REJECTION EPISODES REQUIRING HOSPITALIZATION AFTER KIDNEY TRANSPLANTATION IN BRAZIL: A RETROSPECTIVE DATABASE STUDY OF THE BRAZILIAN PUBLIC HEALTH SYSTEM

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OBJECTIVES: Post-transplant patients have high risk of re-hospitalization, incurring relevant costs. The aim of this study is to analyze causes, resource use and costs of re-hospitalizations in a cohort of renal transplanted patients. METHODS: A longitudinal analysis of a government administrative database (Inpatient Information System—SIH/DATASUS) was performed from January 2004 to July 2009. The study cohort was all patients who had undergone kidney transplantation at 7 of the main transplant hospitals in Brazil, in 2004. All patients were followed until July 2009. Demographic data (sex, age, type of donor), length of re-hospitalization, resource use and associated costs (in 2004 USD) were collected. RESULTS: A total of 1030 patients were eligible for the analysis. Mean age was 38.7 ± 14.5 years, 57.6% were male recipients and 49.6% of transplant procedures were from living donors. During the study period, 2,168 hospitalizations occurred in 643 patients (62%), with a total cost of US$ 1,568,956. Most frequent causes of re-hospitalization were post-transplant surgical and clinical complications (40.1%) and graft rejection episodes (32.4%), accounting together for 76.9% of total expenses. Hospital services accounting for 19.5%, surgical and clinical complications (40.1%) and graft rejection episodes (32.4%) represent the most significant part of re-hospitalization costs (40.9%), followed by diagnosis/lab examinations (24.2%), medicines (13.6%) and health professional fees (11.0%). Re-hospitalizations were concentrated in the first (39.6%) and second (24.9%) years following transplantation, stabilining in the fourth and fifth years around 9% (200 hospitalizations/year). Patients receiving grafts from deceased donors accounted for 68.4% of total costs, and average costs per re-hospitalization were statistically different between patients receiving grafts from deceased (US$ 3,138) and living donors (US$ 6,321 ± 973) (p < 0.01).

CONCLUSIONS: The majority of patients who underwent kidney transplant in 2004 were re-hospitalized at least once until July 2009. Costs associated with these re-hospitalizations were concentrated in the first year post-transplant and in cadaveric renal transplant recipients.