tal cost-effectiveness based on a decision tree to simulate the costs of treatment, with a time horizon of 12 months (nominal cost).The monthly dose of erythropoiesis stimulating agents was adjusted according to hemoglobin levels, if the concentration is greater than 12.5 g/dl 10.000 IU/month of erythropoietin beta or 0.6 mcg/kg/month of MPG-beta, for 11 -12.5 g/dl 20.000 IU/month of erythropoietin beta or 1.2 mcg/kg/month of MPG-beta and concentrations below 11 g/dl 40.000 IU/month of erythropoietin beta or 1.5 mcg/kg/month of MPG-beta. Each scenario has a cost based on usual care of these patients. The direct costs were taken from the current rates for 2010 apply to medical services provided by IMSS. We determined the risk of not being in an ideal range of hemoglobin (11-12.5 g/dl), also known as hemoglobin excursions and associated costs. **RESULTS:** MPG-beta maintains a more stable hemoglobin concentration when compared with erythropoietin beta, so that at 6 months of treatment remain in the ideal range 94% versus 80% with erythropoietin beta. With the use of erythropoietin beta there is a greater risk of having excursions. The incremental cost-effectiveness analysis shows a 13% increase in effectiveness for only an additional $30 USD annually using MPG-beta compared with erythropoietin beta, this derived from the stability of hemoglobin. The ICER is $2.3 USD per incremental percentage of effectiveness. **CONCLUSIONS:** These results demonstrate that MPG-beta offers better health outcomes against an almost insignificant cost increase being as a cost effective treatment.

PUK10

COST-EFFECTIVENESS ANALYSIS OF SOLIFENACIN VERSUS OXYBUTYNIN IMMEDIATE-RELEASE IN THE TREATMENT OF PATIENTS WITH OVERACTIVE BLADDER IN THE UNITED KINGDOM

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OBJECTIVES: To carry out a cost-utility analysis comparing initial treatment with solifenacin 5 mg/day versus oxybutynin immediate-release (IR) 15 mg/day for the treatment of patients with overactive bladder (OAB) from the perspective of the UK National Health Service (NHS). **METHODS:** A Markov model with six health states was developed in EXCEL to follow a cohort of OAB patients treated with either solifenacin or oxybutynin during a one year period. Costs and utilities were accumulated as patients transited through the health states in the model including a drop-out state. Some of the solifenacin patients were titrated from 5mg to 10mg/day at 8 weeks. A proportion of drop-out patients were assumed to continue treatment with tolterodine ER. Utility values were obtained from a Swedish study and pad use was based on a multinational clinical trial. Adherence rates for individual treatments were derived from a UK database study. For pad use and utility values, the drop-out state was split between those patients who were no longer receiving treatment and those on second-line therapy. Patients on second-line therapy who drop-out were referred for a specialist visit. Results were expressed in terms of incremental cost-utility ratios. **RESULTS:** Total annual costs for solifenacin and oxybutynin were £504.30 and £414.10 respectively. First-line drug use represents 49% and 16% of costs and pad use represent 23% and 35% of costs for solifenacin and oxybutynin respectively. Differences between cumulative utilities were small but were greater for solifenacin (0.7020 vs. 0.6907). The baseline incremental cost-effectiveness ratio was £7,921/QALY. **CONCLUSIONS:** Under our baseline assumptions, solifenacin is cost-effective with an incremental cost-utility of less than £20,000/QALY. However, small differences in utility between the alternatives and the large number of drop-outs means that the results are sensitive to small adjustments in the values of utilities assigned to the drop-out state.

PUK11

PRELIMINARY COST-MINIMIZATION ANALYSIS OF CONTINUOUS VERSUS INTERMITTENT RENAL REPLACEMENT THERAPY IN INTENSIVE CARE PATIENTS EXPERIENCING ACUTE RENAL FAILURE

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OBJECTIVES: To compare 1-year treatment cost of initial continuous renal replacement therapy (CRRT) vs. intermittent daily hemodialysis (IHD) or slow extended daily dialysis (SLEDD) in critically ill patients with acute renal failure in Germany. **METHODS:** As differences in hospital survival rates among the evaluated renal replacement therapies (RRT) are not evident, a cost-minimization model was developed to compute potential direct medical costs associated with dialysis for each treatment group. The preliminary analysis has been performed from the perspective of the German statutory health insurance. Model input data was derived from published literature and complemented by expert opinion in case of missing information. **RESULTS:** Total estimated average per-patient hospital costs were found to be similar for the evaluated hypothetical RRT cohorts, amounting to €12,380 for CCRT, €12,650 for IHD, and €12,528 for SLEDD. Whereas costs of disposables are substantially higher for CRRT than for IHD/SLEDD, these incremental costs were largely offset by an expected average ICU stay reduction of one day owing to assumed minor treatment benefits for CRRT. As sufficiently powered, randomized comparative trials are currently lacking, we assumed equivalent hospital mortality for each analyzed RRT treatment group as shown in meta-analyses, but a slightly higher renal recovery rate at discharge for CRRT than for IHD/SLEDD (87.8% vs. 80.0%) as indicated by several studies. Consequently, follow-up costs involving chronic RRT in survivors remaining dialysis dependent after discharge were lower for CRRT than for IHD/SLEDD resulting in total first year average per-patient costs of €14,020 vs. €16,527/€16,374, respectively. Findings from multivariate sensitivity analyses support the robustness of these preliminary outcomes. **CONCLUSIONS:** In the absence of published data, our exploratory economic analysis provides first indications of potentially lower total first-year costs for initial

CRRT than for IHD/SLEDD. To corroborate these findings, supplementary and consistent clinical and resource use data is warranted.

PUK12

MEDICAL RESOURCE USE IN US PATIENTS DIAGNOSED WITH CHRONIC KIDNEY DISEASE WITH AND WITHOUT DIABETES MELLITUS

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OBJECTIVES: Chronic kidney disease (CKD) afflicts up to 26 million people in the US, but limited information exists about the associated health care costs, especially in earlier stages of CKD patients with diabetes mellitus (DM). The objective of this study was to evaluate the medical resource use in US patients diagnosed with CKD with and without DM. **METHODS:** A large administrative claims database (Market-Scan) was used to conduct this retrospective study. Patients aged 18+ diagnosed for CKD between January 1, 2007 to December 31, 2008 with 12 months of continuous pharmaceutical and medical benefit coverage were identified. CKD patients with DM were defined as receiving a diagnosis code for DM or ≥1 prescription filled for an antidiabetic medication during the 12-month follow-up period. Multivariate analysis was conducted controlling for baseline differences between CKD w/DM and CKD w/o DM cohorts. **RESULTS:** There were 116,512 patients that met inclusion criteria with mean age of 65 years and 56% male. Forty-five percent of CKD patients had a diagnosis for DM during the follow-up period. CKD w/DM had more CKD related and non-CKD related medical visits in 12 months than CKD w/o DM (12 vs. 9 mean visits, 38 vs. 25 mean visits; all p<0.0001). Additionally, adjusted CKD related medical costs for CKD w/DM were $11,431 annually (p<0.0001), compared to $8,975 for CKD w/o DM. Mean pharmacy costs for CKD w/ DM were also significantly higher than CKD w/o DM ($7,206 vs. $5,941, p<0.0001). Thus, total mean adjusted costs (medical & drug) for CKD w/DM were 9% higher than CKD w/o DM ($38,262 vs. $34,759, p<0.0001). **CONCLUSIONS:** In this retrospective study, the annual medical visits and total healthcare costs were significantly higher for CKD patients with diabetes compared to CKD patients without comorbid diabetes. This was particularly evident in the very early and late stages of CKD.

Urinary/Kidney Disorders – Patient-Reported Outcomes & Preference-Based Studies

PUK13

PREVENTION IN PREDIALITIC STAGE HAS BETTER RESULTS IN HEALTH

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OBJECTIVES: Evaluates if modifying the epidemiology of renal disease, more patients in predialysis and less in dialysis, improves the quality of life Chronic Kidney Disease (CKD) is a long-term condition described as the gradual loss of kidney function over time There are various stages of chronic renal failure prior to dialysis which are also considered as kidney failure. Those in stages III and IV present a significant percentage of complications from CKD which damage the renal function and accelerate the need of dialysis. Medical literature suggests early treatment of renal anemia, proteinuria and hypertension in patients who have not reached the renal replacement therapy Preventing complications, through adequate care of known progression factors (diabetes, hypertension, correction of anemia, and proteinuria), of CKD in predialysis stages reduces the progression of renal disease. Progression of renal damage can be slow down through early intervention preventive treatments such as control of glucose levels, anemia, hypertension and proteinuria in the early stages of the disease. **METHODS:** We developed a simulation of 1000 patients from predialysis stage coming to dialysis in a period of 30 months. **RESULTS:** Without prevention treatment 57% of the patients will require dialysis, 1% will be transplanted and 9.1% will die, while with the prevention treatment only 25% will require dialysis, 0.5% will be transplanted and 4% will die during this period. **CONCLUSIONS:** The early treatment of patients provides better quality of life and significant savings compared with dialysis. Transplantation as a form of replacement therapy is the best choice for quality life and cost.

Urinary/Kidney Disorders – Health Care Use & Policy Studies

PUK14

TRENDS IN RATE AND COST OF HOSPITALIZATIONS DUE TO CHRONIC KIDNEY DISEASE (CKD) IN THE UNITED STATES

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OBJECTIVES: To understand the trends in rate and cost of hospitalizations due to Chronic Kidney Disease (CKD) in the United States. **METHODS:** We analyzed last five years of hospitalizations with ICD-9 diagnosis codes of CKD and End Stage Renal Disease (ESRD). The annual number of hospitalizations for specific diagnosis were obtained from AHRQ's National In-patient Sample (NIS) databases of 2005-2009. Data were also analyzed for length of stay (LOS), charges and cost of hospitalization. **RESULTS:** During last five years the number of hospitalizations with diagnosis of CKD and ESRD have increased 4.1 and 4.6 fold, respectively. In 2009, an estimated 1,634,422 and 931,641 hospitalizations were with diagnosis of CKD and ESRD, respectively. The mean LOS for patients with CKD has increased from 4.9 to 5.5 days, during 2005-2009. The mean LOS for patients with ESRD has remained steady at ~6 days during 2005-2009. The cost of hospitalization with diagnosis of CKD has increased 31% during 2005-2009. The cost of hospitalization with diagnosis of ESRD has increased 21% during 2005-2009. In 2009, the mean cost of hospitalization for patients with CKD and ESRD were $11,209 and $21,358, respectively. **CONCLUSIONS:** Hospitalizations due to CKD and ESRD have signifi-