PCV12

SEASONAL VARIATIONS OF THE OCCURRENCE OF ACUTE MYOCARDIAL INFARCTION IN HUNGARY BETWEEN 2000–2004

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OBJECTIVES: Although routinely collected data might have some biases compared to professional registries or medical trials, a health care financing agency is interested in these administrative data, because the financing of health care institutions is based on these administrative data. The purpose of this study was to analyse the seasonal occurrence of acute myocardial infarction (AMI) during the year on an administrative dataset.

METHODS: Data derive from the database of the National Health Insurance Fund Administration, the one and only health care financing agency in Hungary, containing routinely collected financial data for the year 2002. Patients were selected with AMI diagnosis with the I21 and I22 codes of the International Classification of Diseases (ICD), admitted to acute care hospitals in 2002. We extracted the time of hospital admission from hospital records and patients having more AMI during the year were counted again. Our study provides a nation wide coverage of Hungary for 2002. We calculated the average number of AMI cases (incidence) per month with 95% confidence interval. Statistical analysis as one-way analysis of variance (ANOVA) was carried out with SPSS 14.0 for Windows.

RESULTS: Altogether N = 16,418 patients were included into the analysis. The daily number of patient with AMI diagnosis proved to be the lowest in July and August with average 38–39 cases per day. The highest incidence was observed in March, April and May with an average incidence of 49, 51, 49 cases per day respectively. Statistical analysis resulted in F = 4744 which is highly significant (p < 0.001) value. CONCLUSION: The occurrence of AMI showed highly significant seasonal variations within the year 2002 on our nationwide dataset. We emphasize the role of large administrative databases in order to analyse “real word” data.

PCV13

METABOLIC SYNDROME PREVALENCE IN A HYPERTENSIVE POPULATION

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OBJECTIVES: To assess the prevalence of metabolic syndrome in an urban, high risk, predominantly African American hypertensive population. METHODS: The study is part of the NIHBI U01 grant “Baltimore Partnership Programs to Reduce Cardiovascular Disparities”. Risk factors for metabolic syndrome were assessed at baseline, and include risk factors of abdominal obesity (BMI > 30), high triglycerides (triglycerides > 150 mg/dL), low HDL cholesterol (HDL < 40 mg/dL in men, or HDL < 50 mg/dL in women), elevated blood pressure (BP > 130/85 mmHg), and elevated fasting glucose (blood glucose > 100 mg/dL) in the urban, underprivileged population, compared risk factors of the metabolic syndrome across race (Black vs. White patients) and gender, and compared the average values of above indexes with metabolic syndrome criteria. RESULTS: Out of a 321 patients, there were 17 white women, 17 white men, 191 black women and 96 black men. By racial and gender groups, 4 White women (23.5%), 7 White men (41.2%), 33 Black women (17.3%) and 28 Black men (29.2%) had 3 or more risk factors for Metabolic Syndrome. On average, study subjects are higher in BMI, blood glucose level, blood pressures and HDL, and lower in triglycerides level when compared with Metabolic Syndrome Criteria. Black patients have higher BMI, systolic blood pressure, and HDL and lower in triglycerides levels than their matched white patients, however blood glucose levels are higher among whites. Women have higher BMI and HDL, and lower blood glucose and triglycerides levels than men. The differences are statistically significant (P < 0.05). CONCLUSION: Risk factors for metabolic syndrome are highly prevalent in this urban high risk population. Based on ADA criteria, black patients and women have more risk factors for metabolic syndrome than whites and men, respectively.

PCV14

SURVIVAL ANALYSIS OF PATIENTS WITH ACUTE MYOCARDIAL INFARCTION ACCORDING TO HOSPITAL TYPE

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OBJECTIVES: Although routinely collected data might have some biases compared to registries or medical trials, a health care financing agency is interested in these administrative data, because the financing of health care institutions is based on these “real world” data. The purpose of this study was to analyse the 1 year survival rate after acute myocardial infarction (AMI) according to the type of hospitals. METHODS: Data derive from the database of the National Health Insurance Fund Administration (OEP), the only health care financing agency in Hungary, containing routinely collected financial data for the year 2004. Patients were selected with AMI diagnosis with the I21 and I22 codes of the International Classification of Diseases (ICD), admitted to acute care hospitals in 2004. Statistical analysis was carried out with SPSS 14.0 for Windows. We created Kaplan-Meier survival curves and calculated chi-square values (Mantel-Cox log rank test). RESULTS: Altogether N = 16,451 patients were included into the analysis. We found the highest survival rates at universities (80.5%, N = 2224) and national medical institutes (81.6%, N = 904). The city hospitals (71.7%, N = 5216), county hospitals (69.5%, N = 5221) and the hospitals of Budapest (68.1%, N = 2780) had similar survival rates. Some special hospitals had the lowest (56.6%) survival rate, but the number of patients (N = 106) was very low. The log rank test resulted in a chi-square value of 168.711 with 5 degree of freedom resulting in a significant difference (P < 0.001). The average age of patients was the lowest at universities but the difference was not statistically significant. CONCLUSION: The survival of patients depends on the type of hospital. We emphasize the role of large administrative databases in order to analyse "real word" data.

PCV15

NEW DIAGNOSIS OF HYPERTENSION AMONG CELECOXIB AND NON-SELECTIVE NSAID USERS: A POPULATION-BASED COHORT STUDY

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OBJECTIVES: The use of Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) has been associated with increased blood pressure and hypertension. However, less is known about the risk of hypertension associated with celecoxib, the only COX-2 selective inhibitor (coxib) available in the US market, in a real world setting. The objective of this study is to compare the risk of inci-
dent hypertension associated with the use of celecoxib and non-selective (NS) NSAIDs in a real world setting. METHODS: A cohort study was conducted using secondary data from the GE Centricity® Electronic Medical Record database, which contains the medical records of 3 million patients seen by 5000 physicians in 27 states across the US. The index date was defined as the date of the first NS NSAID or celecoxib prescription between January 1, 1999 and June 30, 2004. Patients were included if they were aged 18 or older and were enrolled for at least 365 days prior to the index date. NS NSAID users were matched to celecoxib users using propensity-based matching techniques by a 2:1 ratio. Multivariate Cox proportional hazard models were used for the analysis. RESULTS: The final sample consisted of 51,444 patients. Among the 17,148 celecoxib users, 222 (1.3%) had a new diagnosis of hypertension, while 446 out of the 34,296 NS NSAID users (1.3%) had a new diagnosis of hypertension. The crude incidence rate for hypertension was slightly higher for celecoxib users: 52.5 vs. 51.8 per 1000 patient per year for celecoxib and NS NSAID users, respectively. Relative to NS NSAID users, patients on celecoxib had a similar rate of post exposure hypertension incidence in multivariate analyses (HR = 1.006; 95% CI: 0.856–1.181). CONCLUSION: Results from a population-based cohort analysis of electronic medical records suggest similar rates of incident hypertension between celecoxib and NS NSAID users.

**CARDOVASCULAR STUDIES—Cost Studies**

**AN ECONOMIC ASSESSMENT OF THE CONTROL AND DETENTION PROGRAMS IN HYPERTENSIVE MEXICAN POPULATION (2005–2025)**

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OBJECTIVES: To assess the economic impact in the Mexican Health System of a hypertensive population preventive program (HPPP) in order to shift cardiovascular risk on the long-term. METHODS: Costs and health benefits were forecasted for the period 2005–2025 after the implementation of a control and detention program in hypertensive population in Mexico. Incidence and prevalence data was obtained from a Mexican National Survey (Encuesta Nacional de Salud 2000) for population between 20–59 yrs. Preventive actions included in the program were: opportunite detention of hypertension with two measures of arterial hypertension per year to all adult population attended in the Mexican Health System. Secondary prevention actions consisted in changes in life styles and intensive pharmacologic treatment in patients with uncontrolled hypertension. Health care costs data was obtained from the Social Security Mexican Institute (IMSS) databases and the HPPP effectiveness was taken from published literature for worldwide similar preventive programs. Framingham tables were used to constructed disease progression simulations and effectiveness measures used in the assessment were the number of new cases of patients controlled and cardiovascular events avoided. The analysis was conducted from the health care payer’s perspective (only direct medical costs were used). RESULTS: Through 20-years analysis period, the total number of hypertensive cases remained unchanged. Nevertheless, the number of new hypertensive cases controlled increased in 74.8% which represented a reduction of 6.6 millions cases uncontrolled. On the same time horizon, the HPPP showed a decrease of 16.9% in the total number of cardiovascular events which represented approximately 1.7 millions less complications in the Mexican Health System. The latter could represent in the future net savings in US$1652 millions compared to the actual scenario. CONCLUSION: Preventive actions included in control and detention hypertensive programs resulted to be cost-effectiveness policies, and showed to be cost saving strategies in the long-term.

**COMPARING THE COST OF MICROSURGERY AND RADIOSURGERY FOR THE MANAGEMENT OF VESTIBULAR SCHWANNOMA**

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OBJECTIVES: To investigate differences in follow-up costs of patients undergoing microsurgical resection, which requires hospitalization, compared to stereotactic radiosurgery, an outpatient procedure, for the treatment of vestibular schwannoma. METHODS: Post-surgical medical utilization records and cost data were retrospectively gathered for 82 patients undergoing microsurgery or radiosurgery. Follow-up costs were obtained using administrative datasets and were discounted. Thirty-one patients did not have any follow-up care at our facilities. For patients seeking follow-up care elsewhere utilization records (prospectively gathered) were matched to our administrative costs using median values. To adjust for varying lengths of follow-up, the cohort was reduced to those having a minimum length of follow-up of 28 months. Results were verified with 36 months of follow up. RESULTS: In the initial cohort, age and patient location were significantly associated with surgery type. Radiosurgery patients tended to be older. Mean costs per month using a six month moving average for microsurgery patients initially were high and leveled off to below $200 per month. Conversely mean follow-up costs for radiosurgery patients started low and fluctuated through high and low cycles, reaching as high as $200 per month. CONCLUSIONS: Many of the radiosurgery patients did not have follow-up at our facility so we estimated them from surgery-related follow-up utilization. In addition, radiosurgery is a relatively new procedure and clinicians are not yet in agreement on a reasonable length of follow-up. Including other health care costs for these patients and accounting for longer follow-up length would likely increase the mean follow-up costs of radiosurgery further relative to microsurgery. This may make the total cost (the sum of initial and follow-up costs) of the two procedures more comparable.

**PERIPHERAL ARTERIAL DISEASE IN DIABETIC PATIENTS: A COST-EFFECTIVENESS ANALYSIS COMPARING MAGNETIC RESONANCE ANGIOGRAPHY WITH DIGITAL SUBTRACTION ANGIOGRAPHY**

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OBJECTIVES: A decision analytic model was created to compare the potential economic benefits (cost-offsets and cost-effectiveness) of treatment planning for peripheral arterial disease (PAD) with either digital subtraction angiography (DSA) and magnetic resonance angiography (MRA) technology in a diabetic population. METHODS: The model considered degree of stenosis, outcomes associated with a treatment plan, risk of complications from DSA and MRA, and associated costs of treatment. Sensitivity and specificity for DSA, considered the