

EE106 POTENTIAL HEALTH BENEFITS AND COST-EFFECTIVENESS OF LOW-SODIUM POTASSIUM-RICH SALT SUBSTITUTES IN INDONESIA: A MODELLING STUDY

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Objectives: Evidence shows low-sodium potassium-rich salt substitutes (LSSS) are a potent strategy to reduce population blood pressure (BP) and chronic disease burden. We aimed to estimate the long-term health benefits, costs and cost-effectiveness of a government-led policy to gradually switch from regular salt to LSSS in Indonesia. **Methods:** We developed a Markov and lifetable simulation model to estimate the impact of using LSSS compared to current regular (100% sodium) salt on major BP-related diseases and health-adjusted life years (HALY). Data were sourced from the 2018 Indonesian Basic Health Research Survey (BP distribution), Total Diet Study (sodium intake), Global Burden of Disease 2019 study (disease epidemiology), meta-analyses (LSSS-BP relationship) and National Health Insurance – BPJS Kesehatan – (healthcare costs). Health outcomes, implementation costs, healthcare costs and incremental cost-effectiveness ratios (discounted at 3%) were simulated over 10 years and the remaining lifetime of the 2019 Indonesia population. Uncertainty analysis was done using Monte-Carlo simulations. **Results:** Over the first 10 years, compared to using regular salt, gradually switching to LSSS (10-year phase-in period towards current iodine fortification coverage levels) could avert 332,900 (95%UI: 296,700 – 364,800) incident cases and 25,900 (22,400 – 28,900) deaths from ischaemic heart disease, 406,900 (361,200 – 447,300) incident cases and 91,200 (74,800 – 105,000) deaths from haemorrhagic stroke, and 384,800 (325,200 – 438,000) incident cases and 35,200 (24,900 – 43,700) deaths from ischaemic stroke. This translated to 1.1 million HALYs gained in first 10 years and over 22 million HALYs gained over the lifetime. In the first 10 years, estimated implementation cost was USD 1.1 billion, with USD 3.4 billion in healthcare cost savings. Over both time horizons, LSSS were cost-saving in the main analysis and in multiple sensitivity analyses. **Conclusions:** Our modelling supports scaling the use of LSSS nationally as a cost-saving strategy to prevent substantial BP-related disease burden in Indonesia.



EE107 COST-EFFECTIVENESS OF MECHANICAL THROMBECTOMY FOR ACUTE ISCHEMIC STROKE: COLOMBIAN HEALTH SYSTEM PERSPECTIVE

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Objectives: Mechanical thrombectomy plus intravenous thrombolysis is the treatment of choice for patients with ischemic stroke due in large vessels of the anterior circulation. The number of patients with mechanical thrombectomy has increased. Our objective was to establish if it is cost-effective for the Colombian Health System. **Methods:** We conducted a systematic review of the literature with meta-analysis, limited to randomized controlled trials comparing the efficacy and safety of second-generation mechanical thrombectomy devices for the treatment of patients with ischemic stroke of the large vessels of the anterior circulation. Only direct medical costs were estimated, utilities were derived from the literature. Annual discount rate was 5%. With clinical data extracted from the meta-analysis, we developed a decision tree and a Markov model, with a time horizon of 5 years and the perspective of the Colombian healthcare system, calculated incremental cost-utility ratios, and performed deterministic and probabilistic sensitivity analysis. **Results:** Mechanical thrombectomy plus intravenous thrombolysis is more effective than intravenous thrombolysis alone for functional independence, RR 1.59, (95% CI: 1.41-1.78). No difference in mortality RR 0.86 (95% CI: 0.71-1.04) or symptomatic intracranial hemorrhage RR 1.16 (95% CI: 0.76-1.78). In the base case, mechanical thrombectomy plus intravenous thrombolysis has an incremental cost of COP \$9,697,228 (USD \$2,591) and an incremental utility of 0.453 QALYs. Incremental cost-utility ratio of COP \$21,403,843 (USD \$5,718). The probabilistic sensitivity analysis, 64 % of the simulations are below the willingness to pay threshold of COP \$22,949,633 (USD \$6,131). **Conclusions:** Mechanical thrombectomy plus intravenous thrombolysis provides more functional independence, but no difference in symptomatic intracranial hemorrhage or mortality, and is a cost-effective alternative compared to intravenous thrombolysis alone, for the treatment of anterior circulation large vessel ischemic stroke in the Colombian context.



EE108 ESTIMATING THE COST OF END-OF-LIFE CARE AMONG US ADULTS: REAL-WORLD EVIDENCE USING A CASE-CROSSOVER STUDY DESIGN

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Objectives: To estimate the cost of end-of-life care (EoLC) in a large US real-world database using a case-crossover study design. **Methods:** Patients with a death



recorded between January 1, 2019 and June 30, 2022, aged 18+, and enrolled in a health insurance plan at the time of death were identified in CHRONOS, a hybrid claims database. EoLC was defined as any care recorded and paid on an institutional, physician, or pharmacy claim in the 30 days before death. The total amount of care paid for by a payer or patient in the 30 days before death was compared to the average costs of care during enrolled months in the patients' history. A 12-month washout period was used to separate the month of death and control months. A mean difference and 95% confidence interval were calculated using a paired t-test and all costs were adjusted to 2022 USD. **Results:** Patients with a death recorded in CHRONOS were 53% female and had a mean age of 51.7 (SD:13.7) years. The costs of care paid in the 30 days before death were \$6,397.85 (median: \$1,208.00 and IQR \$595.00 – \$4,755.45) and were significantly higher than the costs in previous months with a mean difference of \$5,195.80 (\$5,077.30-\$5,314.3). Higher costs in the month before death were more likely to be related to oncology and cardiovascular institutional claims with the care received across outpatient, inpatient, intensive care units, and hospice settings. **Conclusions:** These findings show the cost of EoLC is significantly higher than the costs associated with care received during other time periods in patients' healthcare journey. Understanding the magnitude of this increase can support appropriate planning, which improves patients' and families' quality of life. The generalizability of this analysis may be limited to US deaths occurring in healthcare settings and the commercially insured.

EE109 COST EFFECTIVENESS OF DUAL VS. TRIPLE THERAPY IN MANAGEMENT OF ATRIAL FIBRILLATION WITH PERCUTANEOUS CORONARY INTERVENTION

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Objectives: Current guidelines recommend the use of dual or triple antithrombotic therapy for patients with atrial fibrillation (AF) undergoing a percutaneous coronary intervention (PCI). Dual therapy has demonstrated favorable safety outcomes without compromising efficacy endpoints compared to triple therapy in four major clinical trials. In this study, we created a Markov model to evaluate the cost-effectiveness of dual versus triple antithrombotic therapy using data from the RE-DUAL PCI clinical trial. **Methods:** From the results of the RE-DUAL PCI trial and other published studies, we constructed a Markov model with two treatment arms (anti-coagulant + adenosine diphosphate receptor antagonist (P2Y12 inhibitor) and triple therapy (anticoagulant + P2Y12 inhibitor + aspirin). Cost and utility estimates were drawn from the medical literature. The base-case analysis assumed a 70-year-old patient with AF and recent PCI with no contraindication to oral anticoagulation. We utilized a 2-week cycle length and followed the patients for a 1-year time horizon. We evaluated adjusted life-years (QALY), costs in 2022 US\$, and incremental-cost effectiveness ratios (ICERs). Costs and QALYs were discounted at an annual rate of 3%. **Results:** Base case analysis resulted in a quality adjusted life expectancy of 21.03 for dual therapy, and 21.02 for triple therapy. Costs were \$7713.31 for dual therapy and \$7813.41 for triple therapy. The ICER for dual therapy was -\$11,596.62/QALY, demonstrating dominance of dual therapy. One-way sensitivity analysis was most sensitive to fatal bleeding-related variables, the hazard ratio of stroke, and intracranial hemorrhage-related variables. Dual therapy-maintained dominance in the majority of probabilistic iterations, confirming our results. **Conclusions:** The present study suggests that dual therapy is a cost-effective alternative to triple therapy.



EE110 COSTS AND RESOURCE UTILIZATION OF PEOPLE WITH STABLE HEART FAILURE AND INSOMNIA: EVIDENCE FROM A RANDOMIZED TRIAL

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Objectives: Nearly half of patients with chronic heart failure (HF) report insomnia symptoms, and cognitive behavioral therapy for insomnia (CBT-I) has been shown to be efficacious for treating insomnia in the presence of comorbid conditions. This study examined the impact of CBT-I vs HF self-management on health care costs and resource utilization among patients with stable chronic heart failure. **Methods:** Resource utilization was measured as self-reported physician office visits, emergency department visits, and inpatient admissions for one year. Costs were estimated by applying price weights to visits and adding self-reported out-of-pocket and indirect costs. Univariate comparisons were made of resource utilization and costs between CBT-I and attention control groups. A generalized linear model (GLM) was used to model costs, controlling for covariates. **Results:** During the first year following randomization, participants receiving CBT-I had 4.2 inpatient hospitalizations compared to 4.6 for the attention control group (p = 0.40). Participants receiving CBT-I also had 13.1 outpatient visits, while control participants had 15.4 outpatient visits. Total costs were not significantly different for participants who received CBT-I vs HF self-management (\$7,813 vs. \$7,538, p = 0.96). Similarly in the multivariable analysis, there were no statistically significant differences in costs for participants who received CBT-I vs HF self-management. **Conclusions:** Among patients with both HF and insomnia, CBT-I and HF self-management had similar resource utilization and total costs. Additional research is

