in prescribing multiple drug classes may improve care for men with substan-
tial storage symptoms that have not been adequately addressed by α-blocker
monotherapy.

**PUK5**

**EVALUATING THE ECONOMIC IMPLICATIONS OF NONADHERENCE AND ANTIBODY-MEDIATED REJECTION IN RENAL TRANSPLANT RECIPIENTS: THE ROLE OF ONCE-DAILY, PROLONGED-RELEASE TACROLIMUS IN THE UK SETTING**


**OBJECTIVES:** While short-term kidney graft survival has gradually improved over time, improvements in long-term graft survival have been more modest. One key clinical factor limiting improved long-term outcomes is antibody-mediated rejec-
tion (AbMR). Recent data suggest that AbMR incidence is higher in non-adherent patients. The aim of this study was to model the incidence and economic consequences of graft loss and AbMR with once-daily, prolonged-release (PR) tacrolimus versus twice-daily, immediate-release (IR) tacrolimus in the UK setting. **METHODS:** A combined deci-
sion tree and Markov model was developed to estimate incidence of graft failure, AbMR and mortality in renal transplant recipients taking PR versus IR tacrol-
imus. Underlying rates of graft failure and mortality were derived from UK-specific sources. Proportions of patients adherent to once- and twice-daily tacrolimus were taken from a recent randomized trial. Relative risks of graft failure and AbMR were taken from a separate prospective analysis of 315 patients. Cost data were taken from the British National Formulary and NHS reference costs and reported in 2014 pounds sterling. **RESULTS:** Switching patients from IR to PR tacrolimus would result in projected cost savings of GBP 4,862 per patient over five years, translat-
ing to savings of GBP 486,200 in a hypothetical 100-patient cohort. Mean absolute per-patient cost with PR tacrolimus were projected to be GBP 40,974 versus GBP 45,836 with IR, with the largest saving arising from reduced dialysis costs, fol-
lowed by reduced pharmacy and AbMR treatment costs. **CONCLUSIONS:** Modeling analysis shows that switching from IR to PR tacrolimus in renal transplant recipients was associated with lower pharmacy, dialysis and AbMR treatment costs, with the reduction in AbMR and dialysis costs being driven by improved adherence to PR tacrolimus and the consequent reductions in graft loss and onset of AbMR.

**PUK6**

**ECONOMIC BURDEN OF ANTIBODY MEDIATED REJECTION FOLLOWING KIDNEY TRANSPLANTATION: COMPARATIVE ANALYSIS USING THE PREMIER HOSPITAL DATABASE**

Irish W1,2, Bensie A2,3, Ryan M1,2, Slooje U1, Gunnarsson C1, Marks W1,2

1CTCI Clinical Trial and Consulting Services, Raleigh, NC, USA, 2Axelson Pharmaceuticals Inc, Cambridge, USA, 3CTCI Clinical Trial and Consulting Services, Cincinnati, OH, USA, 4Axelson Pharmaceuticals Inc, Chesnok, CT, USA

**OBJECTIVES:** Antibody mediated rejection (AMR) is a major cause of graft failure following kidney transplantation (KTx). No agents are currently approved for preven-
tion of AMR. Current therapies targeted at preventing and treating AMR have important eco-
nomic implications. Therapies targeted at preventing and treating AMR have important eco-
nomic implications.

**METHODS:** The analysis showed that using PR tacrolimus in place of IR in UK renal transplant recipients treated for AMR would result in cost savings, with the reduction in AbMR and dialysis costs being driven by improved adherence to PR tacrolimus. The aim of this study was to model the incidence and economic consequences of graft loss and AbMR with once-daily, prolonged-release (PR) tacrolimus versus twice-daily, immediate-release (IR) tacrolimus in the UK setting. **METHODS:** A combined decision tree and Markov model was developed to estimate incidence of graft failure, AbMR and mortality in renal transplant recipients taking PR versus IR tacrolimus. Underlying rates of graft failure and mortality were derived from UK-specific sources. Proportions of patients adherent to once- and twice-daily tacrolimus were taken from a recent randomized trial. Relative risks of graft failure and AbMR were taken from a separate prospective analysis of 315 patients. Cost data were taken from the British National Formulary and NHS reference costs and reported in 2014 pounds sterling. **RESULTS:** Switching patients from IR to PR tacrolimus would result in projected cost savings of GBP 4,862 per patient over five years, translat-
ing to savings of GBP 486,200 in a hypothetical 100-patient cohort. Mean absolute per-patient cost with PR tacrolimus were projected to be GBP 40,974 versus GBP 45,836 with IR, with the largest saving arising from reduced dialysis costs, fol-
lowed by reduced pharmacy and AbMR treatment costs. **CONCLUSIONS:** Modeling analysis shows that switching from IR to PR tacrolimus in renal transplant recipients was associated with lower pharmacy, dialysis and AbMR treatment costs, with the reduction in AbMR and dialysis costs being driven by improved adherence to PR tacrolimus and the consequent reductions in graft loss and onset of AbMR.

**PUK7**

**ECONOMIC BURDEN OF HYPERPHOSPHATEMIA IN CHRONIC KIDNEY DISEASE IN CHINA: A REVIEW**

Li X.1, Yang L.1

1Peking University, Beijing, China

**OBJECTIVES:** Hyperphosphatemia in chronic kidney disease is a common com-
plimentary, and the increasing mortality and increased morbidity related to hyperphos-
phate mia in chronic kidney disease and "economic burden" are as the key words to choose articles in PubMed and Chinese journals. At the same time, the data of dialysis patients with CKD stages in 2012 from Beijing, Shanghai, Chengdu, Guangzhou and the databases of national urban basic medical insurance in 2010 are analyzed. **RESULTS:** Economic burden of chronic kidney disease in patients with hyperphosphatemia is divided into direct and indirect costs. The direct eco-
nomic burden includes dialysis treatment and hospital costs, drug costs and car-
diologically complications’ costs. Among them, dialysis treatment and hospital costs (including drug costs), per capita annual economic burden in hemodialysis patients was CNY159722, in patients with peritoneal dialysis for CNY96739, in patients with presence of CVD events, no acute CVD events and patients without CVD showed that the medical costs for three groups of median were CNY38211.9 (11 685.1~3587.8), IOD014 (3 809.0 – 23 241.0) and 13678.6 (455.5 to 995.3). The indirect economic burden included loss of time and property in patients with dialyse patients, per capita annual indirect costs were CNY27532.1. In peritoneal dialys failure, per capita annual indirect costs were CNY96739.6. **CONCLUSIONS:** Economic Burden of chronic kidney dis-
ese patients with hyperphosphatemia is "costatrophic expenses" for the vast majority of the patient’s families.

**PUK8**

**USE OF A FRENCH CLAIMS DATABASE TO ESTIMATE REAL-WORLD TREATMENT COSTS OF BENIGN PROSTATIC HYPERPLASIA**

Guivouille SL1, DiNicola S1, Boutemy E2

1Cedém Strategic Data, Boulogne-Billancourt, France, 2Inferential, Paris, France

**OBJECTIVES:** In France, health insurance coverage is mandatory for all individuals. French National Health Insurance is recorded in the Vitale Card that patients use in every step of their care. Since 2013 this information is available in claims database including for each patient the comprehensive history of his/her health care expen-
ditures. This database can be accessed alone or through a linkage to an electronic medical record database. The objective of this study was to evaluate the usefulness of this newly accessible information in assessing treatment cost of Benign Prostatic Hyperplasia (BPH). **METHODS:** Patients with a first prescription of BPH treatment and enrolled 1 year pre/post index, were identified in a primary care electronic medical record database (CSD longitudinal patients database). Patients’ characteristics and medical history were identified. Healthcare costs, especially related to BPH, were retrieved from the Health Economic Analysis Database and evaluated according to healthcare services: 1) Drugs delivered, both for BPH and for urinary tract infection, 2) Hospitalizations, 3) Hospitalizations for BPH related urinary and reproductive procedures, 4) Medical and surgical procedures, 5) Hospitalizations. All health expenses were assessed from the payer’s perspective. **RESULTS:** A total of 16 893 patients was identified from whom 4 315 (24.5%) were treated with phytotherapeutic and 12758 (75.5%) with allopathic treatments. Medication reimbursed for 66 years, they had hypertension 45.9% had arterial hypertension, 31.6% had diabetes and 16.3% had type 2 diabetes. Total health BPH treatment was averagely about Euros 450 per patient/ per year. **CONCLUSIONS:** Estimating related costs to therapies is an increasingly mandatory exercise for pharma-
caceutical companies. The combination of EMR and claims allows a relevant and accurate analysis of health care costs from the payer’ point of view.

**PUK9**

**“COST OF ILLNESS” ANALYSIS OF CHRONIC KIDNEY DISEASE IN THE ENTIRE POPULATION OF THE RUSSIAN FEDERATION**

Ahlawat R1, Tiwari P1, D’Cruz S2

1National Institute of Pharmaceutical Education and Research (NIPER), S.A.S. Nagar (Mohali), Punjab, India, 2Government Medical College & Hospital, Chandigarh, India

**OBJECTIVES:** To conduct the "cost of illness" analysis of chronic kidney disease (CKD) based on the entire population of the Russian Federation. **METHODS:** Information set was in the public domain. Pharmacoeconomic analysis method "cost of illness" was used. Direct and indirect cost analysis was also performed. **RESULTS:** Analysis of found epidemiological data revealed that, in fact, in the Russian Federation the number of available epidemiological information is on the latter stage. **CONCLUSIONS:** The economic burden of CKD on the entire patient population in the Russian Federation was determined. The total cost for all patients with CKD who are in stages with 1 to 5 in the year were: CKD I – 1157758914 $, CKD II – 1348201524 $, CKD III – 2622796532 $, CKD IV – 218480599 $, CKD V (not receiving renal replacement therapy) – 89038680 $, CKD V (on hemodialysis) - 462938674 $, CKD V (on peritoneal dialysis) - 504072582 $, CKD V (exposed of the kidney transplant) – 79916759 $. Thus, the total economic burden of all stages of CKD in country scale was 683052131 $ per year (1 $ = 66,098). **CONCLUSIONS:** Cost of illness” analysis showed the economic burden of CKD on the entire patient population of the Russian Federation and found that the major portion of the cost appears in the early stages of CKD.