

lished. This initiative had support from the CEO, medical director, and other senior management who provided periodic global e-mails to all clinicians and support staff. As staffing permitted, patients filling prescriptions for Allegra, Zyrtec, or Clarinex were sent letters or called personally to explain how they could both save money and receive the same symptom relief with the OTC product. Finally, posters advertising the current price of OTC loratadine in our on-site pharmacies were displayed in internal medicine, allergy, and pediatrics exam rooms.

RESULTS: When comparing baseline 2002 prescribing data to 2004 prescribing data (year to date), non-sedating antihistamine prescriptions have been reduced by 70% to 75%. The savings that this switch provided was 2-fold: our organization realized a \$250,000 to \$300,000 annual savings in 2004 over 2002, and our patients saved by buying OTC loratadine for \$4.99 per 30 tablets as compared with a \$15 to \$45 copay for the prescription product. While our goal of 90% prescription reduction was not achieved, the initiative provided substantial savings to the organization and to patients while maintaining high-quality drug therapy.

CONCLUSIONS: A simple, focused prescribing initiative can influence prescribing behavior of clinicians and yield significant savings. The success of this initiative to reduce non-sedating antihistamine prescribing is due to an organization-wide effort with financial benefit to both patients and our medical group.

RETROSPECTIVE CLAIMS ANALYSIS COMPARING ATYPICAL ANTIPSYCHOTICS WITH OR WITHOUT MOOD STABILIZERS IN PATIENTS WITH BIPOLAR DISORDER

Hinnenthal J, Keith MS*, Rupnow M. Janssen Medical Affairs, LLC, 1125 Trenton-Harbourtn Rd., Titusville, NJ 08560

INTRODUCTION: The study evaluated atypical antipsychotic and mood stabilizer treatment patterns in managed care patients diagnosed with bipolar disorder.

METHODS: This study used enrollment, medical, and pharmacy claims data from a national managed care provider. The study included data from October 1, 2000-September 30, 2003. Patients were divided into 6 mutually exclusive groups based on their first atypical antipsychotic (AA) prescription (risperidone, olanzapine, or quetiapine) and presence/absence of mood stabilizer (MS) therapy in the following year.

RESULTS: Out of 2,313 patients, approximately two thirds received combination AA plus MS therapy. The mean daily doses of AA therapy were in line with or below current recommendations and were lower for monotherapy patients. The mean (SD) duration of AA therapy was 113 (110) days and was lower for monotherapy patients. Approximately 16.5% of patients switched their AA therapy during the study period, and switching was less common for monotherapy patients. The mean cost per day for AA treatment was \$6.76, and costs were lower for monotherapy patients; mean cost per day was the highest among olanzapine+MS patients (\$9.62).

CONCLUSIONS: Combination therapy was more common than monotherapy but was associated with a longer duration of therapy, a higher average atypical dosage, greater likelihood of switching, and higher costs to manage. The choice of AA may have a large impact on the cost of medication. More research on the cost-effective use of AA in the management of bipolar patients is needed.

RETROSPECTIVE EVALUATION OF UTILIZATION PATTERNS OF BETA-BLOCKER THERAPY IN HEART FAILURE PATIENTS IN A MANAGED CARE ENVIRONMENT

Stewart SL*, Ngan GC, Godley PJ, Browne BA, Rohack J, Houck P. Scott & White Health Plan, 2401 South 31st, Temple, TX 76508

OBJECTIVE: Current guidelines include beta-blocker agents as standard therapy in chronic heart failure. Carvedilol and metoprolol succinate extended-release are the only beta-blockers in the United States indicated for heart failure. This study identified current beta-blocker utilization patterns of heart failure patients at the Scott & White Health Plan (SWHP).

METHODS: In Phase I, SWHP pharmacy claims data (3Q03-1Q04) was evaluated to determine inclusion of beta-blocker as standard therapy and appropriateness of dose and agent utilized. An intervention consisted of quarterly visits by SWHP clinical pharmacists to provide therapeutic information about the benefits of beta-blockers for heart failure patients. In Phase II, the most recent left ventricular ejection fraction (LVEF) will be obtained in addition to pharmacy claims data to determine the appropriateness of the beta-blocker utilization. At the intervention visits, health plan physicians will also receive a list of their heart failure patients with corresponding LVEF and beta-blocker utilization profile (agent/dosing regimen).

RESULTS: In Phase I, approximately 30% of 1,776 patients identified filled a prescription for a beta-blocker from 2nd quarter 2003 to 1st quarter 2004. Of the patients receiving a beta-blocker, fewer than 50% received a beta-blocking agent indicated for heart failure (carvedilol or metoprolol succinate extended-release). Fewer than 40% of those patients achieved target doses.

CONCLUSIONS: Phase I of this project identified increased beta-blocker utilization after clinical intervention; however, beta-blocking agents remained underutilized for heart failure. Phase II of the project focuses on increasing appropriate beta-blocker utilization in heart failure patients in the SWHP.

SYSTEMATIC REVIEW AND COST-EFFECTIVENESS ANALYSIS OF TREATMENTS FOR MODERATE-TO-SEVERE PSORIASIS

Hankin CS*, Szczotka A, Stinger R, Feldman SR, Fish L, Scharaga E. Bio Med Econ, LLC, 2316 Walden Square, San Jose, CA 95124

OBJECTIVE AND PERSPECTIVE: In an environment absent head-to-head trials, burgeoning demand for newer and more costly treatments, and limited health care resources, managed care seeks alternative methods to compare safety, efficacy, and costs of moderate-to-severe psoriasis treatments.

METHODS: We conducted an expert panel systematic literature review of moderate-to-severe psoriasis treatments based on average percentage improvement in Psoriasis Severity Area Index (PASI). Study inclusion criteria were designed to minimize bias. Based on findings, we calculated annualized cost-effectiveness from the perspective of U.S. managed health care payers. Treatments included acitretin, alefacept, cyclosporine, efalizumab, etanercept, infliximab, methotrexate, narrowband and broadband ultraviolet B (NBUVB, BBUVB), psoralen with ultraviolet A (PUVA), BBUVB with acitretin, and PUVA with acitretin. Using January 2004 U.S. average wholesale drug prices and 2004 Medicare reimbursement

rates, we calculated cost-effectiveness as: total treatment costs [medications or phototherapy + administration of treatment (e.g., IV infusion) + monitoring (e.g., diagnostic procedures) + risk-adjusted costs of adverse events] divided by mean reported PASI improvement.

RESULTS: Annualized costs to achieve 1% PASI improvement were: \$31 for methotrexate 7.5 mg, \$33 methotrexate 15 mg, \$41 to \$63 PUVA, \$56 to \$100 BBUVB, \$64 NBUVB, \$55 BBUVB with acitretin 25 mg, \$76 PUVA with acitretin 40 mg, \$134 cyclosporine 3 mg/kg, \$141 cyclosporine 1.5 mg/kg, \$216 acitretin 50 mg, \$319 infliximab 5 mg, \$330 etanercept 50 mg, \$346 efalizumab 1 mg/kg, and \$602 alefacept 15 mg intramuscular.

CONCLUSIONS: The most costly medications were not necessarily the most efficacious. Oral systemics, UV therapy, and combined UV therapy with acitretin appear to be the most cost-effective treatments for moderate-to-severe psoriasis.

THE BURDEN OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE FOLLOWING A MEDICAL ENCOUNTER IN A MEDICAID POPULATION

*Hawkins K**, Baser O, Phillips AL, Marton JP, Shah H. Medstat Group, 777 E. Eisenhower Pky., Ann Arbor, MI 48108; E-mail: Kevin.hawkins@thomson.com

OBJECTIVES: To estimate the annual burden of COPD following a medical encounter in a Medicaid population.

METHODS: This analysis used Medstat's MarketScan claims data for a multistate Medicaid-insured population. Chronic obstructive pulmonary disease (COPD) patients were identified by an inpatient or emergency department claim with a primary diagnosis of COPD or 2 or more outpatient visits for COPD at least 30 days apart during 2001 (first encounter = index event). Patients were required to be continuously enrolled for 6 months prior and 12 months following the index event. Using data from the preindex period, COPD patients were matched with controls by demographics (age, gender, race, insurance type, and location) and comorbidities (Charlson Comorbidity Index and number of psychiatric diagnosis groups) using propensity score matching. Descriptive analysis was used to evaluate the quality of match and to compare health care costs between the cohorts during the postindex period.

RESULTS: 34,609 COPD patients and 173,045 controls (randomly selected 1:5) met the inclusion criteria. After propensity score matching, 28,968 patients remained in each cohort with no significant differences in matching variables. In the postindex period, COPD patients averaged \$28,435 in annual total health care expenditures, and controls averaged \$9,431 ($P < 0.01$). Respiratory-related (ICD-9: 460-519) costs were \$10,802 and \$533 ($P < 0.01$), and nonrespiratory-related costs totaled \$17,633 and \$8,897 ($P < 0.01$), respectively.

CONCLUSIONS: After controlling for patient demographics and overall physical and mental health comorbidities, the excess cost of COPD in a Medicaid population in the year following a medical encounter is approximately \$19,004 per patient, 54% of which is respiratory-related.

THE MEDICARE DONUT HOLE: WHO AND HOW MUCH WILL FALL IN?

*Mark TL**, Ozminkowski R. Medstat, 4301 Connecticut Ave., NW, Suite 300, Washington, DC 20008

INTRODUCTION: The Medicare Part D drug benefit provides no insurance coverage when drug expenditures exceed \$2,250 and prior to when they exceed a catastrophic limit of \$5,100. This study examines how many beneficiaries are likely to be subject to the Medicare "donut hole," their characteristics, and the characteristics of their prescriptions.

METHODS: Data came from Medstat's MarketScan database. MarketScan contains private health insurance claims data from approximately 1 million Medicare beneficiaries who receive supplemental coverage through their employers. Pharmaceutical claims over the course of 2003 were summed to determine which beneficiaries would hit the donut hole and to determine the beneficiaries' characteristics.

RESULTS: Approximately 40% of Medicare beneficiaries would be subject to the Medicare donut hole. Between 25% to 40% of a given medication's expenditures would fall in the donut hole. Those reaching the donut hole are slightly older and slightly more likely to be female. The most common medications in the donut hole (making up 10% of all prescriptions) were Lipitor, furosemide, Zocor, Norvasc, and Plavix. The most frequent diagnostic category of patients hitting the donut hole was hypertension. The mean time to reach the donut hole was 218 days.

CONCLUSIONS: Studies of Medicare patients in health maintenance organizations indicate that they may stop taking their medication when they reach their prescription drug limit. This study suggests that a significant proportion of prescriptions may not be covered under Medicare due to the donut hole. This has potential implications for compliance and the health of Medicare beneficiaries.

TRANSLATION OF HEALTH-RELATED QUALITY-OF-LIFE BURDEN AND OUTCOMES TO PROJECTED ANNUAL HEALTH CARE EXPENDITURES UTILIZING DATA FROM AN OBSERVATIONAL STUDY OF CHRONIC LOW BACK PAIN PATIENTS TREATED WITH TRANSDERMAL FENTANYL SYSTEM

*Kosinski M**, Vallow S, Schein J, Ascher S, Frank L, Shikier R, Margolis M, Vorsanger G. Quality Metric, Inc., 640 George Washington Hwy., Lincoln, RI 02865

INTRODUCTION: A health risk-based model developed for the SF-36 Health Survey (SF-36) was implemented with data from chronic low back pain (CLBP) study to translate health-related quality-of-life burden (HRQoL) scores observed before and after treatment into projected annual health care expenditures.

METHODS: HRQoL data were from an observational study conducted at 17 pain centers in the United States. Eligible patients ($N = 131$) had a CLBP diagnosis for at least 3 months and were receiving short-acting opioids when transdermal fentanyl was added. Patients completed the SF-36 at baseline and after at least 9 weeks of transdermal fentanyl treatment. The health-risk model was used to project annual health care expenditures among adults enrolled to SF-36 scores at baseline and final visit and to compare SF-36 scores observed in the general U.S. population ($N = 2,031$).