

## **Donor and recipient mismatch in liver transplantation – time for reconsideration?**

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### **1. Background AND RATIONALE:**

Liver transplantation is the only curative treatment for people with end stage liver. Disease Identifying risk factors that could affect the survival of the graft and recipient is of the utmost importance. Gender mismatch between donor and recipient, particularly, the combination of a female donor to male recipient has been controversial in the past (Ghinolfi et al. 2021).

### **References**

Ghinolfi, Davide; Melandro, Fabio; Torri, Francesco; Martinelli, Caterina; Cappello, Valentina; Babboni, Serena et al. (2021): Extended criteria grafts and emerging therapeutics strategy in liver transplantation. The unstable balance between damage and repair. In: *Transplantation reviews (Orlando, Fla.)* 35 (4), S. 100639. DOI: 10.1016/j.trre.2021.100639.

## **1. Studyplan**

The retrospective database search underlying this study included patients who received liver transplants between 2014 and 2022. The observatory period lasted at the first January 2024 to provide a follow up of ten years and a minimal follow up of 24 months.

## **2. Objective and clinical data:**

1. Liver transplant recipients
  - A. Recipients with a donor and recipient gender mismatch (GM +)
  - B. Recipients without a donor and recipient gender mismatch (GM -)

### **Inclusion criteria for studies:**

- Patients >18yrs
- LT at the Ajmera Transplant Centre Toronto

### **Exclusion criteria**

- Re-Transplantation
- Combined organ transplantation

## **3. Endpoints**

- Patient survival
- Graft survival
- Secondary Endpoints:
  - Rejection
  - Length of hospital stay

### **Recipient variables**

- Demographics
- Immunosuppression
- Comorbidities

### **Statistical Analysis**

- Survival analysis: Kaplan Meier methodology
- Comparison of demographics:
  - Group comparison: Mann-Whitney U test for non-normal data
  - Fisher's exact test for categorical variables and Student's t-test for normal data
- Validation of results: Propensity score matching