with comparable costs. Therefore, an incremental cost-effectiveness ratio was calculated. Due to the possibility of declining adherence to drug therapy over time, pelvic floor physical therapy can be considered as the first line treatment for UJII.

**Puk17**

**THE COST IMPLICATIONS OF RENAL DENERVATION THERAPY AT THE HOSPITAL LEVEL IN THE UNITED KINGDOM**

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**OBJECTIVES:** Hypertension is a chronic medical condition and an important risk factor in several fatal and debilitating diseases. NICE estimates the cost of pharmacologic intervention in the UK for hypertension at £690.8 million. Resistant hypertension will be when pharmacotherapy remains uncontrolled despite antihypertensive treatment. Renal denervation is a new procedure aimed at reducing blood pressure in resistant hypertension patients by decreasing efferent sympathetic signalling to the kidney. The aim of this research was to evaluate the economic impact of renal denervation and to provide a costing model for the procedure.

**METHODS:** A targeted review of costing data was performed and information gathered from renal denervation experts to establish relevant procedure costs. Once specific health resource use was identified a costing model was constructed. A further search of NHS costing documents, academic literature and expert consultation provided OBF figures for each cost and identified those that were time dependent (e.g. hourly staff costs).

**RESULTS:** The required input HRU was identified as staff costs per hour including surgery costs, nurse costs, technician costs and anaesthesiologist costs, all of which vary with procedure time depending on the device used (ranging from 20-60 minutes). Catheter lab overhead costs and recovery costs (bed days) were also identified. Total HRU costs vary between £592.02 and £991.62 (for 20 and 60 minute procedure times respectively). An additional in-hospital recovery day adds £880. Equipment costs were for 12 items including indications to catheter lab costs. Total costs £810.71 plus the cost of the renal denervation therapy device.

**CONCLUSIONS:** It is essential the the procedure is estimated to fully inform payers and health care providers. HRU was identified as staff costs per hour including surgeon costs, nurse costs, technician costs and anaesthesiology costs, all of which vary with procedure time.

**Puk18**

**LONG-TERM COSTS AND SURVIVAL ASSOCIATED WITH IMMUNOSUPPRESSANT FOLLOWING LIVER TRANSPLANTATION: A MARKOV MODEL**

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**OBJECTIVES:** Despite significant improvements in survival and quality of life (QoL) of liver transplant recipients (LTRs) patients remain at risk from complications related to disease recurrence and long-term use of immunosuppressant (IS). The objective was to assess cost, survival, and QoL outcomes of LTR recipients and the impact of renal dysfunction on LTR outcomes.

**METHODS:** A de novo cohort Markov model was developed to predict long-term outcomes post LTx along two independent pathways: 1) liver-related (acute rejection, hepatocellular carcinoma, hepatitis C (HCV) recurrence, graft loss), 2) kidney-related (chronic kidney disease, dialysis, renal transplantation) and death. All patients, stratified by liver diagnoses, entered the model at time of LTx and followed both pathways, allowing for multiple combinations of liver and kidney health states. Costs and utilities were assigned to each pathway and liver and kidney complication costs and utility decrements were added to those accrued in the liver pathway. The lifetime model used an annual cycle length except for the 1st year post LTx (quarterly). Choice of immunosuppressive therapy could impact the risk of acute rejection, change in renal function, and HCV viral load progression rate and were assessed in cost and outcomes. RESULTS: On average, life expectancy post LTx was 13.3 years with 10.2 QALYs. Lifetime cost of managing post LTx recipients was USD 550,000 (excluding LTx procedure costs). Renal complications and utility decrements were added to those accrued in the liver pathway. The lifetime model used an annual cycle length except for the 1st year post LTx (quarterly). Choice of immunosuppressive therapy could impact the risk of acute rejection, change in renal function, and HCV viral load progression rate and were assessed in cost and outcomes. RESULTS: On average, life expectancy post LTx was 13.3 years with 10.2 QALYs. Lifetime cost of managing post LTx recipients was USD 550,000 (excluding LTx procedure costs). Renal complications and utility decrements were added to those accrued in the liver pathway.

**CONCLUSIONS:** The impact of renal dysfunction on LTx outcomes.

**Puk19**

**COST-EFFECTIVENESS OF FESOTHERODINE AND TOLTERODINE FOR THE TREATMENT OF OVERACTIVE BLADDER WITH URGE UINCONINENCE IN SPAIN AND FINLAND**

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**OBJECTIVES:** To assess the economic value of fesoterodine compared to tolterodine for the treatment of overactive bladder (OAB) with urgency urinary incontinence (UUI) in Spain and Finland. ** METHODS:** A decision-analytic Markov model simulated the 52-week costs and quality-adjusted life years (QALYs) of OAB/UI patients initiating treatment with fesoterodine 4mg/day or extended-release (ER) tolterodine treatment responsive bladder (OAB-LUTS) over 5 years and post LTx patients were evaluated at weeks 4, 12, and 24. Patients with < 8 micturitions per 24 hours and ≥ 2 urgency incontinence episodes (UI) per 24 hours were excluded at time of transplant. **RESULTS:** Fesoterodine and ER tolterodine were more cost-effective than placebo in OAB. The cost-effectiveness of fesoterodine compared to placebo was £15,600/QALY in Spain and £11,500/QALY in Finland. The MGN strategy was more expensive compared to tolterodine ER 4 mg (TOL) in the UK. METHODS: A Markov model was developed to simulate the therapeutic management, the changes in symptoms (interruptions and incon tinence episodes and complications) over time. The model was used to predict costs and QALYs over 5 years in cohorts initially treated with MGN or TOL, followed by antimuscarinics in case of lack of efficacy or adverse events. Transition probabilities and EQ-5D utilities were obtained from regression models, estimated from a P3 randomized controlled trial of mirabegron. Costs were evaluated from the UK National Health Service (NHS) perspective and included drug acquisition, physician visits, and adjuvant treatments. Subgroup analyses were performed for previously treated, treatment-naive, incontinent, female and elderly patients. RESULTS: The MGN strategy was more expensive compared to TOL, with a difference of £37.88 per patient, and produced more QALYs (0.009 per patient). The incremental cost-effectiveness ratio (ICER) was estimated at £386/QALY gained. Results of one-way sensitivity analyses showed that in all scenarios, except one (the transition probabilities between symptom levels of micturition for mirabegron), MGN remained cost-effective or was dominant compared to TOL. Key cost-effectiveness drivers included parameters related to efficacy and treatment discontinuation. Based on the probabilistic sensitivity analysis, the probability of MGN being cost-effective against TOL was 89.4% at a threshold of £20,000 per QALY gained. **CONCLUSIONS:** Treatment with mirabegron 50 mg appears to be a cost-effective strategy compared with tolterodine ER 4 mg for the general OAB population and the specified subgroups, from a UK NHS perspective.