PATIENTS IN RENAL REPLACEMENT THERAPY IN SÃO PAULO, BRAZIL

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OBJECTIVES: This study aims to describe the clinical and demographic characteristics of end-stage renal disease (ESRD) patients on renal replacement therapy in the São Paulo state, Brazil. METHODS: Cross-sectional analysis of São Paulo renal replacement therapy claims as reported in Brazilian Ambulatory Information System (SIA/DÉTÁSSIS) database in January 2009. Repeated records were excluded using identification code, age, sex, and first treatment date as comparability criteria. The following variables were investigated: diseases associated to ESRD, anemia, glucose levels, HCV, HBsAg, HIV, urea reduction ratio (URR), vascular access, and type of renal replacement therapy. RESULTS: A total of 18,360 patients were identified among 18,886 available claims, with a mean age of 54.23 years (SD = 15.53) and 37.7% male. Among 8,305 patients for whom secondary ICD-10 codes in addition to those related to renal failure itself were available, the more frequent conditions associated to ESRD were diabetes mellitus (17.5%), hypertension (26.6%) and glomerulonephritis (8.81%). Continuous Ambulatory Peritoneal Dialysis (CAPD) was the therapeutic strategy for 9.9% of patients compared to hemodialysis in 90.1%. 58.4% of all patients had hemodialysis vascular access and 50.9% had URR > 65%. Prevalence of positive HCV, HBsAg and HIV serology tests were 4.3%, 0.9% and 0.6%, respectively. Anemia and glucose levels > 126 were present for 45.4% and 19.6% of patients. The total amount paid for renal replacement therapy procedures in January 2009 in São Paulo state was 36,073,377 BRL. CONCLUSIONS: Although diabetes and hypertension renal complications can be prevented, they accounted for 43.9% of all conditions over a 10 year period were analyzed using multivariate logistic regression in SPlus 8; the risk of patient mortality was assessed after stratification by renal function (measured by glomerular filtration rate (GFR) and impaired fasting glucose levels. RESULTS: Data were available on 307 patients with fasting glucose and GFR measurements at 1 year post transplant. Overall 37% (n = 114) had a GFR of less than 40 mL/min and of these, 24% (n = 27) had fasting glucose levels greater than 7 mmol/L and a GFR less than 40 mL/min had a mortality odds ratio of 3.57 (P < 0.01) compared to those with glucose levels less than 5.6 mmol/L and a GFR greater than 40 mL/min. CONCLUSIONS: This study demonstrates that the development of impaired fasting glucose post transplants is associated with a 35% increase risk of mortality and the development of new onset diabetes associated with a 2-fold increased risk. Our study further suggests that there is a negative synergistic effect of deteriorating renal function and progressive impaired glucose regulations on patient survival. Consequently, therapeutic strategies that could both improve GFR at one year and the incidence of diabetes might be expected to improve long term patient survival.

CLINICAL AND DEMOGRAPHIC CHARACTERISTICS OF PATIENTS IN RENAL REPLACEMENT THERAPY IN SÃO PAULO, BRAZIL

McEwan P1, Baboolal K2

DIABETES MELLITUS

ADVERSE EFFECT OF POOR RENAL FUNCTION AND NEW ONSET DIABETES MELLITUS

...the development of new onset diabetes after transplantation identifies patients at high risk of cardiovascular events and mortality. This study aims to quantify any additive effect of impaired fasting glucose post transplants is associated with a 35% increase risk of mortality and the development of new onset diabetes associated with a 2-fold increased risk. Our study further suggests that there is a negative synergistic effect of deteriorating renal function and progressive impaired glucose regulations on patient survival. Consequently, therapeutic strategies that could both improve GFR at one year and the incidence of diabetes might be expected to improve long term patient survival...

BUDGET IMPACT ANALYSIS OF ALISKIREN IN TYPE 2 DIABETES PATIENTS WITH HYPERTENSION AND NEPHROPATHY IN THE MEXICAN INSTITUTE OF SOCIAL SECURITY

Garcia-Contreras F1, Navares A2, Olvera K2

The number of CKD-ND patients with hyperphosphatemia (>1.78 mmol/L) is estimated to increase LC use primarily at the expense of calcium-based phosphate binders. The annual PBI from the label extension is estimated to grow over Years 1–3 from 0 to €1.1 M in France; and to be <€25,000 in Years 1–5 in the UK. Results are most sensitive to LC market share changes post-label extension. CONCLUSIONS: The number of CKD-ND patients with hyperphosphatemia (>1.78 mmol/L) eligible for LC treatment is minimal in France and the UK. Assuming complete compliance, the annual PBI after 3 years of a label extension for LC to CKD-ND patients is estimated to be €1.1 M in France and <€25,000 in the UK. Calcium is the predominant therapy in CKD-ND; however, adding LC may result in a low pharmacy budget impact.

THE PHARMACY BUDGET IMPACT OF EXTENDING REIMBURSEMENT OF LANTANUM CARBONATE TO TREATMENT OF HYPERPHOSPHATEMIA (>1.78 MMOLL/L) IN PATIENTS WITH CHRONIC KIDNEY DISEASE PRE-DIALYSIS IN FRANCE AND THE UNITED KINGDOM

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OBJECTIVES: To examine the pharmacy budget impact (PBI) of extending reimbursements of non-calcium lanthanum carbonate (LC) to treatment of hyperphosphatemia (serum phosphorus >1.78 mmol/L) in patients with chronic kidney disease pre-dialysis (CKD-ND) in France and the UK over five years. METHODS: The treated prevalence of CKD-ND and hyperphosphatemia, and the use of pharmacologic therapies, were estimated using published literature and EU nephrologist surveys. Drug costs were estimated from published sources. Market share changes were estimated from market research. Base-case analyses assumed complete medication compliance. Annual PBI was calculated as the difference in total drug costs between scenarios with and without the reimbursement extension for LC. Alternate scenarios and deterministic sensitivity analysis were also estimated. RESULTS: A small percentage of CKD-ND patients, 14,500 (7%) and 64,600 (14.6%), are estimated as hyperphosphatemic in France and the UK, respectively. Of these patients, 81% in France versus 30% in the UK are estimated to receive phosphate binder therapy. CKD-ND market share for LC is estimated at 12% in France and 2–4% in the UK. The label extension, adding hyperphosphatemic CKD-ND patients, is estimated to increase LC use primarily at the expense of calcium-based phosphate binders. The annual PBI from the label extension is estimated to grow over Years 1–3 from 0 to €1.1 M in France; and to be <€25,000 in Years 1–5 in the UK. Results are most sensitive to LC market share changes post-label extension. CONCLUSIONS: The number of CKD-ND patients with hyperphosphatemia (>1.78 mmol/L) eligible for LC treatment is minimal in France and the UK. Assuming complete compliance, the annual PBI after 3 years of a label extension for LC to CKD-ND patients is estimated to be €1.1 M in France and <€25,000 in the UK. Calcium is the predominant therapy in CKD-ND; however, adding LC may result in a low pharmacy budget impact.