

**COST ANALYSIS OF RENAL REPLACEMENT THERAPIES BEFORE AND AFTER
RENAL TRANSPLANTATION IN ESTONIA**

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The aim of the study was to analyse the size and the structure of the cost burden of renal transplantation patients to the Estonian Health Insurance Fund in the pre- and post-transplantation periods. The analysis involves the direct medical costs, including treatment and prescription drugs, of 212 patients who underwent renal transplantation in 2001-2005 in Tartu University Hospital. The follow-up period of the patients lasted up to the end of 2006. The study analysed the size and the structure of medical costs during dialysis and after renal transplantation for the following time intervals: 0–6 months, 7–12 months, years 2, 3 and 4. The results show that the cost burden to the Health Insurance Fund was higher for the haemodialysis patients than for the peritoneal dialysis patients, on average EUR 34,520 and EUR 29,371 per year, respectively. However, when overall treatment costs were taken into account, peritoneal dialysis was not significantly less costly than haemodialysis owing to the higher need for inpatient treatment. Treatment costs, including transplantation costs, in the first post-transplantation year were EUR 23,631, which is already about 30% less than the annual treatment costs of the dialysis patient. In the second year treatment costs decreased 2.9 times in comparison with the first year. The reduction in the cost in the subsequent years was minimal and was mainly related to the decrease in the use of drugs in the treatment process. Analysis showed that cost per treatment day for dialysis as well as following renal transplantation was significantly higher in the case of male patients. Transplantation costs increased additionally due to a secondary kidney disease. As the difference in the treatment costs of male and female patients is probably associated with the markedly higher incidence of ischaemic heart disease among males, further research regarding the impact of accompanying diseases on the treatment costs as well as on the survival of the patient and transplant is needed.