counted at 6%/yrs, were obtained from HRG codes E18–19. Benefits were discounted at 1.5%. Extensive multivariate sensitivity analyses were done. RESULTS: In these patients with mean age of 64 yrs, 91% in class III, 23% deaf at two yrs, CRT reduced hospitalization for heart failure by 42%, leading to total costs of £3500 per patient vs. £3000 with OPT. Based on 100 replications, mean improvement of 0.16 QALY (SD 0.009) is achieved with CRT at mean net cost of £526 (SD £167) per patient, a mean cost-effectiveness ratio of £3379/QALY. Extensive sensitivity analyses revealed the greatest cost/QALY variability when the length of stay for heart failure was varied ± 25% (£562–£6354). CONCLUSION: Despite the cost of implantation, cardiac resynchronization therapy decreases hospitalizations and increases QOL sufficiently to be cost-effective in treating advanced heart failure.

PCV15

POTENTIAL MEDICAL COST OFFSETS OF TREATMENT WITH ISOSORBIDE DINITRATE PLUS HYDRAZALINE IN AFRICAN AMERICANS WITH HEART FAILURE

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OBJECTIVE: Combination therapy with isosorbide dinitrate and hydralazine was recently shown to significantly improve clinical and survival outcomes in African Americans with congestive heart failure (CHF). The objective of this analysis was to measure the potential economic impact of this combination in the US African American population with CHF. METHODS: The population of African Americans with heart failure was estimated from US Census Bureau and US NCHS 2002 NHANES data. We then aggregated and compared drug and hospital costs over a 10-month period (the duration of the trial) under a combination therapy scenario vs. a usual-care scenario. Costs were calculated in 2004 USD from the payer perspective. Cost of the generic combination drug regimen (40mg isosorbide dinitrate and 75 mg hydralazine, three times daily) was calculated using the AWP. The rates of first hospitalizations for treated and untreated patients were drawn from the trial (24.4% of patients without drug combination and 16.4% with drug combination). Hospital costs were estimated based on Medicare reimbursement rates for DRG 127. RESULTS: The use of the drug combination resulted in a cost savings of over $270 million dollars for the entire population (n = 800,097), or $338 per person receiving the drug combination. Cost savings with the drug combination were realized over a wide range of clinical and cost parameters and assumptions. CONCLUSION: Usage of the isosorbide dinitrate and hydralazine combination in African Americans with heart failure can be expected to generate cost savings in addition to the significant clinical benefits of the drug combination. Further studies of the drug combination over longer time horizons, brand pricing (including pricing for a yet-to-be-approved combination pill), and consideration of other costs such as treatment of adverse events and physician fees will give a more complete picture of the benefits of the drug combination in this population.

PCV16

INCREMENTAL EFFECTS OF CONCURRENT PHARMACOTHERAPEUTIC REGIMENS FOR HEART FAILURE ON HOSPITALIZATIONS AND COSTS

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OBJECTIVE: To evaluate the incremental differences of concurrent and persistent use of angiotensin-converting enzyme (ACE) inhibitors, beta-blockers, loop diuretics, and digoxin on the risk of hospitalization and total costs with heart failure patients enrolled in a managed care organization. METHODS: Retrospective database analysis of outpatients diagnosed with heart failure within a managed care organization covering 350,000 lives from January 1, 1997 to December 31, 1999. Linear and logistic regression models were used to examine the association between treatment regimens and all-cause hospitalizations or total direct medical costs after controlling for patient demographics, comorbidities, and other risk factors. RESULTS: Of the 1903 patients meeting inclusion and exclusion criteria, 33.2% (n = 615) were observed not to have received any ACE inhibitor, beta-blocker, loop diuretic, digoxin, or angiotensin-receptor blockers (ARB). Subsequent multivariate analyses indicated that the associated risk of one year, all-cause hospitalization was 2.5 times higher (p < 0.01) for patients taking none of these medications relative to the overall sample, followed by a 43.6% higher total health care costs (p < 0.01). Patients receiving three or more of the specific medications analyzed were associated with significant decreases in risk of one year all-cause hospitalization of approximately 80% (p < 0.01) and decreases in total costs of approximately 70% (p < 0.01) relative to those utilizing no therapy. CONCLUSION: This analysis appears to indicate that a substantial portion of heart failure patients may be receiving suboptimal pharmacotherapeutic care, resulting in a higher associated risk of hospitalization and increase in total health care costs. Conversely, patients that were adherent with concurrent medication therapies were associated with decreases in both hospitalizations and total costs. The implications of this research suggest that quality improvement initiatives seek to identify and manage those not being treated or adherent to established evidence-based care.

PCV17

CAREMARK CAREPATTERNS® HEART FAILURE HOME MONITORING PROGRAM IMPROVES PARTICIPANTS’ HOME MONITORING COMPLIANCE

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Caremark has developed an in-home program that monitors weight and symptoms using a telemonitoring device. The device includes a special scale and telephone. A registered nurse monitors for any changes in the participant and further assesses their condition. The goal of this program is to encourage participants to weigh daily to recognize early symptoms and to follow their physician. OBJECTIVE: To evaluate the effectiveness of the CarePatterns heart failure home monitoring program. METHODS: Participants were selected based on severity, not on dialysis, not in any other monitoring program, not going out of town, and fewer than 320 pounds. The objectives were to get participants to meet selected benchmarks after 60 days. These included daily weight taking, action plan, and when to call their physician, no changes in weight or symptoms in prior 28 days, and fewer than three Non-Compliance alerts in 28 days. RESULTS: In total, 100 participants enrolled, 51% male 49% female, mean age of 73. Seventy-seven individuals started daily weight taking. A total of 54, or 71%, of these participants met the graduation requirement. The retention rate for the CarePatterns Heart Failure program was 98% for the enrolled group and 80% for the non-enrolled group. p < 0.05, 45 participants had an alert, resulting in 16 doctor visits, two emergency room visits and two hospitalizations, 32 participants did not have an alert.