be comparable with published costings for the use of statins to treat hypercholestolemia.

PCV4

COST-EFFECTIVENESS OF DOXAZOSIN IN COMBINATION THERAPY FOR HYPERTENSION TREATMENT IN DIABETIC PATIENTS IN THE UK

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OBJECTIVE: It is hypothesized that doxazosin's positive impact on lipid metabolism, in addition to its antihypertensive effect, will result in a reduced risk of macrovascular complications in type 2 diabetics, and an improved cost-effectiveness profile from the NHS perspective when included as a part of a combination drug therapy. **METHODS:** A Markov model was constructed to simulate the outcomes of patients on drug combinations over the course of 10 years. Combination therapies examined in this analysis were: (1) captopril, frusemide, nifedipine; (2) atenolol, frusemide, nifedipine; and (3) minimal drug therapy. The effect of substituting doxazosin in place of any of these drugs was analyzed. Clinical outcomes considered included stroke, MI, heart failure, angina, PVD, and death. Transitional probabilities were based on risk rates presented in UKPDS 38. Risk rates were adjusted for age and lipid lowering properties of doxazosin using Framingham risk equations. The Treatment of Mild Hypertension Study was used to quantify the effect of doxazosin on lipid levels. Costs of outcomes were calculated using a Delphi panel to quantify resource consumption and economic publications to estimate resource values from the perspective of the NHS. **RESULTS:** Patients who incorporated doxazosin into their combination therapy saved 0.36 additional life-years compared to patients on other combination regimens. This was achieved at incremental costs ranging from £796–£1,741, which resulted in incremental cost-effectiveness ratios of £2,224–£4,867. When compared to patients on minimal drug therapy, patients treated with doxazosin saved 0.71 additional life-years. This was achieved at incremental costs ranging from £1,124–£2,089, which led to incremental cost-effectiveness ratios of £1,574–£2,925. **CONCLUSIONS:** In the UK, the inclusion of doxazosin into an antihypertensive combination drug therapy is predicted to reduce morbidity and mortality due to diabetic macrovascular complications through a marginal investment in cost.

PCV5

ECONOMIC EVALUATION OF RAMIPRIL IN THE TREATMENT OF PATIENTS AT HIGH RISK OF CARDIOVASCULAR EVENTS

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Recently, the Heart Outcomes Prevention Evaluation (HOPE) trial, a randomized double-blind placebo controlled trial in patients at high risk for cardiovascular events but who did not have left ventricular dysfunction or heart failure, demonstrated significant survival and morbidity benefits associated with ramipril use in the treatment of these patients. **OBJECTIVE:** To perform an economic evaluation of ramipril in the treatment of patients at high risk of cardiovascular events. **METHODS:** A decision analytic model was developed based on the results reported from the HOPE trial. Data from the trial were combined with NHS cost data to produce estimates of the potential incremental cost per life-year saved (ICPLYS). Both costs and benefits were discounted at 6% and both discounted and undiscounted results are presented. Sensitivity analyses were performed to assess the robustness of the results to key parameter values. **RESULTS:** Based on a life—expectancy of 5.89 years estimated for those surviving the trial at 5 years, our base case estimate of cost-effectiveness is £4,406 per life-year saved (undiscounted) and £5,544 per life-year saved (discounted). The results were most sensitive to assumptions around life expectancy of those patients who avoided death through taking ramipril, and insensitive to the upper and lower bounds of costs and clinical events.
CONCLUSIONS: The economic analysis reported here used clinical outcomes from an RCT together with economic data from secondary sources in order to compare the potential costs and effectiveness of using ramipril or conventional treatment to treat CVD in high-risk patients. Based on our base case estimate of £6,327 per life-year saved (discounted), the findings suggest that treating patients at high risk of CVD events with ramipril is likely to be a good investment of NHS resources.

PCV6

GENDER DIFFERENCES IN THE QUALITY OF LIFE AND COMPLIANCE WITH ROUTINE TREATMENT OF ESSENTIAL HYPERTENSIVES IN AN ECONOMICALLY DISADVANTAGED COMMUNITY

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OBJECTIVES: To evaluate the gender-based differences in the quality of life (QL) and compliance (C) with routine ambulatory management of essential hypertensives (EH) living in Belarus, a European country with unique combination of the important rise in cardiovascular morbidity and mortality, highly restricted financing the state health care system, and the society experiencing socio-economic hardships. **METHODS:** In 234 verified mild to moderate EH (mean age 47.8 ± 12.2 years, 117 males, 117 females) the QL assessment was performed using the well-validated, self-administered questionnaires: The Giessen Somatic Complaints Questionnaire (GSC) and The General Well-Being Adjustment Scale (GWB). At the same time, C with previously recommended antihypertensive

treatment regimens was evaluated by the standardized interview. **RESULTS:** The QL tests revealed significantly (Mann-Whitney) worse QL scores on all GSC and GWB subscales in the investigated Belarusian female EH compared with male ones (Gastral Complaints, Pains, Cardiac Complaints, Exhaustion, Anxiety, Depression, Well-Being, Self-Control, General Health, Vitality) with the total GSC Index (mean ± SD) 35.9 ± 17.2 vs. 21.1 ± 13.5 points ($P < 0.001$), and the total GWB index 76.2 ± 15.7 vs. 87.9 ± 17.7 points ($P < 0.001$), respectively. The total GSC and GWB indexes were significantly ($P < 0.05$) worse in the EH treated on regular basis (14.5% of males and 38.5% of females) compared with EH who did not treat their known hypertension. QL scores did not correlate (Spearman) with age, body mass index, office blood pressure, and duration of hypertension. In males, but not in females there was an association (ANOVA) of the total GSC index with alcohol and coffee consumption (standardized interview), while abstinents had the lowest scores ($P < 0.05$). The high QL score, smoking, drinking and male gender were revealed as factors of poor C. **CONCLUSIONS:** Gender influences on the QL profile in EH living in Belarus, and relates to their C, possibly via certain life-style factors, this requiring gender-based decision-making for hypertension management improvement.

PCV7

INCREMENTAL COST-EFFECTIVENESS RATIO IN ESTIMATION SOME HYPOTENSIVE DRUGS

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OBJECTIVES: To investigate incremental cost-effectiveness ratio (ICER) of some hypotensive drugs in elderly patients with mild and moderate arterial hypertension. **METHODS:** Analyses were based on patient data gathered between January 1997 and August 1999 (n = 210; middle age 66,8 ± 0,63). All these patients were divided into seven groups. Six groups were treated monotherapy by the following drugs: carvedilol, doxazosin, nifedipine-GITS, enalapril maleat, indapamid, diltiazem. But the patients of the 7th group were not treated systematically by various reasons. The received results were compared with 7th group. Supplementary effectiveness consisted of days of successful treatment (DST). DST were included the days where patient did not apply to in-patient, out-patient and emergency care and also was not on dynamic observation and house hospital. **RESULTS:** ICER for patient treated by nifedipine-GITS was $2,76 (95%; CI 0,7–4,82). The number of DST was 78,27 (95%; CI 69,71–86,83) per year. The indapamid group (−$0,54) (95%; CI (−0,15)(−0,93)) and 55,35 DST (95%; CI 51,07–59,63). In enalapril group (−$0,79) (95%; CI (−0,22)(−1,36)) and 58,38 DST (95%; CI 48,93–67,83). In diltiazem group (−$1,6) (95%; CI (−0,76)(−2,44)) and 49,43 DST (95%; CI 43,25–55,61). In doxazosin group $23,6 (95%; CI 11,52–35,68) and 37,62 DST (95%; CI 31,5–43,74). In carvedilol group $3,0 (95%; CI 1,74–4,26) and 71,42 DST (95%; CI 60,4–82,44). **CONCLUSION**: ICER was compared expenditures and effectiveness. It was revealed that using carvedilol and nifedipine-GITS the patients had maximum of supplementary successful days but it was required supplementary expenditures. Using indapamid, enalapril and diltiazem the patients had less successful days but it was economy, the expenditures were reduced. Using doxazosin the patients had few successful days and it was required considerable expenditures.

PCV8

HOSPITALIZATION COSTS AFTER FIRST ACUTE CORONARY SYNDROME: A COMBINED MODEL APPROACH

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OBJECTIVE: To model and predict hospitalization costs after first acute coronary syndrome (ACS) based on age, sex, social class, previous hospitalization for diabetes, COAD and renal diseases. **METHODS:** The Cramer-Lundberg insurance model was adapted to predict the hospitalization costs within a given period. Three important factors, costs per hospitalization, time to next hospitalization and time to death were modeled. The costs were modeled by a gamma regression model using the GEE approach to accommodate intra-patient correlation. Parametric survival models were used for easy prediction. Weibull regression was used for the recurrence of hospitalizations. Future costs can be predicted by combining the models and using simulation. **RESULTS:** Average costs increase with patient's age. Compared with patients over 80, the costs per hospital admission of those under 40 was only 44%. Previous hospitalization for diabetes, COAD and renal diseases increases the costs by 25%, 12% and 12% respectively. Younger patients were more likely to have a further hospitalization. The log-RR for those under 40 is 0.36 (95% CI = 0.24, 0.48) compared with those over 80. On average, each previous ACS increases the log-risk by 0.27 (95% CI = 0.23, 0.31). Previous hospital admission for diabetes and renal diseases also indicated higher risk with log-risk 0.34 (95% CI = 0.21, 0.47) and 0.53 (95%CI = 0.28, 0.77) respectively. Younger patients had lower mortality with log-RR for those under 40 is −2.78 (95%CI = −3.05, −2.50), compared with those aged over 80. Previous hospital admissions for diabetes, COAD and renal disease also indicated higher mortality with log-RR 0.22 (95%CI = 0.08, 0.36), 0.38 (95%CI = 0.27, 0.49) and 0.86 (95%CI = 0.68, 1.03) respectively. **CONCLUSION:** The combined model procedure provided a flexible approach to analyze and predict hospitalization costs. Some factors may affect the costs in several ways. This approach explored the role of the factors in predicting individual costs.