of aids, especially due to the lower pad usage. Patients treated with Trospium chloride (€5,409) exhibited the highest costs using the general approach and patients treated with Tolterodine (€2,198) incurred the highest costs using the specific approach. All results were highly significant ($p<0.01$). **CONCLUSIONS:** This study compares the costs of six anticholinergics for the treatment of OAB and incontinence in Germany. OAB patients treated with Propiverine and incontinent patients treated with Solifenacin have shown the lowest additional costs. For both patient groups Tolterodine is associated with the highest additional cost of treatment.

PUK11

COST-EFFECTIVNESS ANALYSIS OF ONCE DAILY VERSUS TWICE DAILY TACROLIMUS IN POST-RENAL TRANSPLANT PATIENTS IN THE CZECH REPUBLIC

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OBJECTIVES: Once daily tacrolimus (OD) revealed better compliance and adherence in post-transplant patients compared to twice daily tacrolimus (BD). Higher adherence on immunosuppressant therapy revealed lower rate of rejection, hence lower consumption of dialysis and re-transplantation. We assessed cost-effectiveness of tacrolimus OD vs. tacrolimus BD in treatment of post-renal transplant patients in 15 year horizon. **METHODS:** We developed a Markov cohort model (using TreAge PRO 2012) with 1-year cycle length with Life-Years-Gained (LYG) as an outcome; the model reflects health insurances' perspective. We used literature derived time-dependent probabilities of transitions among particular health states (incl. mortality). Patients enter the model after successful kidney transplantation. We identified following health states: Graft survive, Acute graft rejection (AR), Post-rejection, Dialysis, Re-transplantation. Patients may Die from each state. Drug acquisition cost of tacrolimus OD was 10% higher compared to BD, other costs of AR (1,799€), dialysis (33,675€) and transplantation (16,631€) were derived by an expert panel and local pricing lists. The costs and outcomes were discounted by 3% rate. We performed One-Way-Sensitivity (OWSA) and Probabilistic-Sensitivity (PSA) analyses using 20% deviation from base-case. **RESULTS:** The model predictability, in term of patients' survival within 15 year horizon, was validated according to mortality data in several kidney transplant patients' registries. The deterministic results in 15 year horizon showed that tacrolimus OD generated costs of 67,457€ (10.714 LYG) and tacrolimus BD 68,316€ (10.581 LYG), tacrolimus BD revealed incremental costs of 859€ and -0.133 LYG. PSA showed 96.7% probability of tacrolimus OD being dominant and 3.3% below defined threshold of 1 GDP/ capita in the Czech Republic. **CONCLUSIONS:** Tacrolimus OD is dominant intervention (lower costs and simultaneously higher outcomes) despite 10% higher acquisition costs compared to tacrolimus BD. OWSA showed that the results were the most sensitive on tacrolimus acquisition cost, compliance rate and cost of dialysis.

PUK12

COST-EFFECTIVENESS OF IMMUNOSUPPRESSIVE REGIMENS IN RENAL TRANSPLANT RECIPIENTS IN GERMANY: A MODEL UPDATE

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OBJECTIVES: Standard of care and use of immunosuppressive drugs in renal transplant recipients have changed in recent years. We provide an updated pharmacoeconomic model which uses state of the art methodological standards in pharmacoeconomics based upon current evidence. To our knowledge this is the first analysis in transplant medicine using a mixed treatment comparison (MTC) analysis. **METHODS:** An established Markov model was updated comparing four currently used immunosuppressive regimens (TR) which reflect real life use in clinical transplant practice not necessarily restricted to an approved label: "Sirolimus + early withdrawal of Ciclosporin + Steroids" (TR1), "Sirolimus-early-transition" (TR2), "Everolimus-early-transition" (TR3) and "Tacrolimus low dose + Mycophenolate mofetil + Steroids" (TR4). Patients could experience nine different states of post-transplant adverse events, discontinue TR or die. Transition probabilities were based on a MTC analysis for a 12 month time horizon. Costs and benefits were modeled from the perspective of the German statutory health insurance (SHI). Robustness of the model was tested in extensive sensitivity analyses. **RESULTS:** "Sirolimus early transition" (TR2) yields the highest life years (LY) (0.987 LY), while generating costs of 17,500 Euro for 12 months, slightly more than TR4 (conservative assumption). TR2 clearly dominates TR 3, a regimen with the second mTOR-inhibitor in market, and TR1, the regimen used in the European registration study, in terms of ICER (incremental cost-effectiveness ratio) in Euro per LY gained for 12 months. Incremental costs of 1,096 Euro for TR2 in comparison to TR4 resulted in an ICER of 548,000 Euro per QALY gained. **CONCLUSIONS:** The early transition to Sirolimus yields favorable results compared to the majority of other regimens investigated in terms of patient survival and ICER per life year gained. The analysis corroborates the feasibility of a MTC approach and reflects crucial outcomes which may support informed clinical decision making.

PUK13

COST-EFFECTIVENESS OF KETOSTERIL TREATMENT IN DIALYSIS PATIENTS

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OBJECTIVES: There are evidences on the favorable nutritional effects of Ketosteril in dialysis. Better quality of life and overall survival is attainable through improved nutritional status, which is also proved in practice. Our aim was to evaluate the cost-effectiveness of Ketodiet in dialysis in comparison with CKD treatment without Ketosteril. A cohort calculation was presented on the basis of representative patient attendance data from the Hungarian National Health Insurance Fund Administration (HNHIFA). Main outcome of the analysis was incremental cost of life years gained (LYG). **METHODS:** HNHIFA database uniquely contains detailed provision data from the whole Hungarian population of 10 million. All financed health care providers use the same report structure and reported data are strictly validated. Our retrospective analyses included data of 2004-2009 for all dialysed patients with chronic kidney disease (ICD code N17-19) as main diagnosis. Altogether 13 615 patients' data were included with a mean follow up of 53 months. Ctree● function of party package in R statistical program was used to determine empirical survival curves for patients treated with and without Ketosteril. Total costs of health care services (in- and outpatient care, labs, diagnostics, drugs, medical aids and sick leave) were taken into consideration. In case of death life years' loss were calculated on the basis of Hungarian life expectancy. Costs and outcomes were discounted with official Hungarian rate of 5%. **RESULTS:** The average total cost per patient was 9 596 € higher for Ketosteril arm (39 883 € vs 30 287 €). On the basis of mortality data we determined lost life years, which showed 0,97 years favour to Ketosteril (7,24 years vs 8,21 years). ICER of 3 509 460 HUF/LYG represents cost-effectiveness of Ketosteril compared to other reimbursed health technologies in Hungary. **CONCLUSIONS:** Ketosteril therapy of dialysis patients could be a cost-effectiveness treatment choice based on real world data analysis of Hungarian patients.

PUK14

COST-EFFECTIVENESS ANALYSIS OF MIRABEGRON VERSUS TOLTERODINE EXTENDED RELEASE IN THE TREATMENT OF PATIENTS WITH OVERACTIVE BLADDER IN THE UNITED STATES

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OBJECTIVES: To assess the cost-effectiveness associated with mirabegron versus tolterodine extended release (ER) for treating overactive bladder (OAB) from a third party payer perspective in the US. **METHODS:** A Markov model was developed to follow a cohort of OAB patients treated with mirabegron versus tolterodine ER for a one-year period. Three health states were defined - normal: number of incontinence (I)=0 and number of micturitions (M)<8; mild-to-moderate: 0<I≤6 and M<16, or I=0 and 8≤ M<16; severe: I>6 and M≥16. Evidence from a 12-week clinical trial, comparing mirabegron 50 mg to tolterodine ER 4 mg, was used to estimate the initial health state distribution, transition probabilities, and discontinuation rates. Only direct costs were considered, including drug costs (2012 USD) and costs for OAB complications (2011 USD), with inputs from ReadyPrice® and published literature. Effectiveness was defined as the proportion of patients in normal state. Results were expressed as the incremental cost per patient in normal state at the end of one-year. A subgroup analysis was conducted for patients who discontinued prior antimuscarinic therapy due to insufficient efficacy at baseline. Univariate and probabilistic sensitivity analyses were performed. **RESULTS:** For a one-year horizon, the incremental cost per patient in normal state associated with mirabegron vs. tolterodine ER was $5,580 (total cost of $4,707 and $4,420 and effectiveness of 17.72% and 12.57% for mirabegron and tolterodine ER respectively) for the total population. For the subgroup, the incremental cost per patient in normal state was $2,734 (total cost of $4,664 and $4,451 and effectiveness of 12.76% and 4.96% for mirabegron and tolterodine ER respectively). Results were robust to the model assumptions and inputs, while drug cost was the main driver of the model. **CONCLUSIONS:** Mirabegron is expected to be a cost-effective option compared to tolterodine ER, particularly in patients who discontinued prior antimuscarinic therapy due to insufficient efficacy.

PUK15

SEVELAMER IN EARLY STAGES NONDIALYSIS-DEPENDENT CHRONIC KIDNEY DISEASE (NDD-CKD) DOMINATES CALCIUM CARBONATE THROUGH REDUCTION OF DEATHS AND HOSPITALIZATIONS

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OBJECTIVES: The INDEPENDENT study showed for the first time a significant reduction in mortality associated with Sevelamer, a phosphate binder, compared to Calcium Carbonate, in stage 3-4 nondialysis-dependent CKD patients. We evaluated the impact on CKD related hospitalizations in order to assess the cost-effectiveness profile from the NHS perspective. **METHODS:** The INDEPENDENT study involved 107 (Sev) and 105 (CaC) patients with a 36 months follow-up. Since few of them started dialysis, we also performed a subgroup secondary analysis on patients remaining dialysis free (76 vs 63). Individual hospitalizations in Nephrology, Cardiology and ICU were recorded as well the overall length of stay over the observation period. Correlated consumption of drugs, such as alpha and beta blockers, ARBs, ACE inhibitors, calcium channels blockers and erythropoietin, was also assessed. For hospitalizations and drugs, DGR tariffs and hospital acquisition cost respectively were used. As effectiveness end-point we considered the number of averted deaths. **RESULTS:** Calcium-treated patients were associated with greater frequencies of admission in all departments, thus generating significantly higher costs. The average savings generated by reduced hospitalizations far exceeded the acquisition cost of Sevelamer. In case of hospitalization, Sevelamer-treated patients showed a substantial reduction in the overall length of stay (-5.9 days, $p=0.012$). Such difference was also present in the secondary subgroup (-5.5 days, $p=0.13$). After 1000 bootstrap sampling, the primary analysis provided a mean cost difference of -€2282 +/− €27 (CI 95%) and mean effectiveness difference of 0.09 +/− 0.006 averted deaths in favor of Sevelamer. Similar figures were present in the secondary subgroup analysis (-€2403 +/− €28 and 0.15 +/− 0.007). Sevelamer