

18 months follow-up period. For the Markov model, four health states were considered (HYHA Classes) with transition probabilities, which were taken from Yao_2007. Effectiveness was calculated from the probabilities of moving from one NYHA Class to a better one. Utilities for each NYHA to calculate QALYs were taken from Kirsch_2000. Colombian general mortality rate and 3.5% discount rate were applied. Specific mortality rates for HF, were taken from Inglis-2011. Survival analysis was done. **RESULTS:** With the HFPC, 6,91 LYG were obtained compared to 5,37 with CMM or 1,54 additional LYGs. When utilities were applied to each LYG, 4,54 QALYs were obtained with HFPC vs. 3,07 with CMM, which is an improvement of 1,47 QALYs more. **CONCLUSIONS:** HFPC produces more LYG than CMM to a higher quality of life in terms of QALYs. HFPC should be implemented in those specialized institutions for HF.

CARDIOVASCULAR DISORDERS – Health Care Use & Policy Studies

PCV22

MODELLING THE BURDEN OF CARDIOVASCULAR DISEASE IN COLOMBIA AND THE IMPACT OF REDUCING MODIFIABLE RISK FACTORS

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OBJECTIVES: This study aims to estimate the current and future burden of cardiovascular diseases (CVD) in Colombia, and quantify the impact of reducing modifiable risk factors. **METHODS:** A burden of disease model was used to forecast the burden of CVD in Colombia, and estimate the impact of reducing modifiable risk factors (tobacco use, hypertension, type 2 diabetes, obesity and physical inactivity) in the general Colombian population, in accordance with World Health Organization (WHO) targets. Another model estimated the impact of reducing LDL-cholesterol through increased access to effective treatment for two high risk populations: heterozygous familial hypercholesterolemia (HeFH) and secondary prevention (SP), with a focus on patients with LDL-cholesterol >100 mg/dL. Inputs for the models included disease and risk factor prevalence, population forecast, CVD event rates, and treatment effectiveness, primarily derived from the published literature. Direct costs to the public health care system and indirect costs from lost production due to premature mortality, hospitalizations, and absenteeism were included, although the cost of programs and pharmacological interventions to reduce risk factors was not considered. **RESULTS:** The prevalence of CVD is projected to increase to 1.6 million by 2035, while the economic burden, including both direct and indirect costs, would increase to US\$14 billion. The value of reducing modifiable risk factors (except LDL-cholesterol) is estimated at US\$10.5 billion over the forecast period. Similarly, the value of reducing LDL-cholesterol through increased access to effective treatment would be up to US\$1.5 billion for HeFH patients and up to US\$9.2 billion for SP patients over the forecast period. **CONCLUSIONS:** The burden of CVD is significant and growing. Efforts to achieve WHO risk factor targets and further lower LDL-cholesterol through increased access to effective treatment for high-risk patients are projected to greatly reduce the clinical, economic, and humanistic burden of cardiovascular disease in Colombia.

PCV23

POTENTIAL MORTALITY REDUCTION WITH OPTIMAL USAGE OF SACUBITRIL/VALSARTAN THERAPY FOR THE TREATMENT OF HEART FAILURE IN ARGENTINA

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OBJECTIVES: PARADIGM-HF, a clinical trial conducted in heart failure (HF) patients, showed that sacubitril/valsartan, a first-in-class angiotensin receptor neprilysin inhibitor for treatment of HF with reduced ejection fraction (HFrEF), provided incremental cardiovascular and overall survival benefit. This analysis aims to quantify the number of potential deaths avoided with optimal usage of sacubitril/valsartan in the treatment of HFrEF in Argentina. **METHODS:** Data from the Pan American Health Organization was used to quantify the target population and a literature review was conducted to determine the prevalence of HF in Argentina, the proportion of those in NYHA Class II-IV and finally, the proportion of patients with HFrEF. The number needed to treat (NNT) to avoid one death, standardized to 12 months, was derived from the PARADIGM-HF trial. The potential number of deaths prevented or postponed as a result of treatment with sacubitril/valsartan was estimated along with multiple-way sensitivity analysis. The main outcome measure was all-cause mortality. **RESULTS:** The prevalence of HF in Argentina was estimated at 1.56% and was applied to determine the number of HF patients. Of those, 75% were classified as NYHA Class II-IV, of which, 75% had reduced ejection fraction. This equated to 189,149 HFrEF patients, with NYHA classification II-IV. The percentage of patients eligible for RAS inhibition (ACEI/ARB) was 91%, yielding 172,126 patients. Finally, the absolute reduction in mortality in PARADIGM-HF was 2.8% over an average follow-up time of 27 months. This translates into a NNT standardized to 12 months of 80.3; thus, optimal usage of sacubitril/valsartan therapy was estimated to prevent 2,144 deaths each year. **CONCLUSIONS:** The findings from this analysis suggest that a substantial number of deaths could potentially be prevented by optimal implementation of sacubitril/valsartan therapy. Thus, implementation of sacubitril/valsartan into routine clinical practice is important, and may improve clinical outcomes among HFrEF patients in Argentina.

PCV24

EVALUATION OF BARRIERS TO EFFECTIVE INSULIN THERAPY AMONG TYPE 2 DIABETES MELLITUS PATIENTS

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OBJECTIVES: The present study aimed to evaluate the knowledge among hypertensive patients. **METHODS:** A questionnaire based descriptive, cross-sectional study was conducted in the outpatient setting of Benazir Bhutto hospital Rawalpindi, Sir Ganga Ram hospital Lahore, Nishtar hospital Multan and Bahawal Victoria hospital in Bahawalpur, Pakistan. Knowledge regarding hypertension was assessed by using Hypertension Fact Questionnaire. Statistical package for social sciences (SPSS) version 20.0 was used to analyze data. Descriptive statistics was used to summarize data and chi square test was used to assess the association between categorical and dependent variable. Non parametric tests (Mann Whitney U test and Kruskal Wallis test) were used to find statistical difference in the scores based on categorical variable. **RESULTS:** Among the 340 participants, mean age (SD) was 50.25 (11.49), with 60.6% of females dominating the entire cohort. Majority of the participants (73.6%) belonged to urban area. About 35.6% had HTN for more than 5 years, 53.5% had family history of hypertension and 53.2% had hypertension along with co-morbidity. The mean score of hypertension knowledge was 8.43+3.44. The result of the study demonstrated that hypertensive patients have average knowledge. **CONCLUSIONS:** The current study findings revealed the importance of educational programs to increase the awareness of the patients regarding the importance of lifestyle modifications and medication for control of disease.

PCV25

PHARMATOOL: AN ECONOMIC AND EPIDEMIOLOGICAL CALCULATION TOOL TO AID PLANNING FOR REDUCING CARDIOVASCULAR MORBIDITY IN BRAZIL

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OBJECTIVES: To elaborate a pharmaco-economic tool from epidemiological and pharmaco-economic analysis to assist health managers in the planning and implementation of Pharmaceutical Care (PC) for reducing cardiovascular morbidity in Brazil. **METHODS:** This is a pharmaco-economic methodological study. The tool was developed according to budget impact analysis grounded in a cost-benefit analysis nested in a clinical trial. Direct medical and non-medical costs and indirect costs were considered from the perspective of the Brazilian government. The tool was developed in five steps: direct cost analysis, cost and outcomes projection, cost-benefit analysis, Monte Carlo sensitivity analysis, and epidemiological impact measurement. The systematizing of the epidemiological and economic impact analyses structured the pharmaco-economic tool. **RESULTS:** For a disbursement of US\$ 93,700/year for the implementation of PC at a municipal level, the pharmaco-economic tool has estimated that three pharmacists would need to be hired and there would be a surplus of US\$ 2,953.74. In the first year there would be 312 patients assisted, and there would be a saving of US\$ 47,181.45 in health resources. In the overall summary for 10 years, 3,120 patients would be taken care of, 567 systemic arterial hypertension complications would be avoided and also 2,640 of the 3,120 patients would have their blood pressure at satisfactory levels. As a result of the saving generated at present value, the tool showed with 95% certainty that net present value would be US\$ 2,632,414.91 over ten years. **CONCLUSIONS:** The pharmaco-economic tool, currently in the patent process, has shown to be able and sensitive to assist health managers in the implementation of PC for reducing cardiovascular morbidity and saving health resources.

PCV26

TREATMENT PATTERNS OF CHRONIC HEART FAILURE (CHF) IN ARGENTINA

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OBJECTIVES: To understand the disease and treatment patterns of Chronic Heart Failure (CHF) in Argentina. **METHODS:** A Disease Specific Program was conducted to assess the impact of CHF. Patient record forms (PRF) were completed by 60 cardiologists for 8 consecutive patients with CHF. The same patients were invited to complete a patient self-completion questionnaire. **RESULTS:** PRF data (n=480) revealed that a typical CHF patient was male (60%) with a mean age of 70.8 years. Physicians underestimated the length of time patients experienced symptoms before visiting a doctor; reporting 16.8 weeks, versus the patient-reported 24.7 weeks. Patients on average had been diagnosed for 3.6 years and the majority (60%) were considered to be stable/compensated. Cause: Hypertension was the leading cause of CHF (53%), followed by CHD/Myocardial infarction (38%). Physical signs/examinations were used to diagnose and monitor CHF; the key tests were blood pressure and heart rate. For 49% (n=234) of patients, the primary reason for consultation was diagnosis and/or testing of CHF symptoms. The lower a patient's ejection fraction, and the more severe the NYHA functional classification, the more unstable/decompensated the patient was considered to be. Hospitalization: In the last year, 27% of patients were hospitalized for CHF, 14% of which were readmitted to hospital within 30 days (n=17). Physicians believed half of patients were at a moderate or greater risk of being hospitalised and/or dying in the next year. Treatment: 70% of doctors and patients were in agreement about how the last treatment decision was made. Eighty-four percent of patients received a Beta Blocker; 57% received Statins, 52% received Loop Diuretics, and 48% were prescribed ARBs (Angiotensin II receptor blockers). Physicians reported that four fifths of patients were not taking OTC (over-the-counter) CHF treatments. **CONCLUSIONS:** These data are important for better understanding treatment patterns and characteristics of CHF in Argentina.

PCV27

TREATMENT PATTERNS OF CHRONIC HEART FAILURE (CHF) IN MEXICO

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OBJECTIVES: To understand the disease and treatment patterns of Chronic Heart Failure (CHF) in Mexico. **METHODS:** A Disease Specific Program was conducted