

NHS BLOOD AND TRANSPLANT

MULTI-VISCERAL AND COMPOSITE ADVISORY GROUP

PATIENT SURVIVAL AFTER INTESTINAL TRANSPLANT

INTRODUCTION

- 1 This regular paper reports on patient survival following deceased donor intestinal transplantation for transplants performed nationally. The period analysed was 1 January 2002 to 31 December 2017, in which 196 elective intestinal transplants were carried out in first time recipients. Follow-up data were available on the UK Transplant Registry (UKTR) as at 6 February 2018 for 193 (98%) patients. Note that this report excludes one living donor transplant performed at King's College in 2017.

DATA ANALYSIS

- 2 Kaplan-Meier survival functions were produced separately for paediatric and adult patients and within these cohorts, by transplant type and era. Short/medium-term survival rates are displayed within the plots. The results are based on small numbers, are not risk-adjusted and on the whole are not statistically significant so for these reasons should be treated as guidance only.
- 3 The key messages are:
 - 5 year survival rate estimates for paediatric and adult elective intestinal transplant recipients are 61.9% and 54.1%, respectively (**Figure 2**). **Figure 1** shows the respective 90 day and 1 year survival rate estimates.
 - Short-term outcomes appear to have improved over the analysis time period for paediatric transplant recipients (**Figure 3**). This was not evident for adult transplant recipients (**Figure 5**), however neither change over time was significant.
 - Bowel only (BO) transplants appear to have superior short-term outcomes compared with multivisceral (MV) or liver, bowel and pancreas (LBP) transplants and modified multivisceral (MMV) or bowel and pancreas (BP) transplants (**Figure 4** and **Figure 6**). However, note that there were too few paediatric BP or MMV transplants to be included in **Figure 4**.
- 4 Additional information:
 - There have been 7 super-urgent intestinal transplants performed in the UK to date in 6 different patients. Death has been reported for 2 of these patients (**Table 1 (removed as patient identifiable)**).
 - There have been 25 transplants including abdominal wall in the time period into 24 different adult patients: 14 bowel only, 10 not including the liver and 1 including the liver¹. Oxford performed 23 (92%) of these transplants with the rest at Cambridge. **Table 2 (removed as patient identifiable)** presents the causes of death of the abdominal wall recipients who died. **Figure 7** shows the Kaplan-Meier survival function for abdominal wall recipients.
 - A variety of causes of death have been reported to the UKTR for the 67 patients who are deceased following intestinal transplantation (**Table 3 (removed as patient identifiable)**).
 - There has been one living donor liver and bowel transplant performed by King's College in 2017. This is excluded from this report.

¹ In addition, we are aware of at least two cases of abdominal wall only registrations in the time period. Transplant and outcome data are not available for this type of transplants in the UKTR.

ACTION

- 5 Members are asked to note that 90-day survival for adult recipients is no longer significant by era (**Figure 5**) which was noted previously. Timely provision of three-month and annual follow-up data will aid more accurate estimation of outcomes following intestinal transplantation.

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Figure 1 90 day and 1 year patient survival following intestinal transplantation, by age group

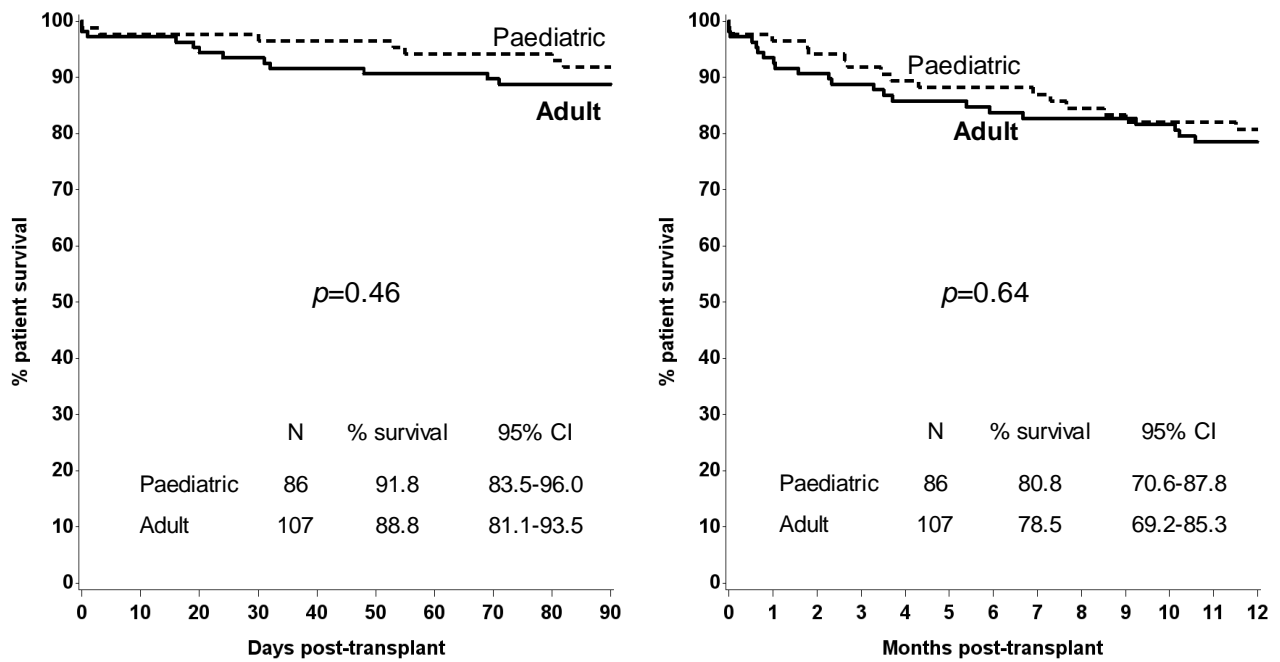
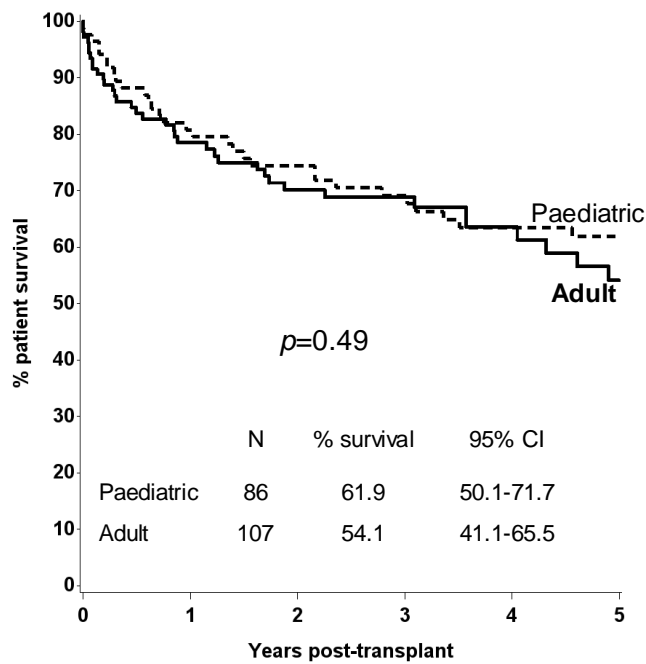


Figure 2 5 year patient survival following intestinal transplantation, by age group



PAEDIATRIC PATIENTS

Figure 3 90 day and 1 year paediatric patient survival following intestinal transplantation, by transplant era

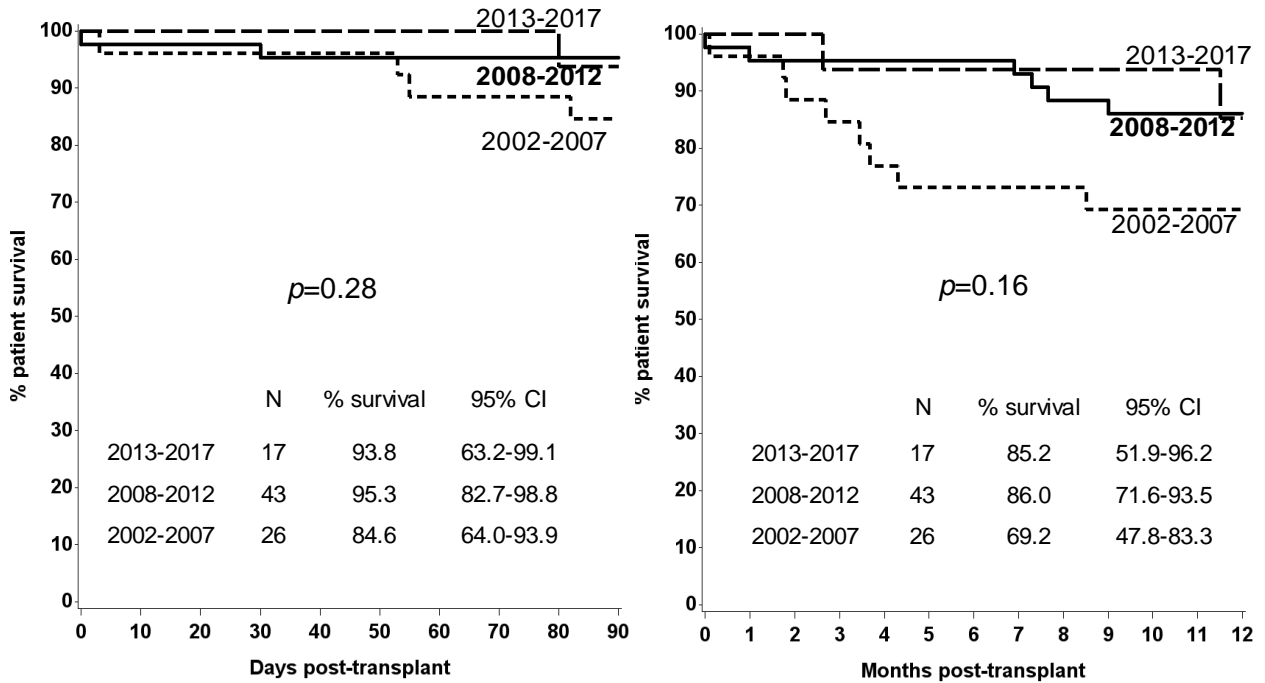
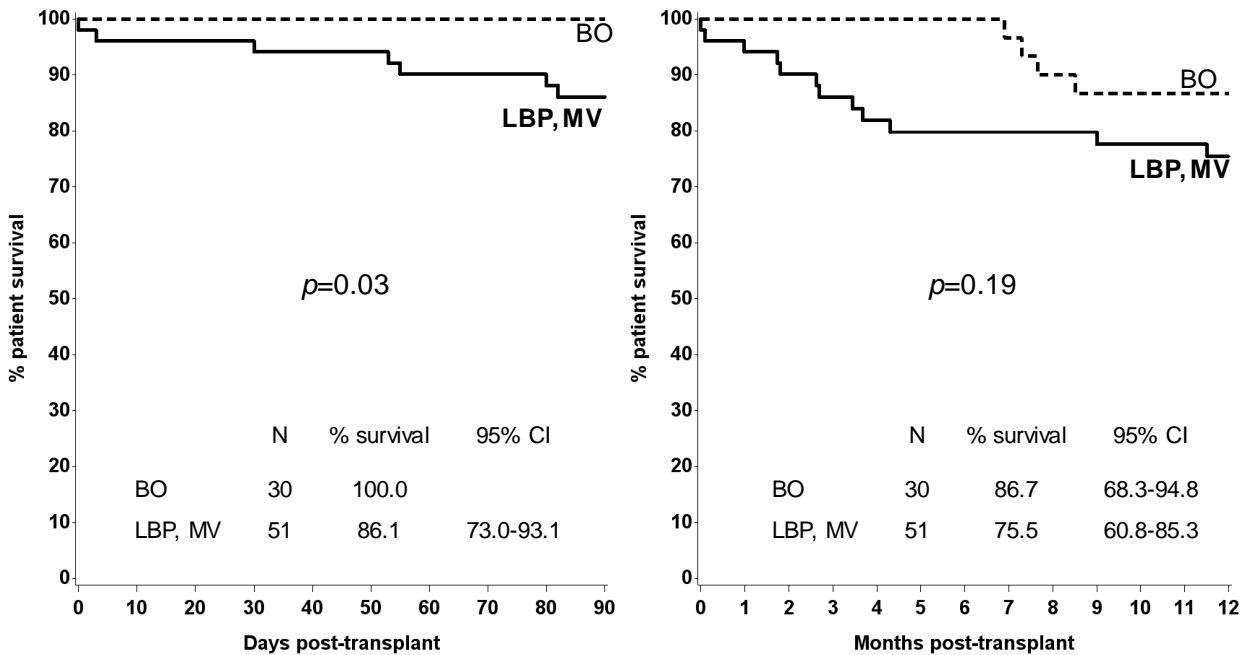


Figure 4 90 day and 1 year paediatric patient survival following intestinal transplantation, by transplant type



ADULT PATIENTS

Figure 5 90 day and 1 year adult patient survival following intestinal transplantation, by transplant era

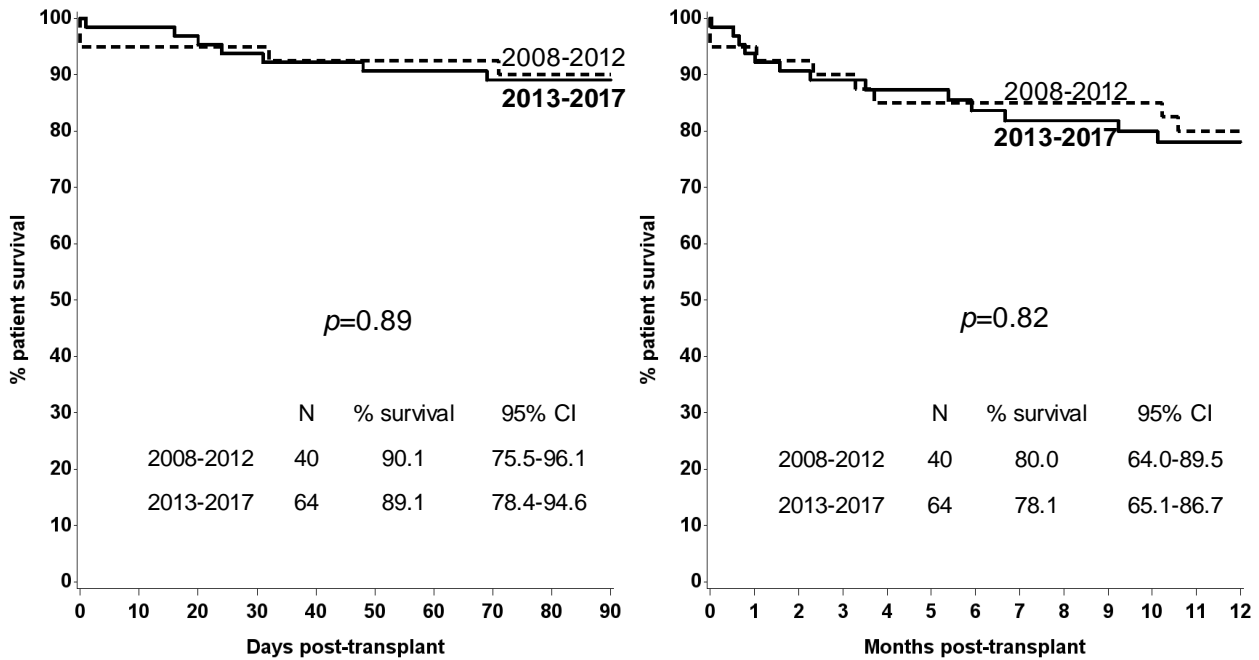
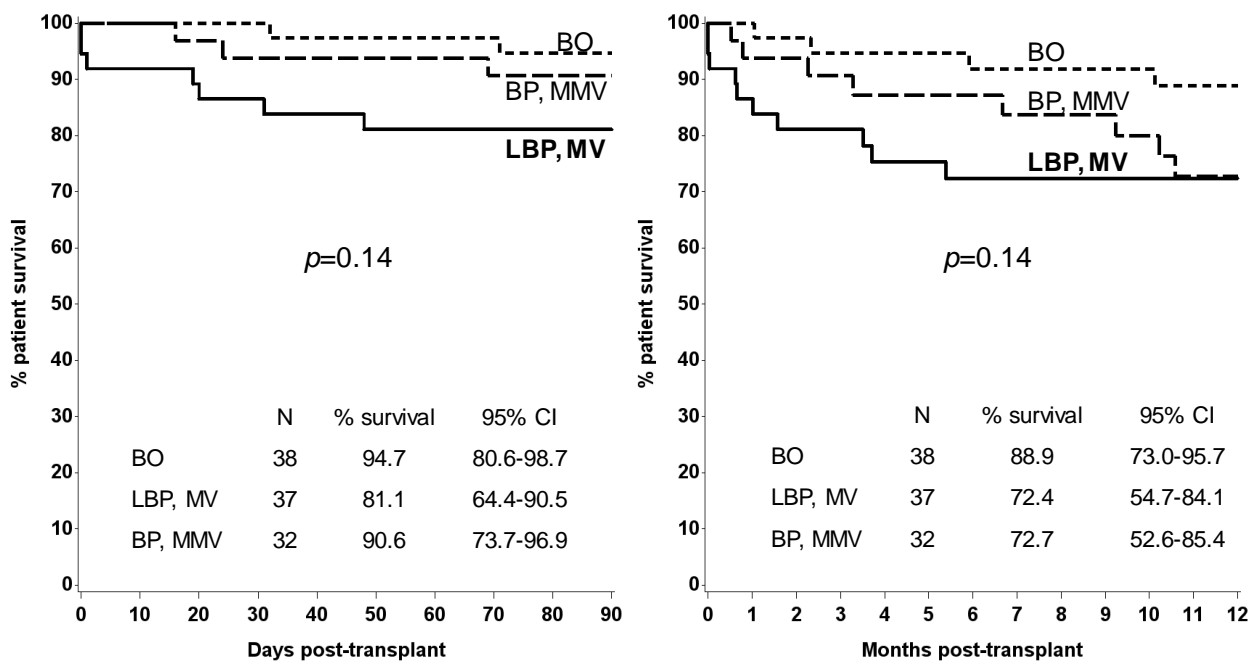


Figure 6 90 day and 1 year adult patient survival following intestinal transplantation, by transplant type



ABDOMINAL WALL PATIENTS**Figure 7 90 day and 1 year adult patient survival following abdominal wall transplantation**