

NHS BLOOD AND TRANSPLANT**LIVER ADVISORY GROUP****GROUP 2 AND NON-UK RESIDENT EU GROUP 1 PATIENT
TRANSPLANTS****SUMMARY****BACKGROUND**

- 1 This paper reports on a) liver transplants performed in Group 2 patients and b) liver transplants performed in Group 1 non-UK resident EU patients, between 1 October 2012 and 30 September 2013.

METHODS

- 2 Data on all Group 2 patients and all Group 1 non-UK resident EU patients who received a liver transplant in the UK between 1 October 2012 and 30 September 2013 were obtained from the UK Transplant Registry (UKTR) as recorded on 17 October 2013.

RESULTS**Group 2 patients**

- 3 There were 14 Group 2 liver transplants performed in the UK between 1 October 2012 and 30 September 2013, six in paediatric patients and eight in adult patients. Of these 14 transplants performed, nine received a reduced liver from a living donor, two received a split liver transplant from a UK donor after brain death (DBD), two received a whole liver from a UK DBD donor and one received a whole liver from a UK donor after circulatory death (DCD).

Group 1 non-UK resident EU patients

- 4 There were 16 Group 1 non-UK resident EU patient liver transplants performed in the UK between 1 October 2012 and 30 September 2013, six in paediatric patients and ten in adult patients. Of the ten transplants in adults, two were performed on the same patients, i.e. two patients received two transplants each. Of the 16 transplants performed in total, three received a reduced liver transplant using a liver from a living donor, four received a split liver transplant using a liver from a UK DBD donor, seven received a whole liver from a UK DBD donor and two a whole liver from a UK DCD donor.

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NHS BLOOD AND TRANSPLANT

LIVER ADVISORY GROUP

GROUP 2 AND NON-UK RESIDENT EU GROUP 1 PATIENT TRANSPLANTS

BACKGROUND

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RESULTS

Group 2 transplants

- 3 **Table 1** summarises Group 2 liver transplants by transplant centre, transplant type and donor type (DBD=donors after brain death, DCD=donors after circulatory death) from 1 October 2012 to 30 September 2013.

Transplant centre	Transplant type	Donor type			Total
		DBD	DCD	Living	
Royal Free	Split	1	0	0	1
King's College	Reduced	0	0	9	9
	Split	1	0	0	1
	Whole	2	1	0	3
TOTAL		4	1	9	14

DBD=Donors after brain death; DCD=Donors after circulatory death

- 4 There were 14 Group 2 liver transplants performed in the UK between 1 October 2012 and 30 September 2013. Of these, six were in paediatric patients, four of whom received reduced liver transplants using livers from living donors and two received a whole liver transplant and a split liver transplant, respectively, using UK DBD donor livers.
- 5 Of the eight adult Group 2 patients, five received reduced liver transplants using livers from living donors and three received livers from deceased UK donors, where two were whole liver transplants using a DBD and a DCD donor liver, respectively, and one was a split liver transplant using a DBD donor liver.

- 6 The permanent country of residence, recorded on the UKTR, for the six paediatric Group 2 patients was Kuwait (3), Saudi Arabia (1) and United Arab Emirates (2). The permanent country of residence for the eight adult Group 2 patients was Brazil (1), Kuwait (2), Libya (1), Oman (1), Qatar (1) and United Arab Emirates (2).
- 7 **Appendix I** contains details of all patients in this cohort.
- 8 Further information regarding the five deceased UK donor livers used to transplant two Group 2 paediatric patients and three Group 2 adult patients, as recorded on the UKTR, is provided in **Table 2**.

Table 2 Further information regarding the five UK deceased donor livers used to transplant five Group 2 patients			
Donor type	Recipient age at transplant (years)	Transplant type	Liver offering information recorded on the UKTR
DBD	0	Whole	Donor was less than 1 year old. Duty Office gave routine sequence, emphasising that first round of offering was for paediatric patients and small adults only. King's College accepted for a private paediatric recipient after all centres declined on size, age or blood type.
DBD	2	Split	Donor met criteria for liver splitting. Leeds accepted right lobe and segment 4 for Group 1 adult patient, but had no suitable recipient for left lateral segment. King's College and Birmingham declined for Group 1 paediatric patients on size, no suitable recipients, respectively. King's College wanted to use left lateral segment for Group 2 paediatric and Leeds were happy for this to go ahead.
DBD	39	Whole	The Royal Free accepted the offer for Group 1 patient but subsequently declined on inspection due to liver being moderately fatty and soft. Liver fast tracked. Cambridge and Edinburgh declined for Group 1 patient as liver fatty and CIT too long. Newcastle, Birmingham and Leeds declined for Group 1 recipient as liver fatty. King's accepted liver for Group 2 patient.
DBD	40	Split	The Royal Free accepted right lobe for Group 1 recipient. King's College retrieved liver which was found to be fatty, very soft, patchy with several lesions. King's College biopsied liver and made The Royal Free aware of condition of liver. Leeds and Birmingham declined left lobe for paediatric patients due to no suitable recipients and age, respectively. Left lobe then fast tracked for adult recipients. All centres declined on anatomy, CIT, history, no suitable recipients, so The Royal Free used left lobe in Group 2 patient.
DCD	48	Whole	Liver poorly perfused despite 10L of aortic and 3L portal (Segments 8 and 6 not perfused and part of 7, 2 and 3). Liver fast tracked. All centres declined for Group 1 patients due to perfusion so liver offered for Group 2 patients (Birmingham would have accepted but were already transplanting). King's College accepted as no other centre had a suitable Group 2 patient.

Group 1 non-UK resident EU patient transplants

- 9 **Table 3** summarises Group 1 transplants for non-UK resident EU patients by transplant centre, transplant type and donor type from 1 October 2012 to 30 September 2013.

Transplant centre	Transplant type	Donor type			Total
		DBD	DCD	Living	
Royal Free	Whole	2	1	0	3
King's College	Reduced	0	0	3	3
	Split	2	0	0	2
Birmingham	Whole	4	1	0	5
	Split	2	0	0	2
	Whole	1	0	0	1
TOTAL		11	2	3	16

DBD=Donors after brain death; DCD=Donors after circulatory death

- 10 There were 16 Group 1 non-UK resident EU patient liver transplants performed in the UK between 1 October 2012 and 30 September 2013. Of these, six were in paediatric patients. Three of these paediatric patients received a reduced liver transplant using a liver from a living donor and three received a split liver transplant using a liver from a UK DBD donor.
- 11 Of the ten adult non-UK resident EU Group 1 transplants, two were performed on the same recipients, i.e. two patients received two transplants each. Of the six adult non-UK resident EU Group 1 patients that underwent one transplant each, five received a whole liver transplant using a liver from a UK DBD donor and one received a split liver transplant using a liver from a UK DBD donor. Two of the patients receiving a whole liver transplant from a UK DBD donor were registered as super-urgent. Of the two adult non-UK resident EU Group 1 patients that underwent two transplants each, one adult received a whole liver transplant using a liver from a UK DCD donor and, subsequently, a whole liver transplant using a liver from a UK DBD donor; both were elective registrations. The second adult received a whole liver transplant from a UK DCD donor as an elective registration and, subsequently, a whole liver transplant from a UK DBD donor as a super-urgent registration.
- 12 The permanent country of residence, recorded on the UKTR, for the six paediatric Group 1 non-UK resident EU patients was Bulgaria (1), Cyprus (1) and Greece (4). The permanent country of residence for the eight adult Group 1 non-UK resident EU patients was Cyprus (2), Gibraltar (1), Greece (3) and Malta (2).
- 13 **Appendix II** contains details of all patients in this cohort.

Appendix I Details of the Group 2 patient liver transplants in the UK, 1 October 2012 - 30 September 2013					
Patient number	Age at transplant (years)	Permanent country of residence	Urgency status	Donor type	Transplant type
King's College					
1	2	Kuwait	Elective	DBD	Split
2	0	Kuwait	Elective	DBD	Whole
3	39	Oman	Elective	DBD	Whole
4	48	Libya	Elective	DCD	Whole
5	1	Kuwait	Elective	Living	Reduced
6	65	Kuwait	Elective	Living	Reduced
7	58	Kuwait	Elective	Living	Reduced
8	60	Qatar	Elective	Living	Reduced
9	1	Saudi Arabia	Elective	Living	Reduced
10	1	Uae	Elective	Living	Reduced
11	4	Uae	Elective	Living	Reduced
12	71	Uae	Elective	Living	Reduced
13	38	Uae	Elective	Living	Reduced
Royal Free					
14	40	Brazil	Elective	DBD	Split

DBD=Donors after brain death; DCD=Donors after circulatory death

Appendix II Details of the Group 1 non-UK resident EU patient liver transplants in the UK, 1 October 2012 - 30 September 2013					
Patient number	Age at transplant (years)	Permanent country of residence	Urgency status	Donor type	Transplant type
Birmingham					
1	5	Bulgaria	Elective	DBD	Split
2	32	Greece	Elective	DBD	Whole
3	30	Greece	Elective	DBD	Split
King's College					
4	1	Cyprus	Elective	DBD	Split
5	46	Gibraltar	Super-urgent	DBD	Whole
6	40	Greece	Elective	DBD	Whole
7	10	Greece	Elective	DBD	Split
8	52	Malta	Elective	DBD	Whole
9	63	Malta	Elective	DCD	Whole
9	63	Malta	Elective	DBD	Whole
10	0	Greece	Elective	Living	Reduced
11	2	Greece	Elective	Living	Reduced
12	6	Greece	Elective	Living	Reduced
Royal Free					
13	24	Cyprus	Super-urgent	DBD	Whole
14	46	Cyprus	Elective	DCD	Whole
14	46	Cyprus	Super-urgent	DBD	Whole

DBD=Donors after brain death; DCD=Donors after circulatory death