ECONOMIC EVALUATION OF PRIMARY PREVENTION OF CVD EVENTS WITH STATINS IN ITALY
Bustacchini S1, Ruffo P1, Mantovani LG2
1Pfizer Italia srl, Rome, Italy; 2University of Milan, Milan, Italy

OBJECTIVES: Cardiovascular diseases (CVD) are the leading cause of morbidity and mortality. Treatment with statins has shown to be effective in controlling cholesterol levels in dyslipidemic subjects and in preventing CVD. The objective of this analysis was the evaluation of the economic impact of the CVD primary prevention with statins in Italy. METHODS: Alternatives: market mix for statins (low dosages assumed as initial dosages) marketed in Italy (weighted with the current market shares) compared with no intervention. Population: sample of high-risk subjects with an absolute CV risk level ≥ 2% per year, derived from a population study conducted in the Verona area in Italy. Perspective: National Health Service (NHS). Technique: cost-effectiveness analysis, making economic and health projections in a hypothetical cohort of 1000 subjects in primary prevention; an incremental cost per life year gained (ICER LYG) has been calculated. Time: 10 years. Costs: drugs and direct medical costs quantified in using NHS tariffs expressed in Euro 2003. Effects: the effects of different statins in controlling cholesterol levels, as measured with the CURVES study (Jones P et al, 1998) has been used to model coronary (CHD) morbidity and mortality from CVD with the Framingham risk equations (Anderson KM et al, 1990). RESULTS: A primary CVD preventive intervention with statins in a hypothetical cohort of 1000 high-risk subjects can avoid 70 CHD events and 28 CVD deaths, thus projecting 138 LYG. After having considered costs for drugs (4,789,542€) and savings due to events avoided (319,722€), the net cost of the intervention is 4,469,820€ with a ICER LYG of 32,458€. CONCLUSIONS: The cost-effectiveness profile of CVD primary preventive intervention with statins is in the range of what is considered cost-effective in absolute values by the scientific community.

ECONOMIC EVALUATION OF TRANSESOPHAGEAL ECHOCARDIOGRAPHY (TEE) GUIDED CARDIOVERSION IN THE ANTICOAGULATION IN CARDIOVERSION USING ENOXAPARIN (ACE) TRIAL FROM THE PERSPECTIVE OF STATUTORY HEALTH INSURANCE (SHI) IN GERMANY
Schadlich PK1, Lehmacher W2, Huppertez E1, Grewe R1, Brecht JG1
1InForMed GmbH—Outcomes Research and Health Economics, Ingolstadt, Bavaria, Germany; 2Institute for Medical Statistics, Informatics, and Epidemiology of the University of Cologne, Cologne, NRW, Germany; 3Aventis Pharma Deutschland GmbH, Bad Soden am Taunus, Hesse, Germany

OBJECTIVES: To estimate—from the German SHI perspective—economic consequences of using the low-molecular-weight heparin enoxaparin subcutaneously (ENOX) instead of intravenous unfractionated heparin followed by oral phenprocoumon (UFH/PPC) for anticoagulation in patients undergoing TEE-guided early electrocardioversion from nonvalvular atrial fibrillation (AF). METHODS: As ENOX is noninferior to UFH/PPC in preventing deaths and ischemic, embolic, and hemorrhagic events [Stellbrink C, et al. ACE trial. Circulation 2004], a cost-minimization analysis (CMA) was performed. The target variable “incremental cost for ENOX versus UFH/PPC” was quantified using a modelling approach based on decision-tree technique. The CMA encompassed 28 (26–30) treatment days with phase I of 5 (3–8) days comprising diagnostics, initiation of anticoagulation, and cardioversion. Phase II with the remaining days comprised continued anticoagulation. Resource use was verified by a survey in the in- and outpatient sectors. Costs were given by SHI expenses and were quantified by multiplying utilised resource items by the price or tariff of each item, according to German Health Care regulations. RESULTS: In the base-case analysis, phase I was outpatient based for the majority of ENOX patients opposed to inpatient treatment for all UFH/PPC patients, whereas phase II was entirely outpatient based for both patient groups. There were savings of 579€ per patient with ENOX (892€) compared to UFH/PPC (1471€). Comprehensive sensitivity analyses (impact analysis, Monte Carlo simulation) showed the robustness of the model. Expenses for the inpatient-based phase I with UFH/PPC had by far the greatest influence on the extent of savings obtained. Simultaneous random variation of all model parameters within their empirically given intervals revealed savings obtained by ENOX in 93% of 10,000 simulated comparisons versus UFH/PPC. CONCLUSIONS: In TEE-guided early electrocardioversion of nonvalvular AF, anticoagulation with ENOX offers SHI in Germany an enormous saving potential when used instead of UFH/PPC.