

## Trust Board Report

**Meeting Date:**

24 September 2012

**Title:**

Organ Donation

**Executive Summary:**

Organ Donation brings with it a “gift of life” to those patients on the transplant waiting list who are successfully transplanted.

Transplant of organ (s) into waiting list recipients either remove the need for long term supportive treatment (dialysis) or provide the long term “cure” for patients who are otherwise destined to die whilst on the waiting list (for example liver/heart/lung waiting list patients). The gap between the numbers of patients on the transplant waiting list far exceeds the numbers of patients who receive a successful transplant, and each year this gap increases.

There have been many initiatives to increase the numbers of patients transplanted each year, including actively encouraging life donation for Renal transplantation (which has been very successful), and also initiative to increase the numbers of organs donated from deceased patients.

There are an estimated 3000 people who die each year in UK hospitals who are thought suitable to be organ donors, but only approximately 1000 of these patients actually become organ donors. There are various reasons for this, including: identification of suitability; referral rate for donation; approach to family members; registration on the organ donor register, etc.

The enclosed NHS Blood & Transplant potential donor audit summary provides information on RWT’s performance in identifying and referring deceased patients for organ donation (both heart beating and non heart beating) for the year 1<sup>st</sup> April 2011 - 31st March 2012.

	For potential donors declared brain dead RWT performs consistently better than the UK mean performance for all of the criteria audited (testing rate, referral rate, approached family rate, consent rate, conversion rate). For potential donors who have died from circulatory death (non heart beating donors) RWT performs better than or at the same level as the UK mean for all the above criteria.
<b>Action Requested:</b>	<ol style="list-style-type: none"> <li>1. To note the audit summary report and the excellent RWT performance for the year 1<sup>st</sup> April 2011 – 31<sup>st</sup> March 2012.</li> <li>2. For the Trust Board to actively support the RWT programme for identifying and referring <b>all</b> potential organ donors (both those dying from brain death and those dying a circulatory death).</li> <li>3. To receive a report on the organ donation performance of the Trust on an annual basis.</li> </ol>
<b>Report of:</b>	Dr Jonathan Odum, Medical Director
<b>Author:</b> <b>Contact Details:</b>	Dr Jonathan Odum – Medical Director Tel 01902 695948 - Email <a href="mailto:jonathan.odum@nhs.net">jonathan.odum@nhs.net</a>
<b>Resource Implications:</b>	Nil
<b>Public or Private:</b> (with reasons if private)	Public
<b>References:</b> (eg from/to other committees)	The NHS Blood & Transplant Potential Donor Audit & The UK Transplant Registry for The Royal Wolverhampton Hospitals NHS Trust 1 <sup>st</sup> April 2011 – 31 March 2012
<b>Appendices/ References/ Background Reading</b>	
<b>NHS Constitution:</b> (How it impacts on any decision-making)	<p>In determining this matter, the Board should have regard to the Core principles contained in the Constitution of:</p> <ul style="list-style-type: none"> <li>✚ Equality of treatment and access to services</li> <li>✚ High standards of excellence and professionalism</li> <li>✚ Service user preferences</li> <li>✚ Cross community working</li> <li>✚ Best Value</li> <li>✚ Accountability through local influence and scrutiny</li> </ul>

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Dear Colleague

**Increasing Organ Donation by 50%: management information on your donation activity**

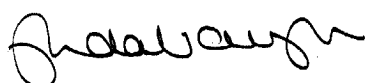
Together with our partners throughout the NHS, we are striving to achieve the Organ Donor Task Force challenge of increasing deceased donation by 50%. Every year there are about 3,000 people in UK hospitals who could be organ donors but only one third of them become donors and save the lives of others. This means that every day, three people die needlessly because potential donors are missed or the processes to enable donation are sub-optimal.

We are asking for your support to make sure that everyone in your hospital who has the potential to donate is given that opportunity. By following the NICE short clinical guideline for organ donation, we can ensure that best practice becomes routine; that donors are identified and referred early; and that every family is approached to discuss organ donation with the involvement of a trained Specialist Nurse.

Your Donation Committee will be assessing the extent to which the NICE guideline has been implemented locally and using the data attached to this report to analyse how well your hospital is performing, compared with others in the UK. We hope that you find the data helpful in understanding your role in achieving this life saving challenge. Any support you can give to your Donation Committee Chair, your Clinical Lead for Organ Donation and your Specialist Nurse for Organ Donation would be greatly appreciated.

Thank you for your continuing support to increase organ donation and make it a usual part of good clinical practice throughout the NHS.

Yours sincerely



Lynda Hamlyn  
**Chief Executive**



**Midlands and East**  
**The Royal Wolverhampton Hospitals NHS Trust**  
**Audit of Potential Organ Donors**  
**1 April 2011 to 31 March 2012**  
**Issued July 2012 based on data reported at 5 July 2012**

This document provides a summary of data relating to potential and actual organ donors as recorded by NHS Blood and Transplant via the Potential Donor Audit (PDA) and the UK Transplant Registry for The Royal Wolverhampton Hospitals NHS Trust. The report covers the time period 1 April 2011 to 31 March 2012 and data from 1 April 2010 to 31 March 2011 are also provided in Section 1 and Appendix I for comparison purposes.

This report is provided for information and to facilitate case based discussion about organ donation by the Donation Committee and your Trust.

As part of the PDA, patients aged 76 years and over and those who died in a cardiothoracic ICU are not audited nationally and are therefore excluded from this report. In addition, some information from this time period may be outstanding due to late reporting and difficulties obtaining patient notes. Donations not captured by the PDA will still be included in the data supplied from the UK Transplant Registry.

The following Sections and Appendices are included within this document:

- Section 1 - Summary data on donation and transplantation activity
- Section 2 - Key rates on potential for organ donation for all Trusts/Boards
- Appendix I - PDA data for the Trust by hospital and unit type
- Appendix II - PDA exclusion criteria and definitions

Some percentages in this report were calculated using small numbers and should therefore be interpreted with caution.

**Please refer any queries or requests for further information to your local Specialist Nurse - Organ Donation (SN-OD).**

## Section 1 - Summary data on donation and transplantation activity

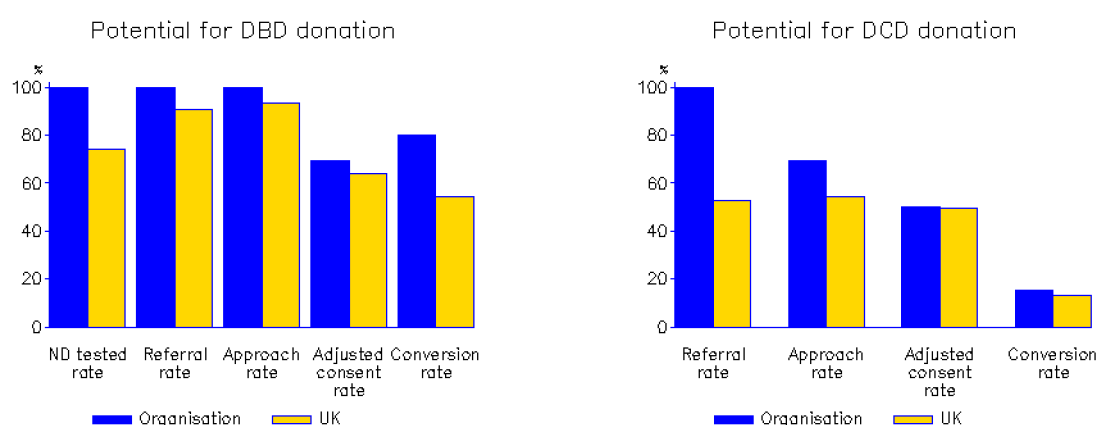
The table below gives the numbers of potential donors after brain death (DBD) and donors after circulatory death (DCD) for the organisation, together with the number of these potential donors who became actual donors (either DBD or DCD), and the numbers of patients who received a transplant as a result.

### Overview of activity, 1 April 2011 to 31 March 2012 (1 April 2010 to 31 March 2011)

Potential donor type	Potential donors		Actual donors		Number of patients transplanted	
DBD	5	(2)	4	(2)	11	(6)
DCD	13	(12)	2	(0)	4	(0)

The charts below show specific percentage measures of potential donation activity for the organisation compared to national data for the UK from the PDA. The DBD chart shows the percentage of patients tested for neurological death (ND), while both charts also give referral rates, approach rates, adjusted consent rates and conversion rates. Appendix II at the end of this report gives a fuller explanation of terms used here.

**Figure 1 Key rates on potential for organ donation, 1 April 2011 to 31 March 2012**



Given in the table below are the percentages displayed in these bar charts, with both the observed consent rate and the consent rate adjusted for ethnicity. Additionally, data from 1 April 2010 to 31 March 2011 are shown in parentheses for comparison purposes.

	DBD		DCD	
	Organisation	UK	Organisation	UK
ND tested rate	100 (50)	74 (72)		
Referral rate	100 (100)	91 (85)	100 (94)	53 (44)
Approach rate	100 (100)	93 (93)	69 (75)	54 (47)
Adjusted consent rate	69 (69)	64 (65)	50 (55)	50 (51)
Observed consent rate	80 (100)		56 (44)	
Conversion rate	80 (100)	55 (54)	15 (0)	13 (12)

The numbers of possible DBD and DCD, numbers of donor families approached, numbers consenting and number of donors are shown in the table below. Most of the percentages given in the preceding table are obtained from these figures.

**Summary data for organisation, 1 April 2011 to 31 March 2012 (1 April 2010 to 31 March 2011)**

	DBD		DCD	
Neurological death suspected	6	(4)		
Imminent death anticipated			17	(18)
Discussed with Specialist Nurse - Organ Donation	6	(4)	17	(17)
Neurological death tested	6	(2)		
Potential donor	5	(2)	13	(12)
Family approached for consent	5	(2)	9	(9)
Family consented	4	(2)	5	(4)
Actual DBD	4	(2)		
Actual DCD	0	(0)	2	(0)

These figures are obtained from the PDA using forms entered and completed by 5 July 2012.

**Data from the UK Transplant Registry (UKTR)**

The PDA does not report all organ donors as the audit only covers intensive care units (ICUs) and emergency departments, not wards or cardiothoracic ICUs, and excludes patients aged 76 years and over. The following data reports all actual donors for the organisation and therefore may appear different to that presented from the PDA.

**Summary data from UKTR, 1 April 2011 to 31 March 2012 (1 April 2010 to 31 March 2011)**

Donor type	Number of donors		Number of patients transplanted		Average number of organs donated per donor			
					Organisation		UK	
DBD	4	(2)	11	(6)	3.5	(4.0)	4.0	(4.0)
DCD	2	(0)	4	(0)	3.0	(0.0)	2.6	(2.6)
Living	0	(0)	0	(0)				

Donor type	Number of organs transplanted by type									
	Kidney		Pancreas		Liver		Heart		Lung	
DBD	8	(4)	0	(1)	2	(2)	0	(0)	2	(0)
DCD	4	(0)	1	(0)	0	(0)			0	(0)

## **Section 2 - Key rates on potential for organ donation for all Trusts/Boards**

Plots of referral rate, approach rate, consent/authorisation rate, conversion rate and neurological death testing rate were produced for donors after brain death (DBD) and plots of referral rate, approach rate, consent/authorisation rate and conversion rate were produced for donors after circulatory death (DCD). These graphs are shown as 'funnel plots' and show data for each Trust/Board.

Each Trust/Board is represented on the plot as a dot, although one dot may represent more than one Trust/Board. The national rate is shown on the plot as a horizontal dotted line, together with 95% and 99.8% confidence limits for this rate. These limits form a 'funnel', with the 95% limits shown as a solid line and the 99.8% limits shown as a dashed line. Graphs obtained in this way are known as funnel plots.

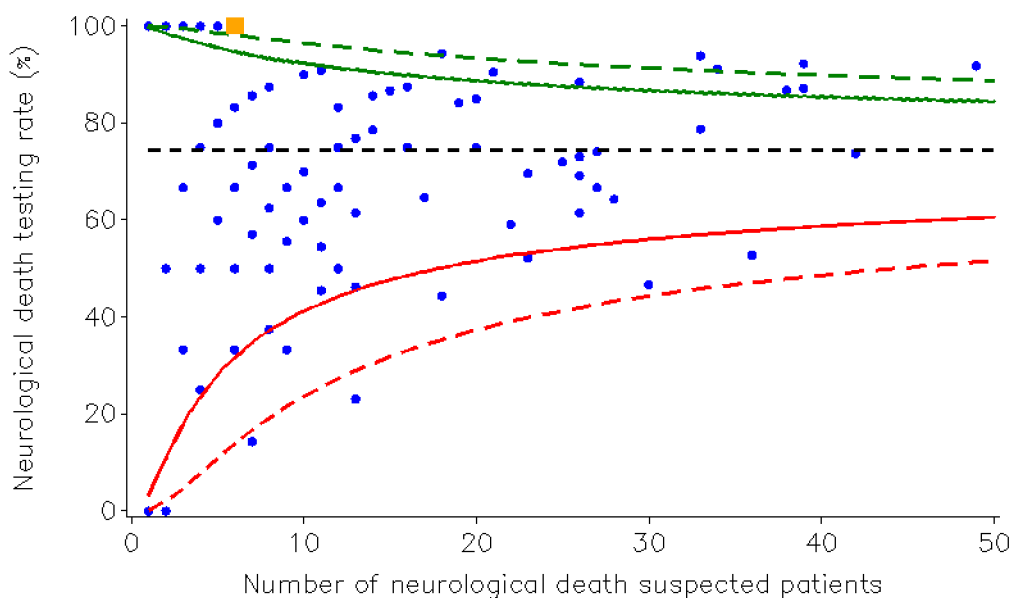
If a Trust/Board lies within the 95% limits, then that Trust/Board has a rate that is statistically consistent with the national rate. If a Trust/Board lies outside the 95% confidence limits, this serves as an alert that the Trust/Board may have a rate that is significantly different from the national rate.

When a Trust/Board lies above the upper 99.8% limit, this indicates a rate that is significantly higher than the national rate, while a Trust/Board that lies below the lower limit has a rate that is significantly lower than the national rate. It is important to note that differences in patient mix have not been accounted for in these plots.

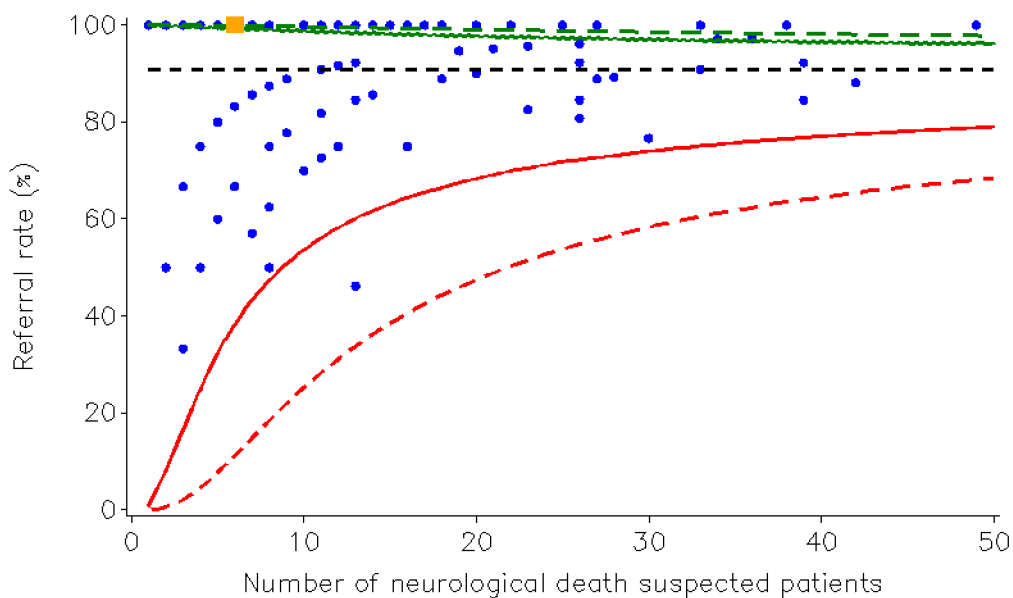
The Royal Wolverhampton Hospitals NHS Trust is shown on the plots as the large square. If there is no large square on the plot, the Trust did not report any patients of the type presented.

**Potential donors after brain death**

**Figure 2 Funnel plot of neurological death testing rate by number of neurological death suspected patients, 1 April 2011 to 31 March 2012**

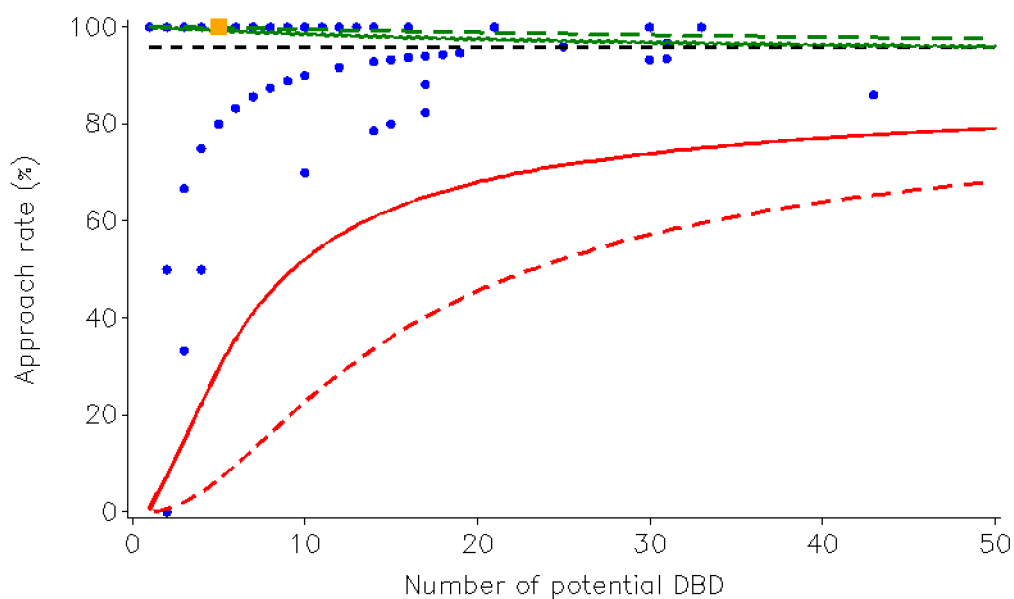


**Figure 3 Funnel plot of DBD referral rate by number of neurological death suspected patients, 1 April 2011 to 31 March 2012**

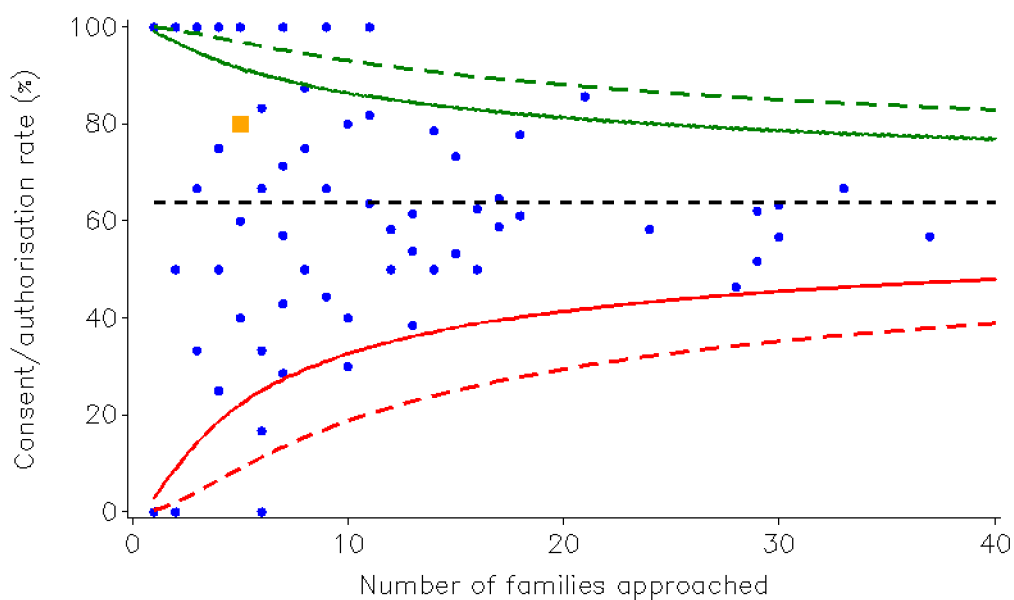




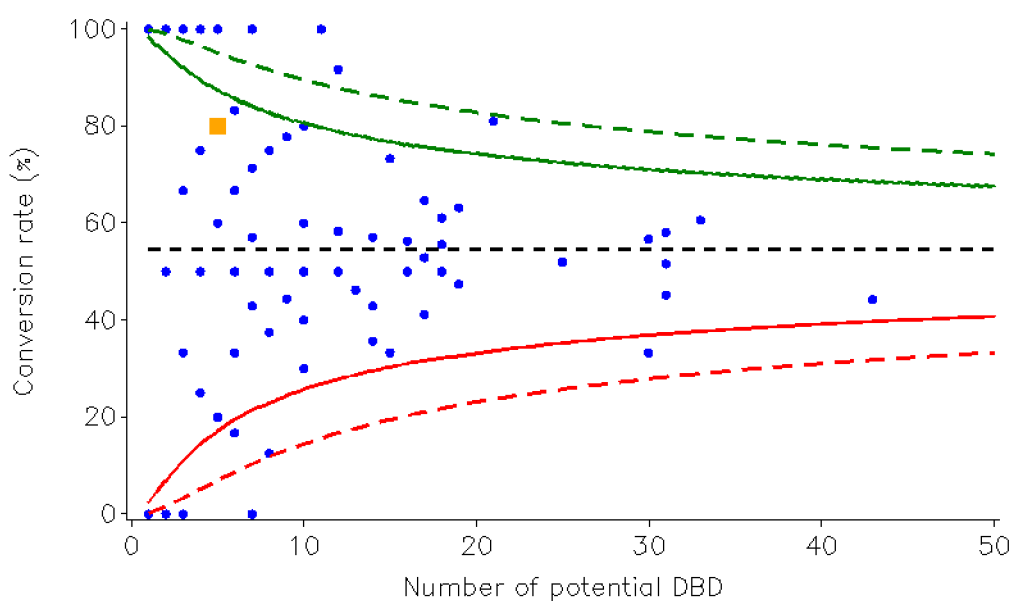
**Figure 4 Funnel plot of DBD approach rate by number of potential DBD, 1 April 2011 to 31 March 2012**



**Figure 5 Funnel plot of DBD consent/authorisation rate by number of families approached, 1 April 2011 to 31 March 2012**

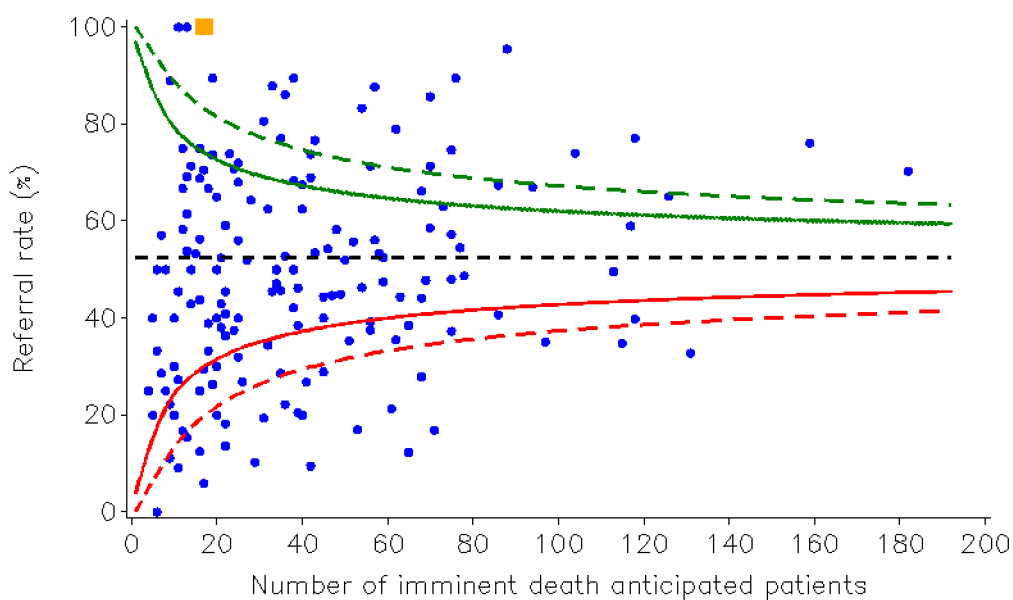


**Figure 6 Funnel plot of DBD conversion rate by number of potential DBD, 1 April 2011 to 31 March 2012**

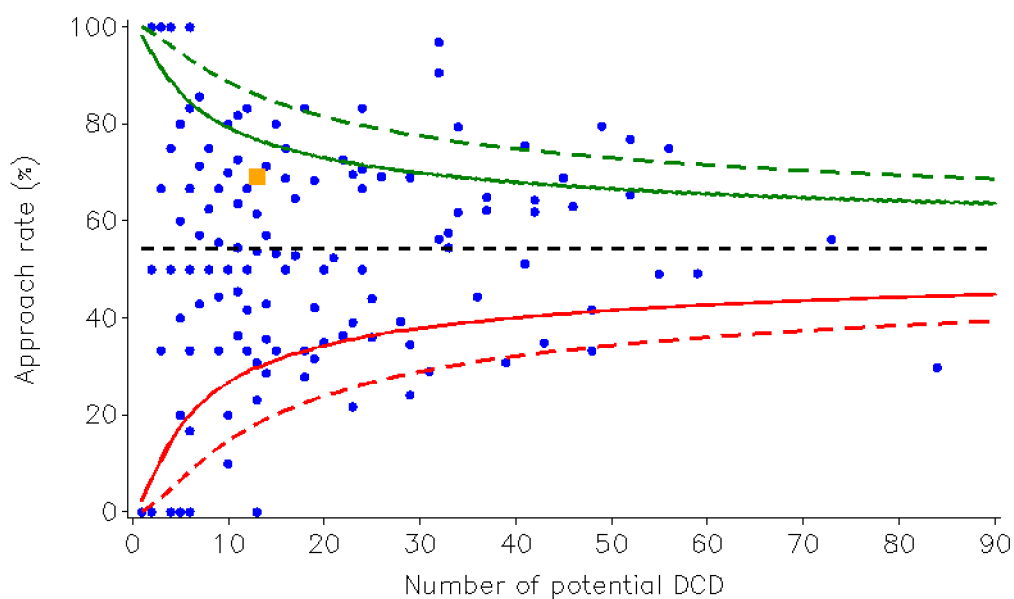


**Potential donors after circulatory death**

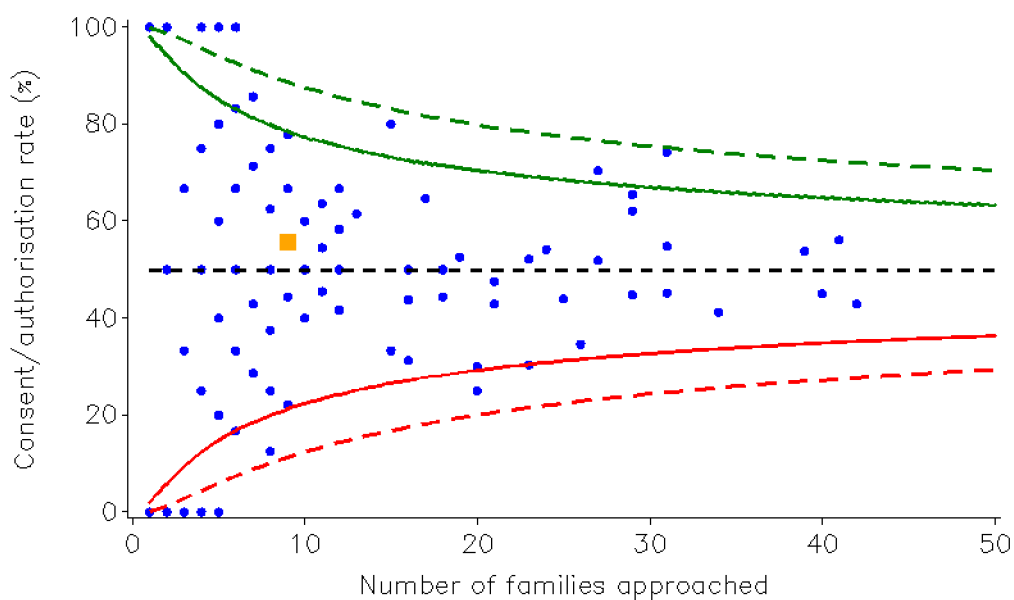
**Figure 7 Funnel plot of DCD referral rate by number of imminent death anticipated patients, 1 April 2011 to 31 March 2012**



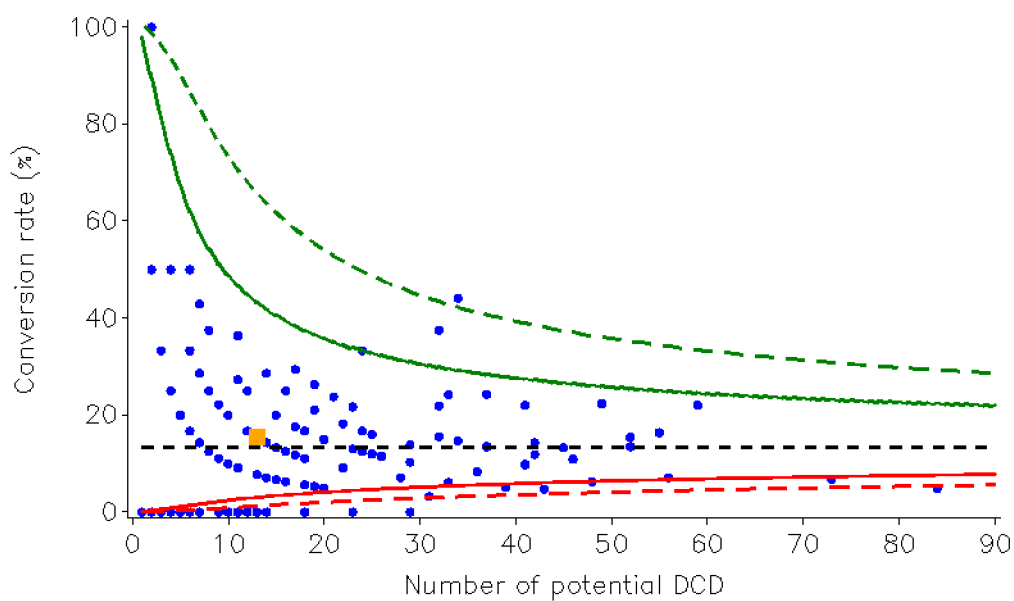
**Figure 8** Funnel plot of DCD approach rate by number of potential DCD, 1 April 2011 to 31 March 2012



**Figure 9** Funnel plot of DCD consent/authorisation rate by number of families approached, 1 April 2011 to 31 March 2012



**Figure 10** Funnel plot of DCD conversion rate by number of potential DCD, 1 April 2011 to 31 March 2012



## Appendix I

### PDA data for The Royal Wolverhampton Hospitals NHS Trust by hospital and unit 1 April 2011 to 31 March 2012

Data from 1 April 2010 to 31 March 2011 are provided for comparison purposes. If the hospitals/units are not equivalent for the two time periods, this is due to hospital/unit changes, and/or there were no patients for whom neurological death was suspected or imminent death was anticipated in one of the time periods.

#### Potential donors after brain death (DBD)

Critical care unit	Neurological death suspected	Neurological death tested	Neurological death testing rate (%)	Number of neurological death suspected patients discussed with SN-OD	Referral rate (%)	Neurological death confirmed	Number of potential DBD donors	Number where family approached	Approach rate (%)	Number where family consented	Consent rate (%)	Number of actual DBD or DCD donors	Conversion rate (%)
<b>1 April 2011 to 31 March 2012</b>													
<i>Wolverhampton, New Cross Hospital</i>													
General ICU/HDU	6	6	100.0	6	100.0	6	5	5	100	4	80.0	4	80.0
<b>1 April 2010 to 31 March 2011 (for comparison purposes)</b>													
<i>Wolverhampton, New Cross Hospital</i>													
General ICU/HDU	4	2	50.0	4	100.0	2	2	2	100	2	100.0	2	100.0

#### Potential donors after circulatory death (DCD)

Critical care unit	Imminent death anticipated	Number of imminent death anticipated patients discussed with SN-OD	Referral rate (%)	Active treatment withdrawn	Number of potential DCD	Number where family approached	Approach rate (%)	Number where family consented	Consent rate (%)	Number of actual DCD	Conversion rate (%)
<b>1 April 2011 to 31 March 2012</b>											
<i>Wolverhampton, New Cross Hospital</i>											
General ICU/HDU	17	17	100.0	17	13	9	69.2	5	55.6	2	15.4
<b>1 April 2010 to 31 March 2011 (for comparison purposes)</b>											
<i>Wolverhampton, New Cross Hospital</i>											
General ICU/HDU	18	17	94.4	16	12	9	75	4	44.4	0	0.0

## Appendix II Definitions

<b>POTENTIAL DONOR AUDIT</b>	
Data excluded	Cardiothoracic ICUs, wards and patients aged 76 years and over are excluded.
<b>Donors after brain death (DBD)</b>	
Suspected Neurological Death	A patient who meets all of the following criteria: Apnoea, coma from known aetiology and unresponsive, ventilated, fixed pupils.
Discussed with Specialist Nurse – Organ Donation	A patient with suspected neurological death discussed with the Specialist Nurse – Organ Donation (SN-OD)
Neurological death tested	Neurological death tests were performed
Potential DBD	A patient whose death has been confirmed using neurological criteria, with no absolute contraindications or relative contraindications to solid organ donation
Absolute contraindications	Known or suspected CJD or known HIV positive
Relative contraindications	A relative contraindication is defined as any of:
	a) any malignancy within the past 12 months (excluding brain tumour) or
	b) multi-organ failure (Demonstrable failure of two or more vital organ systems and associated complications. Failure defined as requirement of organ support) or
	c) active untreated tuberculosis
Family approached for consent / authorisation	Family of potential DBD asked to make a decision on donation
Family consented / authorised	Family consented to / authorised donation
Actual donors: DBD	Neurological death confirmed patients who became actual DBD as reported through the PDA
Actual donors: DCD	Neurological death confirmed patients who became actual DCD as reported through the PDA
Neurological death testing rate	Percentage of patients for whom neurological death was suspected who were tested
Referral rate	Percentage of patients for whom neurological death was suspected who were discussed with the SN-OD
Approach rate	Percentage of potential DBD families approached for consent /authorisation for donation
Consent / authorisation rate	Percentage of families approached about donation that consented to / authorised donation
Adjusted consent / authorisation rate	Consent /authorisation rate adjusted for ethnicity case mix, based on those patients whose family were approached for consent /authorisation and patient ethnicity was known
Conversion rate	Percentage of potential DBD who became actual donors (either DBD or DCD)
<b>Donors after circulatory death (DCD)</b>	
Imminent death anticipated	A patient, not confirmed dead using neurological criteria, receiving assisted ventilation and a clinical decision to withdraw treatment has been made.
Discussed with Specialist Nurse – Organ Donation	Patients for whom imminent death was anticipated who were discussed with the SN-OD
Potential DCD	A patient in whom imminent death is anticipated, treatment has been withdrawn and who has no absolute or relative contraindication to organ donation.
Absolute medical contraindications	Known or suspected CJD or known HIV positive
Relative contraindications	A relative contraindication is defined as any of:
	a) any malignancy within the past 12 months (excluding brain tumour) or
	b) multi-organ failure (Demonstrable failure of two or more vital organ systems and associated complications. Failure defined as requirement of organ support) or

	c) active untreated tuberculosis
Family approached for consent / authorisation	Family of potential DCD asked to make a decision on donation
Family consented / authorised	Family consented to / authorised donation
Actual DCD	DCD patients who became actual DCD as reported through the PDA
Referral rate	Percentage of patients for whom imminent death was anticipated who were discussed with the SN-OD
Approach rate	Percentage of potential DCD families approached for consent /authorisation for donation
Consent / authorisation rate	Percentage of families approached or made an approach about donation that consented to / authorised donation
Adjusted consent / authorisation rate	Consent /authorisation rate adjusted for ethnicity case mix, based on those patients whose family were approached for consent /authorisation and patient ethnicity was known
Conversion rate	Percentage of potential DCD who became actual DCD
<b>UK Transplant Registry (UKTR)</b>	
Donor type	Type of donor: Donation after brain death, Donation after circulatory death or Living. Any domino donors will be counted as living donors
Number of actual donors	Total number of donors reported to the UKTR
Number of patients transplanted	Total number of patients transplanted from these donors
Organs per donor	Number of organs donated divided by number of donors. The maximum number of solid organs that can be donated are 7 for a DBD, 6 for a DCD and one for a living donor.
Number of organs transplanted	Total number of organs transplanted by organ type

**Potential Donor Audit (PDA) data for England compared with the rest of the UK  
1 April 2010 to 31 March 2012, data as at 5 July 2012  
Patients aged 76 and over and cardiothoracic ICUs are not audited.**

**Potential donors after brain death (DBD)**

	Time period	Number of patients ever on mechanical ventilation	Number of patients where neurological death was suspected	Number of patients that were tested	Neurological death testing rate (%)	Number of patients where neurological death was suspected that were referred to SN-OD	DBD referral rate (%)	Number of patients confirmed dead by neurological testing	Number of potential DBD donors (Death confirmed using neurological criteria and no absolute or relative contraindications to solid organ donation)	Number of potential DBD donors whose family were approached	DBD approach rate (%)	Number of families who consented to/ authorised donation	DBD consent/ authorisation rate (%)	Number of actual DBD and DCD donors from potential DBD donors	Conversion rate of potential DBD donors (%)
England	2010/2011	13834	1373	987	71.9	1180	85.9	971	933	859	92.1	550	64.0	495	53.1
	2011/2012	12742	1375	1031	75.0	1261	91.7	1017	977	912	93.3	564	61.8	515	52.7
Rest of the UK	2010/2011	2810	303	221	72.9	237	78.2	217	211	200	94.8	133	66.5	122	57.8
	2011/2012	2481	284	201	70.8	243	85.6	201	191	178	93.2	130	73.0	121	63.4

**Potential donors after circulatory death (DCD)**

	Time period	Number of patients ever on mechanical ventilation	Number of patients for whom imminent death was anticipated	Number of patients for whom imminent death was anticipated that were referred to SN-OD	DCD referral rate (%)	Number of patients for whom treatment was withdrawn	Number of potential DCD donors (Imminent death anticipated and treatment withdrawn with no absolute or relative contraindications)	Number of potential DCD donors whose family were approached	DCD approach rate (%)	Number of families who consented to/ authorised donation	DCD consent/ authorisation rate (%)	Number of actual DCD donors from potential DCD donors	Conversion rate of potential DCD donors (%)
England	2010/2011	13834	6048	2832	46.8	5567	2531	1197	47.3	609	50.9	297	11.7
	2011/2012	12742	5753	3105	54.0	5388	2511	1359	54.1	672	49.4	328	13.1
Rest of the UK	2010/2011	2810	1175	371	31.6	1078	355	165	46.5	86	52.1	47	13.2
	2011/2012	2481	1140	516	45.3	1061	415	233	56.1	121	51.9	62	14.9