given that HELP represents a last therapeutic option for these patients. The annual budget impact was $1.0 and $61.0 million (CAD) for HMZ and HTZ FH patients respectively. Costs were halved with biweekly treatment. The cost per CHD death avoided comparing HELP with Plasma Exchange (PE), current treatment, and with no intervention in HTZ FH was estimated to be $37.5 million and $18.7 million for weekly and biweekly treatment respectively. Although HELP costs twice as much as PE, it avoided 12 deaths versus PE and 22 deaths versus no intervention over a 10-year period. CONCLUSION: There is evidence of overall clinical benefit of LDL apheresis for HMZ and HTZ FH. The diffusion of LDL apheresis for refractory HTZ FH should factor affordability and potential capital and human resource constraints.

PCV76

LONGITUDINAL ASSESSMENT OF THE CLINICAL UTILITY OF POINT-OF-CARE MEASUREMENT DEVICES FOR DETERMINING THE INTERNATIONAL NORMALIZED RATIO

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OBJECTIVE: Point-of-Care (POC) devices that measure the International Normalized Ratio (INR) may be associated with enough measurement error to influence warfarin dosing decisions. The purpose of this trial was to determine if there were differences between any of five FDA-approved POC testing devices in terms of the proportion of time patients spend in the target INR range (TR). METHODS: In this longitudinal clinical trial, patients were randomized to one of five POC devices that measure the INR (International Normalized Ratio). Patients were followed over time according to usual anticoagulation clinic practice. Clinicians used measurements from the POC device to make all clinical decisions, including warfarin dose changes. At each visit, a venous blood sample was also collected to serve as an accepted standard measure to calculate time in the target range (TR). A Bayesian hierarchical model with a parametric variance component for estimating coagulation times between observed blood draws was used to estimate the mean proportion of time each patient's INR was within his or her TR. The analysis assessed the probability that each device resulted in patients' INR values within the TR over time, as measured by the accepted standard laboratory measure. RESULTS: A total of 287 patients were enrolled, completed ≥3 visits, and were monitored for an average of 87 days. There was significant differences in the time patients' INR values were in the target range, based on POC device: Coaguchek S (52.2%), Coaguchek ProDM (51.5%), Hemochron Jr. (48.3%), ProTime (45.5%), and Rapidpoint (41.2%). The posterior probabilities that the Coaguchek S and Coaguchek ProDM were the superior devices were 0.58 and 0.31, respectively. CONCLUSION: Five FDA-approved POC INR devices resulted in significantly different time in the TR. This suggests that there are clinically significant differences amongst FDA-approved devices. Measurement of clinical outcomes may improve the regulatory approval process.

PCV77

ASSESSMENT OF CONTROL AND TREATMENT PATTERNS IN AN ELDERLY POPULATION WITH COMORBID DIABETES AND HYPERTENSION

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OBJECTIVE: Evaluate treatment patterns and levels of blood pressure (BP) and glycemic control in elderly patients with comorbid hypertension and type 2 diabetes. METHODS: Retrospective review of 2 consecutive years (August 1, 2005–July 31, 2007) of medical claims, pharmacy claims, and medical charts from a physician group, comprised of more than 200 physicians, located in the Ohio Valley region. Patients 65 years-of-age and older with an ICD-9 diagnosis code for both hypertension and type 2 diabetes were identified for inclusion between August 1, 2005–July 31, 2006, and evaluated from August 1, 2006–July 31, 2007. Administrative claims databases were utilized to analyze treatment patterns. Medical charts was reviewed to confirm diagnoses and collect clinical indicators of control, including BP and hemoglobin A1C measurements. RESULTS: This study included 505 patients with hypertension and type 2 diabetes. The mean age was 75.7 years, and 57% were females. Approximately 35% (n = 177) achieved BP goal of <130/80 mmHg, while 58% (n = 293) achieved glycemic control, defined as A1C <7%. Only 26% (n = 133) attained both goal BP and A1C levels. The most prescribed antihypertensive and antihyperglycemic classes were beta-blockers (50%) and sulfonylureas (44%), respectively. Forty-seven percent of the patients were on an angiotensin converting enzyme inhibitor, and 14% were on an angiotensin receptor blocker. Antihypertensive monotherapy was the least prevalent (21%) mode of therapy, followed by therapy with two agents (29%), and ≥3 agents (50%). In contrast, antihyperglycemic monotherapy was the most prevalent (55%) mode of therapy, followed by dual therapy (30%), and ≥3 agents (15%). CONCLUSION: Elderly patients with comorbid hypertension and type 2 diabetes did not achieve goal BP, and over 40% did not achieve goal A1C. Further opportunities to educate both health care providers and patients are necessary in order to prevent complications associated with the poor management of these two common conditions.

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INTERNATIONAL COMPARISON OF HEALTH CARE RESOURCES AND QUALITY OF LIFE IN ACUTE CORONARY SYNDROME PATIENTS IN 2007: RESULTS FROM THE ANTIPLATELET TREATMENT OBSERVATIONAL STUDY (APTOR)

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OBJECTIVE: To explore variation in practice and its impact on QoL in management of acute coronary syndromes (ACS), the commonest cardiac cause of hospital admission. METHODS: A prospective, international, observational study recruited ACS patients undergoing percutaneous coronary intervention (PCI), January–August 2007, capturing practice patterns, resource use and QoL. RESULTS: A total of 1323 ACS-PCI patients (Spain-
Physician characteristics associated with stroke related outpatient care utilization: analysis of the National Ambulatory Medical Care Survey data 2000–2005
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Objective: To assess trends in utilization of stroke-related outpatient physician services by physician specialty over the past 6 years. Methods: This study was a retrospective analysis of the National Ambulatory Medical Care Survey (NAMCS) from 2000–2005. Ischemic stroke related visits in persons aged ≥45 years were identified using diagnosis codes (ICD9CM) 433.1x, 434.xx, and 436.xx. Visits per/1000 persons were calculated using United States population estimates. With logistic regression, we adjusted associations between stroke-related visits and physician type (Neurology, Primary Care, and Cardiovascular Medicine), for age, race, and region (Northeast, Midwest, West, and South), sex, diabetes, hypertension, insurance type, and survey year. Results: From 2000 to 2005, stroke related outpatient physician office visits ambulatory care visits increased significantly from 4.7/1000 persons to 6.3/1000 (P Trend = 0.0001) persons, a 131% increase. During the study period, the proportion of ambulatory stroke-related visits that were to a neurologist increased significantly from 15.5% in 2000 to 26.3% in 2005 (P Trend = 0.0001). However, during the same period, visits to primary care (2000: 74.4% vs. 2005: 67.8%), and cardiovascular medicine (2000: 10.0% vs. 2005: 5.9%) decreased. After adjustment, greater odds of stroke-related visits to neurologists (OR = 10.6 95% CI: 7.9–14.1) whereas no significant differences were observed for cardiovascular medicine (OR = 1.5 95% CI: 0.9–2.2) (Reference Category: Primary Care). Conclusion: From 2000 to 2005, stroke-related ambulatory physician visits increased significantly overall but particularly to neurologists. Secondary stroke prevention, historically performed by primary care physicians in the US, may be increasingly performed by neurologists. Given predictions for large rises in stroke prevalence due to the aging population and improved stroke survival, US demand for neurologists may be insufficient.

NATIONAL ESTIMATES OF ENROLLMENT IN DISEASE STATE MANAGEMENT PROGRAMS IN THE UNITED STATES
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Objective: Disease state management (DSM) programs are recommended for patients with conditions such as diabetes, hypertension, and hyperlipidemia. However, the level of adoption of these programs is not known. The objective of this study is to determine the level of utilization of DSM programs in the United States. Methods: Data from the National Ambulatory Medical Care Survey (NAMCS), which includes a nationally representative sample of outpatient physician office visits, was used to meet the study objectives. In year 2005, NAMCS included an additional item regarding enrollment in DSM programs. Patients with diabetes, hypertension, or hyperlipidemia were identified and estimates for enrollment in DSM programs were computed. Logistic regression analysis was used to identify predictors of enrollment in such programs. Sample weights and the complex sampling design of the NAMCS were accounted in all the analyses. Results: The final study sample included 3,884 patient visits. Patients with diabetes had the highest rate of enrollment (24.6%), followed by patients with hyperlipidemia (20.4%) and hypertension (19.5%). Insurance status was an important predictor of enrollment status with patients enrolled in Medicare [Odds Ratio (OR) = 1.68; p = 0.021] and Medicaid (OR = 2.13; p = 0.008) significantly more likely to be enrolled in a DSM program as compared to those without insurance. Patients of Hispanic ethnicity were 67% less likely to be enrolled in a DSM program (OR = 0.33; p < 0.001). The only co-morbid condition that was a significant predictor of enrollment status was depression. Patients with co-morbid depression were 1.87 times more likely to be enrolled as compared to those without depression (OR = 1.87; p = 0.004). Conclusion: Although the benefits of DSM programs have been documented, their adoption rate remains extremely low. This study indicates that Hispanic ethnicity, insurance status and co-morbid depression were predictors of enrollment status. Additional studies are needed to identify other predictors and to tailor interventions to increase the adoption of such programs.

Assessing the impact of incorporating patient knowledge and beliefs into anticoagulation therapy management services
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Objective: The primary aim was to determine the impact on INR control resulting from the integration of information on patient health literacy and numeracy, health knowledge and health beliefs regarding warfarin therapy into the clinical information provided to the pharmacist. Methods: A single-blinded randomized controlled study was conducted to test the hypothesis that including information on patient’s health literacy, numeracy, and anticoagulation knowledge and beliefs improves patient INR control. Patients were recruited from anticoagulation management services at the University of Maryland Medical Center and the Baltimore VA Medical Center.