as the number of symptomatic arterial disease locations increases. A cost-utility analysis was undertaken comparing two years of clopidogrel treatment with aspirin treatment for patients with a previous history of MI, who then sustain an IS or a peripheral arterial disease (PAD) event. These patients are referred to as ‘high-risk’. METHODS: A model was constructed to simulate hypothetical ‘high-risk’ patients. The time horizon was that of patient lifetime with only direct medical costs considered. Health states included were vascular death, non-fatal IS events and non-fatal MI events. The risk of future events in the ‘high-risk’ group compared with patients who had sustained a single event (MI, IS or PAD) was calculated from the CAPRIE trial and showed an 81% increase. This ratio was applied to previously published risks of vascular death, non-fatal IS and non-fatal MI for UK patients with a single event to calculate the event rates for ‘high-risk’ patients. The relative risks (and 95% confidence intervals) of clopidogrel compared with aspirin in ‘high-risk’ patients in the CAPRIE trial were 0.87 (0.63–1.19), 0.83 (0.60–1.15) and 0.53 (0.32–0.86) for vascular death, non-fatal IS and non-fatal MI events respectively. Costs and utilities associated with events were taken from literature reviews and were discounted at 3.5% per annum. Probabilistic sensitivity analyses were undertaken. RESULTS: The mean cost per QALY for clopidogrel compared with aspirin was $5443 (95% confidence interval $2332 to $dominated). The probability of the cost per QALY being below $20,000, a significant threshold for cost-effectiveness in the UK, was 79%. CONCLUSION: The model suggests that, in patients with a previous MI event and a subsequent IS or PAD event, clopidogrel can be considered cost-effective compared with aspirin in terms of current UK thresholds.

PCV31
COST-EFFECTIVENESS OF DIFFERENT STRATEGIES FOR DIAGNOSIS OF DEEP VEIN THROMBOSIS
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OBJECTIVE: Proper diagnosis of Deep Vein Thrombosis (DVT) at the earliest time is very important so that appropriate therapy can be initiated. Various diagnostic tests have been developed for DVT, but most of them have poor sensitivity and specificity. Due to the above issues, it is very important that diagnosis strategies be developed which are cost-effective. METHODS: Cost-effectiveness was analyzed using a decision model from TreeAge Pro Suite 2007 software. Outcomes considered were costs, adverse events and quality adjusted life years (QALYs). Probabilities were calculated using Bayes’ revision method that utilized sensitivity and specificity of the diagnostic tests along with the pretest probability of developing the disease. Quality of life and costs data were pooled from literature reviews. QALYs were calculated using life expectancy tables. Costs in pounds were converted to US dollars and adjusted through use of Consumer Price Index data from Bureau of Labor Statistics. RESULTS: With a cost-effectiveness ratio of $32,4995 per QALY, the following strategy dominated alternative strategies—Perform venography if D-dimer test is positive. Otherwise, if D-dimer test is negative then no treatment is given. If venography shows abnormal results, treatment is given otherwise for normal results, no treatment is given. Sensitivity analysis showed that this strategy remained cost-effective even when all costs were varied by 25%. The model results were affected by the sensitivity of the diagnostic tests. CONCLUSION: Based on this analysis, it would be cost-effective if symptomatic patients are diagnosed with the strategy after classifying them according to Wells score. Further research needs to be done to see if cost of venography is offset by decrease in hospitalization of those who later develop severe form of DVT. Health care providers should consider patient population distribution among the risk groups defined by Wells score before generalizing the finding.

PCV32
COST-EFFECTIVENESS OF CLINICAL PHARMACY SERVICES ON HYPERLIPIDAEMIC MANAGEMENT IN A PUBLIC HOSPITAL OF HONG KONG
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OBJECTIVE: This study was aimed to evaluate the economic benefits of clinical pharmacy service in hyperlipidaemic management in accordance to the ATP III guidelines. METHODS: A clinical pharmacy service was developed at the lipid clinic of Prince of Wales Hospital (PWH) between October 2003 and October 2007. In the intervention group, patients attended educational visits conducted by a clinical pharmacist. Medication compliance and the proper use of drugs were assessed. Monthly telephone follow-ups were made to check on the progress of patients. The time spent by the pharmacist was recorded. In the control group, patients received usual medical care with no pharmacist intervention. RESULTS: A total of 300 patients were recruited (150 in the intervention group and 150 in the control group). Intervention group achieved 23.6%, 15.3%, and 22.3% mean reduction in LDL-C, total cholesterol and triglyceride levels, respectively, compared with 3.7%, 5.2%, and 2.7% in the control group. A sustained reduction in total cholesterol of 1% is associated with a 2–3% reduction in CHD risk. Pharmacist conducted mean of 3.34 + 0.7 educational visits and 16.3 + 3.3 telephone follow-up calls. The overall time spent was 3.08 minutes per patient per week. The average monthly salary of a hospital pharmacist was HK$30,000 (HK$7.8 = US$1). In previously published data, 0.39 patients per year at the PWH lipid clinic experienced acute myocardial infarction (AMI) and required HK$28,800 medical cost annually. Clinical pharmacy service reduced the CHD risk of these patients and prevented the development of an AMI, providing a potential cost saving of HK$28,600 (which was 99% cost reduction) per patient per year at PWH. (Estimated cost of pharmacist to manage 0.39 patients per year is HK$182.18). CONCLUSION: Clinical pharmacy service is potentially a cost-effective way to improve the management of hyperlipidaemia alongside with routine physician care.

PCV33
LONG-TERM REDUCTION OF CARDIOVASCULAR EVENTS AND COST-EFFECTIVENESS OF DIFFERENT STATINS AND DOSES IN MEXICO
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OBJECTIVE: To assess long-term reduction of cardiovascular (CV) events and cost-effectiveness of the use of rosuvastatin (RSV), atorvastatin (ATV), simvastatin (SIM) and pravastatin (PRA) in Mexican patients over 55 years old. METHODS: Efficacy data from STELLAR clinical trial (total cholesterol -TC-, LDL-C; HDL-C, triglycerides -TG-) was used as input to the model. Based on Framingham risk equations, 4 gender/risk
calculated for aliskiren, which is well below the willingness-to-pay threshold of the UK of £30,000 per QALY gained. Sensitivity analysis where the clinical benefit of aliskiren was extended beyond UACR >1900 μg/g, proved to be a cost saving strategy. CONCLUSION: Aliskiren would be considered cost-effective in the UK setting when added to losartan therapy due to the additional renal protection provided and a reduced incidence of ESRD.

GADOFSVESET IN THE MANAGEMENT OF PERIPHERAL ARTERIAL OCCLUSIVE DISEASE IN CANADA—A MODEL APPROACH FOCUSING ON DIAGNOSTIC CONFIDENCE
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OBJECTIVE: To investigate the cost-effectiveness of a diagnostic imaging strategy starting with magnetic resonance angiography (MRA) enhanced with a blood pool agent versus strategies starting with either MRA enhanced with conventional extracellular agents or standard-DSA in severe peripheral arterial occlusive disease (PAOD) in Canada. METHODS: A microsimulation model focusing on “diagnostic confidence” instead of “diagnostic accuracy”, built by Kienbaum et al. (submitted for publication) for the European perspective was adapted to compare a strategy with initial MRA with Gadofosveset to strategies with either initial MRA with conventional extracellular contrast media (standard-MRA) or a standard digital subtraction angiography (standard-DSA) in the work-up of severe PAOD (critical limb ischemia) in the Canadian setting. The model allows evaluating aggregated mean costs per initial diagnostic modality as well as incremental costs per quality-adjusted life year (QALY) gained. Both efficacy and utility data were derived from the European analysis. Cost data were calculated from the payer perspective and estimated by the ‘Program for the Assessment of Technology in Health’ (PATH) at McMaster University. RESULTS: The model simulation predicts an equivalent utility score for all alternatives considered. From the payer perspective, the mean overall cost of the Gadofosveset-MRA strategy amount to $7814. In contrast, aggregated costs with either standard-MRA or -DSA reach $8637 and $9842, respectively. Thus, an imaging strategy with initial Gadofosveset-MRA is less costly than strategies initially using standard-MRA or -DSA. With regard to cost-effectiveness the additional costs per QALY gained by standard-MRA versus Gadofosveset-MRA amount to about $117,000 and about $178,000 for standard-DSA. The model was robust regarding probabilistic variations of all parameters. CONCLUSION: From the payer perspective in Canada, an imaging strategy starting with Gadofosveset-MRA represents a cost-effective option for the diagnostic work-up of severe PAOD (critical limb ischemia) compared to strategies with either standard-MRA or -DSA.

THE COST-EFFECTIVENESS OF ALISKIREN AS ADD ON TO LOSARTAN AND OPTIMAL ANTIHYPERTENSIVE THERAPY IN PATIENTS WITH TYPE 2 DIABETES, HYPERTENSION AND NEPHROPATHY IN THE UNITED KINGDOM SETTING
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OBJECTIVE: AVOID (Aliskiren in the Evaluation of Proteinuria in Diabetes) was a multicentre, randomised, double-blind, six-month study designed to assess the effect of adding aliskiren, an oral direct renin inhibitor, to losartan and optimal antihypertensive therapy (excluding ACE inhibitors), on the reduction in urinary albumin to creatinine ratio (UACR) in patients with hypertension, type 2 diabetes, and nephropathy. A cost-effectiveness model was developed aiming to estimate the progression to end-stage renal disease (ESRD) and to project the associated costs and clinical outcomes of aliskiren in the UK setting. METHODS: A previously published Markov model of diabetic nephropathy and ESRD was adapted to incorporate treatment effects from AVOID, where aliskiren reduced mean UACR versus placebo by 20% (p = 0.0009). Transition probabilities from AVOID were used until patients reached UACR >1,900 μg/g, with probabilities from the Irbesartan in Diabetic Nephropathy Trial used thereafter. Direct medical costs were based on UK pharmacy costs and published sources. Annual discount rates of 3.5% were applied over the 20-year time horizon. RESULTS: Short-term therapy benefits associated with aliskiren were projected to increase life expectancy by 0.0983 years (7.9175 ± 0.0434 versus 7.8192 ± 0.0369 years), improve quality-adjusted life expectancy by 0.0878 quality-adjusted life years (QALYs) (5.3038 ± 0.0444 versus 5.2160 ± 0.0391 QALYs) and reduce the cumulative incidence of ESRD by 2.51 percent (19.52% versus 22.03%) compared to placebo. An incremental cost-effectiveness ratio of £12,073 per QALY gained was calculated for aliskiren, which is well below the willingness-to-pay threshold of the UK of £30,000 per QALY gained. Sensitivity analysis where the clinical benefit of aliskiren was extended beyond UACR >1900 μg/g, proved to be a cost saving strategy. CONCLUSION: Aliskiren would be considered cost-effective in the UK setting when added to losartan therapy due to the additional renal protection provided and a reduced incidence of ESRD.