**PCV17**

COST-EFFECTIVENESS ANALYSIS OF DALTEPARIN IN PROLONGED PROPHYLAXIS AGAINST DEEP VEIN THROMBOSIS AFTER HIP ARTHROPLASTY

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OBJECTIVES: Prophylactic dalteparin reduces the incidence of deep venous thrombosis (DVT) after hip replacement. The aim of this analysis is to perform a pharmacoeconomic evaluation of prolonged (35 day) versus short (7 day) prophylaxis with dalteparin for this indication. METHODS: A cost-effectiveness analysis was carried out by building a decision analytic model. Effectiveness data were taken from a meta-analysis of all clinical trials (CT) of dalteparin in prolonged prophylaxis after hip replacement. After pooling and analyzing all CT found, the incidence of DVT was 6.1% with a prolonged prophylaxis and 15.1% when using a short prophylaxis. Health care resources utilization with dalteparin was taken from the aforementioned meta-analysis and a local expert panel. Only direct medical costs were included in the model (drug acquisition, length of hospital stay, diagnostic procedures and treatment of DVT cases). Drug acquisition cost data were obtained from official sources while the rest of the data were taken from a national Health care cost database. The perspective selected for this analysis was the National Health Service and the time horizon chosen was 35 days, being the maximum time that patients received dalteparin as prophylaxis.

RESULTS: In two hypothetical cohorts of 500 patients, 424 patients reported no DVT cases in the prolonged prophylaxis group resulting in a cost/patient free of DVT of €370 whilst 469 patients in the short prophylaxis group resulting in a cost/patient free of DVT of €424. Of the intermediate group (N = 149) 26% survived, averaging €31,467, and 74% died, averaging €1,859. The incremental cost-effectiveness ratios for reductions of time from late to intermediate, late to early, and intermediate to early were €37,376, €16,679, and €3,225 respectively. CONCLUSIONS: Most costs after OHCA were made in-hospital. Mean costs per survivor were lowest with the shortest time to shock. Reduced time to shock scenarios showed incremental health care costs per life saved, which were well within acceptable societal limits. It is most efficient to put all effort in optimizing for shock delivery within seven minutes after the collapse. Further study should be directed at the program costs of measures to ensure early shock delivery.

**PCV18**

HEALTH SYSTEM COSTS OF OUT-OF-HOSPITAL CARDIAC ARREST IN RELATION TO TIME TO SHOCK

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OBJECTIVES: Widespread use of automated external defibrillators by policemen and fire fighters in the Netherlands may shorten the time to shock in out-of-hospital cardiac arrest (OHCA). This study assessed the average health care costs per life saved and the incremental cost-effectiveness ratios for three different “reduced time to shock” scenarios. METHODS: Between January 2000 and January 2002 all consecutive patients in witnessed OHCA in Amsterdam, with ventricular fibrillation as initial rhythm, identified by the dispatch center, were included. Each patient’s time to shock was estimated and assigned to one of three categories: <7 minutes (early), 7–12 minutes (intermediate), and >12 minutes (late). Clinical data and health care costs were prospectively collected at patient level for the first half-year after collapse. RESULTS: A total of 308 patients were included. Six-month survival was 22%. The mean pre-, in-, and post-hospital costs were €559, €6,870, and €666, respectively. On average, €28,636 were spent per survivor and €2,384 per non-survivor. Among patients shocked early (N = 24), 46% survived, averaging €20,253, whereas 54% died, averaging €2,836. Of the intermediate group (N = 149) 26% survived, averaging €31,467, and 74% died, averaging €2,884. Among patients shocked late (N = 135), 13% survived, averaging €27,781, 87% died, averaging €1,859. The incremental cost-effectiveness ratios for reductions of time from late to intermediate, late to early, and intermediate to early were €37,376, €16,679, and €3,225 respectively. CONCLUSIONS: Most costs after OHCA were made in-hospital. Mean costs per survivor were lowest with the shortest time to shock. Reduced time to shock scenarios showed incremental health care costs per life saved, which were well within acceptable societal limits. It is most efficient to put all effort in optimizing for shock delivery within seven minutes after the collapse. Further study should be directed at the program costs of measures to ensure early shock delivery.

**PCV19**

A PROBABILISTIC MODEL TO ASSESS THE COST-EFFECTIVENESS OF A NEW STATIN (ROSUVASTATIN) IN THE UK

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OBJECTIVES: Coronary heart disease (CHD) is the single commonest cause of premature death in the UK and is a major priority for the NHS. A stochastic decision model was developed to establish the cost-effectiveness of treating new hypercholesterolaemic patients to European target levels of blood total cholesterol (TC) and low density lipoprotein-cholesterol (LDL-C), using either rosuvastatin, atorvastatin, simvastatin, pravastatin or fluvastatin. METHODS: The model was used to estimate the proportion of patients reaching target and the associated costs over a 1-year period from the perspective of the NHS. The effectiveness of the alternative statins were modelled using the percentage reductions in TC and LDL-C principally derived from the Statin Therapies for Elevated Lipid Levels compared Across doses to Rosuvastatin (STELLAR) trial (n = 2341). Second order probability distributions and Monte Carlo simulations were used to reflect parameter uncertainty.