

## NHS BLOOD AND TRANSPLANT

### BOWEL ADVISORY GROUP

#### POTENTIAL FOR ORGAN DONATION AND TRANSPLANTATION, 1 APRIL 2011 – 31 MARCH 2012

#### INTRODUCTION

- 1 This paper examines the pathway from identification of a potential organ donor through to transplantation of donor organs and identifies points at which potential donors or organs are 'lost'. It is important that as many viable organs as possible are transplanted, and this paper examines reasons why donors do not proceed to donation and why organs are not donated or transplanted. Action identified by NHSBT to try to minimise loss of potential donors is highlighted.

#### DATA

- 2 Data on possible donors prior to donation were obtained from the Potential Donor Audit (PDA), which includes all audited patient deaths in UK Intensive Care Units and Emergency Departments as reported by 5 July 2012. Patients aged 76 years or older and those who died in a Cardiothoracic ICU were not audited.
- 3 Following donation, data on all UK deceased donors who donated at least one organ for transplantation were obtained from the UK Transplant Registry.

#### DEFINITIONS

- 4 **Possible donors after brain death (DBD)** are defined as patients in whom neurological death was suspected; that is, met the four criteria: apnoea, coma from known aetiology and unresponsive, ventilated and fixed pupils.
- 5 **Possible donors after circulatory death (DCD)** are defined as patients not confirmed dead by neurological criteria where imminent death was anticipated and treatment was withdrawn.

#### SECTION 1 – POTENTIAL ORGAN DONORS

- 6 Between 1 April 2011 and 31 March 2012, there were 1,659 possible DBD donors and 6,449 possible DCD donors. Of these, 625 (38%) became DBD donors and 401 (6%) became DCD donors. **Figures 1.1 and 1.2** show a detailed breakdown from the number of audited patient deaths to the number of solid organ donors for potential DBD and DCD, respectively. **Figure 1.3** uses the flow chart information to illustrate the stages where opportunities for organ donation are not realised. **Tables 1.1 to 1.6** then provide the reasons why possible donors are 'lost' at each stage.

Figure 1.1 Donation after brain death

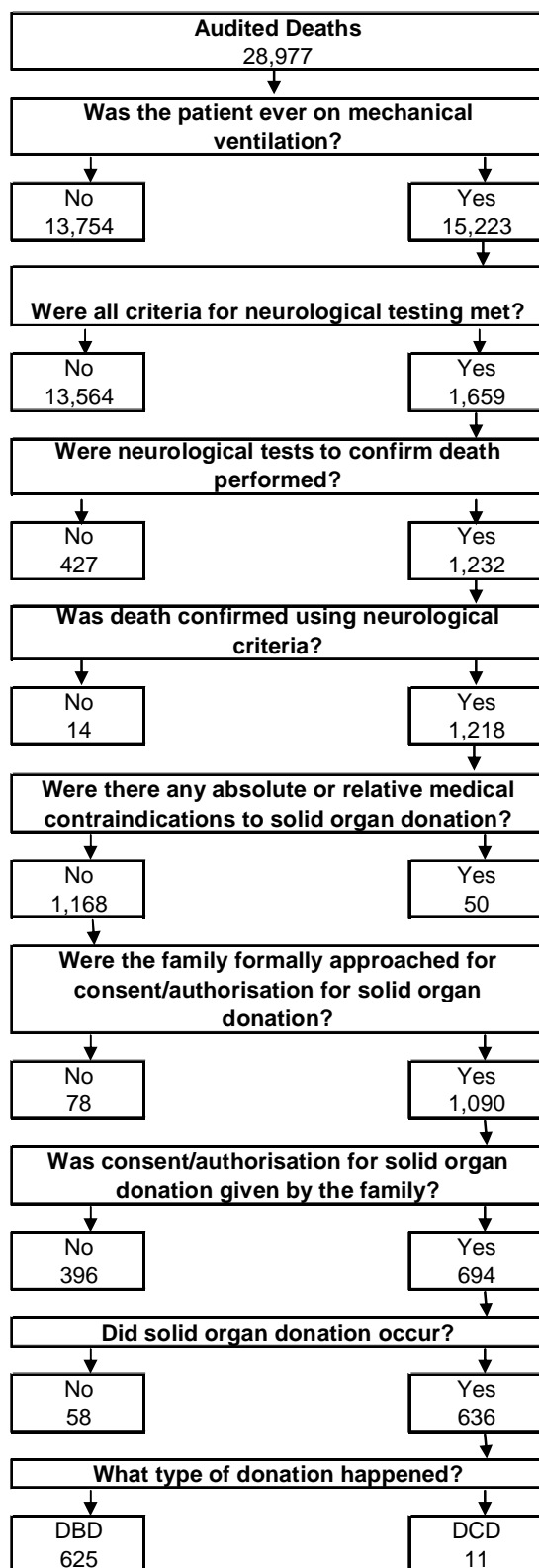
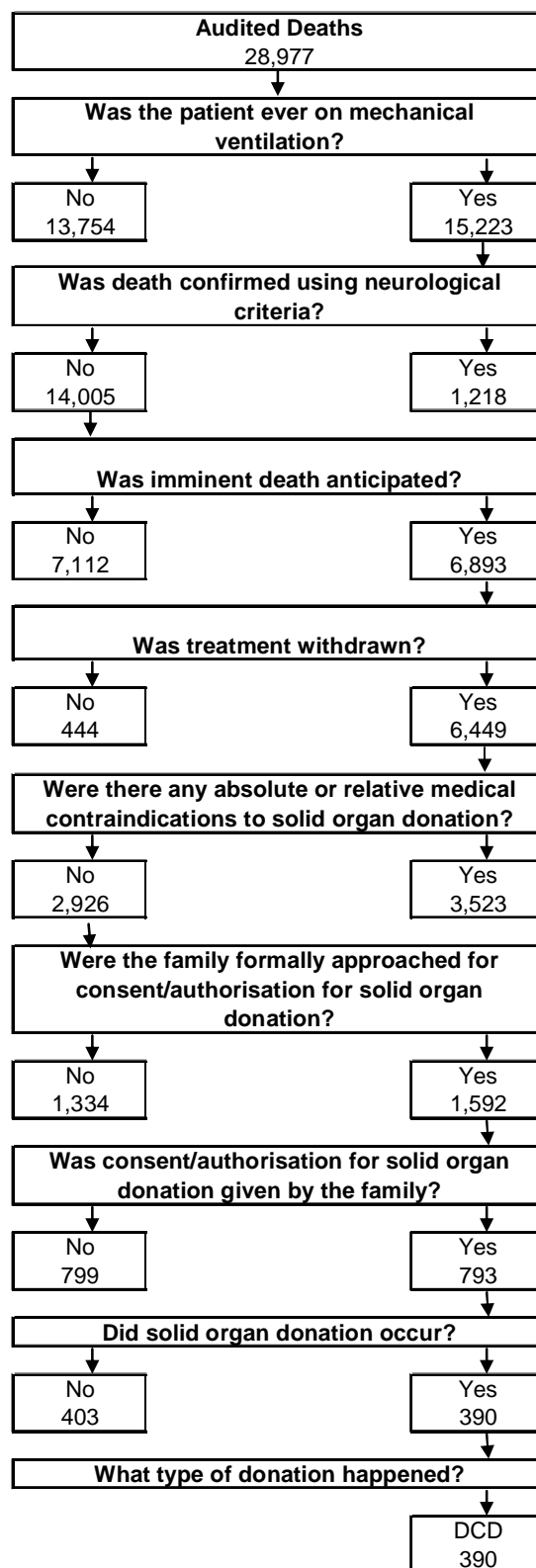
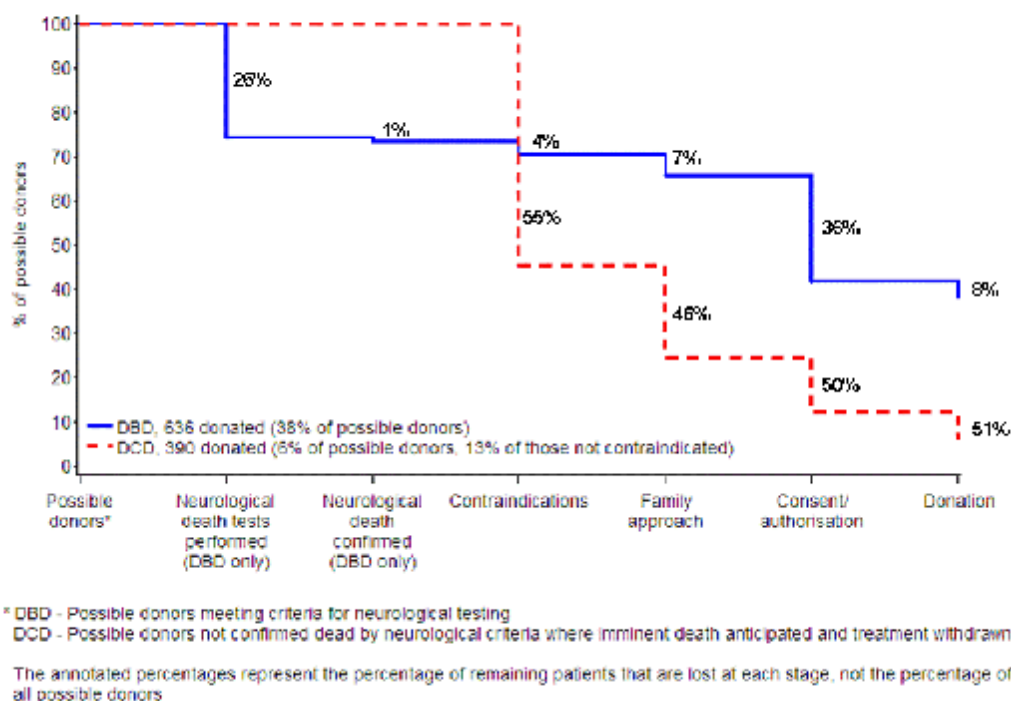


Figure 1.2 Donation after circulatory death



**Figure 1.3 Stages at which possible organ donors lose the opportunity to become actual donors, 1 April 2011 to 31 March 2012**



## NEUROLOGICAL DEATH TESTING RATE

7 1,232 (74%) possible DBD donors underwent neurological tests to establish whether neurological death had occurred. 427 (26%) did not undergo tests, the primary reasons for which are summarised in **Table 1.1**. The most common reason for not testing, given in 84 (20%) of cases, was that the patient was haemodynamically unstable. Although only 74% of possible DBD donors were tested, an increase of 2 percentage points has been observed from the 72% achieved in 2010/11. A comparison table of key rates obtained in 2010/11 and 2011/12 is provided in **Appendix 1** for information.

8 Of the 1,232 possible donors tested, 1,218 (99%) were confirmed dead following neurological death tests.

### 9 NHSBT action – neurological death testing

The rates of testing are analysed in detail on a monthly basis as an intrinsic element of the performance improvement framework. Performance is shared and addressed at each regional collaborative and through the network of clinical leads as the most influential group of staff to affect rates of testing. Members of the National Organ Donation Committee continue to work with colleagues at a local level to understand the barriers to testing and to identify local solutions to improve performance.

By ensuring that there is an Emergency Department (ED) representative on each hospital donation committee, we aim to further develop a whole hospital approach to donation taking into account the different time pressures involved with potential ED donors.

**Table 1.1**      **Reasons given for neurological death tests not being performed, 1 April 2011 – 31 March 2012**

	<b>N</b>	<b>%</b>
Patient haemodynamically unstable	84	19.7
Clinical reason/Clinicians decision	57	13.3
Continuing effects of sedatives	49	11.5
Family declined donation	43	10.1
Cardiac arrest despite resuscitation	43	10.1
Other	30	7.0
Treatment withdrawn	20	4.7
Biochemical/endocrine abnormality	19	4.4
Family pressure not to test	18	4.2
Medical contraindication to donation	17	4.0
Unknown	16	3.7
Neonates - Less than 2 months post term	10	2.3
Inability to test all reflexes	9	2.1
SN-OD advised that donor not suitable	6	1.4
Brain stem reflexes returned	4	0.9
Pressure on ICU beds	2	0.5
<b>Total</b>	<b>427</b>	<b>100.0</b>

## IMMINENT DEATH

- 10      Of the 14,005 patients for whom death was *not* confirmed using neurological criteria, imminent death was anticipated for 6,893 (49%) and, of these, 6,449 (94%) subsequently had their treatment withdrawn.

## CONTRAINDICATIONS

- 11      Within the PDA, patients are not classified as potential donors if they have any absolute or relative medical contraindications, which are defined as:
- known HIV positive
  - known or suspected CJD
  - active untreated tuberculosis
  - any malignancy within the past 12 months (excluding brain tumour)
  - multi-organ failure.
- 12      50 (4%) of patients confirmed dead following neurological tests had a contraindication, while the equivalent figure for patients who had treatment withdrawn was 3,523 (55%). The breakdown of contraindications for both groups is given in **Table 1.2**. More than one contraindication can be specified for a patient.

**Table 1.2 Medical contraindications in possible deceased donors,  
1 April 2011 – 31 March 2012**

	DBD		DCD	
	N	%	N	%
Known HIV positive	2	4.0	36	1.0
Known or suspected CJD	0	0.0	4	0.1
Active untreated tuberculosis	2	4.0	31	0.9
Any malignancy within last 12 months	34	68.0	1228	34.9
Multi-organ failure	14	28.0	2818	80.0
<b>Total patients with contraindications</b>	<b>50</b>		<b>3523</b>	

## REFERRAL RATE

- 13 NHSBT is working with stakeholders, via the National Organ Donation Committee to implement NICE guidance published in September 2011 relating to triggers for referral and involvement of trained individuals when approaching families for consent/authorisation.
- 14 A patient who meets the four criteria for neurological death tests or for whom imminent death is anticipated, i.e. a clinical decision to withdraw treatment has been made and the patient is ventilated, should be referred to a Specialist Nurse - Organ Donation (SN-OD). The DBD referral rate was 91% and the DCD referral rate was 53%. **Table 1.3** shows the reasons given why such patients were not referred. One patient can meet the referral criteria for both DBD and DCD and therefore some patients may be counted in both columns.
- 15 Of the patients who met the referral criteria and were not referred, the reason given for 28% of DBD and 25% of DCD was because the patient was not identified as a potential donor or organ donation was not considered. The reason given for 43% of DCD was medical contraindications.

## APPROACH RATE

- 16 Families of potential donors were approached in 1,090 (93%) and 1,592 (54%) of DBD and DCD cases, respectively. **Table 1.4** shows the reasons given where the family were not approached.
- 17 For potential DBD, in 51% of cases the reason stated was Coroner or Procurator Fiscal refused permission, whereas this reason only accounted for 3% of the potential DCD families not approached. A further 13 (17%) were not approached because the family had already indicated that they would not consent to/authorise donation. Again, this reason accounted for a further 3% of the potential DCD cases.
- 18 For potential DCD, in 761 (57%) of cases the reason stated was 'other'. Investigating the text provided for these has shown that of the 761 cases, the text indicated that in nearly half the cases the patient was not identified as a

potential donor or donation was not considered. The families of 21% of potential DCD were not approached because of the patient's general medical condition.

**Table 1.3 Reasons why patient not referred, 1 April 2011 – 31 March 2012**

	DBD		DCD	
	N	%	N	%
Not identified as a potential donor/organ donation not considered	43	27.7	805	24.6
Other	41	26.5	312	9.5
Family declined donation prior to neurological testing	23	14.8	14	0.4
Medical contraindications	12	7.7	1,398	42.7
Thought to be medically unsuitable	10	6.5	553	16.9
Family declined donation after neurological testing	9	5.8	1	0.0
Neurological death not confirmed	6	3.9	8	0.2
Family declined donation following decision to withdraw treatment	5	3.2	110	3.4
Reluctance to approach family	2	1.3	22	0.7
Pressure on ICU beds	2	1.3	4	0.1
Coroner/Procurator Fiscal Reason	1	0.6	3	0.1
Thought to be outside age criteria	1	0.6	22	0.7
Donation after circulatory death not supported by ICU	-	-	19	0.6
Not reported	-	-	1	0.0
<b>Total</b>	<b>155</b>	<b>100.0</b>	<b>3,272</b>	<b>100.0</b>

**Table 1.4 Reasons why family not formally approached, 1 April 2011 – 31 March 2012**

	DBD		DCD	
	N	%	N	%
Coroner/Procurator Fiscal refused permission	40	51.3	35	2.6
Family stated that they would not consent/authorise before they were formally approached	13	16.7	33	2.5
Other	12	15.4	761	57.0
Other medical reason	5	6.4	110	8.2
Patient's general medical condition	4	5.1	279	20.9
Family untraceable	3	3.8	29	2.2
Family considered too upset to approach	1	1.3	33	2.5
Resource failure	-	-	25	1.9
Patient outside age criteria	-	-	29	2.2
<b>Total</b>	<b>78</b>	<b>100.0</b>	<b>1,334</b>	<b>100.0</b>

## 19 **NHSBT action – approach and referral**

A key area of focus for the National Organ Donation Committee is the timely identification and referral of all potential donors. A number of interventions have been proposed and developed. These include:

- The development of specific education and training materials relating to donor identification and referral for use in local hospital Trust/Health Boards.
- Local donation committees to adopt tangible and measurable referral methods in collaboration with their local donor care team

The progress against these interventions will be reviewed at regional collaborative workshops throughout 2012.

An intrinsic part of ODT strategy is to work in collaboration with clinical leads and clinicians to ensure that every family where donation is an option has the approach planned and undertaken in a collaborative manner. In order to reinforce and support this strategy, a sub group of the National Organ Donation Committee will be producing slide decks and e-learning material for use by Specialist Nurses – Organ Donation (SN-ODs) and Clinical leads to promote recognised best practice within their hospitals.

In addition, Trust /Board reports will be amended to include data on the percentage of family approaches that involve SN-ODs, as well as the reporting of this as a national key performance indicator.

## 20 **NHSBT action – Coroner and Procurator Fiscal refusal**

Progress has been made on the appointment of Chief Coroner, who is due to take up post in Autumn 2012.

Work continues at a local level to encourage and promote effective working relationships. The number of coroner refusals are monitored on a monthly basis through the performance framework and those SN-OD teams with a higher than average coroner refusal rate have implemented a number of specific and targeted actions.

## **CONSENT/AUTHORISATION RATE**

- 21 The consent/authorisation rate is based on potential donors whose family were formally approached for consent to/authorisation for donation. The consent/authorisation rate is the proportion of these families who consented to/authorised solid organ donation.
- 22 During the financial year, the DBD consent/authorisation rate was 64% and the 95% confidence limits for this percentage are 61% - 67%. The DCD consent/authorisation rate was 50% and the 95% confidence limits for this percentage are 47% - 52%.
- 23 When a patient is known to have expressed a wish to donate, for example they were registered on the Organ Donor Register, carried a donor card or expressed a wish to donate verbally or in writing, the DBD consent/authorisation rate was 93% compared to 48% when a patient hadn't expressed a wish to donate. For DCD, the rates were 79% compared with 37%.

- 24 When a SN-OD was involved in the approach to the family, the DBD consent/authorisation rate was 68% compared with 53% when the SN-OD was not involved. Moreover, for DCD the rate was 64% compared with 30% when the SN-OD was not involved.
- 25 The reasons why the family did not give consent/authorisation are shown in **Table 1.5**. The main reasons that families of potential DBD patients gave for no consent/authorisation were because the patient had stated in the past that they did not wish to be a donor (16%) or the family were not sure whether the patient would have agreed to donation (16%). These were also the main reasons that families of potential DCD patients gave no consent/authorisation (17% and 15%, respectively).

<b>Table 1.5 Reasons why family did not give consent/authorisation, 1 April 2011 – 31 March 2012</b>				
	<b>DBD</b>		<b>DCD</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Patient had stated in the past that they did not wish to be a donor	65	16.4	132	16.5
Family were not sure whether the patient would have agreed to donation	64	16.2	123	15.4
Family did not want surgery to the body	47	11.9	55	6.9
Family felt it was against their religious/cultural beliefs	36	9.1	29	3.6
Strong refusal - probing not appropriate	35	8.8	78	9.8
Other	29	7.3	103	12.9
Family were divided over the decision	25	6.3	50	6.3
Family did not believe in donation	24	6.1	28	3.5
Family felt the patient had suffered enough	23	5.8	58	7.3
Family felt the body needs to be buried whole (unrelated to religious or cultural reasons)	22	5.6	17	2.1
Family felt the length of time for donation process was too long	10	2.5	107	13.4
Family had difficulty understanding/accepting neurological testing	7	1.8	1	0.1
Family wanted to stay with the patient after death	4	1.0	9	1.1
Family concerned that organs may not be transplanted	3	0.8	7	0.9
Family concerned that other people may disapprove/be offended	1	0.3	1	0.1
Patients treatment may be or has been limited to facilitate organ donation	1	0.3	-	-
Families concerned about organ allocation	-	-	1	0.1
<b>Total</b>	<b>396</b>	<b>100.0</b>	<b>799</b>	<b>100.0</b>



## 26 NHSBT action – consent/authorisation

Continuing to focus on increasing consent/authorisation rates is a key objective for ODT. Previous analysis of national PDA data shows consent/authorisation to be more likely with the involvement of the SN-OD. The increase in the number of families who have been approached and given consent /authorisation has been achieved by collaborative working and the involvement of the SN-OD in the donation conversation.

This year our aim is to continue to build on this approach and support its full implementation by producing toolkits for both adult and paediatric ICUs, to include:

- written material based upon NICE guidance
- scripts of good and bad requests, open and closed questions, impact of known consent / authorisation
- videos of simulated family approaches to demonstrate the elements of success in the SN-OD approach.

In addition to this strategy there is a national group, the National Black, Asian and Minority Ethnic (BAME) Transplant Alliance, working with all stakeholders to increase awareness and consent/authorisation rates within these particular groups. NHSBT is working closely with this group, providing data, expertise and communications input.

## ORGAN DONATION FROM POTENTIAL DONORS WITH CONSENT/AUTHORISATION

- 27 Of the potential donors whose family consented to/authorised donation, 92% of the potential DBD and 49% of the potential DCD went on to become actual solid organ donors. **Table 1.6** shows the reasons why consented/authorised potential donors did not become actual solid organ donors.

<b>Table 1.6 Reasons why solid organ donation did not happen, 1 April 2011 – 31 March 2012</b>				
	<b>DBD</b>		<b>DCD</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Coroner/ Procurator Fiscal refusal	15	25.9	18	4.5
Organs deemed medically unsuitable by recipient centres	13	22.4	83	20.6
Organs deemed medically unsuitable on surgical inspection	10	17.2	21	5.2
Positive virology	9	15.5	6	1.5
Cardiac arrest	5	8.6	-	-
Other	4	6.9	20	5.0
Family changed mind	2	3.4	31	7.7
Prolonged time to asystole	-	-	206	51.1
General instability	-	-	13	3.2
Logistic reasons	-	-	3	0.7
Retrieval team not available	-	-	2	0.5
<b>Total</b>	<b>58</b>	<b>100.0</b>	<b>403</b>	<b>100.0</b>

- 28 For consented/authorised potential DBD the main reason given for solid organ donation not proceeding was because the Coroner/Procurator Fiscal refused permission (26%). See **Paragraph 20** for the action NHSBT is taking to address refusals from Coroners and Procurator Fiscals.
- 29 The main reason given for consented/authorised potential DCD not proceeding to become a solid organ donor was prolonged time to death (51%).

## SECTION 2 – RETRIEVAL AND USAGE OF ORGANS

- 30 There were 1,088 actual deceased organ donors last year, but not all organs from these donors were offered for transplantation. **Table 2.1** shows the number of organs offered, retrieved and transplanted from the 652 DBD and 436 DCD donors. The number of organs from these donors that were subsequently used for research purposes is also shown. The number of organs offered for transplant excludes those where the donor did not meet the nationally agreed age criteria for suitability for donation of that specific organ. There are no age cut-offs agreed for kidney and liver donation.

**Table 2.1**      **Donation and transplantation of organs from 1,088 deceased donors in the UK, 1 April 2011 – 31 March 2012**

Organ	Organs meeting initial suitability criteria and offered for transplant	Organs retrieved for transplant		Organs transplanted			Organs used for research (from actual organ donors) <sup>4</sup>
		N	% of offered	N	% of retrieved	% of offered	
DBD organ donors							
Kidney	1298	1209	93	1127	93	87	25
Liver	641	604	94	557	92	87	27
Pancreas <sup>1</sup>	419	314	75	195	62	47	41
Heart <sup>2</sup>	476	136	29	136	100	29	0
Lung <sup>3</sup>	994	322	32	308	96	31	3
DCD organ donors							
Kidney	872	823	94	712	87	82	38
Liver	405	178	44	132	74	33	38
Pancreas <sup>1</sup>	203	86	42	51	59	25	12
Lung <sup>3</sup>	536	42	8	38	90	7	0
Deceased organ donors							
Kidney	2170	2032	94	1839	91	85	63
Liver	1046	782	75	689	88	66	65
Pancreas <sup>1</sup>	622	400	64	246	62	40	53
Heart <sup>2</sup>	476	136	29	136	100	29	0
Lung <sup>3</sup>	1530	364	24	346	95	23	3

<sup>1</sup> Excludes donors aged > 60 years

<sup>2</sup> Excludes donors aged > 65 years or died due to myocardial infarction

<sup>3</sup> Excludes donors aged > 65 years

<sup>4</sup> Includes one DBD and one DCD pancreas retrieved only for research

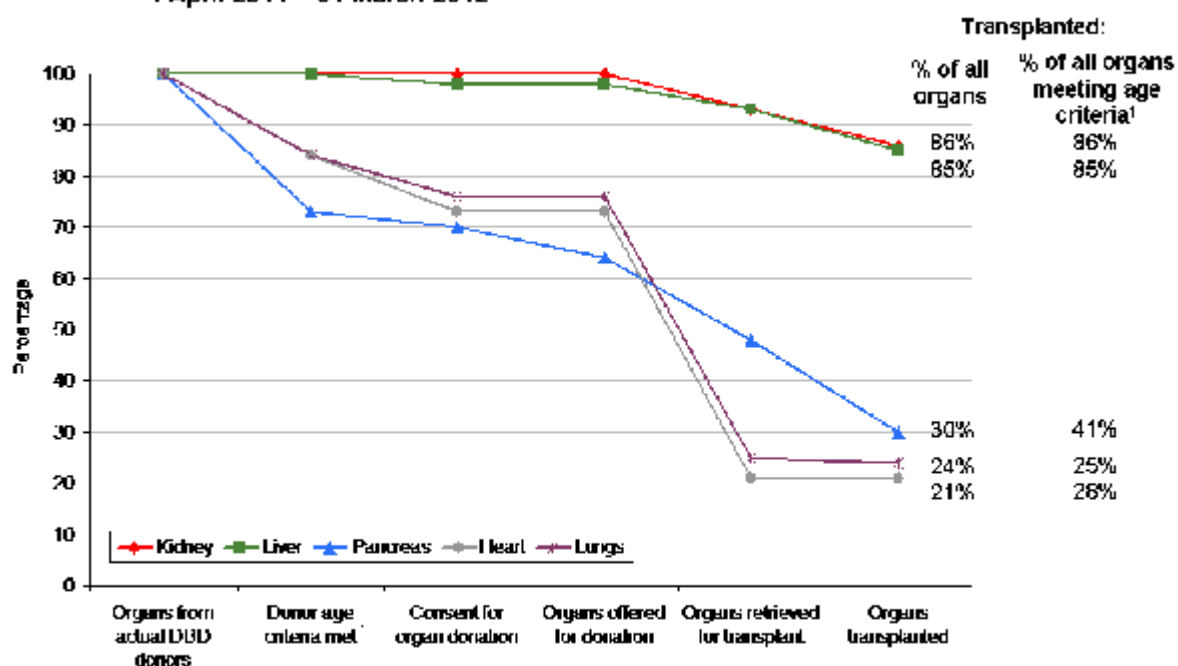
- 31 Each year, a number of actual organ donors result in no transplants. Donors resulting in at least one transplant are termed 'utilised' donors and the number of actual and utilised donors for the UK as a whole is shown in **Table 2.2**. The number of donors per million of population (pmp) is also shown. Last year 6% of actual donors resulted in no organ transplants.

Table 2.2 Actual and utilised deceased donors in the UK, 1 April 2011 – 31 March 2012			
	DBD (pmp)	DCD (pmp)	Total (pmp)
Actual donors	652 (10.4)	436 (7.0)	1088 (17.4)
Utilised donors <sup>1</sup>	639 (10.2)	387 (6.2)	1026 (16.4)

<sup>1</sup> Utilised donors defined as donors where one or more organs were retrieved and transplanted

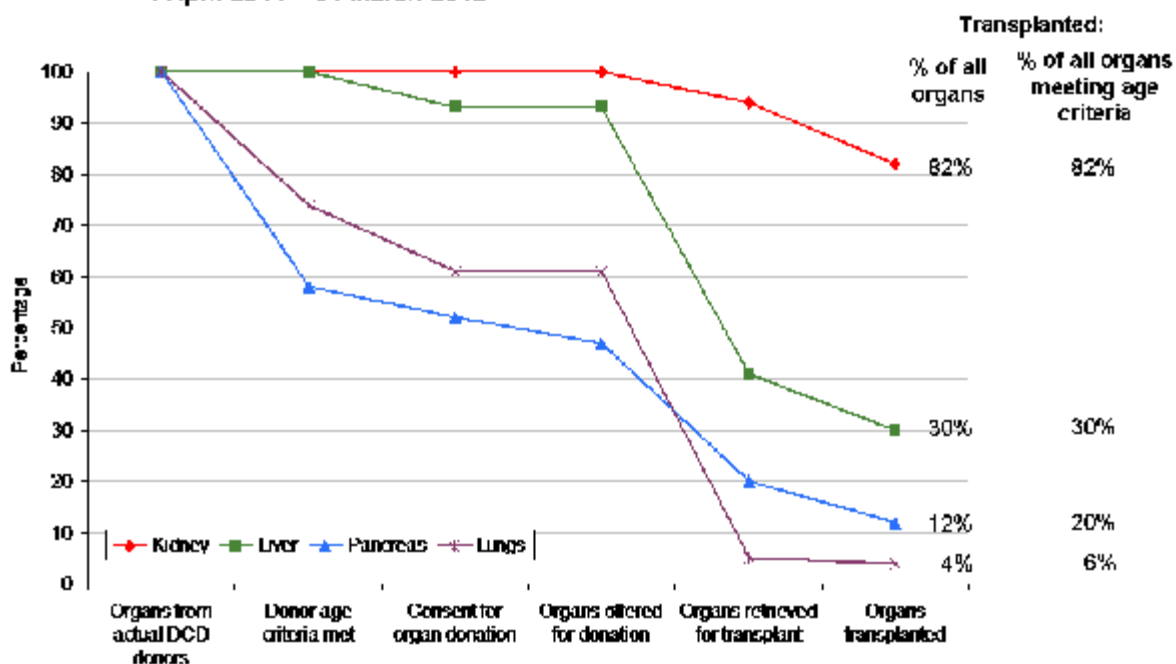
- 32 **Figures 2.1 and 2.2** show offering, retrieval and transplantation of organs, in terms of percentages. Charts start at 100% for each organ, representing all organs from the 652 DBD and 436 DCD donors. The charts indicate the proportion of those organs following the pathway through each step to transplantation eg meeting national donor age criteria, having consent/authorisation, being offered out to transplant centres, being retrieved for transplant and resulting in transplantation. For example, **Figure 2.1** shows that 30% of the pancreases from the 652 DBD donors were transplanted, but that 41% of pancreases from donors within the nationally agreed age limit of 60 years were transplanted. Transplant rates of kidneys and livers are generally high, while other organs, even allowing for the agreed age limits, are less often transplanted.

**Figure 2.1 Donation and transplantation rates of organs from DBD organ donors in the UK, 1 April 2011 – 31 March 2012**



<sup>1</sup> Heart: in addition to age criteria, donors who died due to myocardial infarction are excluded

**Figure 2.2** Donation and transplantation rates of organs from DCD organ donors in the UK, 1 April 2011 – 31 March 2012



- 33 Reasons for organs not being offered for transplant, being offered but not accepted and retrieved and for being retrieved but not subsequently transplanted are shown in **Table 2.3** for abdominal organs from DBD donors, **Table 2.4** for abdominal organs from DCD donors and in **Table 2.5** for cardiothoracic organs. Reasons for the medical unsuitability of a donor include infections, tumours, anatomy and disease. Non-medical reasons include donor size. Clinical unsuitability of an organ encompasses poor perfusion, prolonged ischaemia time, past history of donor and, in the case of pancreases for islets, insufficiency of viable islet yield. Reasons reported under 'other' include logistical and recipient related issues in addition to un-coded reasons reported of a miscellaneous nature.
- 34 These tables also indicate the number of organs from UK donors that were transplanted overseas. These organs were not accepted for transplant by any UK transplant centre, but were accepted for suitable recipients identified elsewhere, usually in Europe. Other than livers fulfilling an arrangement for the transplantation of super-urgent patients in the Republic of Ireland (ROI), only hearts and lungs were exported for transplant outside the UK. Organs from outside the UK are occasionally imported for transplant. In 2011/12 these were 11 hearts (including 4 from ROI), 1 lung from ROI and 14 livers (including 10 from ROI).

**Table 2.3** Reasons for non-retrieval and non-use of abdominal organs from organ donors after brain death (DBD) in the UK, 1 April 2011 – 31 March 2012

	Kidney	Liver	Pancreas
<b>All DBD organ donors</b>	<b>652</b>	<b>652</b>	<b>652</b>
Donors from whom organs not offered for donation	3	11	23
<b><i>Reasons for organs not being offered</i></b>			
Family permission refused	3	10	21
Permission refused by coroner	0	1	1
Donor unsuitable – age	0	0	173 <sup>1</sup>
Donor unsuitable – past history	0	0	18
Other	0	0	20
<b>TOTAL DONORS WITH ORGANS NOT OFFERED</b>	<b>3</b>	<b>11</b>	<b>233</b>
<b>Organs offered for donation</b>	<b>1298</b>	<b>641</b>	<b>419</b>
<b>Organs not retrieved (% of organs offered for donation)</b>	<b>89 (7)</b>	<b>37 (6)</b>	<b>105 (25)</b>
<b><i>Reasons for non-retrieval</i></b>			
<i>Donor</i>			
Donor unsuitable – medical	19	3	12
Donor unsuitable – non-medical	3	0	17
Donor age	6	0	5
<i>Organ</i>			
Organ unsuitable – clinical	45	21	48
Poor function	12	4	9
<i>Other</i>			
Other	4	9	14
<b>TOTAL ORGANS NOT RETRIEVED</b>	<b>89</b>	<b>37</b>	<b>105</b>
<b>Organs retrieved (% of organs offered for donation)</b>	<b>1209 (93)</b>	<b>604 (94)</b>	<b>314 (75)</b>
Organs transplanted in the UK	1127	552	195
Organs transplanted overseas	0	5 <sup>2</sup>	0
Organs not transplanted	82	47	119
<b><i>Reasons for organ not being transplanted</i></b>			
<i>Donor</i>			
Donor unsuitable – medical	34	5	9
Donor unsuitable – non-medical	0	3	2
Donor age	0	0	0
<i>Organ</i>			
Organ unsuitable – clinical	29	36	91
Poor function	0	0	2
<i>Other</i>			
Other	19	3	15
<b>TOTAL ORGANS NOT TRANSPLANTED</b>	<b>82 (25)</b>	<b>47 (27)</b>	<b>119 (40)</b>
<b>(Number used for research)</b>			

<sup>1</sup> One pancreas not offered for donation due to donor age was retrieved and used for research<sup>2</sup> Transplanted into super-urgent patients in the Republic of Ireland

**Table 2.4 Reasons for non-retrieval and non-use of abdominal organs from organ donors after circulatory death (DCD) in the UK, 1 April 2011 – 31 March 2012**

	Kidney	Liver	Pancreas
<b>All DCD organ donors</b>	<b>436</b>	<b>436</b>	<b>436</b>
Donors from whom organs not offered for donation	0	31	233
<b><i>Reasons for organs not being offered</i></b>			
Family permission refused	0	26	23
Permission refused by coroner	0	5	2
Donor unsuitable – age	0	0	185 <sup>1</sup>
Donor unsuitable – past history	0	0	12
Other	0	0	11
<b>TOTAL DONORS WITH ORGANS NOT OFFERED</b>	<b>0</b>	<b>31</b>	<b>233</b>
<b>Organs offered for donation</b>	<b>872</b>	<b>405</b>	<b>203</b>
<b>Organs not retrieved (% of organs offered for donation)</b>	<b>49 (6)</b>	<b>227 (56)</b>	<b>117 (58)</b>
<b><i>Reasons for non-retrieval</i></b>			
<i>Donor</i>			
Donor unsuitable – medical	8	7	3
Donor unsuitable – non-medical	0	9	14
Donor age	6	55	19
<i>Organ</i>			
Organ unsuitable – clinical	14	90	47
Poor function	5	24	3
<i>Other</i>			
Other	16	42	31
<b>TOTAL ORGANS NOT RETRIEVED</b>	<b>49</b>	<b>227</b>	<b>117</b>
<b>Organs retrieved (% of organs offered for donation)</b>	<b>823 (94)</b>	<b>178 (44)</b>	<b>86 (42)</b>
Organs transplanted in the UK	712	132	51
Organs transplanted overseas	0	0	0
Organs not transplanted	111	46	35
<b><i>Reasons for organ not being transplanted</i></b>			
<i>Donor</i>			
Donor unsuitable – medical	29	6	3
Donor unsuitable – non-medical	0	1	1
Donor age	0	0	0
<i>Organ</i>			
Organ unsuitable – clinical	38	27	22
Poor function	3	0	1
<i>Other</i>			
Other	41	12	8
<b>TOTAL ORGANS NOT TRANSPLANTED</b>	<b>111 (38)</b>	<b>46 (38)</b>	<b>35 (11)</b>
<b>(Number used for research)</b>			

<sup>1</sup> One pancreas not offered for donation due to donor age was retrieved and used for research

**Table 2.5 Reasons for non-retrieval and non-use of cardiothoracic organs from organ donors in the UK, 1 April 2011 – 31 March 2012**

	Heart (DBD)	Lung (DBD)	Lung (DCD)
<b>All organ donors</b>	<b>652</b>	<b>652</b>	<b>436</b>
Donors from whom organs not offered for donation	176	155	168
<b><i>Reasons for organs not being offered</i></b>			
Family permission refused	55	39	47
Permission refused by coroner	17	13	8
Donor age >65 years	103	103	113
Donor COD of cardiac arrest or MI	1	0	0
<b>TOTAL DONORS WITH ORGANS NOT OFFERED</b>	<b>176</b>	<b>155</b>	<b>168</b>
<b>Organs offered for donation</b>	<b>476</b>	<b>994</b>	<b>536</b>
<b>Organs not retrieved (% of organs offered for donation)</b>	<b>340 (71)</b>	<b>672 (68)</b>	<b>494 (92)</b>
<b><i>Reasons for non-retrieval</i></b>			
<i>Donor</i>			
Donor unsuitable – medical	23	43	25
Donor unsuitable – non-medical	44	49	112
Donor age	24	30	54
<i>Organ</i>			
Organ unsuitable – clinical	76	152	108
Poor function	126	314	139
<i>Other</i>			
Other	47	84	56
<b>TOTAL ORGANS NOT RETRIEVED</b>	<b>340</b>	<b>672</b>	<b>494</b>
<b>Organs retrieved (% of organs offered for donation)</b>	<b>136 (29)</b>	<b>322 (32)</b>	<b>42 (8)</b>
Organs transplanted in the UK	132	288	38
Organs transplanted overseas	4	20	0
Organs not transplanted	0	14	4
<b><i>Reasons for organ not being transplanted</i></b>			
<i>Donor</i>			
Donor unsuitable – medical	0	1	0
Donor unsuitable – non-medical	0	0	0
<i>Organ</i>			
Organ unsuitable – clinical	0	0	0
Poor function	0	2	2
<i>Other</i>			
Other	0	11	2
<b>TOTAL ORGANS NOT TRANSPLANTED</b>	<b>0 (0)</b>	<b>14 (3)</b>	<b>4 (0)</b>
<b>(Number used for research)</b>			

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## Appendix 1

Table 13.12 DBD and DCD key metrics from the Potential Donor Audit, by financial year

Potential donor type	Financial year	Number of patients who met referral criteria <sup>1</sup>	Neurological death testing rate (%)	Referral rate (%)	Number of potential donors	Number of potential donors whose family were approached	Approach rate (%)	Number of families who consented to/ authorised donation	Consent/ authorisation rate (%)	Number of actual donors <sup>2</sup>	Conversion rate of potential donors (%)
DBD	2010-2011	1676	72.1	84.5	1144	1059	92.6	683	64.5	617	53.9
	2011-2012	1659	74.3	90.7	1168	1090	93.3	694	63.7	636	54.5
DCD	2010-2011	7223		44.3	2886	1362	47.2	695	51.0	344	11.9
	2011-2012	6893		52.5	2926	1592	54.4	793	49.8	390	13.3
TOTAL	2010-2011	8899		51.9	4030	2421	60.1	1378	56.9	961	23.8
	2011-2012	8552		59.9	4094	2682	65.5	1487	55.4	1026	25.1

<sup>1</sup> DBD referral criteria: patients where neurological death was suspected; DCD referral criteria: patients for whom imminent death was anticipated

<sup>2</sup> Actual donors resulting from potential DBD donors includes 6 DCD donors in 2010-2011 and 11 DCD donors in 2011-2012