**PCV21**

**TREATMENT PATTERNS AMONG NEWLY DIAGNOSED CORONARY HEART DISEASE PATIENTS: CORRELATES OF LIPID MANAGEMENT**

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**OBJECTIVES:** In support of secondary prevention efforts, NCEP guidelines have affirmed the importance of intensive management of LDL cholesterol in established CHD patients. The objective of this retrospective, cohort analysis was to examine correlates of “optimal” lipid management among newly diagnosed CHD patients. The population was drawn from a health benefits company under capitation (commercial, Medicare) and PPO arrangements.

**METHODS:** Eligible subjects (N = 10,125) had an index medical claim for CHD in Year 2000 (ICD-9 CM codes of 410–414, Procedure codes of: 36.0–36.3), no such diagnostic codes during a previous 24-month “clean” period, no pharmacy claims for a lipid-lowering agent (LLA) in the six month period prior to the index diagnosis, and continuous enrollment during the 36-month observation period. “Optimal” management was defined as at least 1 claim for a LLA in all four quarters of a 12-month post-index follow-up period, coupled with at least 1 lab claim associated with lipid monitoring (lab values were not available for analysis).

**RESULTS:** Patients classified as receiving “optimal” management equaled 4.9%, with 50.3% classified as receiving neither a lab claim nor a LLA. A logistic regression identified five statistically significant (P < 0.01) predictors of “optimal” management, including: a) identification by a diagnosis of acute MI; b) age < 65 years; c) male gender; d) a comorbidity of hypertension; and e) initial CHD diagnosis by a physician other than a cardiologist/cardiovascular surgeon.

**CONCLUSIONS:** Effective lipid management in patients with CHD has been linked to reduced mortality, decreased morbidity and lower treatment costs. Nonetheless, study findings identify a large gap between the promise of pharmacotherapy and performance in clinical practice. Increased promotion of guidelines emphasizing the importance of aggressive lipid management for both physicians and patients may be necessary to decrease this gap and to achieve desired objectives of secondary prevention of CHD.

**PCV22**

**DISEASE MANAGEMENT REDUCES HEALTHCARE DISPARITIES IN HEART FAILURE PATIENTS**

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**OBJECTIVE:** To provide evidence that a heart failure (HF) disease management (DM) program can reduce disparities in healthcare outcomes in minority populations.

**METHODS:** The study sample included HF patients who were in a nurse-mediated DM program for at least 90 days, and who had a minimum of 2 quality of life (QOL) and 2 NYHA measurements. QOL was measured for both physical (PCS) and mental health (MCS) using the SF-8 survey instrument. QOL and NYHA were measured at the time of program enrollment and quarterly thereafter. Baseline QOL and NYHA scores were compared to the most recent. The 95% confidence interval for clinical significance is +/- .63 for MCS and +/- .57 for PCS. There were 2578 patients in the sample, of which 2081 were white and 497 were black. Blacks were significantly younger than whites (67 and 72 years of age), and were more female (61% and 52%).

**RESULTS:** The mean PCS at baseline was 38.16 and 37.96, for whites and blacks respectively. The mean PCS for the most recent scores was 41.39 (p < 0.0001) and 42.01 (p < 0.0001) respectively for whites and blacks. Importantly, 39% and 45% of whites and blacks had clinically significant improvements in PCS. The mean MCS at baseline was 46.44 and 47.28, for whites and black respectively. The mean MCS for the most recent score was 47.84 (p < 0.0001) and 48.21 (p = 0.05) respectively for whites and blacks. Twenty-seven percent of both groups had clinically significant improvements in MCS. At baseline, 45% of whites and only 35% of blacks were NYHA I or II. For the current measurement 57% of whites and 59% of blacks were NYHA I or II.

**CONCLUSIONS:** Based upon these results, DM reduces healthcare disparities between white and black populations.

**PCV23**

**A COST-BENEFIT MODEL FOR PERINDOPRIL IN SECONDARY STROKE PREVENTION**

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The PROGRESS trial demonstrated the effectiveness of perindopril/indapamide in secondary stroke prevention (SSP). No existing economic study has incorporated these findings in a cost-benefit analysis. **OBJECTIVES:** The objective of this analysis was to evaluate the cost/benefit of perindopril/indapamide in SSP. **METHODS:** The model used a decision tree approach to estimate direct cost savings associated with SSP for a hypothetical cohort of 10,000 first stroke survivors from an HMO’s perspective (1 Mio covered lives) over a 3-year time period. Incidence estimates for 2nd stroke and healthcare utilization as well as pharmacoeconomic estimates are presented for each year and separated for the two major stroke types (ischaemic and hemorrhagic stroke). First, stroke incidence and transition probabilities for healthcare utilization were abstracted from the published epidemiologic literature, incidence of second strokes from the...
PROGRESS trial. Cost for stroke-related hospitalization and re-hospitalization, rehabilitation, nursing home, and ambulatory care derived from national data and published literature. Historical cost data was inflation-adjusted to 2001 values, savings in the 2nd and 3rd year were discounted at 3%, and health care CPI inflation-adjusted at 4.7%. Treatment and control group (no SSP medication) were replenished after the 1st and 2nd year in equal numbers with newly SSP eligible patients (new first stroke survivors of the HMO population). Drug prices were defined as WAC-20% plus $5 co-pay. Sensitivity analysis on stroke incidences, selected transition probabilities and costs will be presented. RESULTS: SSP with perindopril/indapamide saved 28 lives and 110 strokes in the first year (after 3 years 169 and 325 respectively). Treatment achieved a net benefit of $803,000 in the first, $3,267,253 in the second and $6,207,814 by the third year. The cost per stroke prevented was $24,648 and $47,412 per death averted over the three year period. CONCLUSIONS: SSP with perindopril/indapamid saves lives and healthcare costs.

OBJECTIVES: To estimate the rate of hospitalizations due to cardiovascular disease and other causes following an acute atherothrombotic stroke and the associated costs. METHODS: We evaluated hospitalization rates (cumulative number divided by the patient time in a given period) following a diagnosis of acute stroke using the health care records of residents of Saskatchewan, Canada who were diagnosed between 1990–1995. Data on patient characteristics and medical history were available from January 1980 and follow-up was complete to December 2000. Costs (2002 Canadian dollars) were also estimated. Reasons for hospitalization were classified on the basis of primary diagnosis, into atherothrombotic (stroke, TIA, myocardial infarction, angina, or other cardiovascular disease), gastrointestinal (GI) bleeding and other. RESULTS: The 18,704 patients with stroke (48% male) tended to be elderly (mean age 70.5 years). Nearly two-thirds died during follow-up. At least 1 hospitalization occurred in 13,952 (72.7%), a hazard of 36,2/100 person years and those hospitalized had 3.9 admissions on average. Atherothrombotic causes were most frequent (82.4%), the majority were stroke and TIA (53.2%), but length of stay was longest for GI bleeds (mean 17.1 days vs 16.1 for atherothrombotic disease). The admission rates due to atherothrombotic disease were 3 times higher in the month following stroke than after the first year; and higher with age greater than 65 years (hazard ratio 1.8, 95% CI 1.69–1.83), diabetes (1.7, 1.62–1.86), atrial fibrillation (2.1, 1.96–2.30), hypertension (1.8 1.65–1.86), heart failure (2.1, 1.97–2.21) and prior atherothrombotic events (1.2, 1.17–1.32). Atherothrombotic hospitalizations accrue costs between $442 per patient per month in the first month to $39 per patient per month after 5 years. CONCLUSIONS: Patients surviving a stroke are frequently readmitted, mostly for atherothrombotic problems, and these events accrue substantial costs, especially early on in the course post-stroke.

AN INVESTIGATION OF THE CARE NEEDS AFTER ACUTE ISCHEMIC STROKE: AN ANALYSIS OF THE DATA COLLECTED IN THE ERLANGEN STROKE PROJECT

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OBJECTIVE: To determine the functional outcome, location of care and economic consequences three months following hospitalization for first ischemic stroke. METHODS: As part of the Erlangen Stroke Project (ESPro), information was collected on patients diagnosed as having a stroke between April 1994 and March 1996. Barthel Index (BI), Functional Independence Measure (FIM) and location of care were determined three months after the stroke. A subset of eight items from the FIM was used to define patients as independent or dependent on caregivers. BI scores three months after the stroke were divided into three categories low (0–55), medium (60–90) and high (95–100). Data collected about health and social services used by these patients were combined with estimates of costs for these services in Germany. Costs were estimated in 2000 DM (1 $ = 0.53 USD, €0.51), undiscounted. RESULTS: Information was recorded on 379 patients, half of whom had not fully recovered at 3 months (27% medium BI, 24% in low category). The majority (79%) was residing in the community, 43% remained dependent but 61% of them still returned to the community. Cumulative costs of care over 3 months for institutionalized patients with high BI were DM35, 100, and with medium BI DM55,000; about 1.5 fold those of patients in the same category residing in the community. Costs for patients with low BI were higher whether in the community (DM51,600) or in institutional care (DM53,400). CONCLUSION: Many patients were left with a level of disability that required a substantial amount of support from caregivers. In Germany, location of care has an impact on the economic consequences at higher levels of BI only.