

cost-effectiveness of surgery, endothermal ablation (ETA), ultrasound guided foam sclerotherapy (UGFS) and compression stockings (CS). The analysis was based on a Markov decision model, which was developed in consultation with members of the NICE guideline development group (GDG). The model had a five year time horizon, and took the perspective of the UK National Health Service. Clinical inputs were based on a network meta-analysis (NMA), informed by a systematic review of the clinical literature. Outcomes were expressed as costs and quality adjusted life years (QALYs). **RESULTS:** All interventional treatments were found to be cost-effective compared to CS at a cost-effectiveness threshold of £20,000 per QALY gained. ETA was found to be the most cost-effective strategy overall, with an incremental cost-effectiveness ratio of £3,161 per QALY gained compared to UGFS. Surgery and CS were dominated by ETA. **CONCLUSIONS:** Interventional treatment for VV is cost-effective in the UK NHS. Specifically, based on current data, ETA is the most cost-effective treatment in people for whom it is suitable. The results of this research were used to inform recommendations within the NICE guideline on VV. Funding: This work was undertaken by the National Clinical Guideline Centre, which received funding from the National Institute for Health and Clinical Excellence (NICE). The views expressed in this publication are those of the authors and not necessarily of the institute.

PCV95

THE COST-EFFECTIVENESS OF DABIGATRAN ETEXILATE COMPARED WITH RIVAROXABAN IN THE TREATMENT OF ACUTE VENOUS THROMBOEMBOLISM IN THE UK

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OBJECTIVES: Venous thromboembolism (VTE) including deep vein thrombosis (DVT) and pulmonary embolism (PE) is a common cardiovascular disorder. Acute VTE has been traditionally managed with short course parenteral anticoagulation followed by 3–6 months of a vitamin-K antagonist. Novel oral anticoagulants do not require routine coagulation monitoring and dose adjustment, thus potentially providing an alternative treatment option. The cost-effectiveness of dabigatran vs. rivaroxaban over a 6 months treatment course in the UK health care setting was evaluated in this research. **METHODS:** A life-time Markov model was developed, encompassing recurrent VTE events and VTE-related deaths, and the most common adverse events during anticoagulation therapy: major or clinically relevant bleeds (MCRB). The model was populated with data from pooled RE-COVER and RE-COVER II dabigatran trials and the 6 months treatment duration subgroup of the rivaroxaban EINSTEIN-DVT and EINSTEIN-PE trials. Long-term consequences of VTE were considered. Costs were analysed from the NHS and Public Social Services perspectives. Health outcomes were assessed in quality-adjusted life years (QALY). Utility values for modelled health states were EQ-5D data from RE-COVER studies, and published data. Probabilistic sensitivity analyses (PSA) were undertaken. **RESULTS:** In patients with index PE, 6 months treatment with dabigatran dominated treatment with rivaroxaban projecting less recurrent VTE and less MCRB at lower costs. Dabigatran was likely to remain cost-effective in 70% of cases at a threshold used in the UK of £30,000/QALY gained. Dabigatran continued to dominate treatment with rivaroxaban in patients with index DVT, projecting less non-fatal PE, less intra-cranial haemorrhages and less clinically relevant bleeds, but more recurrent DVT, with 68% likelihood of remaining cost-effective. In the pooled DVT/PE group, dabigatran dominated treatment with rivaroxaban and was 62% likely to remain cost-effective. **CONCLUSIONS:** Dabigatran is less costly and more effective than rivaroxaban when administered for 6 months after index PE, index DVT or both.

PCV96

THE COST-EFFECTIVENESS OF DABIGATRAN ETEXILATE COMPARED WITH WARFARIN AND RIVAROXABAN IN THE TREATMENT OF ACUTE PULMONARY EMBOLISM IN THE UK

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OBJECTIVES: This economic evaluation aimed to assess the cost-effectiveness of dabigatran etexilate for six months of treatment for acute pulmonary embolism (PE) compared with warfarin and rivaroxaban in the UK health care setting. **METHODS:** A Markov state-transition cohort model was used to project the lifetime recurrence of PE and occurrence of deep vein thrombosis (DVT) in patients with initial acute PE. The incidence of recurrent venous thromboembolism (rVTE) was based on the relevant study endpoints of RE-COVER and RE-COVER II trials comparing dabigatran with warfarin, and the EINSTEIN-PE study for rivaroxaban. Intervention-specific probabilities of events within the composite efficacy endpoint and within the composite safety endpoint of major or clinically relevant bleeding (MCRB) were sourced from the very same randomised trials. Beyond the data from clinical studies, the probability of rVTE was sourced from the published literature. Long-term consequences of VTE were considered, namely chronic thromboembolic-induced pulmonary hypertension and post-thrombotic syndrome. The perspective on costs was that of the NHS and Public Social Services. Health outcomes were assessed in quality-adjusted life years (QALY). Utility values relevant to events and health states were EQ-5D data from RE-COVER studies, and published literature. Probabilistic sensitivity analyses (PSA) were undertaken. **RESULTS:** Compared with warfarin, dabigatran projected similar number of rVTE, but was associated with less MCRB. The expected lifetime incremental cost-effectiveness ratios (ICERs) were £2,004/life years (LYs) and £1,285/QALYs. PSA showed 84% likelihood for dabigatran to remain cost-effective given a willingness-to-pay of £30,000/QALY. When compared with rivaroxaban, treatment with dabigatran was projected dominant, Dabigatran projected less rVTE, less intracranial haemorrhages and clinical relevant non-major bleeds, but was associated with a higher risk of major bleeds. PSA showed 66% likelihood for dabigatran to remain

cost-effective over rivaroxaban. **CONCLUSIONS:** In patients treated for acute pulmonary embolism, dabigatran is a cost-effective alternative compared with both warfarin and rivaroxaban.

PCV97

COST-EFFECTIVENESS OF APIXABAN COMPARED TO WARFARIN AND ASPIRIN IN PATIENTS WITH NON-VALVULAR ATRIAL FIBRILLATION (NVAf) IN THE RUSSIAN FEDERATION

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OBJECTIVES: To evaluate cost-effectiveness of the novel oral anticoagulant apixaban compared to warfarin and aspirin in patients with NVAf from the Russian Federation national health care system perspective. **METHODS:** Cost-effectiveness analysis was based on a Markov model that allowed estimation of the incremental cost-effectiveness ratio (ICER) for apixaban compared to warfarin and aspirin over lifetime horizon in vitamin K antagonists (VKA) suitable and VKA unsuitable patients with NVAf, respectively. The model enclosed cardiovascular event rates derived from the randomized clinical trials: ARISTOTLE and AVERROES. The following cardiovascular events were considered: ischemic and hemorrhagic stroke, intracranial hemorrhage, systemic embolism, other major bleeds, clinically relevant non-major bleeds, myocardial infarction and cardiovascular hospitalizations. Characteristics of the baseline patients' cohort including quality of INR control corresponded to the local population. Direct medical costs were determined based on the rates of the compulsory national medical insurance system. The price of the antithrombotic drugs was taken as a weighted average tender price in 2013. Cost-effectiveness threshold was set at 1.4 million rubles per quality-adjusted life year (QALY) gained and corresponded to the three times GDP per capita in the Russian Federation in 2013. One-way sensitivity analyses were undertaken to examine the effects of model drivers. **RESULTS:** In the base case analysis it was demonstrated that apixaban compared to warfarin and aspirin provided additional 0.187 and 0.214 QALYs, respectively. With that estimated ICER for apixaban compared to warfarin and aspirin was 603.92 and 473.02 thousands rubles per QALY gained, respectively. Sensitivity analysis indicated that results were robust over explored range of inputs. **CONCLUSIONS:** According to the results of the modeling study apixaban may be considered as a cost-effective alternative to warfarin in VKA suitable patients and as a cost-effective alternative to aspirin in VKA unsuitable patients for NVAf treatment from the Russian Federation national health care system perspective.

PCV98

THE COST-EFFECTIVENESS OF DABIGATRAN ETEXILATE COMPARED WITH WARFARIN IN THE TREATMENT AND SECONDARY PREVENTION OF ACUTE VENOUS THROMBOEMBOLISM IN THE UK

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OBJECTIVES: This economic evaluation aimed to assess the cost-effectiveness of dabigatran compared with warfarin, in the treatment and secondary prevention of acute venous thromboembolism (VTE) comprising deep vein thrombosis (DVT) and pulmonary embolism (PE), in the UK health care setting, based on safety and efficacy data collected during pivotal phase III trials. **METHODS:** A life-time Markov state-transition cohort model was developed around the two primary composite endpoints in the pivotal trials: recurrent VTE and VTE-related death (rVTE), and major or clinically relevant bleeding (MCRB). Intervention-specific probabilities of events within the composite endpoint rVTE (recurrent DVT; recurrent PE) and the composite endpoint MCRB (intracranial haemorrhage; other major bleeds; non-major bleeds) were sourced from the pivotal trials. Beyond the trials follow-up period, the probability of rVTE was sourced from the literature. Long-term consequences of VTE were considered, namely chronic thromboembolic pulmonary hypertension and post-thrombotic syndrome. The perspective on costs was that of the NHS and Public Social Services. Health outcomes were assessed in quality-adjusted life years (QALY). Utility values for health states and events were EQ-5D data collected within the clinical trials, and the published literature. Probabilistic sensitivity analyses (PSA) were undertaken. **RESULTS:** In patients with index DVT, the estimated incremental cost-effectiveness ratio (ICER) of treatment with dabigatran compared with warfarin was £614 per QALY gained; in patients with index PE, the ICER was £1,285/QALY; in the pooled DVT/PE group, the ICER was £862/QALY. In the treatment followed by secondary prevention analysis, ICER was £8,319/QALY. PSA suggested that the probability of dabigatran being cost-effective at a threshold of £30,000/QALY was 90%, 81% and 94% in acute treatment and 96% in secondary prevention respectively. **CONCLUSIONS:** In a UK setting, dabigatran appears to be a cost-effective option for treatment and secondary prevention of VTE in patients with acute DVT and acute PE compared with warfarin.

PCV99

ECONOMIC EVALUATION OF VALSARTAN VERSUS OLMESARTAN ADDITION TO AMLODIPINE AND HYDROCHLOROTHIAZIDE SINGLE-PILL TRIPLE ANTIHYPERTENSIVE THERAPY

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OBJECTIVES: The aim of the study was to compare the cost-utility of the two single-pill triple combination antihypertensive therapies available in the Greek market for patients with moderate to severe hypertension; the valsartan (V) against the olmesartan (O) combination with amlodipine (A) and hydrochlorothiazide (H). **METHODS:** A Markov model with eight health states was constructed. The short-