agents clopidogrel and prasugrel. **METHODS:** We developed a decision model to evaluate the potential clinical benefits and harms for three strategies—clopidigrel, prasugrel, and genotype-guided therapy—used for the treatment of patients with acute coronary syndromes with planned percutaneous coronary intervention. Data were derived from the published literature, including the TRITON-TIMI 38 trial, and publicly available sources. The lifetime incidence of clinical events was projected, and net health benefit assessed using quality-adjusted life-years. Sensitivity and scenario analyses were conducted to assess uncertainty in results. **RESULTS:** Compared to clopidogrel therapy, prasugrel therapy was significantly associated with an average incremental decrease in the lifetime risk of myocardial infarction, but also an average incremental increase in the risk of major bleed events and bleed deaths. The genotype-guided treatment strategy did not exhibit any statistically significant difference in the population risk of clinical events when compared to the clopidogrel and prasugrel strategies. No significant differences in net benefits were demonstrated among treatment strategies. The nonvariant clopidogrel therapy population and the prasugrel therapy population had significantly favorable cardiovascular and life expectancy outcomes compared to the *CYP2C19* reduced-function allele population undergoing clopidogrel therapy. **CONCLUSIONS:** The inherent benefit-harm tradeoff of antiplatelet agents could potentially be improved with the use of *CYP2C19* genotype information in patients with acute coronary syndrome. Genotype-guided therapy leads to improved outcomes for reduced-function *CYP2C19* individuals, however this approach does not result in significant differences for the aggregate acute coronary syndrome population when compared to the overall clopidogrel and prasugrel therapy strategies. Ongoing randomized controlled trials will be critical in further assessing the role of the *CYP2C19* reduced function allele when deciding optimal antiplatelet treatment regimens.

PCV22

OUTCOMES ANALYSIS OF PROFILACTICAL HEALTH CARE PROGRAMS, BASED ON "HEART VESSEL PROPHYLACTIC PROGRAM" FOR 40 AND 50 YEAR OLD RESIDENTS OF WROCLAW CITY

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OBJECTIVES: The object of analysis is the presentation of results from the **Heart-Vessel Diseases Prophylactic Program** for 40 and 50 year old residents of Wroclaw conducted from 1998 to 2008. 43 thousand people took part in the program. The aim of the program was to counteract health, life and disability risks which are among of the main causes of death in Poland—heart-vessel diseases as well as primary and secondary prevention and analysis of the appearance of the risk factors of these diseases. **METHODS:** Outcomes analysis was used to evaluate the program. The analysis was carried out on the health results of two groups of participants of the program. The first group comprised of 50 year old people invited to the program for the first time. The second group comprised of the 50 year old participants who had already taken part in the program 10 years earlier. The participants of the program underwent health education concerning prophylactics of heart-vessel diseases and they were presented with coefficients such as BMI, triglyceride levels, cholesterol, glucose and blood pressure. A health profile was made for every participant. **RESULTS:** The health situation changed in almost 1/3 of the people in the group that took part in the program 10 years ago. The modifiable risk factors of heart vessel diseases underwent changes: an increase in protein intake (36%), increased physical activity (27%) as well as carrying out systematic blood sugar controls (22%).11% of the participants of the program, who were analyzed for the second time, thought that the health education carried out then, affected their life styles to a greater extent. **CONCLUSIONS:** After evaluation period of 10 years, efficiency of program and activities were analyzed and shown. Outcome analysis verified that 10 years of prophylactic program, reduced exposure to risk factor of DOTCS. We also selected an areas for future modification and improvement. Due to outcomes analysis, regional politics of health protection was adequate to epidemiological factors and social needs of regions.

PCV23

REDUCTIONS IN CORONARY HEART DISEASE MORTALITY ASSOCIATED WITH CHANGES IN RISK FACTORS AND TREATMENT UPTAKES IN ONTARIO BETWEEN 1994 AND 2005

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OBJECTIVES: Coronary heart disease (CHD) mortality has declined substantially in Canada over recent decades. Our objective was to determine what proportion of this decline was associated with temporal trends in CHD risk factors and advancements in medical treatments. **METHODS:** The validated IMPACT model was used for all analyses, integrating data on population size, CHD mortality, in addition to risk factor and treatment uptake changes in adults 25 years and older between 1994 and 2005 in Ontario. Relative risks and regression coefficients from the published literature quantified the relationship between CHD mortality and a) evidence-based therapies in 8 distinct CHD sub-populations (acute myocardial infarction (AMI), acute coronary syndromes, secondary prevention post-AMI, chronic angina/CHD, in-hospital, heart failure, community heart failure, and 1° prevention for hyperlipidemia or hypertension) and b) population trends in 6 risk factors (smoking, diabetes mellitus, systolic blood pressure, plasma cholesterol, exercise, and obesity). The outcome of interest was the number of deaths prevented or postponed. **RESULTS:** From 1994–2005, the age-adjusted CHD mortality rate in Ontario fell 35% from 190.9 to 124.8 deaths per 100,000 inhabitants, translating to an estimated 7585 fewer CHD deaths in 2005. Improvements in medical treatments accounted for approximately 43% of the total mortality decrease, most notably in AMI (9%), chronic angina (17%) and community heart failure (10%). Trends in risk factors explained approximately 48% % of the total mortality decrease, specifically reductions in plasma cholesterol (23%), and systolic blood pressure (20%). Increasing diabetes prevalence and body mass index had a negative impact, increasing CHD mortality by approximately 6% and 2%, respectively. **CONCLUSIONS:** Our results suggest that future CHD strategies should maximise evidence-based therapies and support more aggressive policies to promote healthy diets.

PCV24

A META-ANALYSIS OF EFFICACY AND SAFETY OF DALTEPARIN IN THE PREVENTION AND TREATMENT OF VENOUS THROMBOEMBOLIC DISEASE (VTE)

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OBJECTIVES: The purpose of this study was to evaluate the relative efficacy and safety of dalteparin against anticoagulant therapies in patients with: cancer, medical patients at risk of VTE, total hip replacement, and acute myocardial infarction (AMI). **METHODS:** A meta-analysis was performed with randomized clinical trials (RCT) where anticoagulant therapies were used to prevent or treat VTE. Effectiveness was assessed with the reduction in pulmonary thromboembolism(PE) and deep vein thrombosis (DVT) events; safety with the frequency and type of adverse events(AE). RCT were searched in December 2008 in Medline, EMBASE and the Cochrane Collaboration. Two independent reviewers identified the abstracts, selected the full articles and extracted data. Odds ratios and weighted means differences were calculated. Random effects models were employed in the analyses. **RESULTS:** From 2,539 abstracts, we obtained 91 RCT, 23 were excluded (unacceptable designs, insufficient outcome data) leaving 68. Dalteparin(2500–7500 IU/day) was compared against unfractioned heparin, enoxaparin, warfarin, nadroparin, fondaparinux, aspirin and placebo. In patients with AMI, dalteparin showed to be effective in diminishing new infarctions and death (OR 0.66; 95%CI 0.33–0.99) or revascularizations (OR 0.76; 0.57–1.01). In total hip replacement patients, dalteparin showed reduction in DVT (OR 0.47; 0.38–0.60) but not in PE (OR: 0.45; 0.09–2.39). In comparison to placebo, the number of deaths were lower (OR 0.14; 0.02–1.27). In patients with VTE no statistical differences were found against competing alternatives, as well as in thromboembolism, thrombosis progression and death. Finally, in cancer patients, dalteparin showed to be effective in diminishing DVT(OR 0.39; 0.22–0.68) but not differences in reducing mortality (OR 0.92; 0.73–1.17); major bleeding(OR 1.20; 0.48–2.98) or minor bleeding (OR 0.87; 0.41–1.83). **CONCLUSIONS:** Dalteparin is an effective low-molecular-weight heparin in the prevention and treatment of VTE in surgery and non surgery patients, not showing higher AE than unfractioned heparin or other recommended therapies.

PCV25

PERCUTANEOUS CORONARY INTERVENTION COMPARED WITH AORTOCORONARY BYPASS IN DIABETIC PATIENTS WITH MULTI-VASCULAR CORONARY DISEASE

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OBJECTIVES: Diabetes patients with coronary artery disease represent a population with high cardiovascular morbidity and mortality. The objective of the study was to compare the long-term effectiveness of percutaneous coronary intervention (PCI) versus coronary artery bypass graft (CABG) in diabetic patients with multi-vascular coronary artery disease (MVD). **METHODS:** Studies were retrieved from PUBMED database using keywords: angioplasty, coronary, stent, PCI and coronary artery bypass surgery (August 1992 to December 2009). Randomised controlled trials which compared PCI and CABG in head to head comparisons were included according to pre-specified inclusion/exclusion criteria. The outcomes of interest were mortality, myocardial infarction (MI), stroke, and the use of additional revascularization procedures. Two reviewers independently extracted data from the included studies. Data was analyzed using STATA (v9.0).**RESULTS:** Of the 416 studies identified, 5 studies met the inclusion criteria. A total of 813 patients were included in this analysis (208 in ARTS, 78 in EARCI-II, 115 in MASS-II, 353 in BARI trial, and 59 in EAST). In total, 409 diabetic patients with MVD were randomized to PCI, and 404 were randomized to CABG. Survival was significantly greater after CABG than after PCI with a risk ratio of 1.28 (95% CI 1.06, 1.55); p = 0.009 for the five-year mortality rate. The relative risk for revascularization rate at five year follow-up was 4.11 (95% CI: 2.20, 7.68) for PCI vs. CABG. Results for myocardial infarction were non-significant with a risk ratio of 1.10 (95% CI: 0.73, 1.65); p = 0.644. **CONCLUSIONS:** CABG was associated with lower incidence of mortality and revascularization at five years of follow-up compared to PCI. Rate of MI was similar for both the procedures. Analysis from this review suggests that CABG greatly improves survival and re-intervention rate when compared to PCI, in diabetic patients with multi-vessel coronary artery disease.