

was to collect, in routine clinical practice, data about consequences of switching from intravenous (IV) EPO to IV DA in patients (pts) with chronic kidney disease (CKD) receiving dialysis (> 12 months). **METHODS:** This French monocentre observational study included adults with CKD receiving dialysis switched from EPO to DA in July 2010. Data related to EPO and DA dosing and dose frequency, Hb levels, and iron statuses were collected retrospectively over 36 weeks before the conversion and 36 weeks after the conversion. The primary endpoint estimated the dose conversion ratio (DCR) between mean EPO doses (UI) and DA ( $\mu\text{g}$ ) during 4 weeks pre-conversion and 21-24 weeks post-conversion. The mean DCR was determined with a regression-based method using ordinary least squares (LSQ). **RESULTS:** A total of 93 pts were enrolled in this study, (61.3 % female, mean age 70.3 years (mean time on dialysis 5.2 years)). The primary etiologies of CKD were mainly diabetes (37.6 %) and hypertension (12.9 %). The arithmetic mean ( $\pm$  SD) EPO dose/injection at inclusion was  $4193 \pm 3417$  UI with the following injection frequency: x3/week (44.1 %), x2/week (32.3 %), x1/week (21.5 %) or other (2.1 %). The mean ( $\pm$  SD) DCR on the evaluable population (83 patients, 10 excluded due to missing data) was  $271.3 \pm 30.4$  (95% CI 264.7, 277.9). The mean ( $\pm$  SD) Hb values were equivalent over the pre- and post-conversion periods  $11.2 \pm 0.9$  and  $11.1 \pm 1.0$  g/dL, respectively. Iron status was also similar. **CONCLUSIONS:** In routine clinical practice, the mean DCR observed in our French dialysis centre, was higher than the factor 200UI:  $1\mu\text{g}$  recommended in the DA Summary of Product Characteristics and applied at switch.

#### URINARY/KIDNEY DISORDERS - Health Care Use & Policy Studies

##### PUK22

#### EVALUATING THE MINIMUM RENAL ALLOGRAFT SURVIVAL TIME REQUIRED FOR TRANSPLANTATION TO REMAIN COST SAVING IN THE UK

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**OBJECTIVES:** Kidney transplantation is perceived to be highly cost effective; the cost of post-transplant management is modest compared to dialysis and quality of life is significantly improved. While graft survival rates have improved substantially in recent years, on average, graft failure rates are currently 2.9% per annum across the UK. The objective of this study was to quantify the minimum graft survival time required for transplantation to remain cost saving compared to dialysis. **METHODS:** We utilized a simple decision analytic model with published input costs for dialysis; immunosuppression and other post-transplant management costs were obtained from the PORTRAIT Study (a retrospective observational study of renal transplant patients) and UK NHS reference costs used for transplantation. We compared the costs of continued dialysis with transplantation and evaluated the number of years of functioning graft required for transplantation to remain cost saving. Future costs were discounted at 3.5%. **RESULTS:** Over a 10 year time horizon the total per-patient costs associated with remaining on dialysis was £394,379; over the same period the total per-patient cost for a functioning graft were £118,049 representing a saving to the NHS of £276,330 per-patient. Patients with a 3-year functioning graft prior to returning to dialysis cost an additional £5,723 compared to remaining on dialysis while 4-year graft survival was cost saving. **CONCLUSIONS:** For kidney transplantation to be cost saving recipients must maintain at least 3 years of functioning graft. In the UK between 3% to 13% of adult kidney transplants from deceased donors and 2% to 8% from living donors fail within one year necessitating a return to dialysis. Consequently, a substantial number of transplant recipients in the UK incur additional and substantial expenditure due to poor graft survival rates and, therefore, management strategies to maximize graft survival should be prioritized in these patients.

##### PUK23

#### BURDEN OF CHRONIC KIDNEY DISEASE IN GERMAN DIABETES PATIENTS, A SYSTEMATIC LITERATURE REVIEW AND DATA GAP ANALYSIS

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Chronic Kidney Disease (CKD) is the second most frequent complication in 7 million diabetes patients in Germany. However, available data on burden of disease is intransparent. **OBJECTIVES:** To obtain a comprehensive picture on the consequences of CKD in diabetes patients in Germany from the epidemiological, clinical and health economics perspective based on available scientific literature. **METHODS:** A semi-structured systematic literature review in MEDLINE, COCHRANE, EMBASE and national associations over the last 10 years (2001-2011) and relevant congress abstracts over the last 2 years. Fields of interest (reviewed separately) were epidemiology, health economics, burden of disease and treatment guidelines with reference to CKD and diabetes. As a conclusion, we conducted a data gap analysis. **RESULTS:** Twenty-one epidemiological, 12 burden of disease, 9 health economic full-text articles and 5 treatment guidelines were identified. Prevalence of CKD in diabetes patients was 39% but only 0.5% reached dialysis. Accession rates within all CKD stages were missing. Yearly mortality rates within diabetes patients in dialysis were around 20%. An albumin guideline adherence (albumin level below 40g/L) could save 23,578 life years. SF-36 was most common generic HRQoL and KDQoL as disease specific. No data on QoL in pre-dialysis was available. Highest impairment was physical and emotional functioning. Poor sleep quality (63%) was significantly associated with higher risk of death (RR=1.16, p=0.002). Health care costs were significantly associated with progression of CKD stages. Direct costs of dialysis were 54,777 €. 60% of dialysis patients lived below the poverty level. **CONCLUSIONS:** Higher evidence on epidemiological data and disease pro-

gression is desirable. Data within patients in CKD 1-4 was limited or not available. Productivity loss might have a significant impact on the burden of disease but no data was found.

##### PUK24

#### PHARMACOECONOMIC ASPECTS OF USE OF ERYTHROPOIETIN DRUGS IN PATIENTS ON HEMODIALYSIS IN UKRAINE

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**OBJECTIVES:** The number of patients suffering from chronic kidney disease (CKD) is about 10% of the total world population and 50% of patients with hypertension and diabetes. About 3400 patients with CKD in Ukraine are treated by hemodialysis. All these patients need treatment of anemia that associates with CKD by erythropoietins (EPs). In Ukraine as well as alfa- and beta-erythropoietins a fundamentally new product - continuous erythropoietin receptor activator (CERA) are recommended. Its main feature - administration twice a month in treated dose and once a month in maintenance dose, while others EPs are administered 2-3 times a week. The purpose of research is comparative pharmacoeconomic evaluation of maintenance treatment of anemia in patients with CKD on hemodialysis stage by different drugs of erythropoietin. **METHODS:** Decision tree and cost-effectiveness analysis were used. The costs for EP drugs were determined according to the price list "Pharmacy" (2011). The data about equivalent doses of different EPs and their effectiveness are taken from the results of randomized clinical trials phase III MAXIMA, PROTOS and RUBRA. **RESULTS:** Showed that prolonged use of CERA, which is administered once a month, effectively maintained stable hemoglobin level previously is achieved by the administration of shorter-acting EPs (3 times a week). With appropriate regimen of administration in equivalent doses (according to the instruction of CERA) the average costs of CERA treatment per patient on hemodialysis are \$173/week (i/v route of administration) and \$130/week (s/c route of administration). The average costs for using the shorter-acting EP drugs are \$267-194/week and \$133-182/week respectively. **CONCLUSIONS:** The use of CERA in patients with CKD on hemodialysis at the compensative stage instead of shorter-acting EPs saves about 5-35% of cost for anemia pharmacotherapy. The effectiveness and safety of therapy do not change.

##### PUK25

#### PATTERNS OF TREATMENT FAILURE AMONG PATIENTS RECEIVING ANTICHOLINERGICS FOR OVERACTIVE BLADDER (OAB) TREATED IN A MANAGED CARE SETTING

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**OBJECTIVES:** Previous research has described treatment failure as discontinuation of the first anticholinergic or switching in persons with continuous anticholinergic use. Such research does not account for persons who may restart anticholinergic use following a period of discontinuation. The objective of this study was to evaluate the dynamics of treatment failure in patients with OAB following discontinuation of the first anticholinergic. **METHODS:** Patients in a US commercial database between January 2005 and June 2010 with  $\geq 1$  filled prescription for an anticholinergic for OAB were included. Treatment failure was defined as patients who discontinued therapy (treatment gap of  $\geq 45$  days) or switched medications. **RESULTS:** There were 182,586 patients who met all inclusion criteria. Treatment failure was present in a total of 83.4% patients, with 78.3% of patients discontinuing first anticholinergic therapy and 5.1% of continued users switching. A total of 30.4% of persons who discontinued treatment rechallenged after the 45 day treatment gap, with 66.7% resuming treatment with their original agent. Overall, 54.5% of patients discontinued anticholinergic treatment permanently within the one year study period. A total of 14.1% of patients switched at least once throughout the study, and patients received an average of 1.2 (SD: 0.4) unique anticholinergic agents. Of those who initially switched to a second anticholinergic, 69.6% of patients failed treatment for a second time either by discontinuing treatment (48.8%) or switching to a third agent (20.8%). A separate analysis requiring  $\geq 2$  fills found that 85% of patients who switched also discontinued within the one year study frame. Persons on sustained release anticholinergics were less likely to experience treatment failure than those on immediate release anticholinergics (odds ratio: 0.78 [0.76-0.80], P<0.0001). **CONCLUSIONS:** Treatment failure was high in patients taking anticholinergics for OAB even after taking restarts into account. Most patients who switched from their first anticholinergic therapy experienced a second treatment failure.

#### RESEARCH POSTER PRESENTATIONS - SESSION IV

##### RESEARCH ON METHODS STUDIES

##### RESEARCH ON METHODS - Clinical Outcomes Methods

##### PRM1

#### KAPLAN-MEIER SURVIVAL CURVES: A POTENTIAL SOURCE OF DATA FOR SYSTEMATIC REVIEWS

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**OBJECTIVES:** Kaplan-Meier (KM) curves are commonly used to report time-to-event outcomes like overall survival (OS) and progression-free survival. For studies not explicitly reporting hazard ratio (HR) and confidence intervals (CI), KM curves can be utilised to estimate these summary statistics for conducting a meta-analysis. Here, we validate the method proposed by Parmar and colleagues for estimating HR (95%CI) by reading the KM curves. **METHODS:** Ten randomised controlled trials reporting HR (95%CI) and the associated KM curve for OS were randomly