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DISEASE MAPPING AND SPATIAL-TEMPORAL ANALYSIS OF HOSPITAL ADMISSIONS DUE TO HEART FAILURE IN PORTUGAL

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OBJECTIVES: Heart failure (HF) is a major reason for hospital admissions (HA), with a high socio-economic impact. Therefore it is of utmost importance to understand how HA due to HF are evolving. This study aimed to build a predictive model for the analysis of hospital admissions due to HF in Portugal. Methods: Hospital admissions due to HF, between 2003 and 2012, were extracted from National Diagnosis-related group database. Demographic and socioeconomic data were collected per district, from Statistics Portugal, and generalized linear mixed-effects models (GLMM) were used to estimate the annual number of HA. Spatial heterogeneity was corrected by considering region-related independent variables (IV): proportion of population aged ≥65, average monthly income and hospital access. Random effects were considered for the IV. The fixed effects model was compared with a GLMM without random effects for the region-related IV and a fixed effects model. Mean absolute error (MAE) was used as a goodness of fit. Results: In total, 10,432,386 hospital admissions due to HF were identified. Model estimation demonstrated that our model fitted better. Predictive ability of the model was assessed by MAD of forecast for 2012 based on 2003-2011 data (MAD=77.2). CONCLUSIONS: Although this approach produced good results, the predictive ability could be further improved by the inclusion of other region-related variables.

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PHARMACOECONOMIC ANALYSIS OF THE COMBINED HOMOCYSTEINE-LOWERING AND STANDARD THERAPY VERSUS STANDARD THERAPY OF PATIENTS WITH CHD, POSTPERCUTANEOUS CORONARY INTERVENTION (PCI) AND 12-DIFFICULTY

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OBJECTIVES: Reasonability of vitamins B6, B12and folic acid (FA) for the prevention of cardiovascular complications in patients with coronary heart disease (CHD) is debated. The aim of the study was to assess the cost effectiveness of homocysteine-lowering and standard therapy versus standard therapy in patients with CHD. METHODS: Results of the clinical randomized trial [O G Shakhmatov, A Komarov, A N Samko et al / Rational Pharmacotherapy in Cardiology, 2011; 7(2), 524-35]. Cost-effectiveness analysis of homocysteine-lowering therapy by vitamins B6, B12and FA combined with the standard therapy versus the standard therapy (anti-platelet, statin, antihypertensive drugs. ACE inhibitors, beta-blockers) in patients with CHD and postPCI, with the elevated level of homocysteine affected by cyanocobalamin deficiency. The first level of costs, i.e. the cost of treatment, was taken into account. RESULTS: The cost-effectiveness analysis of homocysteine-lowering and standard therapy versus standard therapy for patients with CHD and postPCI in terms of the total combined outcome: cardiovascular death, acute coronary syndrome, stroke, revascularization by 95.0%, standard therapy – by 89.9%. The cost of treatment amounted to € 371 for the regimen "vitamins + standard" and € 271 for the standard therapy, respectively. The "cost-effectiveness" ratio showed that the treatment regimen "vitamins + standard" is more cost effective, its use compared to the standard therapy requires additional expenses in the amount of € 50.17 for 1 additional prevented event that did not occurred. CONCLUSIONS: Homocysteine-lowering therapy combined with the standard therapy of patients with CHD with B12 deficiency is clinically more effective and more cost effective compared to the standard therapy.

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ARE SPANISH REGIONS IMPLEMENTING THE NATIONAL THERAPEUTIC POSITIONING REPORT (TPR) REGARDING NEW ORAL ANTI-OCCULANTS (NOAC) IN THE SAME WAY? A CASE OF REGIONAL VARIABILITY IN DRUG ACCESS

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OBJECTIVES: As the other European countries Spain is a decentralized health care system, and different regions are represented to enable minor differences. The Therapeutic Positioning Report is a new procedure set up by the Spanish Agency of Medicines (AEMPS) and the Ministry of Health in May 2013 as part of the national pricing and reimbursement process for new drugs. Its aim was to reduce market access barriers that translate into patient inequities of access and differences in NOAC prescription by region.

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RELATIONSHIP BETWEEN ADHERENCE TO POST-PERCUTANEOUS CORONARY INTERVENTION (PCI) GUIDELINES AND CLINICAL OUTCOMES OF POST-PCI PATIENTS IN HONG KONG - A 5-YEAR RETROSPECTIVE COHORT STUDY

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OBJECTIVES: This study aimed to investigate the relationship between post-PCI guideline adherence and 5- year clinical outcomes of post-PCI patients in Hong Kong. METHODS: Retrospective data and information was retrieved from the PCI registry and electronic patient record system in Prince of Wales Hospital, Hospital Authority. 2011 ACCF/AHA/SCAI Guideline for Percutaneous Coronary Intervention (PCI) guidelines were used as a reference for post-PCI guideline adherence. RESULTS: A total of 515 PCI patients completed 5-year follow-up. Forty-four (15.9%) patients experienced MACCE in the 5-year period with 23 (52.3%) as cardiac death, 11 (25%) as non-fatal myocardial infarction, and 10 (22.7%) as target vascular revascularization. Only 40 (14.5%) patients fully adhered to all five guideline-recommended therapies with a mean total percentage adherence of 77.8%. Diabetes management (95.2%) was the most adherent therapy and lipid management was the least adherent therapy (7%). Only 64.7% of patients adhered to dual antiplatelet therapy with 89.9% and 71.0% of patients adhered to aspirin and clopidogrel respectively. Five-year total percentage adherence and dual antiplatelet therapy adherence did not significantly correlate with the 5-year clinical outcomes in post-PCI patients. However, one of the guideline-recommended therapies, the adherence to aspirin was significantly associated with reduced 5-year rates of MACCE (adjusted OR 0.70, 95% CI 0.50–0.98), p = 0.048) and cardiac deaths (adjusted OR 0.36, 95% CI 0.22– 0.74, p = 0.031). The adherence of dual antiplatelet therapy and lipid management were significantly associated with reduced non-cardiac deaths (adjusted OR 0.24, 95% CI 0.07–0.70, p = 0.031) and numbers of hospital admissions (adjusted beta 10.155, 95% CI 1.126–0.35, p = 0.037) respectively. CONCLUSIONS: Adherence to aspirin, dual antiplatelet therapy, and lipid management were associated with better 5-year clinical outcomes in post-PCI patients.

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A MANAGEMENT VIEWPOINT ON HEALTH ECONOMICS - CASE STUDY ON NETWORK META-ANALYSES (NMA) FOR PULMONARY ARTERIAL HYPERTENSION (PAH)

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OBJECTIVES: Demonstrate the need for re-opening the debate around the different options for the treatment of PAH with the guideline adherence for PAH. We recognize the question: How much money could the UK NHS potentially save if they had a clear ranking of the different oral PAH treatments, based on their clinical effectiveness / ICER ratio? Currently the clinical effect ranking of the standard treatments does not exist for PAH. We think that there exists a ranking method to help the health technology. Once the clinical effect ranking is established, the intention of this paper is to investigate how this ranking matches/correlates with the ranking of costs and then assess it's likely impact on the NHS spending, with the intention of making it more effective starting from the hypothesis that the current treatment guidelines will be followed for...