(\(t = -0.09, p = 0.93\)). Probable RCTs in these areas now account for 4% of all RCTs compared to 1.6% in 1956–60. Advances in mono-factorial disorders such as CF, Haemophilia, HD, MD and SCA, have tended to remain relatively constant across 50 years, whilst multi-factorial diseases such as AD and CD, continue to attract significant interest. Obesity has attracted an ever increasing number of RCTs. CONCLUSIONS: Trials of new treatments within the selected diseases were expected to increase; however, results reported no evidence of increased research (within the selected disorders) following the identification of the causative gene(s). A greater interest appeared to be directed towards diseases with gene-environment interaction i.e. obesity. Further development of this analysis may assist identification of genetic research investments which can translate most effectively to improved clinical practice.

WITHDRAWN

**Abstracts**

**A MODIFIED RxRISK-V COMORBIDITY INDEX PREDICTS ADHERENCE WITH LIPID LOWERING THERAPY (LLT)**

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**OBJECTIVE:** Studies have shown that increased co-morbidity is associated with poor pharmacological adherence. We undertook to determine the feasibility of using the modified RxRisk-V co-morbidity index to predict adherence to lipid lowering therapy (LLT). **METHODS:** Using RxAmerica data, patients \(\geq 18\) years and with \(\geq 18\) months of continuous health plan enrollment from 2001–2005 were included in the analysis if they were ‘new starts’ with any class of LLT, defined as no prior treatment in the class for six months. Adherence ratios (defined as proportions of drug-available days during the follow-up period) were calculated and patients with adherence ratios \(\geq 0.80\) were considered adherent to LLT. Using a modified RxRisk-V, co-morbid conditions (CCs) were identified based on one-year of prescription claims prior to the index LLT prescription. Multivariable logistic regression was used to estimate the age- and sex-adjusted odds for adherence associated with various levels of disease co-morbidity. **RESULTS:** A total of 19,458 patients were identified as new starts with an LLT class. The mean age of patients was 55 years (SD 12.1), 48% were females, and 43% had \(\geq 3\) CCs. Results of the regression analysis showed that patients with 1–2 CCs were less likely to be adherent (OR: 0.90; CI: 0.83–0.99) compared to patients with no CCs. Patients with \(\geq 3\) CCs were more likely to be adherent (OR: 1.10; CI: 1.01–1.18). The OR for adherence was significantly decreased for individuals with anxiety and tension, pain disorders, and tuberculosis. The OR was significantly increased for patients with cardiovascular diseases, psychiatric disorders, gastric acid disorders, and others. **CONCLUSION:** These results show that the relationship between adherence and degree of co-morbidity takes a U-shaped distribution; patients with lower levels of co-morbidity are less adherent compared to patients with no co-morbidity, and patients with higher levels of co-morbidity are more adherent.

**CARDIOVASCULAR DISORDERS—Clinical Outcomes Studies**

**STROKE EVENTS IN MANAGED CARE PATIENTS MANAGED ACCORDING TO NATIONAL LIPID TREATMENT GUIDELINES**

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**OBJECTIVE:** The objective of the analysis was to evaluate impact of adherence to lipid treatment guidelines [National Cholesterol Education Program's Third Report on Detection, Evaluation, and Treatment of High Blood Cholesterol and Adult Treatment Panel's (NCEP-ATP III)] on stroke events in managed care patients. **METHODS:** Patients with laboratory values for low-density lipoprotein-cholesterol (LDL-C), high-density lipoprotein-cholesterol (HDL-C), & triglycerides (TG) between January 1, 2003-December 31, 2005 [index date], no lipid therapy 6-months pre-index date, and minimum 12 months health plan eligibility pre- and post-index date were analyzed using a large integrated United States managed care database. Patients were classified as appropriately (AM) or inappropriately managed (IAM) using baseline lipid levels and the first post-index follow-up lipid panel (goal attainment irrespective of therapy), and risk stratification per NCEP-ATP III guidelines. Post-index,
stroke event incidence between groups was analyzed descriptively and through a multivariate logistic regression analysis after controlling for differences in baseline clinical and demographic variables. RESULTS: Among 8176 study patients (3493 AM; 4683 IAM), AM patients were significantly older [51.4 ± 9.1 and 50.0 ± 9.6 years, p < 0.01] and comprised of fewer males (43.2% vs. 56.2%; p < 0.01). AM patients were more likely to be at lower risk status at index date versus IAM patients (63% vs. 28%; p < 0.01), and had a significantly lower Deyo-Charlson comorbidity score (0.32 ± 0.56 vs. 0.20 ± 0.44; p < 0.01). During follow-up, fewer AM patients experienced a stroke event versus IAM patients (0.7% vs. 1.1%; p = 0.03) and thereby were 36% less likely to have a stroke event (OR: 0.64, 95% CI: 0.44–0.93; p < 0.01). CONCLUSION: Adhering to clinical guideline treatment recommendations was likely to be associated with subsequent stroke reductions and possible long-term cost savings in this managed care population.

**PCV3**

SYSTEMATIC REVIEW OF NICARDIPINE IN NEUROVASCULAR CONDITIONS
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OBJECTIVE: Injectable nicardipine is increasingly used in managing neurovascular conditions. To understand its place in therapy, we conducted an evidenced-based literature review.

METHODS: The English-language literature in OVID and Cochrane databases was searched using combinations of these terms: intracerebral hemorrhage (ICH), neurology, neurosurgery, nicardipine, stroke, subarachnoid hemorrhage (SAH). Two-hundred and twenty-three abstracts were identified; after independent review by two individuals, four clinical guidelines, two meta-analyses, and four randomized controlled trials (RCT) were deemed relevant. RESULTS: In clinical guidelines, based on expert opinion, nicardipine was recommended to manage hypertension in 1) ischemic stroke patients eligible for acute reperfusion therapy (alternatives: labetalol, nitropaste, and nitroprusside); and 2) ICH (alternatives: enalapril, esmolol, hydralazine, labetalol, nitroprusside, nitroglycerin). In a meta-analysis, nicardipine had no effect on death or dependency in patients with aneurysmal SAH [RR:0.97 (95%CI:0.78–1.20)]; adverse events were higher versus placebo [hypotension:34% vs. 5%; phlebitis:22% vs. 5%; pulmonary edema + azotemia: 6% vs. 2%]. In acute traumatic brain injury, nicardipine had no impact on death and severe disability [RR:0.25 (95%CI:0.05–1.27)]. Nicardipine’s effect on cerebral blood flow was comparable to labetalol (+0.19 ± 3.9 ml/100 g/min vs. −1.55 ± 3.2 ml/100 g/min; p = 0.39) in ICH, while it increased from baseline in SAH patients (42.1 ± 12.3 ml/100 g/min vs. 47.0 ± 10.7 ml/100 g/min; p < 0.05). In a craniootomy RCT, nicardipine was less effective than labetalol in preventing emergent hypertension (50% vs. 82%; p = 0.05) and was associated with more tachycardia (20% vs. 0%; p = 0.11), hypotension (15% vs. 0%; p = 0.23) and higher cost ($23.65 ± 6.62 vs. $5.23 ± 2.0; p < 0.05). Mean arterial pressure remained depressed 20 minutes post-infusion compared to nitroprusside, despite lack of cumulative nicardipine plasma levels [60 ± 2 mmHg vs. 73 ± 4 mmHg; p < 0.03] in spinal surgery patients. CONCLUSION: While nicardipine has a role in select neurovascular indications, recommendations are based on expert opinion. Moreover, a lack of benefit has been demonstrated in meta-analyses and RCT in other neurovascular indications, including aneurysmal SAH and acute traumatic brain injury.