Abstracts

Americans patients in the later stages of CKD may be associated with lack of health care access/socio-economic factors. The proportion of population suffering from hypertension and diabetes increased significantly from stage 1 to stage 5 along with marked racial disparities in the higher stages of CKD. Markers such as Vitamin D deficiency, Hypertension & serum creatinine levels can be better monitored by regular blood tests and prove to be effective early indicators in the progression of CKD.

URINARY/KIDNEY DISORDERS – Cost Studies

FIVE-YEAR BUDGET IMPACT ANALYSIS OF ONCE-DAILY VERSUS TWICE-DAILY TACROLIMUS, IN PATIENTS UNDERGOING RENAL TRANSPLANT IN THE UNITED KINGDOM

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OBJECTIVES: Non-adherence to immunosuppressants increases risk of late acute rejection (AR) episodes, a known predictor of graft loss, which is associated with re-transplantation, dialysis and increased mortality. Once-daily immunosuppressant formulations demonstrate higher patient adherence than multiple daily dose therapies and may lead to fewer AR episodes and graft losses. A model was constructed to estimate the five-year impact of potentially improved adherence in new renal transplant recipients receiving once- rather than twice-daily tacrolimus. METHODS: The increased potential for sufficient adherence with once-daily immunosuppressants versus twice-daily, is reported as an odds ratio (OR) of 2.33 (published literature). The model uses a probability of sufficient adherence of 74% with once-daily tacrolimus, determined from an assumed adherence for twice-daily tacrolimus of 55% and 25% with once- versus twice-daily therapy respectively. Sufficient adherence is assumed to improve consistency in tacrolimus exposure, reducing AR each year post-transplant and improving graft survival. Sufficient levels of expected adherence with once- and twice-daily tacrolimus are used to model five-year survival rates for: AR (insufficiently-adherent versus non-sufficiently-adherent patients); graft survival (no pre-transplant and improving graft survival). RESULTS: Sufficient levels of expected adherence with once- and twice-daily tacrolimus are used to model five-year survival rates for: AR, sufficient adherence. Once-daily tacrolimus yields cumulative cost savings of £104,534, increasing 100 new renal transplant recipients annually, once-daily tacrolimus is associated with a decrease in the incidence of AR and could yield clinical improvements and cost savings over five-years.

IMMUNOSUPPRESSANT THERAPY PATTERNS AND ITS COSTS IN POST KIDNEY TRANSPLANT PATIENTS IN THE NATIONAL TRANSPLANT PROGRAM IN BRAZIL

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OBJECTIVES: Immunosuppressive drugs (IS) are used in combination/schemes to achieve optimal regimen of immunosuppression, increasing graft and recipient survival outcomes in past kidney transplant patients. The aim of this study is to determine immuno- suppressant treatment patterns and associated costs in kidney transplant patients from the Brazilian National Transplant Program. METHODS: A review of the entire government administrative claim database (Outpatient Information System – SIA DATASUS) was conducted from 2005 to 2008, to determine yearly expenses (in 2008 US$) with each IS combination. In order to assess the dynamics of the combinations used, a subset of this population, all patients from 7 hospitals who underwent transplantation in 2004, was followed from January 2005 to December 2007 to estimate the IS cost per patient per treatment duration was also similar for EPO and DARB patients. The mean cumulative dose (SD) was 164,786 [175,453; 274,718 [304,839] Units for EPO and 694 [690; 989 [1,119] mcg for DARB, resulting in dose ratios of 27:1 and 24:1 for IMPACT and Medicare data, respectively. Based on the recent utilization of ESAs, cumulative cost was 44% and 38% higher for DARB than EPO (IMPACT – EPO $238; DARB $342; Medicare – EPO $353; DARB $488). After adjusting for covariates, cumulative drug costs remained significantly higher for DARB. CONCLUSIONS: Based on large health insurance claims databases, this observational study of recent ESA utilization in CKD patients not on dialysis reported dose ratios of 23:1 and 24:1 and cost premiums of 44% and 38% associated with DARB.

SEVEN YEAR TRENDS OF PHARMACY BENEFIT ERYTHROPOIESIS-STIMULATING AGENT UTILIZATION AND COST CONSIDERATIONS OF CHRONIC KIDNEY DISEASE PATIENTS NOT ON DIALYSIS IN THE UNITED STATES

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OBJECTIVES: This study evaluated recent erythropoiesis-stimulating agent (ESA) utilization and costs from 2 large health insurance claims databases in chronic kidney disease (CKD) patients not on dialysis. METHODS: An analysis of recent medical claims from the Ingenix IMPACT (January 2006-March 2009) and Medicare 5% (January 2005-December 2007) databases was conducted. Patients ≥18 years, newly initiated on epoetin alfa (EPO) or darbepoetin alfa (DARB), aged ≥65, with ≥1 ESA claim for CKD, and ≥2 ESA claims were included. Patients diagnosed with cancer, receiving chemotherapy or dialysis, or receiving both agents were excluded. Mean cumulative ESA dose was used to calculate drug cost (using October 2009 wholesale acquisition cost) and dose ratio (Units EPO: mcg DARB). Multivariate analysis was also conducted to assess adjusted cost differences between the two agents. RESULTS: A total of 4,678 ESA-treated patients were identified (IMPACT—EPO: 991, DARB: 689; Medicare—EPO: 1,788, DARB: 1,210). Age and gender distributions were similar between the 2 groups (Mean age: IMPACT—63.9 vs. 63.2 yrs; Medicare: 74.7 vs. 74.2 yrs, P = NS; % women: IMPACT—49% vs. 54%; Medicare—59% vs. 62%, P = NS). ESA treatment duration was also similar for EPO and DARB patients. The mean cumulative dose (SD) was 164,786 [175,453; 274,718 [304,839] Units for EPO and 694 [690; 989 [1,119] mcg for DARB, resulting in dose ratios of 27:1 and 24:1 for IMPACT and Medicare data, respectively. Based on the recent utilization of ESAs, cumulative cost was 44% and 38% higher for DARB than EPO (IMPACT – EPO $238; DARB $342; Medicare – EPO $353; DARB $488). After adjusting for covariates, cumulative drug costs remained significantly higher for DARB. CONCLUSIONS: Based on large health insurance claims databases, this observational study of recent ESA utilization in CKD patients not on dialysis reported dose ratios of 23:1 and 24:1 and cost premiums of 44% and 38% associated with DARB.

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OBJECTIVES: The objective of this study is to evaluate hospitalizations, outpatient services and medication use in the first year of dialysis associated with pre-dialysis treatment with paricalcitol compared to no predialysis vitamin D receptor (VDR) activator use in chronic kidney disease (CKD) patients with SHPT. METHODS: A matched cohort analysis was conducted in 134 hemodialysis patients comparing utilization outcomes of predialysis use of paricalcitol compared to no VDR activator treatment, using the Medstat™ administrative claims database from 2000-2007. Patients were matched using propensity scoring for age, gender, Charlson co-morbidity Index, and pre-index total costs. Multivariate models adjusted for age, gender,