OBJECTIVES: The Losartan Intervention For Endpoint Reduction (LIFE) in hypertension study was a randomised, double-blinded trial comparing effects of losartan with atenolol on cardiovascular morbidity and death. A population of 9193 hypertensive patients with left ventricular hypertrophy (LVH) in different countries was studied. As compared to atenolol, losartan reduced the combined risk of cardiovascular morbidity and mortality by 13% (p = 0.021), and reduced risk of stroke by 25% (p = 0.001), despite comparable blood pressure control. Our objective was to conduct a cost-effectiveness analysis of losartan compared with atenolol from the Dutch health care perspective. **METHODS:** Utilisation of losartan and atenolol within the trial period and an estimation of direct medical costs of stroke for The Netherlands were combined with estimates of reduction in life expectancy through stroke. Medication cost and stroke incidence during 5.5 years of patient follow-up were estimated separately, adjusted for the baseline degree of LVH and Framingham risk score. To estimate lifetime stroke costs, the cumulative incidence of stroke was multiplied by the lifetime direct medical costs attributable to stroke. All costs in 2004 Dutch prices were discounted at 4%, and effects at 1.5% (new guideline). **RESULTS:** Prevention of stroke resulted in a gain of 5.1 discounted life years. As a consequence, losartan treatment resulted in 0.081 life years gained per patient. Losartan reduced stroke related cost by €946. After inclusion of study medication cost, net cost per patient was €237 higher for losartan than atenolol. The net cost per life year gained was €2926 which is below the Dutch pharmacoeconomic threshold of €20,000/LYG for accepting interventions. The corresponding probability of a cost-effectiveness ratio below the Dutch threshold was 0.96. **CONCLUSIONS:** In The Netherlands, treatment with losartan compared with atenolol is a cost-effective intervention based on the reduced risk of stroke observed in the LIFE trial.

PST3

CLOPIDOGREL VERSUS ASPIRIN IN HIGH-RISK PATIENTS WITH RECENT ISCHEMIC STROKE OR TRANSIENT ISCHEMIC ATTACK: COST-EFFECTIVENESS ANALYSIS IN ITALY

Rudelli G[1], Roze S[2], Palmer AJ[2], Hakimi Z[3], Spiesser J[3], Carita P[3], Gabriel S[3]

[1]sanofi-aventis, Milano, Italy; [2]CORE—Center for Outcomes Research, Binningen, Basel, Switzerland; [3]sanofi-aventis, Bagneux, France

OBJECTIVES: To assess the costs effectiveness of 18-month treatment with clopidogrel followed by aspirin versus aspirin long life in high-risk patients with recent ischemic stroke (IS) or transient ischemic attack (TIA) in Italy. **METHODS:** A Markov model was developed to perform an indirect comparison. This model was run with a lifetime perspective, for a cohort aged 66 (63% male). During their lifetime, patients can experience quarterly following events: IS, myocardial infarctions (MI), TIA, other cardiovascular deaths, primary intracranial hemorrhages, life threatening bleedings, or major bleedings. For the clopidogrel arm, the events rates were taken from the recent MATCH trial. In order to derive the aspirin arm, we applied a relative risk increase (RRI) of 1.11 taken from the Cochrane review for cardiovascular events, and a RRI of 1.12 from the CAPRIE trial for hemorrhagic events. Costs were retrieved using Italian Diagnosis Related Group (DRG) and published sources. Annual discount rate of 3% was applied for both costs and benefits. Payer perspective was used. Extensive sensitivity analyses were performed. **RESULTS:** For a cohort of 10,000 patients, 18-month treatment with clopidogrel instead of aspirin allow to avoid 138 recurrent IS, 28 MI, and 27 cardiovascular deaths. Clopidogrel treatment is associated with a gain in quality adjusted life years (QALY) of 360 years. Incremental total cost per patient (including drugs and complications), over a remaining lifetime horizon was €702. Incremental cost-effectiveness ratio (ICER) was €19,500 / QALY with 57% of simulations below the acceptable €23,000 / QALY threshold. **CONCLUSIONS:** In patients at high risk of ischemic events with recent TIA or IS, 18-month treatment with clopidogrel followed by continuation on aspirin was projected to improve life expectancy, reduce risk of secondary ischemic events and be cost-effective compared to aspirin over patient lifetimes in Italy.

PST4

COST-CONSEQUENCE ANALYSIS FOR THE HANDMASTER IN THE NETHERLANDS

Nuijten MJ[1], Engelfriet P[2]

[1]Erasmus University, Rotterdam, The Netherlands; [2]Academic Medical Center, Amsterdam, The Netherlands

OBJECTIVES: To compare the total costs of the Handmaster treatment as addition to the current standard treatment of post stroke patients with the costs of the current standard treatment alone. **METHODS:** A health economic model was used to perform a cost-consequence analysis in order to determine cost savings resulting from the clinical effects of the Handmaster. The patient population consisted of severe patients with a score of 4 or 5 according to the Modified Ashworth Scale and with a non-functional upper extremity. The data sources were published literature, including the Handmaster clinical trials, Delphi panel and official price/tariff lists. The primary perspective of the study was that of the health insurer in The Netherlands. **RESULTS:** The costs of treatment with the Handmaster consist of purchasing and service costs. Linear depreciation was applied to the purchase costs. The use of the Handmaster resulted in net cost savings of €320 and €477, respectively at the end of year 1 and over the 5-year period. Sensitivity analysis showed that outcomes for the model were most sensitive to frequency and intensity of physiotherapy. **CONCLUSION:** Although treatment with the Handmaster requires an initial investment, purchase and service costs are largely compensated by saving of costs in other components of the regular medical care in the chronic phase post stroke.

PST5

COST AND OUTCOMES AFTER FIRST STOKE HOSPITAL ADMISSION: A LONGITUDINAL STUDY USING ADMINISTRATIVE DATABASES

Morsanutto A[1], Mantovani LG[2], Ros B[3], De Portu S[2], Spazzapan D[3], Tosolini F[3]

[1]University of Milan, Milan, Italy; [2]University of Naples, Naples, Italy; [3]Direzione Regionale della Sanità e delle Politiche Sociali, Regione Friuli Venezia Giulia, Trieste, Italy

OBJECTIVE: To assess the economic and epidemiologic impact of stoke in Friuli Venezia Giulia (FVG) a region of approximately 1.2 million inhabitants in the north-eastern Italy. **METHODS:** All residents of FVG are registered in to Regional Health Service (RHS) database, which keeps tracks of the use of medical care admissions and reimbursement purposes. We selected residents of FVG who had during year 2000 a first stoke hospital admission and we followed them up till death, or December 31, 2004. (we a priory excluded people who during the period 1995–1999 had a previous CVD event). Mortality was investigated by collecting information from Regional Citizen Register file. We obtained information on medical costs from electronic databases of prescriptions, hospitalizations, visits and diagnostic examinations in FVG. Direct medical costs were quantified in the perspective of the RHS and are expressed in Euro 2005. **RESULTS:** We enrolled 936 patients with incident stroke (mean age 77 ±