



WITS  
TRANSPLANT

*Progressive medicine. exceptional care.*

# Outcomes of paediatric liver transplant for biliary atresia

Presenter: Y. van Heerden  
for South African Transplant Society And SATiba Congress  
Cape Town  
September 2019



Wits University  
Donald Gordon  
Medical Centre

*Patient-centred. Independent. Academic.*

MEDICLINIC 



UNIVERSITY OF THE  
WITWATERSRAND  
JOHANNESBURG

# Introduction

- Most common indication for paediatric liver transplantation
- Surgical standard
- As early as possible (less than 60 days)
- Most patients require transplant

# Methods

- Retrospective patient review
- First time liver transplants
- 2005-2017
- Paediatric Liver Transplant Practice Audit at WDGMC
- Ethics clearance M170752

# Data Management

- Descriptive statistics
  - Categorical – frequency and percentage
  - Continuous – mean, std deviation, median and histograms
- Survival
  - Kaplan-Meier Method

# Data Management

- Complications
  - Biliary (Early vs late) – 90 days
  - Vascular (Early vs late) – 30 days
  - Enteric
- Mortality
  - Cause of death
  - Early vs late – 90 days

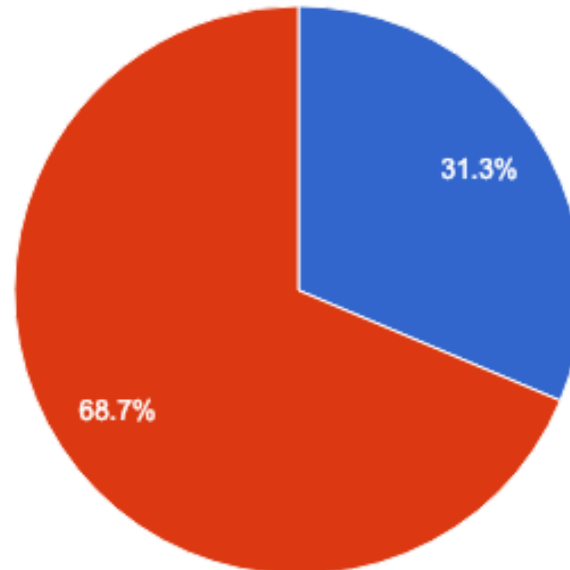


WITS  
TRANSPLANT

Progressive medicine. exceptional care.

# Results

Female n=46  
Male n=21



n = 67/142



Wits University  
Donald Gordon  
Medical Centre

Patient-centred. Independent. Academic.

MEDICLINIC



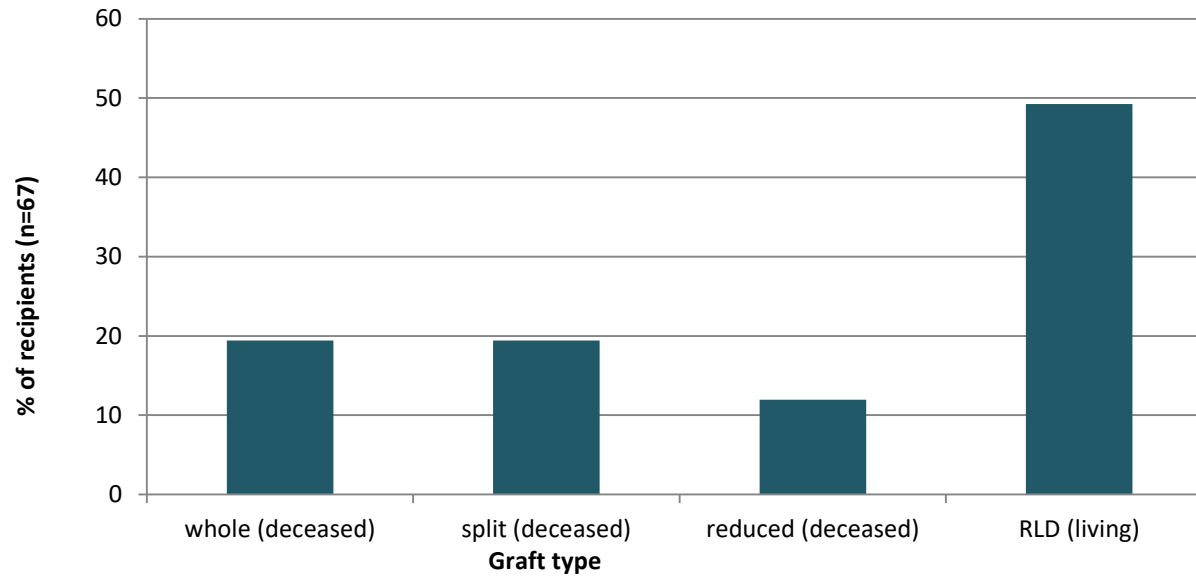
UNIVERSITY OF THE  
WITWATERSRAND  
JOHANNESBURG



WITS  
TRANSPLANT

Progressive medicine. exceptional care.

# Results



Wits University  
Donald Gordon  
Medical Centre

Patient-centred. Independent. Academic.

MEDICLINIC



UNIVERSITY OF THE  
WITWATERSRAND  
JOHANNESBURG

# Patient characteristics

Recipient age at transplant	21.6m(IQR: 13.2-1-28.8m)	←
Recipient weight at transplant	9.4kg(7.4-13kg)	←
Time from listing to transplant	3.9 Months (IQR:2.8-6.4 months)	←
Number of days patient hospitalised	36 days (IQR:23-54 days)	
Number of days patient in ICU	11 days (IQR: 7-30 days)	
Number of days patient in high care	4 days (IQE: 2-7days)	
Transplant PELD score	18 (IQR: 15-21.75)	
Serum Albumin at Transplant (n=59/67)	29g/L (IQR: 26-33.5g/L)	

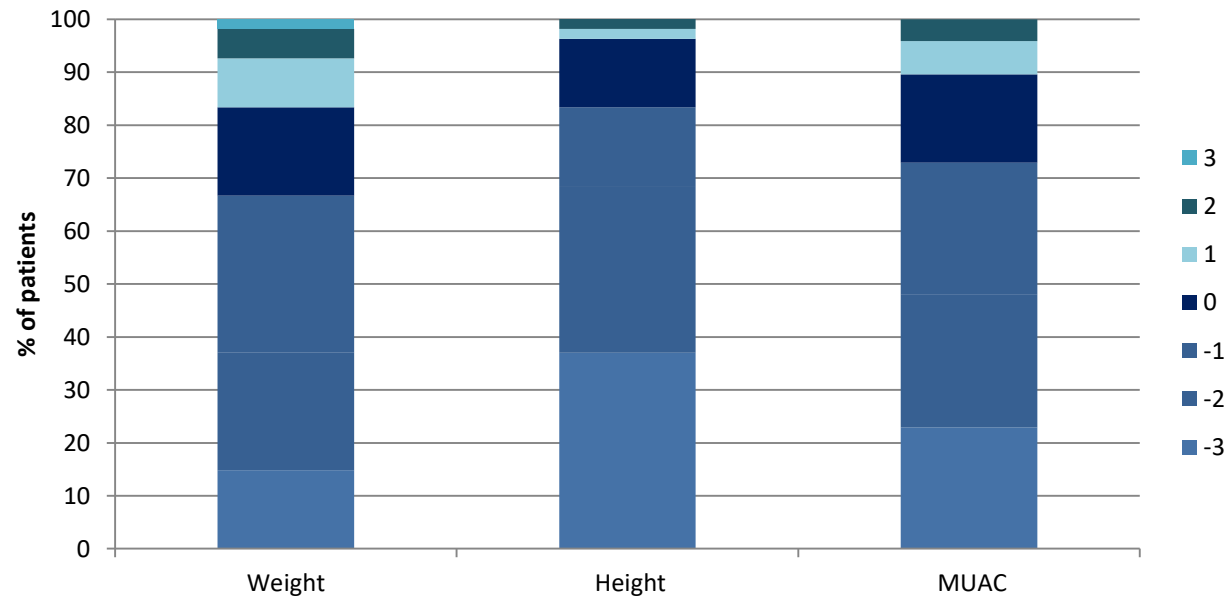




WITS  
TRANSPLANT

Progressive medicine. exceptional care.

# Nutritional Status



Wits University  
Donald Gordon  
Medical Centre

Patient-centred. Independent. Academic.

MEDICLINIC



UNIVERSITY OF THE  
WITWATERSRAND  
JOHANNESBURG

# Complications

- 26 relooks in 24 patients
- Enteric complications – 10 (13%)
- Vascular complications – 8 (12%)
  - Portal Vein Thrombosis - 6
  - Hepatic Artery Thrombosis - 2

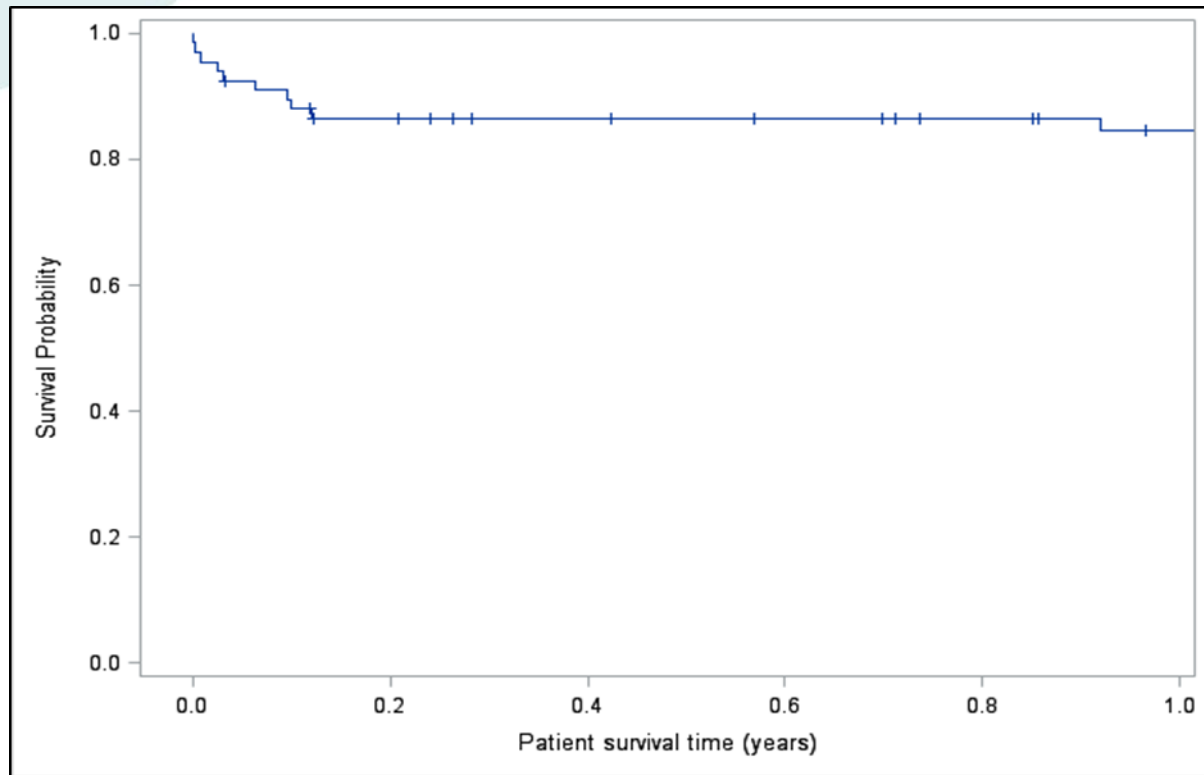
# Complications

- Biliary complications (24 in 23 patients)
  - Anastomotic leaks (7)
  - Cut surface leaks (3)
  - Biliary strictures (11)
  - Blind ending ductal system (2)
  - Retained stent (1)



WITS  
TRANSPLANT

Progressive medicine. exceptional care.



Wits University  
Donald Gordon  
Medical Centre

Patient-centred. Independent. Academic.

MEDICLINIC

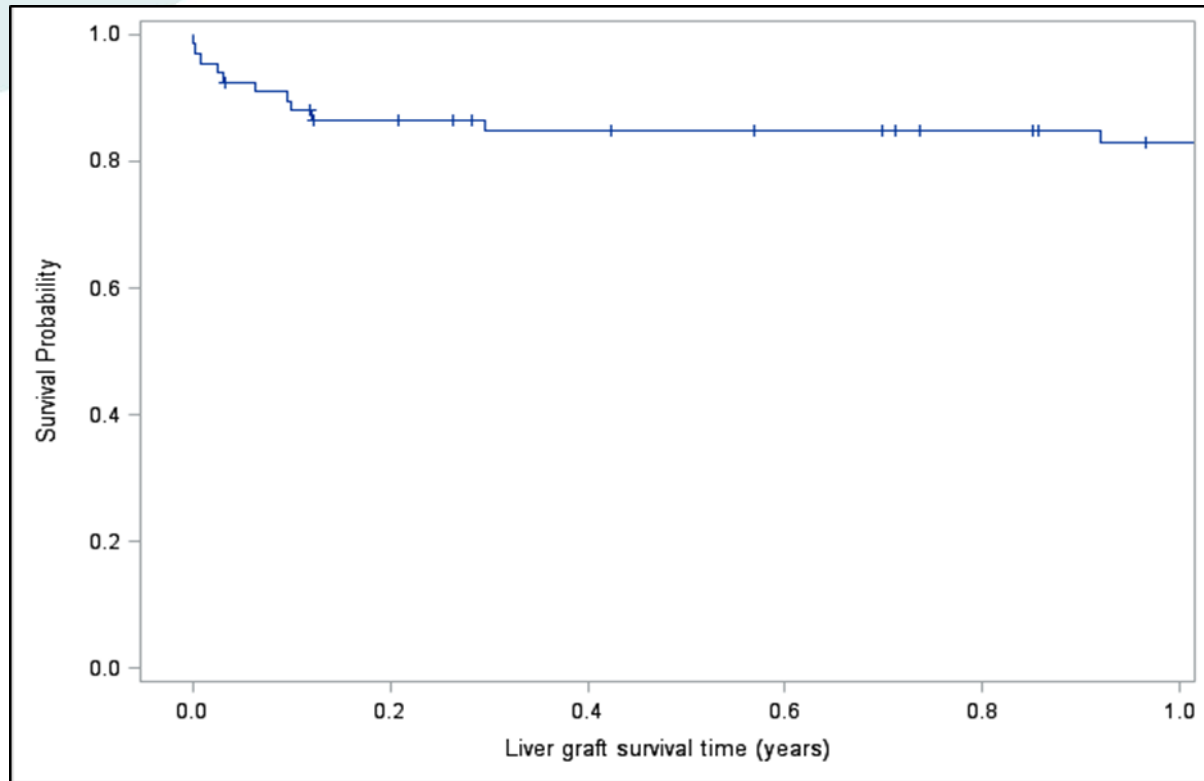


UNIVERSITY OF THE  
WITWATERSRAND  
JOHANNESBURG



WITS  
TRANSPLANT

Progressive medicine. exceptional care.



Wits University  
Donald Gordon  
Medical Centre

Patient-centred. Independent. Academic.

MEDICLINIC



UNIVERSITY OF THE  
WITWATERSRAND  
JOHANNESBURG

## Other results

- 43/67 patients had previous KPE
- 25/43 – median age at KPE of 80 days
- 5 patients met criteria for BASM
- Mortality
  - 15 deaths
  - 10/15 infection
  - 9/15 - early

# Limitations

- Retrospective nature – inconsistent data
- Short median follow – 1,7 years
- Small sample to analyse factors contributing to these outcomes

# Conclusion

- Results for primary KPE are poor in SA
- Results for Liver Transplant are excellent
- Early referral of all patients with biliary atresia
- Consider primary liver transplant early on in the decision-making pathway to optimise patient survival





**WITS  
TRANSPLANT**

*Progressive medicine. exceptional care.*

# Thank you



**Wits University  
Donald Gordon  
Medical Centre**

*Patient-centred. Independent. Academic.*

**MEDICLINIC** 



UNIVERSITY OF THE  
WITWATERSRAND  
JOHANNESBURG