repeat procedure rates (TLR - target lesion revascularization) over 1 year. The model was developed from a Italian national health care system (NHS) perspective with a 5-year time horizon. A systematic literature review was carried out on TLR rates in patients with femoral-popliteal disease treated with one of the four treatment choices. Costs associated to each treatment are derived from the average DRG tariffs used for peripheral angioplasty procedures. A decision analytic model was developed to estimate total costs over 12 months of index procedures and possible revascularizations. **RESULTS:** Pooled 12-month TLR rates show clear patients benefit with DEB compared to PTA (8,6% vs 28,6%) and non-inferiority of DEB vs DES (9,4%) and BMS (11,5%). Total Italian DRG payments for index and repeat interventions (based on TLR rates estimation) across treatments showed that DEB was the least costly treatment strategy over 1 year, with saving of almost €1,000 per patient with DEB vs PTA. Based on these per-patient savings, the potential total savings amounted to approximately €2 million for an assumed annual increase of 5% in DEB adoption rate over 5 years. **CONCLUSIONS:** The analysis suggests clear patient benefit for DEB. Despite initial higher investments, DEB represents a cost-saving alternative to other technologies according to the NHS perspective.

PCV41

BUDGET IMPACT ANALYSIS OF RIVAROXABAN IN THE PREVENTION OF STROKE IN NON-VALVULAR ATRIAL FIBRILLATION PATIENTS IN ITALY

Capri S[1], Veneziano M[2], Ricciardi WG[3], D'Ausilio A[4], Pedone MP[5], Bianchi C[5]
[1]*Institute of Economics, Castellanza, Italy,* [2]*Catholic University of Sacred Heart, Roma, Italy,* [3]*Catholic University of Sacred Heart, Rome, Italy,* [4]*Creativ Ceutical, Luxembourg, Luxembourg,* [5]*Bayer Pharma, Milano, Italy*

OBJECTIVES: In Italy about 500,000 non-valvular atrial fibrillation (NVAF) patients have a major unmet medical need as they do not receive adequate anticoagulation therapy for stroke prophylaxis: many patients receive antiplatelet therapy, even when the guidelines recommend vitamin-K antagonists (VKA), or are not treated at all or have international normalized ratio inadequate control despite treatment with VKA. The purpose of this study was to perform a budget impact analysis of rivaroxaban - a novel oral anticoagulant (NOAC) - in NVAF patients with the highest unmet medical need from the Italian health care system (SSN) perspective. **METHODS:** Two scenarios were compared within a three-year timeframe: the actual scenario, where patients are treated according to current clinical practice (46% with VKA, 38% with antiplatelets, 17% non-treated) and a scenario where Rivaroxaban is present with increasing market shares. The event risks (ischemic and haemorrhagic stroke, systemic embolism, myocardial infarction and bleedings) were retrieved from the ROCKET-AF trial or from a network meta-analysis. Resource consumption was computed using mean regional tariffs. Since Rivaroxaban price is not officially published, the daily cost used ranges from €2.10 (price of the first NOAC approved in this indication in Italy) and the lowest Rivaroxaban price available in Europe (€1.94). The results of the analysis are displayed as a total costs difference between the two scenarios. **RESULTS:** A reduction in the total number of events and costs at SSN charge is shown since the first year from rivaroxaban introduction. The increase in pharmaceutical expenditure is offset by savings from a lower number of events to treat and absence of routine coagulation monitoring. **CONCLUSIONS:** The introduction of rivaroxaban in the national scenario is beneficial because it will provide a substantial reduction in the disease burden for patients and in costs for the SSN.

PCV42

COMPARISON OF DABIGATRAN ETEXILATE VERSUS WARFARIN, ASPRIN & NO TREATMENT FOR STROKE PREVENTION IN ATRIAL FIBRILLATION IN ENGLAND, UNITED KINGDOM, OVER 5 YEARS

Sunderland TJ[1], Zah V[2], McCarron C[1]
[1]*Boehringer Ingelheim, Berkshire, UK,* [2]*ZRx Outcomes Research Inc., Mississauga, ON, Canada*

OBJECTIVES: To estimate the number of clinical events and costs of these events for dabigatran etexilate (dabigatran) versus a combination of warfarin, aspirin and no treatment for stroke prevention in atrial fibrillation (AF) patients in an England, UK, setting over 5 years. **METHODS:** An interactive model was built in Microsoft Excel to calculate the following: • Total number of AF patients eligible for dabigatran • Number of clinical events for dabigatran, warfarin, aspirin and no treatment patients over a 5 year time horizon. Clinical events included were stroke (ischaemic, haemorrhagic, systemic embolism); major bleeding (intracranial and extracranial); all cause mortality; acute myocardial infarction • Total costs of clinical events for each treatment. The total cost per day for dabigatran is £2.20 per day; warfarin is £1.18; aspirin is £0.09; no treatment is £0.00. Warfarin had a TTR of 55% (from Jones et al 2005); aspirin and no treatment clinical event rates were from Roskell et al (2010). Dabigatran data was from the RE-LY trial **RESULTS:** The model estimates there are 822,527 patients with AF in England, of which 78% are eligible for dabigatran (641,571). After 5 years, patients treated with dabigatran versus 80% with warfarin; 10% aspirin; 10% no treatment are associated with: 1) 27,357 fewer strokes (16,938 fewer ischaemic storkes); 2) 14,413 fewer major bleeding events; and 3) An increase of £268,167,861 in drug budget; however there is an overall cost saving of £11,240,201. The overall cost saving is predominantly driven by savings in disability following stroke. **CONCLUSIONS:** Study indicates that due to a superior clinical profile, dabigatran may more than offset the increase drug budgets, resulting in cost savings, if used preferentially versus warfarin, aspirin or no treatment.

PCV43

COMPARISON OF DABIGATRAN ETEXILATE VERSUS WARFARIN FOR STROKE PREVENTION IN ATRIAL FIBRILLATION IN IRELAND OVER 5 YEARS

McCarron C[1], Sunderland TJ[1], Zah V[2]
[1]*Boehringer Ingelheim, Berkshire, UK,* [2]*ZRx Outcomes Research Inc., Mississauga, ON, Canada*

OBJECTIVES: To estimate numbers of clinical events (strokes, major bleeds, acute myocardial infarctions and deaths) and health care costs over a five year period in Ireland following a switch of antithrombotic therapy for atrial fibrillation (AF) from warfarin to dabigatran. **METHODS:** A model was built in Microsoft Excel and included an estimate of the number of Irish patients diagnosed with AF and eligible for treatment with dabigatran. It is assumed that all diagnosed AF patients eligible for oral anticoagulation currently receive warfarin and that all patients switch to dabigatran in Year 1, regardless of International Normalised Ratio (INR) control amongst warfarin patients. Differences in numbers of clinical events expected to occur based on a patient's antithrombotic treatment were estimated by applying event rates from literature sources. Costs were estimated from a HSE perspective and included costs of clinical events, disability costs and medication costs. **RESULTS:** A total of 28,332 Irish patients are estimated to have been diagnosed with AF and are eligible for dabigatran. Switching these patients from warfarin to dabigatran may avoid: 657 strokes; 792 major bleeds; 1,437 deaths. By Year 5, cumulative dabigatran drug costs were estimated at €7,670,870. Cost savings due to clinical events avoided amounted to €2,894,743 and savings on disability costs at €5,563,349, giving a total cost saving with dabigatran of €787,223. **CONCLUSIONS:** Use of dabigatran as compared to warfarin for stroke prevention in AF in the Irish setting may avoid a significant number of clinical events and result in overall cost savings.

PCV44

ECONOMIC BURDEN OF VENOUS THROMBOEMOBLISM ACROSS PATIENT POPULATIONS: A LITERATURE REVIEW

Claflin AB[1], Mitchell CR[2], Liu X[1], Phatak H[3], Mitchell SA[2]
[1]*Pfizer, Inc., New York, NY, USA,* [2]*Abacus International, Bicester, UK,* [3]*Bristol-Myers Squibb Company, Princeton, NJ, USA*

OBJECTIVES: To conduct a literature review on the economic burden of venous thromboembolism (VTE) (encompassing deep vein thrombosis (DVT) and pulmonary embolism (PE)) and related complications. **METHODS:** Eligible English-language studies published post-1990 were identified from electronic databases (Medline, EMBASE and Cochrane Library: accessed December 2012) and conference proceedings with no restriction on geographical location or patient population. All costs are reported in US$ adjusted to 2013 levels. **RESULTS:** Twenty-nine studies met eligibility criteria: United States (n=17), Canada (n=2), Australia (n=1), South America (n=1) and Europe (n=8). The estimated annual cost of VTE treatment is in excess of $2 billion in the USA and Europe and $153 million in Australia. This figure rises to $15.6–$34.8 billion in the US and to $1.78 billion in Australia on inclusion of complications, productivity loss and other societal costs. The cost of treating PE per patient ($12,567-$20,488) is higher than that of treating DVT ($2,912-$13,299). Hospitalisation is the main cost driver for VTE treatment, accounting for 56%-89% of all treatment costs. For patients with cancer, costs were 30-50% higher for those with VTE compared with those without VTE. VTE-related complications incur additional costs including: bleeding (up to $23,963 per patient with a major bleed); recurrent VTE (up to $18,122 per patient); post-thrombotic syndrome (increase of up to 75% in treatment cost); chronic thromboembolic pulmonary hypertension (up to $6,708 per patient); and heparin-induced thrombocytopenia (up to $18,779 per patient). **CONCLUSIONS:** Incident VTE events and related complications are associated with significant economic burden across several patient populations. Treating PE may cost up to five times more than treating DVT, with hospitalisation reported as the major cost driver of VTE treatment. Effective and convenient therapies associated with both a reduced incidence of bleeding and complications are required to further reduce the cost burden associated with VTE.

PCV45

PHARMACOECONOMIC ASPECTS OF ACTOVEGIN AND SOLCOSERYL IN THE TREATMENT OF RUSSIAN PATIENTS WITH ACUTE CEREBROVASCULAR ACCIDENTS

Ryazhenov VV[1], Gorokhova SG[1], Emchenko IV[1], Matveev NV[2]
[1]*I.M. Sechenov First Moscow State Medical University, Moscow, Russia,* [2]*N.I. Pirogov Russian National Research Medical University, Moscow, Russia*

OBJECTIVES: To assess the cost-effectiveness of actovegin and solcoseryl in the treatment of Russian patients with acute ischemic stroke and predict potential budget impact of the implementation of actovegin in routine clinical practice. **METHODS:** The pharmacoeconomic model was developed based on the data from Russian clinical trial performed by A. Fedin et al. (2000). Two groups of patients (100 persons each) hospitalized with acute ischemic stroke were included in the model. The first group of patients received conventional therapy + actovegin and the second group received conventional therapy + solcoseryl. Based on the reported by A. Fedin et al. time-dependent mortality reduction in actovegin-treated patients (mortality rate was 7% in patients started actovegin within the first 6 hours after stroke onset, 10% – in those started actovegin within the first 24 hours, 14% – in those started actovegin after more than 24 hours, and it was much higher in the control group – 21%) cost-effectiveness ratios (CERs) and indicator of economic rationality of costs of previous periods (IRPP) were calculated and compared. **RESULTS:** Estimated CERs varied from 46,348.82 to 50,121.40 RUB per one survivor in the actovegin group and from 50,900.56 to 53,585.17 RUB per one survivor in the solcoseryl group. Inefficient expenditures (IRPP) varied from 301,730.83 RUB to 603,461.67 RUB in the actovegin group, and were 873,453.57 RUB in the solcoseryl group. **CONCLUSIONS:** The study has demonstrated the preferred cost-effectiveness profile of actovegin as compared to solcoseryl in patients with acute ischemic stroke.

PCV46

PHARMACOECONOMIC BENEFITS OF CITICOLINE IN THE TREATMENT OF ACUTE ISCHEMIC STROKE IN RUSSIA

Ryazhenov VV, Gorokhova SG
I.M. Sechenov First Moscow State Medical University, Moscow, Russia

OBJECTIVES: To assess the cost-effectiveness of citicoline in the treatment of Russian patients with acute ischemic stroke and identify potential budget impact of the implementation of citicoline in routine clinical practice. **METHODS:** The pharmacoeconomic model was developed based on the data of meta-analysis performed by A. Davalos et al. (2002). Two groups of 100 patients each were included in the model: the first group of patients received conventional therapy and the second group (active treatment group) additionally received citicoline. It was assumed that citicoline was given to patients in the active treatment group in the following way: during the first