE: This study investigated the differential impact on healthcare resource use and charges in mild asthma patients who were either high control and high adherent inhaled corticosteroid (ICS) patients (HCHA) or low control and low adherent ICS patients (LCLA). Additionally, the relationship between choice of ICS and probability of being HCHA patients was explored.

METHODS: Asthma patients in the Ingenix LabRx database from October 2001 through December 2007 were identified. Patient demographic, resource utilization and charge data were collected for both a 1 year pre-index and post-index period (the index date corresponding to the first ICS prescription filled). A distribution-based threshold cut-off was established for HCHA (0 exacerbation events [control], 60% days covered [PDC, adherence], N = 483) and LCLA (≥2 exacerbations, 10% PDC, N = 258). Bivariate analyses of HCHA and the LCLA patient cohorts were conducted and a forward stepwise logistic regression model of predicting the likelihood of belonging to the HCHA cohort was built.

RESULTS: HCHA patients had lower resource use (5.6 vs 9.7 asthma records, $p < 0.0001$) and lower overall asthma treatment costs ($2,655 vs $3,345, $p < 0.0001$) when compared to LCLA patients in the post-index period. The logistic regression model showed that mometasone furoate (MF, Asmanex®) patients were 5.081 (4.144-6.230, $p < 0.0001$) times more likely to be in the HCHA cohort, when compared to other ICS agents.

CONCLUSIONS: HCHA ICS patients had lower overall healthcare resource utilization and lower overall asthma-related charges when compared to LCLA patients. MF ICS patients were more likely to be in the HCHA patient cohort.

149 A Multivariate Outcomes Analysis of Mometasone Furoate versus Fluticasone Propionate Outcomes in Mild Persistent Asthmatics with Prior Asthma Medication Use

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RATIONALE: This study was a multivariate retrospective database analysis using an administrative claims database to compare the impact on patient health outcomes between mometasone furoate inhaler (MF, Asmanex®) and fluticasone propionate inhaler (FP, Flovent®) use in mild, persistent asthma patients with prior asthma medication use.

METHODS: Mild, persistent asthma patients were identified in the Ingenix LabRx database from October 2001 through December 2007. Patient demographic, drug utilization and outcome data were collected for both a 1 year pre-index and post-index period (the index date corresponding to the first MF or FP prescription filled). A 1:1 propensity score match using select pre-index variables was conducted and the final matched patient sample was 2,312 patients (1,156 in each drug cohort). Multivariate generalized linear regression models (GLM) were built for different outcome variables (exacerbations, short acting beta-agonist (SABA) use, adherence, and asthma-related charges) using demographics, comorbidities and pre-index disease severity indicators as independent variables.

RESULTS: MF patients used less SABA agents when compared to FP patients ($p < 0.0001$). Additionally, MF patients had a significantly better adherence rate than FP patients ($p < 0.0001$). The number of exacerbation events was not significantly different between MF and FP ($p = 0.50$).

CONCLUSIONS: MF was associated with less concurrent SABA usage and better adherence when compared to FP use in the mild, persistent asthma patient with prior asthma medication use.

150 Doctor Interactive Group Medical Appointments (DIGMA) For Patients with Asthma: A four Year Outcome Study

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RATIONALE: Our DIGMA program is established to allow patients time to interact with an allergist, a behaviorist and an asthma educator. DIGMAs are held weekly, last for 90 minutes and include 10 patients per session with chronic asthma. Outcome parameters assess the effectiveness of the program over a 4 year period.

METHODS: Sixty four adult asthmatic patients are enrolled and followed for 4 years. The enrollees are high utilizers of health care. Patients are seen in 3 steps: Step 1 vital signs and spirometry, Step 2 brief history and physical, Step 3 a group session lasting 60-90 minutes. The AQLQ test is administered each year. Spirometry, an analog self assessment scale and the ACT are administered at each visit.

RESULTS: Forty two out of 64 patients are followed for a minimum of 3 visits to the DIGMA Program during 4 years. Average baseline FVC is 85% predicted and remained unchanged. FEV1 was 78% baseline and remained unchanged. Baseline rescue inhaler use was 4 per week compared to 1.5 per week at last visit. Average ACT scores are 18 at baseline and 19 at last visit. ER claims are 5 at one year prior to enrollment and 2 at the last year of DIGMA. Patient satisfaction improved from 30 to 34 at the last visit. AQLQ scores improved in each domain and by 373 points in the first year.

CONCLUSIONS: This is an effective multidisciplinary asthma intervention that focuses on behavior. It fulfills the goals of asthma care as described by the 2007 NAEPP guidelines.

151 High Unmet Need In Severe Allergic Uncontrolled Asthma Patients: A Divergence Between Observed Practice Patterns And The Newly Revised Asthma Treatment Guidelines

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RATIONALE: The revised guidelines recommend considering omalizumab for moderate-severe uncontrolled asthma patients with evidence of allergy (SUAA patients). Our objective was to understand omalizumab use and unmet need in this cohort using a HIPAA compliant claims database.

METHODS: Uncontrolled status was defined as either ≥seven short-acting beta-agonist prescriptions (impairment) or ≥two separate exacerbation events (risk) over a twelve month period. Exacerbation was defined as emergency(ED)/hospitalization/'outpatient exacerbation' (OE) identified as oral corticosteroid prescription (OCS) associated with a physician visit for asthma. The last uncontrolled event was defined as the index. Continuous enrollment for twelve months pre-post index was required. Allergic status was defined as a concurrent dermatitis or rhinitis diagnosis or observed allergy medications, and severity as evidenced by being on Step 4/5/6 care pre-index. Key outcome measures were extent of specialist referrals, IgE testing and omalizumab use post-index.

RESULTS: 3,880 SUAA patients with 67% in Step4, 31% -step5 and 1.6%-step6 in the pre-index period were identified. 28% had ≥two OEs, 44% had ≥one OE and 9.4% had at least one ED/hospitalization for asthma pre-index. 13.8% of these SUAA patients had step-up in care, 52% saw a specialist, 6.8% had any evidence of IgE testing in the post-index period. 1.3% of patients in Step4, 2.8% in step5 and 11.3% in Step6 started omalizumab in the post-index period.

CONCLUSIONS: SUAA patients in step 4/5/6 had a high disease burden as evidenced by the rate of ED/hospitalizations and OEs. Omalizumab may an option for these high risk patients as per the revised guidelines.