A COST EVALUATION OF PERITONEAL DIALYSIS AND HEMODIALYSIS IN THE TREATMENT OF ESRD IN SÃO PAULO, BRAZIL

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OBJECTIVES: ESRD patient survival is similar for hemodialysis (HD) and peritoneal dialysis (PD). In Brazil, access to dialysis is universal, although the resources consumed and their costs are poorly understood. We compare the resources used for the treatment of patients undergoing HD or PD who are covered by public insurance.

METHODS: A one-year prospective study comparing resource use and total costs of prevalent patients treated with HD or PD who are covered by public insurance. Costs categories included hospitalizations, diagnostic and therapeutic procedures, medications, professional fees, transportation, and lost productivity (current homemakers who stopped working due to dialysis). Government reimbursement rate was used as a proxy for the direct costs related to the act of dialysis (maintenance). The study took the societal perspective. RESULTS: Approximately 50% of HD and 48% of PD patients were female (p = 0.75). 54% and 58% were white (p = 0.48); mean age was 55.2 ± 10.6 years and 51.7 ± 10.8 years (p = 0.0051); 62% and 71% had diabetes (p = 0.0526); and 59% and 55% had coronary heart disease (p = 0.37), respectively for HD and PD. Overall average costs per patient-year of follow up was US$23,283 and HD and US$22,283 for PD patients. The average annual cost per patient-year, per category, for HD and PD were respectively US$11,774 and US$14,058 for maintenance dialysis costs, US$9,208 and US$7,559 for medications; US$94 and US$43 for hospitalization, respectively. The average monthly cost of the combined immunosuppressing therapy when the original product was included was US$920.99 and after the introduction of the generic version it became US$311.29. On the other hand the monthly cost of the therapy only with azathioprin changed from US$67.71 to US$65.78 per patient per month. The patients' number varies among 121 to 96 during different months due to the drop out. After the introduction of the generic version 7 patients were switched to another immunosuppressive agent, while for the originator the corresponding figure is 2 patients. For the switched patients the cost of pharmacotherapy did not increase. CONCLUSIONS: In spite of the contradictory introduction of the immunosuppressing agents, due to their narrow therapeutic index the drop out of the patients is not higher and the savings for the health care system are possible.

THE ECONOMIC IMPACT OF RENAL GRAFT FAILURE: A COST ANALYSIS IN A UK SETTING

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OBJECTIVES: Compared to dialysis, kidney transplantation is a highly cost-effective choice for most patients with ESRD. Post transplantation, a key objective is to maintain a functioning graft. When graft failure occurs, the majority of patients return to dialysis. This study is performed to assess the cost of renal graft failure in a UK setting.

METHODS: A model was built using data from the UK renal registry (2007–2008) to estimate the number of graft failures occurring in the first year after transplantation. Costs for procurement, transplantation, and for the treatment of graft failure, were derived from the result of a systematic review. This study adopted an investment perspective—all the medical resource used from organ procurement to the treatment of graft failure were taken into consideration. RESULTS: In the UK, the cost of renal graft failure was approximately £58,847 when taking account the medical resource used from an investment point of view (including transplantation cost, immunosuppressive medication cost and resource to treat post transplantation adverse events for graft failure). The post graft failure costs were £28,179. The most important cost contributors are dialysis cost, transplantation cost and post transplantation immunosuppressive medication cost. CONCLUSIONS: Estimating the economic impact of graft loss should take into account the cost of management of patients post graft failure, as well as previous medical investment that is lost with the graft (including costs associated with procurement of the organ and transplantation). Improvements in the management of renal transplant patients are needed to reduce the risk of graft loss and the economic burden of graft failure to the health care system.