ANALYSIS IN A UK SETTING
THE ECONOMIC IMPACT OF RENAL GRAFT FAILURE: A COST ANALYSIS
OBJECTIVES: To analyze the cost savings after an introduction of the generic version of azathioprine for patients with transplanted kidney. METHODS: Prospective observational study of 121 patients who were transplanted in the UK between 1997 and 2008. The cost analysis was conducted using data from the UK renal registry (2007–2008) and included transplant costs, immunosuppression, dialysis costs, and expenses related to dialysis and transplantation. RESULTS: The average monthly cost of the immunosuppressive therapy was £28,179. The most important cost contributors were dialysis costs, immunosuppression, and resource to treat post-transplant adverse events. CONCLUSIONS: The introduction of the generic version of azathioprine was associated with a significant reduction in the cost of immunosuppression and related costs. The potential cost savings could be quantified from an economic perspective as well as from the viewpoint of the health care system.

A COST EVALUATION OF PERITONEAL DIALYSIS AND HEMODIALYSIS IN THE TREATMENT OF ESRD IN SAO PAULO, BRAZIL
Ferraz MB1, Mendes da Abreu M2, Walker DR1, de Castro Cintra Sesso R1
1Universidade Federal de Sao Paulo, Sao Paulo, Brazil; 2Univerisidade Federal de Sao Carlos, Sao Carlos, SP, Brazil; 3Baxter Healthcare Corporation, McSwain Park, IL, USA
OBJECTIVES: ESRD patient survival is similar for hemodialysis (HD) and peritoneal dialysis (PD). In Brazil, access to dialysis is universal, although the resources consumed and their costs are poorly understood. We compare the resources used for the treatment of patients undergoing HD or PD who are covered by public insurance. METHODS: A one-year prospective study comparing resource use and total costs of prevalent patients treated with HD (n=210) and PD (n=194) was conducted in 5 dialysis units in Sao Paulo, Brazil. Inclusion criteria: ≥18 years of age and clinically stable on chronic dialysis. The study period was April 2007 to February 2008. Data were obtained at baseline, 6 and 12 months using surveys and medical records. Cost categories included hospitalizations, diagnostic and therapeutic procedures, medications, professional fees, transportation, and lost productivity (current homemakers who stopped working due to dialysis). The drop out rate of the patients is not higher and the savings for the health care system are possible.

THE ECONOMIC IMPACT OF RENAL GRAFT FAILURE: A COST ANALYSIS IN A UK SETTING
Sun Y1, Carr K1
1London School of Economics and Political Science, London, UK; 2Bristol-Myers Squibb, Braine-l’Alleud, Belgium
OBJECTIVES: Compared to dialysis, kidney transplantation is a highly cost-effective choice for most patients with ESRD. Post-transplantation, a key objective is to maintain a functioning graft. When graft failure occurs, the majority of patients return to dialysis. The study was performed to assess the cost of renal graft failure in a UK setting. METHODS: A model was built using data from the UK renal registry (2007–2008) to estimate the number of graft failures occurring in the first year after transplantation. Costs for procurement, transplantation, and the treatment of graft failure, were derived from the result of a systematic review. This review adopted an investment perspective—the all the medical resource used from organ procurement to the treatment of graft failure were taken into consideration. RESULTS: In the UK, the cost of renal graft failure was approximately £58,847 when taking account the medical resource used from an investment point of view (including transplantation cost, immunosuppressive medication cost and resource to treat post-transplant adverse events for graft failure). The post-graft failure costs were £28,179. The most important cost contributors are dialysis cost, transplantation cost and post transplantation immunosuppressive medication cost. CONCLUSIONS: Estimating the economic impact of graft loss should take into account the cost of management of patients post graft failure, as well as previous medical investment that is lost with the graft (including costs associated with procurement of the organ and transplantation). Improvements in the management of renal transplant patients are needed to reduce the risk of graft loss and the economic burden of graft failure to the health care system.

INCIDENCE AND COST OF HOSPITALIZATIONS FOR ACUTE URINARY RETENTION ATTRIBUTABLE TO BENIGN PROSTATE HYPERPLASIA IN FRANCE
Costs FE1, Torretton E2, Lafuma A1
1Grenoble INP, Marty-le-ROI, France; 2CEMKA-EVA, Paris, France; 3CEMKA-EVA, Bour-l'aine, France
OBJECTIVES: Acute urinary retention (AUR) is one of the most significant complications of long-term benign prostate hyperplasia (BPH) and often leads to prostate surgery. AUR also represents an important and feared event that has not been quantified from an economic perspective as well as from the viewpoint of BPH patients. METHODS: French hospital information program (PMSI) databases from 2005 to 2008 were used to assess the number of hospitalizations for AUR and their management among men ≥50 years old presented with a diagnosis of BPH. Number of patients concerned and rates of re-hospitalizations and deaths due to AUR were estimated using the linking system of the PMSI. Cost estimation was performed for the year 2008 adopting the Sickness Funds perspective. RESULTS: During the 4-year period, AUR frequency increased to 38,914 hospitalizations (+20.5%, +8.2%, +1.2% compared with 2005, 2006 and 2007, respectively). In 2008, mean length of stay was 5.2 ± 6.9 days and decreased of 6.6% within the study period. Proportion of stays referred by emergency department was 28.8% (14.1%, 20.6%, 25.3% in 2005, 2006 and 2007, respectively). 26,918 males were concerned by at least one AUR (+15.4%, +5.9%, +0.0% compared with 2005, 2006 and 2007, respectively) of whom 32.6% were concerned by a recurrence (28.9%, 30.7%, 31.4% in 2005, 2006 and 2007, respectively). Mean age was 74.1 years (SD:10.4) (stable over the period) and 232 patients (0.9%) deceased during their hospitalization in 2008. Mean cost per patient in 2008 was €2400 (€2663 vs. €4,997 in public and private hospitals, respectively). Global cost of hospitalizations for AUR was estimated at €93.4 million (67.2% in public hospitals). CONCLUSIONS: AUR attributable to complicated BPH globally increased but tend to become stable in 2008. However, proportion of emergency hospitalization and recurrent stays amplified. Despite adequate available therapies, prevention of BPH complications remains suboptimal.

HEALTH CARE COST OF RENAL REPLACEMENT THERAPY IN HUNGARY
Kalo Z1, Kiss Z2, Gerendy P1, Nagyannos L1, Vekol Z1
1Eötvös Loránd University, Budapest, Hungary; 2National Health Insurance Fund Administration, Budapest, Hungary
OBJECTIVES: Annual cost of renal replacement therapy is an important benchmark for public reimbursement of all health care services. The last report was presented more than 10 years ago in Hungary, so our objective was to calculate the current annual cost of waiting listed dialysis and renal transplantation. METHODS: We selected all waiting listed or renal transplanted patients between July 2004 and March 2008. Resource utilization of all health care services with public reimbursement per patient in Q1 2008 were aggregated by linking claims records with anonymised patient IDs. We calculated health care costs of waiting listed and renal transplanted patients. Results were adjusted to gender, and onset of ESRD by using multivariate regression analysis. A total of 135 HUF/USD GDP specific PPP exchange rate was employed to convert results into USD. 2008 cost calculations were compared to results of the 1997 analysis. RESULTS: A total of 2209 patients were selected to the analysis, 3 year cost of waiting listed dialysis and renal transplantation was HUF10,742,419, respectively. Renal transplantation is cost-saving within 2 years compared to dialysis. CONCLUSIONS: Between 1997 and 2008 the 3-year cost of waiting listed dialysis increased by 60.3%, 3-year cost of renal transplantation increased by 96.8% without correction for inflation. In real values the health care costs waiting listed dialysis and renal transplantation is reduced by 26.7% and 10.0%. During this period the cost-containment measures of the National Health Insurance Fund were successful.

RESOURCE USE AND COST OF PATIENTS UNDERGOING DIALYSIS IN BELGIUM
Castelein K1, Lamonze M1, Draevs M1, Bogaert AM1, Bouman K1, Laplanne S1
1PM Health Consulting, Brussels, Belgium; 2CHU Brugmann, Brussels, Belgium; 3AZ St Elisabeth, Zottegem, Belgium; 4ZNA Middelheim, Antwerpzen, Belgium; 5Baxter Healthcare Corporation, Braine-l’Alleud, Belgium
OBJECTIVES: This study was conducted to identify and compare resources and costs used by dialysis patients in Belgium. METHODS: The records of 130 patients undergoing dialysis were retrospectively reviewed to identify direct medical and non-medical resources used over year 2006. Data collected: baseline medical characteristics, dialysis-related information and resources used (hospitalizations, ambulatory care, medication, transport). Official tariffs were used for costing. RESULTS: Patients were hospitalized 1.5 ± 1.7 times for 18.1 ± 29.1 days. Laboratory tests were performed more frequently in hemodialysis (HD) patients than in peritoneal dialysis (PD) patients (295.6 ± 137.7 vs. 120.1 ± 75.5; P < 0.0001). HD patients on PD treatments used more medications (12.4 ± 5.7 vs. 10.7 ± 4.3; P < 0.025). 79% of patients received EPO (average dose: 10,587 ± 14,114 IU). Patients on PD had more ambulatory consultations (9.7 ± 8.8