CONCLUSIONS: SSP with perindopril/indapamid saves lives and health care costs.

THE ECONOMIC BURDEN OF STROKE IN SPAIN
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OBJECTIVES: Accurate information about resources use and costs of stroke is necessary for informed health planning activities. The aim of this study was to determine the patterns of health resources use among stroke patients and to estimate the total costs (direct medical and non medical and indirect production losses) of stroke in Spain for 2001. METHODS: The cost-of-illness method was used. Direct and indirect costs were estimated using prevalence costs. Indirect costs (productivity costs) were estimated using the approach of human capital theory from lost earning attributable to stroke related mortality and morbidity. Data on resource use were retrospectively collected from hospitals and questionnaires. The costs of stroke during the first, second and third year after stroke and the total costs of stroke were estimated. RESULTS: We gathered information from 350 patients. The average cost per stroke survivor during the first, second and third year, in Spain during 2001, were estimated to be €10,189, €7,662, and €5,614 respectively. The most important categories of cost during the first year were acute hospitalisation and rehabilitation. During the second and third year the most important categories of costs were drugs, rehabilitation and tests. Stroke cost €1402.34 million to the Spanish health care system, representing 4% of the total public health care expenditure, €3197.55 million in informal care and €392.95 million for productivity loss. The total annual cost of all stroke related burden was €4992.84 million. CONCLUSIONS: Stroke is a leading public health problem in Spain in term of the economic burden of disease. Given the magnitude of these costs, investigation of the cost-effectiveness of different interventions for stroke should become a priority.

PROSPECTIVE COHORT STUDY IN HIP FRACTURE: RISK AND ECONOMIC IMPACT OF VENOUS THROMBO-EMBOLIC COMPLICATIONS (VTE) IN REAL LIFE
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OBJECTIVES: The risk of VTE after hip fracture surgery has been clearly demonstrated by randomized clinical trials designed for the registration of a new antithrombotic agent. Nevertheless as the diagnosis of VTE was based on a systematic venography which is not routinely performed in current practice, real life data based on the occurrence of clinical events are needed from both an epidemiological and economic point of view. METHODS: The VEEP (VEnous Embolism in hiP fracture) cohort study was a prospective cohort study run in two sizeable French public hospitals. During a 1-year period, patients hospitalized for hip fracture were consecutively included and followed up for three months. Resource use data concerning type of surgery, anti-thrombotic treatments (preventive, curative) and clinical events (Deep Vein Thrombosis, Pulmonary Embolism, bleedings) were collected. RESULTS: One hundred sixty-nine patients were included in the cohort study (mean age 84.6 years, 82% female). History of previous VTE was found in 15% of the patients. Mean length of stay in acute care was 16.1 days (+/-11). Mean length of stay in rehabilitation unit was 41.6 days (+/-22.7). A total of 162 patients received an antithrombotic treatment post-operatively (in most of cases a low molecular weight heparin). The cumulative rate of VTE clinically suspected and confirmed by echo-doppler was higher than expected (13.6% at 3 months) and 80% of the VTE events occur after discharge from acute care. Only one pulmonary embolism was reported. Length of stay was significantly higher in patients having experienced a VTE (nine additional days on an average) leading to substantial additional costs. CONCLUSION: Despite standard antithrombotic prophylaxis the risk of clinical VTE is high after hip fracture surgery and even higher after the acute phase, highlighting the need for more effective preventive therapies.

IRBESARTAN IS PROJECTED TO BE COST AND LIFE SAVING IN THE FRENCH SETTING FOR TREATMENT OF PATIENTS WITH TYPE 2 DIABETES, HYPERTENSION, AND MICROALBUMINURIA
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OBJECTIVE: To project the life expectancy (LE) and costs of treating patients with diabetes, hypertension, and microalbuminuria with irbesartan 300 mg. METHODS: A long-term Markov model simulated progression from microalbuminuria to nephropathy, doubling of serum creatinine, end-stage renal disease (ESRD), and all-cause
mortality in patients with hypertension, type 2 diabetes and microalbuminuria. Three strategies were compared: early use of irbesartan (begun in subjects with microalbuminuria), late use of irbesartan (begun only in subjects with nephropathy), and standard hypertension care (with comparable blood pressure control). The model was based on data from the Irbesartan in Reduction of Microalbuminuria-II study and the Irbesartan and Diabetic Nephropathy Trial. Both studies demonstrated significant reductions in the progression of diabetic renal disease. ESRD-related costs and outcomes were retrieved from the French-specific published or official sources. Cost savings and life years were saved were projected for a hypothetical cohort of 1000 subjects with baseline age 58 years. Future costs and LE were discounted at 3% yearly. A 25-year time horizon and third party payer perspective were used. Extensive sensitivity analyses were performed. RESULTS: When compared to standard care, early use of irbesartan in 1000 subjects was projected to save €25.7 million (95%CI 16.8–32.3), while late use of irbesartan was projected to save €9.2 (3.4–14.1) million. Similarly, early use of irbesartan was estimated to add 796 (520–1050) life years, while late use of irbesartan added 60 (22–92) life years. The superiority of early use of irbesartan over late use and standard care was robust under a wide range of plausible assumptions. CONCLUSIONS: Treating patients with hypertension, microalbuminuria and type 2 diabetes with irbesartan was projected to extend life and reduce costs. Late use of irbesartan (when overt nephropathy develops) is also better and less costly than standard care, but irbesartan should be started earlier and continued long-term.

MAKING EVALUATIONS WORK

ASSESSING GENERALISABILITY OF COST-EFFECTIVENESS ESTIMATES IN MULTINATIONAL STUDIES: APPLICATION TO A TRIAL OF MOXIFLOXACIN IN COMMUNITY-ACQUIRED PNEUMONIA (CAP)
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OBJECTIVES: Multi-country trial-based cost-effectiveness analyses often assume that resource utilisation and clinical efficacy are not country-specific, and apply country-specific unit costs. We applied econometric methods to estimate country-specific cost-effectiveness, adjusting for differences in incremental resource utilisation and case mix across countries. Results with and without adjustment are compared and methods described. METHODS: The TARGET multinational trial compared cure within 21 days for patients with CAP between sequential IV/PO moxifloxacin monotherapy and standard comparators. Unit costs were available for 4 countries (France, Germany, Spain, UK) among 10. A previously published framework, based on a system of regression equations, was used to determine treatment impact on resource use and outcome by country, controlling for baseline characteristics. Clinical efficacy was held constant across countries, but the impact of cure on resource utilisation was allowed to vary. Bootstrapping was also used to estimate uncertainty around country-specific cost-effectiveness results. RESULTS: No significant inter-country variation in clinical efficacy was observed ($p = 0.9843$). Treatment increased the probability of cure by 5% and the impact of cure on resource use varied significantly across countries ($p < 0.0001$). However between-country differences in incremental resource utilisation were not detected statistically ($p = 0.7759$) so that unadjusted analysis was also a possible approach. Using country-specific unit prices, average incremental costs per patient non-adjusted and adjusted were €–266 and €–436 for Germany, €–381 and €–543 for France, €–281 and €–126 for Spain, €–360 and €–1192 for UK. The probability that moxifloxacin is cost-saving was 97% for Germany, 95% for France, 90% for Spain and 87% for the UK in the non-adjusted analyses compared to 99%, 66%, 41% and near 100%. CONCLUSIONS: Where study treatments impact resource use differently across countries or country-specific CEA is desired, adjusted results can differ substantially. Although improved country-specificity is associated with increased variation in cost, country-specific cost-effectiveness measures may be more informative.

A USER-FRIENDLY TOOL FOR EVALUATING AND IMPROVING THE TRANSFERABILITY OF ECONOMIC EVALUATION RESULTS BETWEEN COUNTRIES
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OBJECTIVE: Development of a user-friendly tool for the evaluation and improvement of the transferability of economic evaluation results. METHODS: We systematically identified the factors that may influence the transfer of study results and investigated the way they impact transferability. A transferability decision chart was developed that includes knock out criteria, a checklist based on the transferability factors, and methods for improving transferability and for assessing the uncertainty of transferred results. The decision chart was applied to various international cost-effectiveness studies. RESULTS: Economic evaluation results can be transferred pending the outcomes of the transferability check and necessary adjustments. The influence of differences of most transferability factors can be estimated via the key health economic determinants capacity utilization, effectiveness, productivity loss and returns to scale. Depending on the results of the transferability check an adjustment of the study results for inflation and for differences related to currencies or purchasing power might be sufficient. Otherwise,