

tors of a difficult procedure. **CONCLUSIONS:** Factors influencing the difficulty of an extraction procedure are the number of leads, the presence of screw leads, the presence of dual-coil tachy leads, the years since the oldest lead was implanted and the absence of leads with vegetation.

#### PCV5

##### LA UTILIDAD PREDICTIVA DEL EUROSORE PUEDE SER MEJORADA AL ADICIONAR VALORES DE PEPTIDO NATRIURÉTICO TIPO B O DE HEMOGLOBINA

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**OBJECTIVOS:** El Euroscore(EU) es el modelo predictivo más usado en cirugía cardiaca; sin embargo, sobreestima el riesgo y la información necesaria para calcularlo no siempre está disponible. Este estudio fue diseñado para: 1) Definir si adicionar el valor preoperatorio de hemoglobina (HB), péptido natriurético tipo B(BNP) o ambos, al EU, mejoran su capacidad predictiva sobre morbilidad y mortalidad a 6 meses de seguimiento postoperatorio en toda la muestra y en los pacientes diabéticos; y 2) Evaluar la utilidad de EU en nuestro medio. **METODOLOGÍAS:** Se incluyeron 492 pacientes quirúrgicos cardíacos. Se comparó directamente la capacidad predictiva de BNP y/o HB vs EU. Luego se evaluó en que tanto la incorporación de BNP y/o HB al EU, adicionaron en términos de lograr mejor discriminación. Para cada uno de los desenlaces se construyeron y compararon curvas ROC. **RESULTADOS:** Sobre mortalidad, BNP o HB no adicionan capacidad predictiva al EU ni en la muestra global ni en diabéticos. La mortalidad intrahospitalaria fue mejor discriminada por EU aislado: área bajo la curva ROC (ABC-ROC): 0.83(IC95%0.75-0.92) y a 6 meses, ABC-ROC 0.73 (IC95% 0.64-0.83); en pacientes diabéticos, ABC-ROC 0.95 (IC95%0.91-1.00) para mortalidad intrahospitalaria y a 6 meses, ABC-ROC 0.84 (IC95% 0.74-0.98). La discriminación obtenida con BNP fue buena para bajo gasto cardíaco: ABC-ROC, 0.72 (IC95% 0.67-0.77); e insuficiencia renal aguda ABC-ROC 0.75 (IC95% 0.76-0.84). Los mejores predictores de transfusión fueron EU+HB ó BNP+HB. EU mostró buena capacidad predictiva (ABC-ROC $\geq$ 0.70) sobre morbilidad combinada, estancia prolongada en cuidado intensivo, bajo gasto cardíaco e insuficiencia renal y a 6 meses en la discriminación de evento cerebrovascular, tanto en el grupo total como en diabéticos. **CONCLUSIONES:** La capacidad discriminatoria de EU para mortalidad en nuestro medio es muy buena, especialmente en diabéticos. BNP o HB no adicionan capacidad predictiva. En la mayor parte de los desenlaces de morbilidad la discriminación obtenida con BNP aislado es comparable a EU.

#### PCV6

##### INDIRECT TREATMENT COMPARISON BETWEEN FIXED-DOSE-COMBINATIONS OF LOSARTAN/AMLODIPINE AND VALSARTAN/AMLODIPINE IN BLOOD PRESSURE CONTROL

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**OBJECTIVES:** To compare changes in blood pressure after 8 weeks of therapy between a fixed-dose combination (FDC) of amlodipine/losartan and amlodipine/valsartan using a network meta-analysis because there are no trials directly comparing amlodipine/losartan to amlodipine/valsartan. **METHODS:** A systematic search identified six randomized controlled trials of study FDCs and their component monotherapies; 3 included amlodipine/losartan and 3 included amlodipine/valsartan. Conventional fixed-effects methods were used to conduct the comparisons. The change in sitting diastolic and systolic blood pressure (sitDBP, sitSBP) at 8 weeks post-randomization was the primary and secondary effect measures. **RESULTS:** Amlodipine/losartan 5/50 mg produced greater reductions in sitDBP (-1.27 mmHg, 95% confidence interval (CI) -5.7 - 2.2) and sitSBP (-3.7 mmHg, 95% CI -9.0 - 2.9) than amlodipine/valsartan 5/80 mg. Amlodipine/losartan 5/100 mg produced a greater reduction in sitDBP (-0.45 mmHg, 95% CI -3.7 - 2.7) than amlodipine/valsartan 5/160 mg while amlodipine/valsartan 5/160 mg had a greater reduction in sitSBP (0.2 mmHg, 95% CI -6.2 - 6.0) than amlodipine/losartan 5/100 mg. The confidence of superior antihypertensive efficacy for COZAAR XQ 5/50 mg than amlodipine/valsartan 5/80 mg is 77% for sitDBP and 89% for sitSBP, while the confidence of greater efficacy for amlodipine/losartan 5/100 mg than amlodipine/valsartan 5/160 mg is 61% for sitDBP and 48% for sitSBP. With 95% CI, the reduction difference in sitDBP and sitSBP between amlodipine/valsartan 5/80 mg and amlodipine/losartan 5/100 mg is not expected to exceed 1.6 mmHg and 1.26 mmHg, respectively, and not expected to exceed 2.31 mmHg and 5.38 mmHg, respectively with amlodipine/valsartan 5/160 mg versus amlodipine/losartan 5/100 mg. **CONCLUSIONS:** The blood pressure lowering effect with amlodipine/losartan and amlodipine/valsartan was comparable. The findings from this network metaanalysis do not indicate a potential superiority of the reductions realized with amlodipine/valsartan relative to amlodipine/losartan.

#### PCV7

##### COMPARATIVE EFFICACY OF BLOOD PRESSURE LOWERING DRUGS IN PRIMARY PREVENTION FOR ELDERLY PATIENTS

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**OBJECTIVES:** Differences in efficacy of different classes of blood pressure lowering drugs (BPLDs) have been observed in elderly primary prevention populations, with beta-blockers (BBs) reported to be less efficacious for primary prevention. In this study, we assessed if these differences remained significant in patients that use statins concurrently. **METHODS:** We conducted a series of population-based nested case-control studies using administrative data from 104,023 diagnosed hypertensive patients without recent antecedents of diabetes or cardiovascular disease (CVD) in the province of Quebec (Canada) between 2000 and 2004. Follow-up ended either with an outcome event, or at the end of 2009. Individuals with an outcome event (all-cause death, CVD event) were considered cases. Controls were matched according to age, sex, date of cohort entry, and comorbidity index. Conditional logistic regres-

sion was used to estimate the odds ratio of the outcome events for patients whose treatment in the week before event date included statins and BBs as compared to patients whose treatment included statins and other BPLD(s). **RESULTS:** Patients on statins and BBs showed substantially higher risks for cardiovascular death (OR=2.12, 95%CI: 1.81-2.49), all-cause death (OR=1.64, 95%CI: 1.49-1.81), CVD events (OR=1.96, 95%CI: 1.80-2.12) and hospitalization for CVD (OR=1.99, 95%CI: 1.82-2.17) as compared to patients on statins and other BPLDs. Sensitivity analyses suggest that this higher risk is not due to differences in prescription patterns based on perceived disease severity (indication bias). **CONCLUSIONS:** In elderly hypertensive patients, the concurrent use of statins and BBs is associated with less effective primary prevention in comparison to the use of statins in combination with other BPLDs. Consequently, the difference observed in the efficacy of different classes of BPLDs in elderly populations in primary prevention remains significant in the subpopulation receiving statins. Further studies should be conducted to confirm this finding.

#### PCV8

##### DIFFERENCES IN THE WEIGHTED AVERAGE DAILY DOSES OF STATINS IN LATIN AMERICA AND THEIR POTENTIAL IMPACT ON CARDIOVASCULAR OUTCOMES

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**OBJECTIVES:** We examined the potential clinical implications of prescribing patterns of generic statins within 11 Latin American markets (LA11). In LA11, generic versions of pravastatin, simvastatin and atorvastatin are available, however, each statin has a different LDL-cholesterol (LDL-C) lowering efficacy that may ultimately result in differences in the incidence of CV events. 2011 LA11 prescription data indicate that statins are prescribed at doses that do not yield equivalent LDL-C lowering. Thus we calculated the weighted average daily doses (WADDs) of pravastatin, simvastatin and atorvastatin within LA11 and estimated the average LDL lowering with each statin, and the incidence of CV events. **METHODS:** The WADDs of prescribed simvastatin, pravastatin and atorvastatin in LA11 were derived from IMS data. The LDL-C modifying potencies of the WADDs were interpolated from dose response curves from Nicholls et al (Am J Cardiol, 2010), and Law et al (BMJ, 2003). The relationship between LDL-C reduction and the resultant impact on cardiovascular events was derived from the Cholesterol Treatment Trialists' Collaboration (CTTC, Lancet 2010), where a 1mmol/L reduction in LDL-C, translated to a 22% reduction in major cardiovascular events. **RESULTS:** Across LA11, the WADDs for pravastatin, simvastatin and atorvastatin were 24.9mg, 22.4mg and 20.6mg, respectively. The corresponding reductions in LDL-C at these doses were estimated to be 25.0%, 33.4% and 40.6%. Assuming a pre-treatment LDL-C of 4.0mmol/L, these lipid changes would lead to reductions in the risk of a major coronary/stroke event of 22.0%, 29.4% and 35.8%, respectively. **CONCLUSIONS:** At currently prescribed WADDs in LA11, the real world use of atorvastatin provides a superior reduction in LDL-C to either simvastatin or pravastatin, and hence would be expected to result in a greater reduction in cardiovascular events.

#### PCV9

##### ANALYSIS OF CONSUMPTION OF DIURETICS IN SERBIA FROM 2006 TO 2010

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**OBJECTIVES:** Diuretics are drugs of first choice in the treatment of hypertension. The aim of this study was to analyze the consumption of diuretics in Serbia in the period from 2006 to 2010 year. **METHODS:** The data about the use of drugs were taken from the Agency for Drugs and Medical Devices of the Serbia. **RESULTS:** The use of diuretics during the observed period in Serbia is quite small and it ranged from 5 to 6% of the total consumption of all drugs from the C group. Furosemide was the most frequently used diuretic. In the five year period furosemide consumption ranged from 33-55% of the total consumption of all diuretics. The second largest consumption during first four years of the study was that of indapamide. Indapamide consumption in the fifth year was at the fourth position. At the third position in drug consumption in the first four years was hydrochlorothiazide. Use of hydrochlorothiazide in 2010 took second place. Spironolactone has occupied the fourth position in the first four years. During the last years of the period spironolactone occupied the third position. Consumption of all other diuretics was small and it was only a few percent of the total consumption of all diuretics. **CONCLUSIONS:** In Serbia, in the observed period, consumption of diuretics is two to three times lower in comparison with the consumption of diuretics in Norway and Finland. This research was supported by Provincial Secretariat for Science and Technological Development, Autonomous Province of Vojvodina project No 114-451-2458/2011 and by Ministry of Science, Republic of Serbia, project no 41012.

#### PCV10

##### ANALYSIS OF CONSUMPTION OF ANTIHYPERTENSIVE DRUGS IN SERBIA FROM 2007 TO 2011

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**OBJECTIVES:** Drugs of first choice in the treatment of hypertension are:  $\beta$ -blockers, thiazide diuretics, ACE inhibitors, angiotensin receptor inhibitors and Ca channel blockers. The aim of this study was to analyze the consumption of antihypertensive drugs in Serbia in the period from 2007 to 2011 year. **METHODS:** The data about the use of drugs were taken from the Agency for Drugs and Medical Devices of the Serbia. **RESULTS:** The use of diuretics during the observed period in Serbia is quite small and it ranged from 5 to 6% of the total consumption of all drugs from the C group. Consumption of  $\beta$ -blockers was around 12% during all 5 years. Consumption of calcium channel blockers was less than 12% of the total consumption of all drugs from group C in the first 2 years of the observed period. However, consumption of such drugs in the last 3 years growing over 18% of the