those with a history of CVD. CONCLUSIONS: In each subgroup, there was a substantial improvement in LDL-C, while improvement of TG and HDL-C levels were moderate and negligible, respectively. Despite LMT, both single and mixed dyslipidemias were prevalent among high risk patients, particularly among those with DM and ACS, occurring those with FRS ≥20%. While the prevalence and persistence of dyslipidemia varied between groups, observations suggest that all may benefit from different types of LMT in addition to statins.

PCV19

EFFECTIVENESS OF ANTIHYPERTENSIVE AGENTS IN THE SECONDARY PREVENTION OF VASCULAR EVENTS AMONG PATIENTS WITH ISCHEMIC STROKE

Perreault S, Gere K, Dragomir A

Université de Montréal, Montréal, QC, Canada; McGill University, Montreal, QC, Canada

OBJECTIVES: Antihypertensive agents (AH) have been shown to reduce the risk of major cardiovascular (CVD) events. However, there is no large scale effectiveness studies which have assessed the relationship between adherence to AH medications and major CVD outcomes in high risk individuals that have suffered an ischemic stroke. The aim of the study was to evaluate the relationship between AH drug adherence and vascular outcomes in a cohort of older patients hospitalized for an ischemic stroke and discharged in the community. METHODS: A cohort of 14,227 patients with ischemic stroke was reconstructed from RAMQ and MedEcho databases. Eligible subjects were 65 years and older and treated with AH agents between 1999 and 2007. A nested case-control design was used to study major CVD outcomes. Every case was matched with a control in terms of sex, age, and duration of follow-up. The adherence to AH was measured as the proportion of days’ supply of medication dispensed over a defined period. Conditional logistic regression models were used to estimate the rate ratio of vascular events adjusting for covariables. RESULTS: Mean patient age was 75 years, 54% were male, 8% had diabetes, and 47% had dyslipidemias, 38% had CHF, 6% MI and 14% had atrial fibrillation. Adherence to AH agents ≥80% reduced the risk of vascular events (RR: 0.70; 0.64–0.77) compared to the one of <80%. Male gender, prior CVD, and non-adherence to therapies for diabetes and dyslipidemia were risk factors. CONCLUSIONS: Higher adherence to AH therapy is linked with a risk reduction of vascular events among patients with ischemic stroke.

PCV20

COMPLIANCE WITH ANTIHYPERTENSIVE AGENTS AND THE ONSET OF END-STAGE RENAL DISEASE

Perreault S, Roy L, Lessard M, Dragomir A

Université de Montréal, Montréal, QC, Canada

OBJECTIVES: The correlation between severity of hypertension and risk of end-stage renal disease (ESRD) is well known. However, the impact of antihypertensive drug adherence on primary prevention of chronic kidney disease (CKD) has never been assessed. Our objective was to evaluate the impact of better adherence to antihypertensive (AH) therapy on ESRD. METHODS: A cohort of 208,128 patients was reconstructed using RAMQ and MedEcho databases. Patients were eligible if they were between 45 to 85 years of age, had a new diagnosis of hypertension and were newly treated with AH drug between 1999 and 2007. A nested case-control design was used to study the occurrence of ESRD. Every case of ESRD was matched for age and duration of follow-up. Adherence level was assessed as a medication possession ratio. Conditional logistic regression models were used to estimate the rate ratio of ESRD adjusting for several covariables. RESULTS: Patients were at 63 years old and 42% were female. The overall AH adherence was 90%, while the adherence to the ESRD cohort was 102.6% during follow-up. High adherence level (80%) to AH therapy compared to lower adherence level (<80%) was associated with a reduction of ESRD (RR: 0.81; 0.70–0.95). Risk factors for ESRD were CKD, gout, diabetes, coronary artery disease, chronic heart failure and peripheral vascular disease. CONCLUSIONS: The study suggests that better adherence to AH therapy is associated with risk reduction of new onset ESRD in hypertensive population.

PCV21

THE RELATIVE EFFECTIVENESS PROFILE OF DRONEDARONE USING THE NUMBER NEEDED TO TREAT (NNT) APPROACH

de Sauvebeuf C, Chicayo A, Hohloessler S

IPS Health, Paris, France; 14th Goethe University Hospital, Frankfurt, Germany

Dronedarone is a new antiarrhythmic drug developed for the treatment of atrial fibrillation (AF). While numerous large cardiovascular (CV) clinical trials have assessed the efficacy of different compounds on morbidity and mortality endpoints, dronedarone is the first antiarrhythmic drug for AF for which a large randomized clinical trial (ATHENA) was designed to assess morbidity/mortality endpoints. OBJECTIVES: To perform an effectiveness analysis using the Number Needed to Treat (NNT) approach to compare dronedarone with other CV drugs in avoiding major CV events (CV death, CV hospitalization and stroke). METHODS: A literature search for 3 CV active medications (statins, angiotensin-converting enzyme inhibitors, angiotensin receptor blockers) was performed using PubMed from 1995 to present to identify clinical trials with endpoints comparable to those of ATHENA. NNTs were calculated using hazard ratios; different lengths of follow up were adjusted to one year, dividing each rate of event by the study duration. RESULTS: Twenty clinical trials were identified as having at least one endpoint comparable to ATHENA. Based on the ATHENA data, the NNT per year of treatment with dronedarone to avoid one “CV death”, one “CV hospitalization” and one stroke were 157, 11, and 172, respectively. Dronedarone was associated with a lower NNT to avoid a “CV death” compared to ramipril (HOPE, NNT = 239), pravastatin (LIPID, NNT = 255), and simvastatin (HPS, NNT = 325; 45, NNT = 167), but a higher NNT vs. candesartan in selected chronic heart failure patients (CHARM, NNT = 123). NNTs for dronedarone to avoid one “CV hospitalization” and one stroke compared favorably to the other medications evaluated. CONCLUSIONS: Pressure on health care budgets emphasizes the need to demonstrate medical value, notably through NNTs which enable comparisons across interventions. Dronedarone has morbidity/mortality data (“CV death”, “CV hospitalizations” and stroke) that compares favorably in terms of NNT to other CV therapies within their respective trial patient populations.

PCV22

THE INFLUENCE OF METEOROLOGICAL FACTORS ON CEREBRAL HEMORRHAGE, INTRACEREBRAL HEMORRHAGE, SUBARACHNOID HEMORRHAGE AND TRANSIENT ISCHEMIC ATTACK

Krishbabar J, Csooboth J, Fušó A, Bona Z, Kohalmi A, Müller A, Bodó J

University of Pécs, Pécs, Hungary; National Meteorological Service, Budapest, Hungary

OBJECTIVES: We have investigated, whether the time of onset of an acute cerebrovascular event demonstrates a seasonal variation, and whether it is influenced by meteorological factors. METHODS: We examined patients admitted to Neurology Departments in Hungary between 2005 and 2007 with the diagnose of cerebral infarction, intracerebral hemorrhage, subarachnoid hemorrhage or transient ischemic attack (n = 178.092). Data was collected from the database of the Hungarian National Health Insurance Fund based on the International Classification of Diseases. Meteorological data was retrieved from the National Meteorology Service. RESULTS: Meteorological analysis showed, that an increase in average temperature on the previous day resulted in a significant drop of intracerebral hemorrhage incidents in Summer and Autumn (P < 0.01), while in case of cerebral infarction such decrease only occurred during Summer and Winter (P < 0.01), and for transient ischemic attack, only during Summer (P < 0.01). Examining atmospheric pressure, we found variations in cases of cerebral infarction, intracerebral hemorrhage and transient ischemic attack. Morbidity rates of cerebral infarction increased during Summer, and decreased during Winter, whenever average atmospheric pressure values on the preceding day were higher (P < 0.01). Decrease in morbidity was observed for intracerebral hemorrhage and transient ischemic attack (P < 0.01). Considering relative humidity on the previous day, a marked variation showed for cerebral infarction during Spring (P < 0.01), and for intracerebral hemorrhage during Summer (P < 0.01). No relationship was found with subarachnoid hemorrhage. CONCLUSIONS: Results reveal, that the occurrence cerebrovascular events shows typical variations depending on the season of the year, while certain meteorological factors influence the development these also.

PCV23

DISCONTINUATION OF LOW-DOSE ACETYLSALICYLIC ACID TREATMENT FOR SECONDARY PREVENTION OF CORONARY VASCULAR OUTCOMES: INCIDENCE AND PREDICTORS

Garcia Rodriguez LA, Martín-Merino E, Johansson S

Spanish Centre for Pharmacoepidemiological Research (CIBE). Madrid, Spain; AstraZeneca Iberia, Madrid, Spain

OBJECTIVES: To assess what proportion of patients treated with low-dose acetylsalicylic acid (ASA) for secondary prevention of cardiovascular events discontinue this treatment, and to identify risk factors for discontinuation. METHODS: The Health Improvement Network UK primary care database was used to identify patients aged 50–84 years with ≥2 prescriptions of low-dose ASA (75–300 mg/day) in 2000–2007 (n = 33,639). The study cohort was followed from the first day after the initial prescription until the earliest occurrence of one of the following: ASA discontinuation (within 90 days after the last prescription would have been used up [assuming full compliance], with no refill of the prescription during this time); death; diagnosis of an alcohol-related condition or cancer; or the end of the study period. The mean follow-up time was 2.5 years. RESULTS: Almost one-third of patients discontinued low-dose ASA (n = 11,729; incidence: 13.1 per 100 person-years; 95% confidence interval [CI] 12.9–13.4). The incidence of discontinuation was higher in the first year of follow-up (26.7 per 100 person-years; 95% CI, 26.1–27.3) than the rest of the study period (6.8 per 100 person-years; 95% CI, 6.6–7.0). The risk of discontinuation was 42–47% higher in patients with an initial indication of unstable angina, ischemic heart disease or cerebrovascular disease than those with an initial indication of myocardial infarction. Current use of proton pump inhibitors (PPIs) was associated with a significant reduction in the risk of discontinuation (odds ratio [OR]: 0.92; 95% CI: 0.87–0.98; compared with no PPI use). Individuals taking PPIs at the same time as their ASA treatment were at particularly low risk of ASA discontinuation (OR: 0.74; 95% CI: 0.69–0.79). CONCLUSIONS: Discontinuation of low-dose ASA treatment is common, especially in the first year of treatment. Concomitant PPI use reduces the risk of ASA discontinuation.

PCV24

AN EPIDEMIOLOGICAL EVALUATION OF THE IMPACT OF PERCUTANEOUS CORONARY INTERVENTIONS ON THE LENGTH OF STAY AND MORTALITY OF PATIENTS HOSPITALIZED WITH ACUTE CORONARY SYNDROMES

Chevalier P, Lamotte M

IPS Health Consulting, Brussels, Belgium

OBJECTIVES: Randomized clinical trial comparing percutaneous coronary interventions (PCI) and non-invasive treatment acute coronary syndromes mostly favour the