COST EFFECTIVENESS ANALYSIS OF TIMELY VERSUS LATE DIALYSIS REFERRAL AFTER RENAL TRANSPLANT FAILURE IN SPAIN
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OBJECTIVES: Complications due to late dialysis referral after graft loss involve higher medical costs, together with a worsened health status and higher mortality rates. The cost-effectiveness of timely (TDR) versus late dialysis referral (LDR) after renal transplantation is evaluated for the Spanish case. METHODS: A Markov model was developed and 6 health states were defined: hemodialysis (HD), peritoneal dialysis (PD), transplant (TX), late referral hemodialysis (LRHD), late referral peritoneal dialysis (LRPD) and death (D). A hypothetical cohort of patients aged 45 was observed during 60 years of age-dependent mortality. Transition probabilities were estimated using data from the Spanish Nephrology Society registry. Costs (in 2009 EUR) were obtained from a comprehensive literature review and included both direct (DC) and non-medical and indirect costs (IC) (lost labor productivity due to mortality and morbidity). Effectiveness was measured in terms of Quality Adjusted Life-years (QALYs). Health utilities were estimated from a proprietary database, a discount rate of 3.5% was considered for both cost and effectiveness figures. All the model parameters were supported by an expert panel. Incremental Cost-Effectiveness Ratios (ICERs) and Net Health Benefits (NHBs) were computed, a willingness-to-pay threshold of €53,000/QALY was taken into account. Both univariate and Monte Carlo multivariate sensitivity analyses were performed. RESULTS: The ICER was €27,385/QALY (IC not included), providing NHBs of [0.08] [0.01], TDR refers to 37% additional QALY/patient. The multivariate sensitivity analysis showed that TDR was efficient in [54%] [53%] and dominant in [28%] [27%] of the simulations. The probability of accepting TDR was [55%] [50%]. CONCLUSIONS: TDR is an efficient scenario when compared to LDR, providing a greater number of QALYs with yet an efficient increase in costs. Our results, however, raise the debate on the suitability of the willingness-to-pay threshold as a rigid decision tool.

ECONOMIC EVALUATION OF ALISKIREN IN TYPE 2 DIABETES AND HYPOTENSION PATIENTS WITH NEPHROPATHY IN MEXICO
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OBJECTIVES: To determine the most cost-effective alternative between a) Losartan, and b) Losartan + Aliskiren in type 2 diabetes and hypertension patients with microalbuminuria in the Mexican Institute of Social Security. METHODS: A complete economic evaluation was performed from institutional perspective, using a Markov model as analytical tool with semi-annual cycles and follow up until death, with transversal analyses at 10, 15 and 20 years. Simulating a cohort with a 53 years old patient with type 2 diabetes, hypertension, and microalbuminuria using a discount rate of 5% in costs and effectiveness. One assumption is that all patients that require dialysis receive it. Proportion of patients who have not received dialysis, as well as survival and quality of life were considered as effectiveness end points. Transition probabilities were obtained from AVOID study and IMSS information. Resource use was obtained from IMSS data and costs are considered in 2009 USD. Probabilistic and non-probabilistic sensitivity analysis was performed to be considered as accurate. Keeping a patient in stages prior to dialysis at 20 years of follow-up requires an investment of $19,647 with Losartan and $18,774 with Losartan + Aliskiren. After 14 years of follow up, Losartan + Aliskiren is dominant versus the use of Losartan. CONCLUSIONS: Aliskiren + Losartan is a cost-saving alternative if administered for prolonged periods, being the most effective regardless the period of monitoring and effectiveness measurement used.