ity analyses were performed. RESULTS: Compared to standard treatment, cinacalcet incurs average additional lifetime costs of £21,167 per person and incurs an additional 0.34 quality adjusted life years, resulting in an incremental cost-effectiveness ratio of £61,890/QALY. This figure is beyond current UK willingness-to-pay thresholds. Probabilistic sensitivity analysis showed that at a threshold of £30,000/QALY there was only a 0.5% probability that cinacalcet could be considered cost-effective. CONCLUSION: Cinacalcet can reduce levels of serum biomarkers in the treatment for people with SHPT, however our model suggest that the long term clinical impact of this is small. Unless drug costs are considerably reduced, it is unlikely to be considered cost-effective in the UK setting.

PUK15
MODELLING COST-EFFECTIVENESS USING A DYNAMIC PRICE PATH WITH GENERIC SUBSTITUTION SCENARIOS: COST-EFFECTIVENESS OF CINACALCET IN UK PATIENTS WITH END-STAGE RENAL DISEASE (ESRD) ON HEMODIALYSIS
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OBJECTIVES: To evaluate the effect of patent expiry and subsequent market liberalization, with generic substitution and price decline, on CE ratios of cinacalcet in patients with ESRD on dialysis. METHODS: Cinacalcet plus standard of care was compared to standard of care alone in the prevention of complications associated with uncontrolled mineral metabolism in patients with ESRD in the UK (National Health Service). Relative reductions (HRR; 95% CI) in the rates of fractures (0.46; 0.22–0.95), cardiovascular hospitalizations (0.61; 0.43–0.86), parathyroidectomy (0.07; 0.01–0.55) and all-cause mortality (0.81; 0.45–1.45), as observed in the pooled analysis of phase 3 trials in 1184 patients were used to build a decision analysis model. CE ratios of cinacalcet (GBP0.145 per mg, 71.6 mg/day) were estimated over the lifetime of a 55-year old patient with ESRD, assuming UK mortality rates and national tariffs for the diagnosis related group of each complication. Combinations of price decline and market substitution upon generic market entry were modeled to start in 2015. CE ratios (2005 GBP per QALY) were calculated for ten cohorts of 55-year olds, starting in 2006. A discount rate of 3.5% was used for both costs and clinical benefits; all CE-ratios were discounted to the year 2006. RESULTS: Baseline (no patent expiry) CE ratio of cinacalcet was GBP35,600 per QALY gained. CE ratios declined over time as a function of generic discount and market share. CONCLUSIONS: CE ratios decline over time as a function of patient-expiry and subsequent market liberalization. CE calculations should account for the likely market dynamics associated with time-limited intellectual property rights. Market-adjusted CE ratios may influence funding decisions contingent upon predetermined thresholds.

PUK16
COST-EFFECTIVENESS ANALYSIS OF SOLIFENACIN FLEXIBLE DOsing FOR THE RELIEF OF OAB SYMPTOMS IN FOUR NORDIC COUNTRIES
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OBJECTIVE: The objective was to analyse the cost-effectiveness of solifenacin succinate flexible dosing for the relief of overactive bladder symptoms (OAB) such as urinary frequency and urgency with or without incontinence in Norway, Finland, Sweden and Denmark. METHODS: A decision analytic model was used to simulate the results for a group of patients with OAB. The model was built with a 1 year time horizon and compared the cost and effectiveness of solifenacin flexible dosing (5 mg and 10 mg) vs. tolterodine 4 mg SR and placebo. The analysis was based on two large randomised controlled trials. Resource-use was based on clinical guidelines in the Nordic countries as well as published literature. Pad use was collected prospectively in the trials. Unit costs were obtained from official sources in each of the Nordic countries. Medication, treatment costs and indirect costs were included in the analysis. Effectiveness was measured as a reduction in OAB symptoms (urge incontinence episodes, incontinence episodes, urgency episodes and micturitions) and quality-adjusted life years (QALYs). RESULTS: For almost all effectiveness parameters, solifenacin flexible dosing was significantly more effective compared to tolterodine 4 mg SR and placebo. Moreover, solifenacin flexible dosing was less costly compared to tolterodine 4 mg in all Nordic countries (dominant strategy). Compared to placebo, solifenacin was also considered a cost-effective treatment strategy, e.g. with a cost per QALY gained of €27,000 in Sweden. An analysis using solifenacin split data for patients taking 5 mg and 10 mg compared to tolterodine 4 mg SR also showed, that solifenacin was a cost-effective treatment strategy. CONCLUSION: Solifenacin flexible dosing is a cost-effective treatment strategy for patients with OAB in the Nordic countries. A sensitivity analysis using solifenacin split data supported this conclusion, which revealed that the results were robust.

PUK17
USE OF SIMULATION TO CAPTURE THE MULTIFACTORIAL ASPECTS OF RENAL DISEASE
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OBJECTIVES: To demonstrate the need for simulation modeling to account for the multifactorial aspects and interactions of factors intrinsic to estimating the cost-effectiveness of treatment strategies in end-stage renal disease (ESRD). A model of hyperphosphataemia treatment was built to predict long-term morbidity, mortality and cost-effectiveness of sevelamer relative to calcium based binders. METHODS: A discrete event simulation (DES) was developed based on a published model that predicts outcomes in dialysis patients through several equations using coronary artery calcification scores. The new model utilizes data and regression equations from two trials comparing outcomes of sevelamer and calcium treatments, one among incident dialysis patients as well as the Dialysis Continued Outcomes Revisited (DCOR), to predict morbidity and mortality directly based on calcium based binders. RESULTS: Simulations were run over a lifetime comparing treatment with sevelamer to calcium-based phosphate binders. A set of 10 replications takes less than one minute to simulate 10,000 patients. Events are output by type; incremental cost per life year gained and cost per event avoided are also generated with the corresponding cost-effectiveness acceptability curves. The model demonstrates that sevelamer reduces hospitalisation and would be predicted to be cost-effective in the long-term. CONCLUSIONS: Discrete event simulation demonstrates the intricacy of factors required to reflect the complicated ESRD pathway, as they provide more flexibility