

Impact of a Pharmaceutical Care Programme focused on the solid organ transplant patient

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Background

Patient and organ survival is dependent on the use of immunosuppressant drugs. The doses are reduced several months after the surgery to low maintenance phase levels. Treatments are complex and require drug therapy monitoring.

Purpose

Analyze the impact of a Pharmaceutical Care Programme focused on the solid organ transplant patients for preventing and correcting drug related problems (DRP). DRP include medication errors in the process of prescribing, dispensing or administering a drug.

Materials and Methods

Study design: retrospective observational study. Sample: 222 solid organ transplant patients: 94 kidney (9 with pancreas), 31 lung, 86 liver and 19 heart. The IASER® method (identification, act, monitoring, evaluate and results) was used as a tool to analyze and categorize the DRP. Variables: number and type of DRP, drugs, recommended actions, acceptance and cost savings (acquisition drug cost, preparation and administration time cost, GRD cost...)

Results

125 DRP were detected in 88 patients (0.5 problem/ solid organ transplant patient). 60.8% of the patients were males and the average of age was 53 years (7-86). Identified by validation (71.2%) and analytical parameters (24.0%). 41.6% of DRP arrived to the patient. The DRP were categorized into safety (45.6%), indication (33.6%), effectiveness (18.4%) and adherence (2.4%).

81.6% of the actions were accepted by physicians. 72% were relevant to improving patient care. The economic impact was 69,826€/year saved (38,123€/year in kidney transplant, 19,106€/year in lung transplant, 9,658€/year in liver transplant and 2,939€/year in heart transplant).

FIGURE 1. DRP DETECTED ACCORDING TO TYPE OF TRANSPLANT

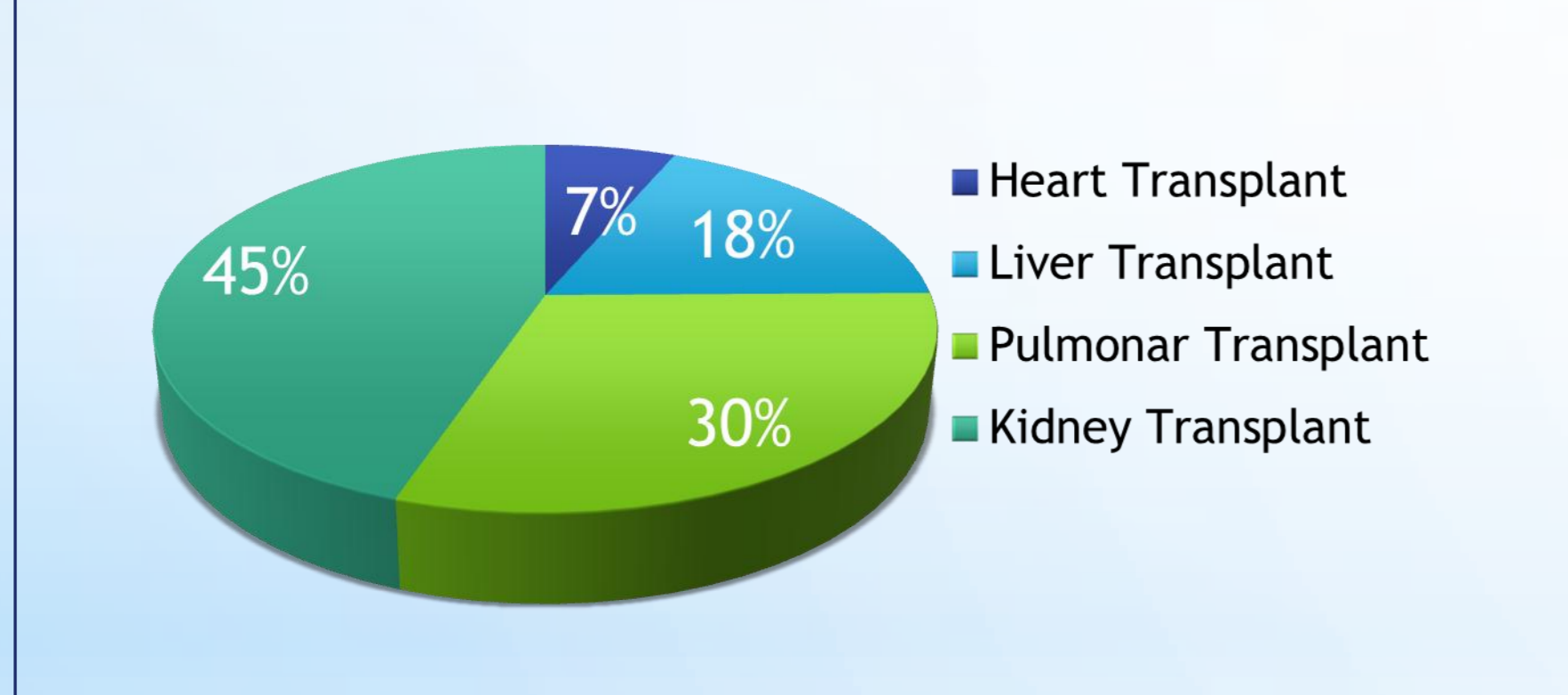


FIGURE 2. THERAPEUTIC GROUPS INVOLVED IN DRP TRANSPLANT PATIENTS

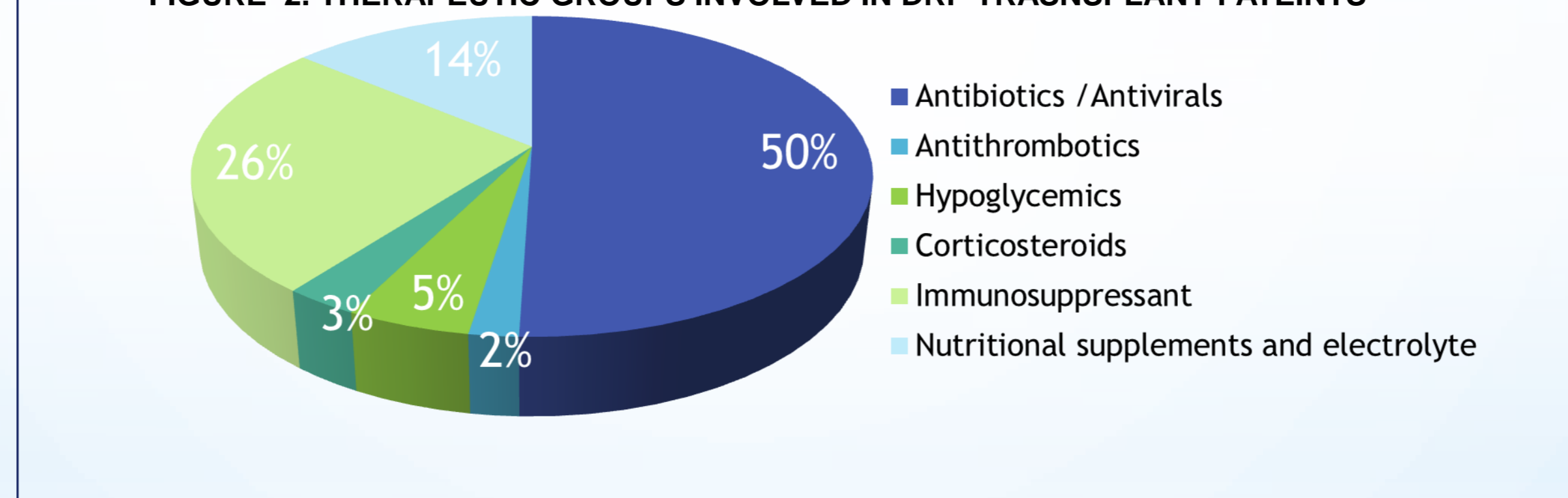


FIGURE 3. DRP CATEGORIZED ACCORDING TO TYPE OF TRANSPLANT

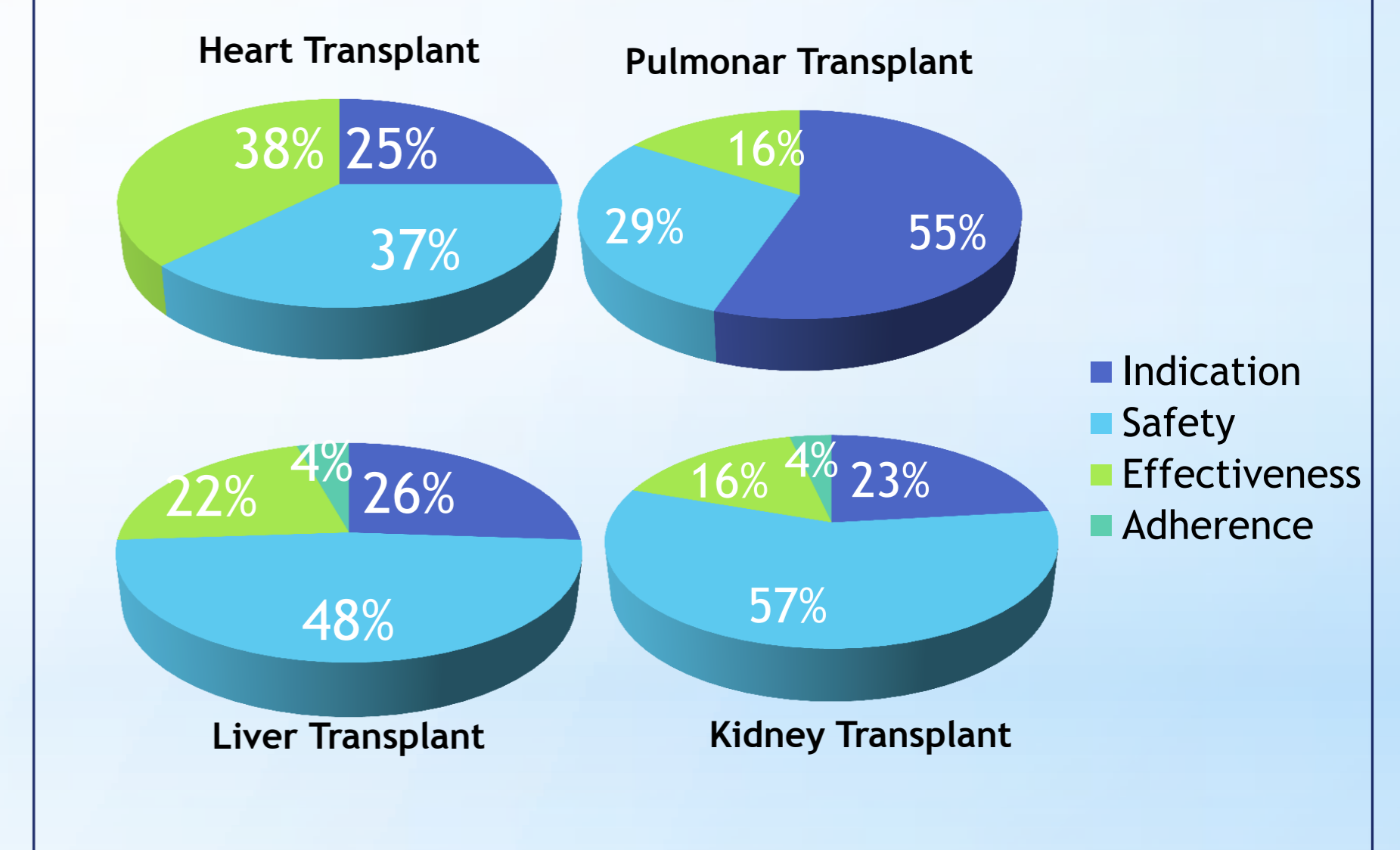


FIGURE 4. DRP RATED BY TYPE OF TRANSPLANT

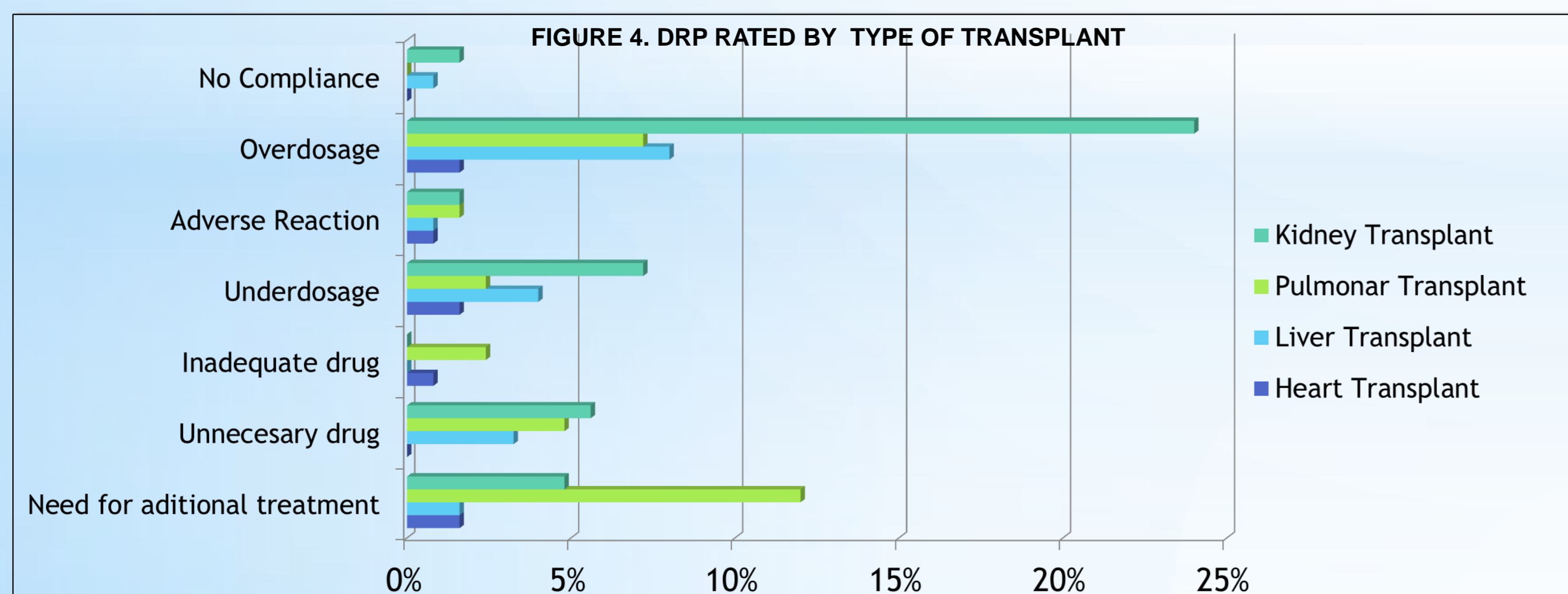
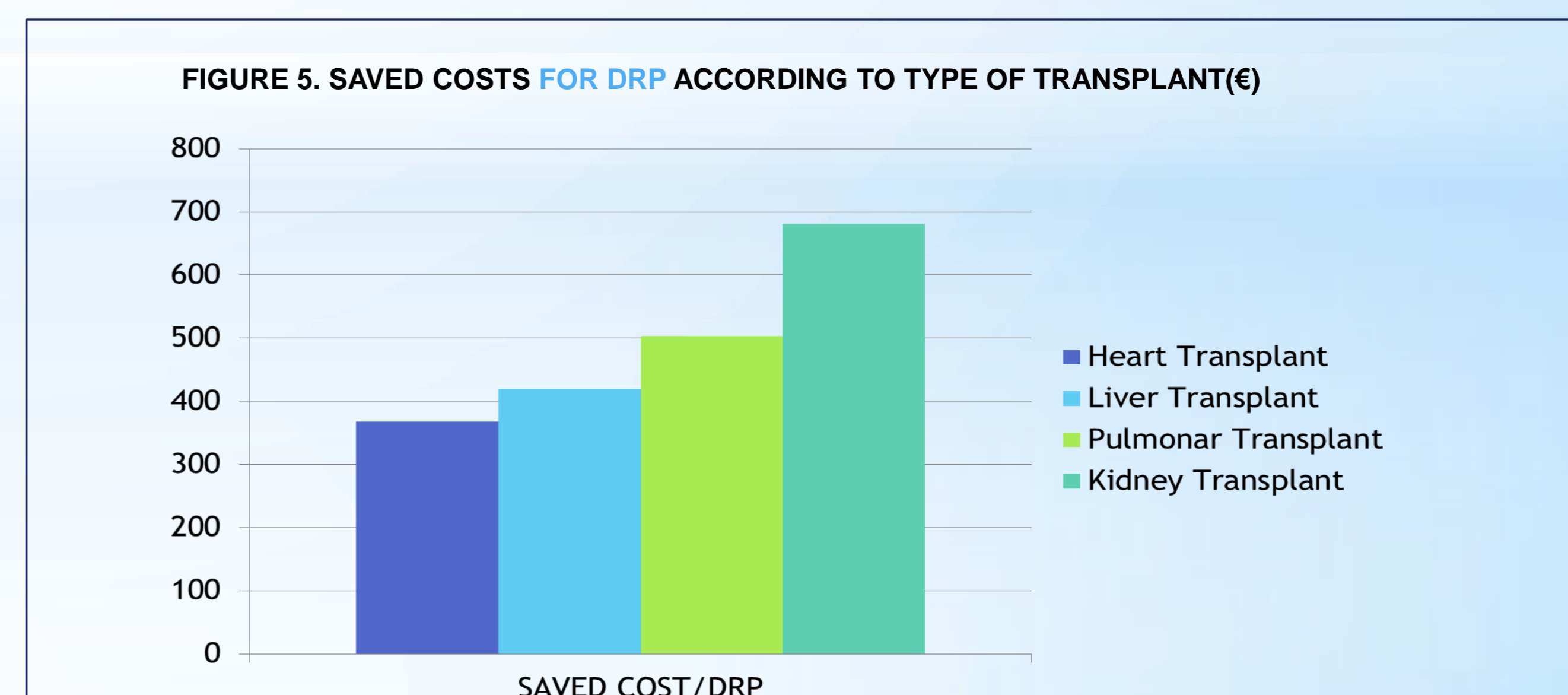


FIGURE 5. SAVED COSTS FOR DRP ACCORDING TO TYPE OF TRANSPLANT(€)



Conclusions

Complex treatments management requires the involvement of all health professionals. A pharmaceutical care programme based on pharmacotherapeutic monitoring resolved DRPs in Solid organ transplant patients improved the quality of treatment saving money.