

Living related renal  
transplantation from  
grandparental donors to  
paediatric recipients



- 7 children ( 8/9/09 – 2/5/17 Tx dates)
- 4 girls (57%)
- 3 boys (43%).
- Age at time of Tx 2.08y – 11.7y
- (median 6.86y, mean 7.1y )

- Diagnoses:
- CNS
- Dysplasia
- PUV
- Hydronephrosis
- Retroviral disease
- FSGS (sec)
- Dysplasia plus complex cloacal anomaly
  
- 4 referrals from OOC (Bristol , Cardiff, Manchester)
- 2- complex recipients
- 1 – complex donor anatomy
  
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# MODALITIES Pre Tx

- Pre-emptive – 3
- PD - 2
- HD - 2

# Pre Tx

- Weight – 10.8 kg – 46.9
- (Median - 16.8 kg)
- (Mean – 21.9)
  
- 4 pts under 20 kg thus intraperitoneal approach.
- 3 others – laporoscopic surgery.

# Pre Tx

- Plasma creatinine – 153 – 526  $\mu\text{mol/L}$
- 1<sup>st</sup> Transplant – 5
- 2<sup>nd</sup> Transplant - 2

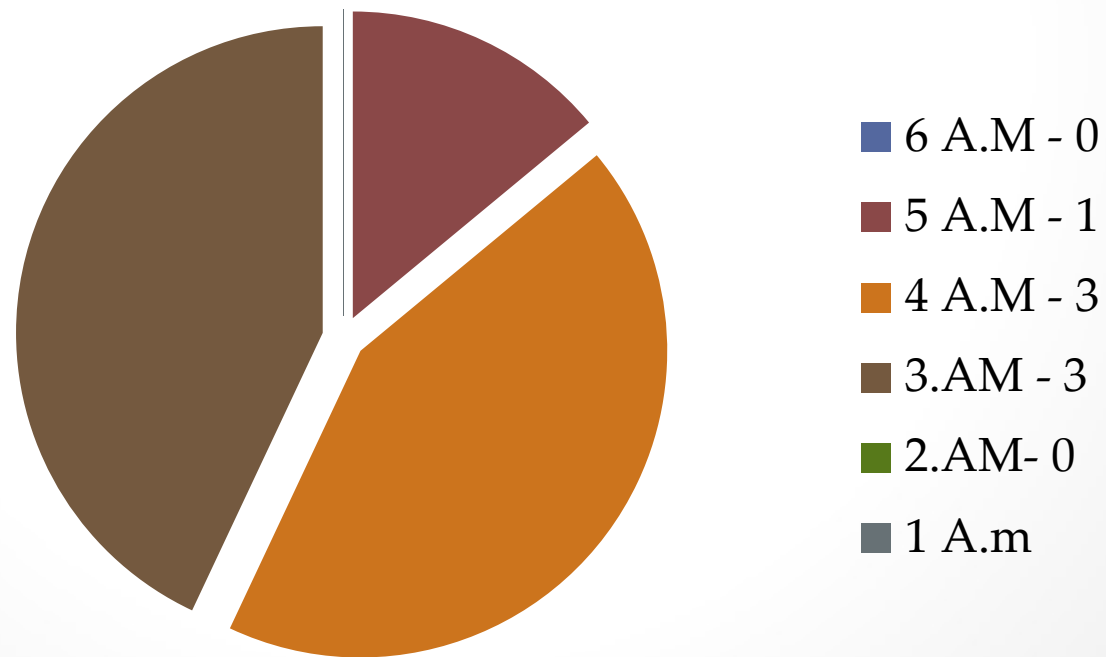
# Donors

- 5 grandmothers (71%)
- 2 grandfathers (29%)
- Ages – 45 -56y (median 50 y, mean 50yrs)
- eGFR – 72 – 89 (median 84, mean 82)

# MM

- All HLA compatible
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## Mismatches





# BG

- All BG compatible
- 3 BGO donors to BG A recipients
- 4 BG O donors to BGO recipients.

# Why?

- 2 families wanted to use parents for subsequent Transplants in the future.
- 2 psychosocial issues.
- - a) Father in Prison, Mother drug addiction, child protection issues and child cared for by Grandmother
- -b) Mother psychological issues, father absent. Child cared for by Grandmother, who then donated.
- 2 patients had already received LDTX from a parent which failed. The other parents were medically unsuitable.
- 1 parent medically unsuitable and absent father.



# Recipient follow up

- Time since Tx – 0.5 m – 7.5y
- (Median 2.75y, mean 1.2 y)
  
- Outcomes
- 6 Tx still working
- 1 graft failure (retroviral disease).



# Functioning Grafts

- Plasma Cr 56 – 92  $\mu\text{mol/L}$
- e GFR 52 – 83 ml/min
- Mean 52 ml/min
- Median 56 ml/min

# Post Tx Rejection episodes

- Incomplete data in 1 patient
- 2- no Biopsies required
- 3 patients - 4 biopsies, no rejection, mild chronic changes.

JC 10yr s

Grandfather was donor aged 50 yrs  
Out of centre referral as donor had  
multiple vessels.

Family wanted to use Grandfather  
as 1<sup>st</sup> donor and donate in the  
future.

Grandfather had 3 renal arteries  
bilaterally.

Good function currently , 1 month  
out, Cr 56.