Plan Employer Data and Information Set (HEDIS) definitions, as well as among the classes of asthma medications. METHODS: A retrospective cohort analysis of the Integrated Health care Information Services (IHIS) administrative database evaluated patients ≥ 5 years of age with at least 2 prescriptions of asthma medication. Asthma severity was classified as HP (n = 21,698) or HNP (n = 11,967), in accordance with 2006 HEDIS criteria; compliance, calculated as medication possession ratios (MPR) and persistence, calculated as days supply before discontinuation, switching, or augmentation, were measured in patients treated with inhaled corticosteroids (ICS) (n = 3906 HP, n = 3856 HNP), leukotriene modifiers (LM) (n = 10,005 HP, n = 3823 HNP), and ICS + LABA combinations (n = 5893 HP, n = 3538 HNP) over a 1-year period. The study groups’ comparisons were conducted using t-test or analysis of variance where appropriate. RESULTS: Overall, HP patients had higher MPRs with all categories of medication (71 + 29%) compared with HNP patients (43 + 27%, p < 0.001). Oral LM (78 + 27% HP, 51 + 29% HNP) were taken more frequently than ICS (55 + 30% HP, 31 + 21% HNP) or ICS + LABA combinations (65 + 28% HP, p < 0.001, 43 + 25% HNP, p < 0.001). Persistence was longer for LM (139 + 110 days HP, 90 + 86 days HNP), than for ICS (64 + 72 days HP, 37 + 32 days HNP), or ICS + LABA (106 + 108 days HP, 66 + 73 days HNP, p < 0.001 for both). CONCLUSION: Both compliance and persistence remained suboptimal in this large asthmatic population, with HNP patients far less consistent with their medication dosing and duration of use than HP patients. LMs were used more consistently than inhaled medications, with ICS being the least consistently used asthma medication. Additional measures are needed to improve compliance and persistence with these medications.

A DECISION TREE APPROACH TO ESTIMATING COST SAVINGS OF PAY FOR PERFORMANCE PROGRAMS IN A PPO SETTING

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OBJECTIVES: Pay-for-performance is gaining popularity and acceptance as an approach to improve quality and efficiency of health care in the U.S. However, little evidence regarding the economic feasibility of this approach is currently available in the literature. Our objective was to examine the cost savings of a quality-based physician incentive program implemented in a PPO setting. METHODS: Administrative claims data for 2003–2005 were obtained from a voluntary physician incentive program implemented by a large non-profit health plan in Hawaii and used to calculate all costs and probabilities included in the decision tree. Health plan members were categorized into two groups: those who visited only physicians who participated in the program and those who visited only non-participating physicians during the study period. Rates of recommended care for two evidence-based quality of care indicators—glycosylated hemoglobin testing and lipid panel testing for members with diabetes—were compared between the two groups to determine program effectiveness. Program costs included administrative costs, the cost of quality of care evaluation, and physician reimbursement. Quality indicators that included several procedures were assigned a weighted average cost. One year events included severe diabetic complications. RESULTS: Average program cost per enrollee was $21; the average cost of receiving the two tests was $18; and the cost of developing relevant complications was $6470. With the incentive program, the health plan saved approximately $18 per adult diabetic considering just the two indicators (i.e., total program costs were distributed across just the two indicators for the purposes of this analysis), which translated to two year savings ranging from $2.5 to $6.7 million. CONCLUSION: Physician reimbursement models built upon evidence-based quality of care metrics may result in direct cost savings to the health plan within a relatively short follow-up time, in addition to positively affecting delivery of high quality, recommended care.

EVALUATION OF A MULTICENTER AND MULTIDISCIPLINARY CONGESTIVE HEART FAILURE MANAGEMENT PROGRAM

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OBJECTIVES: To investigate the impact of a multidisciplinary disease management program implemented in 3 different hospitals on the functional status, quality of life, and utilization of hospital resources for patients with congestive heart failure (CHF). The study also examined the financial outcomes of the program. METHODS: We evaluated the program by comparing the rates of readmission (CHF) within 3- and 12-month of initial discharge, the cumulative number of hospital days, the rate of ED visits and financial outcomes within 12 months of enrolment for 431 patients given a multidisciplinary disease management intervention against 141 patients who received usual care. Changes in functional outcomes of patients on the program were assessed at baseline and at six months using the 6-minute walk distance and the New York Heart Association (NYHA) Functional Classification. The Minnesota Living with Heart Failure Questionnaire was used to measure patients’ quality of life. RESULTS: The intervention group had considerably and significantly lower hospital readmission rates than the control group (5.6% vs. 15.6% within 3 months, P = 0.001, 13.2% vs. 29.8% within 12 months, P < 0.001). The mean hospital days per patient was also reduced from 3.3 ± 11.2 to 1.0 ± 3.5 (P < 0.001). The number of emergency room visits (CHF) per patient was 46% lower for program patients. The mean 6-minute walk distance did not increase significantly from baseline (P = 0.065) whereas there was a 10% decline in NYHA score (P < 0.001) and a markedly improvement quality of life were registered (P < 0.001). The return on investment was calculated to be 0.82. CONCLUSION: The evaluation demonstrates that a multidisciplinary heart failure program led to improved functional status and better quality of life while at the same time reduced utilization of acute hospital resources.