

Detailed Full Report Actual and Potential Organ Donors 1 April 2016 - 31 March 2017

North West
Organ Donation Services Team



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- Appendix A.2 contains definitions of terms and abbreviations used throughout this report and summarises the main changes made to the PDA on 1 April 2013.
- The latest Organ Donation and Transplantation Activity Report is available at https://www.organdonation.nhs.uk/supporting-my-decision/statistics-about-organ-donation/transplant-activity-report/
- The latest PDA Annual Report is available at http://www.odt.nhs.uk/odt/potential-donor-audit/
- Please refer any queries or requests for further information to your local Specialist Nurse Organ Donation (SN-OD)

Source

NHS Blood and Transplant: UK Transplant Registry (UKTR), Potential Donor Audit (PDA) and Referral Record. Issued May 2017 based on data reported at 8 May 2017.



1. Donor Outcomes

A summary of the number of donors, patients transplanted, average number of organs donated per donor and organs donated, obtained from the UK Transplant Registry

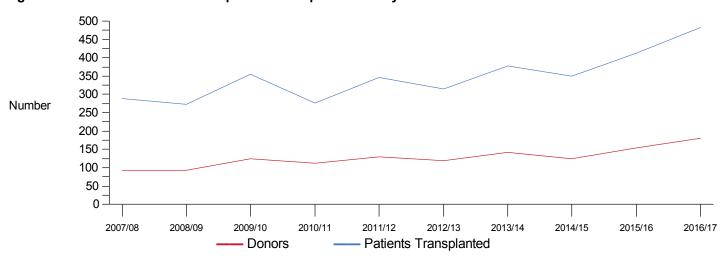
1.1 Donor outcomes

Between 1 April 2016 and 31 March 2017, the North West team had 181 deceased solid organ donors, resulting in 483 patients receiving a transplant. 601 organs were donated but 73 were not transplanted. Additional information is shown in Tables 1.1.1 and 1.1.2, along with comparison data for 2015/16. An additional chart showing figures for the previous ten periods has also been included for comparison. If you would like further information, please contact your local Specialist Nurse - Organ Donation (SN-OD).

Table 1.1.1 Donors, patients transplanted and organs per donor, 1 April 2016 - 31 March 2017 (1 April 2015 - 31 March 2016 for comparison)											
Donor type	Number of donors	Number of patients transplanted	Average number of organs donated per donor North West UK								
DBD DCD DBD and DCD	106 (81) 75 (74) 181 (155)	327 (259) 156 (154) 483 (413)	3.8 (3.8) 3.8 (3.9) 2.7 (2.7) 2.8 (2.8) 3.3 (3.3) 3.4 (3.4)								

	Table 1.1.2 Organs transplanted by type, 1 April 2016 - 31 March 2017 (1 April 2015 - 31 March 2016 for comparison)											
Donor type	Kidney	Pane	Number of organs transplanted by type Pancreas Liver Heart Lung						ng	Small bowel		
DBD DCD DBD and DCD	(18) 18 23) 6 71) 24	(23) (7) (30)	85 25 110	(70) (35) (105)	23 0 23	(25) (0) (25)	36 6 42	(22) (2) (24)	2 0 2	(0) (0) (0)	

Figure 1.1.1 Number of donors and patients transplanted each year



Data in this section have been obtained from the UK Transplant Registry. Section 2 onwards reports on data obtained from the national Potential Donor Audit (PDA).



2. Key Rates on

Potential for Organ Donation

A summary of the key rates on the potential for organ donation, obtained from the national Potential Donor Audit (PDA)

2.1 Key rates

Two radar charts are displayed in Figure 2.1.1 showing specific percentage measures of potential donation activity in 2016/17 for the North West Team compared with national data for the UK, and compared with 2015/16 activity. This information is displayed in an alternative format as bar charts in Appendix A.1. The colour of the rate label indicates the Team performance as shown in the appropriate funnel plot using the gold, silver, bronze, amber, and red (GoSBAR) scheme.

Figure 2.1.1 Key rates on the potential for organ donation, 1 April 2016 - 31 March 2017 (1 April 2015 - 31 March 2016 for comparison)

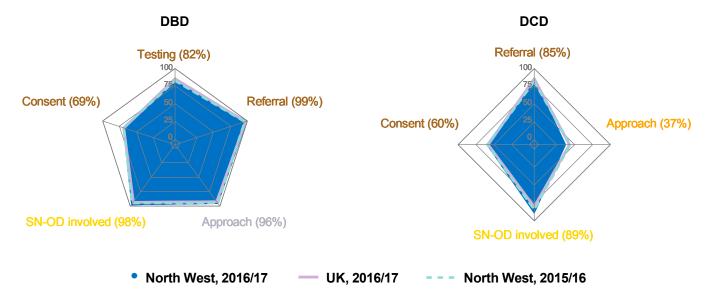
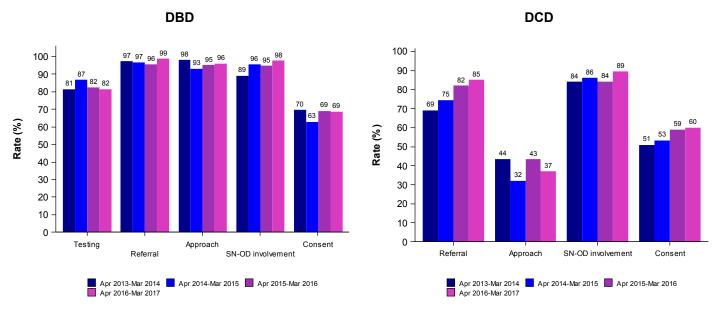


Figure 2.1.2 Key rates on the potential for organ donation, 1 April 2013 - 31 March 2017





2.2 Key numbers, rates and comparison with national targets

The percentages shown in Figure 2.1.1 are also shown in Table 2.2.1 along with the number of patients at each stage. A national comparison and a time period comparison are again provided. A comparison against national DBD and DCD targets has been applied by highlighting the key rates for your Team as gold, silver, bronze, amber, or red. See Appendix A.4 for ranges used. Note that caution should be applied when interpreting percentages based on small numbers.

Table 2.2.1 Key numbers, rates and comparison with national targets, 1 April 2016 - 31 March 2017 (1 April 2015 - 31 March 2016 for comparison)

		2016/17	DB	D 2015	40		2016/17	DCD	2015/1	•
	Target		UK	North West	UK	Target	North West	UK	North West	UK
Patients meeting organ donation referral criteria¹		238	1,775	181	1,747		934	6,204	812	6,500
Referral rate % Referred to SN-OD		B 99% 235	97% 1,728	96% 173	96% 1,684		B 85% 795	86% 5,308	82% 666	83% 5,402
Neurological death tested Testing rate %		194 B 82%	1,522 86%	149 82%	1,477 85%					
Eligible donors ²		180	1,444	143	1,404		643	4,237	500	4,205
Family approached Approach rate %		173 S 96%	1,329 92%	136 95%	1,296 92%		238 A 37%	1,815 <i>43%</i>	217 43%	1,942 <i>46%</i>
Family approached and SN-OD involved % of approaches where SN-OD involved		169 G 98%	1,236 93%	129 95%	1,180 91%		213 G 89%	1,460 <i>80%</i>	183 84%	1,511 78%
Consent ascertained Consent rate %	72%	119 B 69%	917 69%	94 69%	891 69%	68%	143 B 60%	1,055 <i>58%</i>	128 59%	1,113 <i>57%</i>
Expected consents based on ethnic mix Expected consent rate based on ethnic mix %		118 69%		94 70%			139 60%		120 59%	
Actual donors from each pathway % of consented donors that became actual donors		104 87%	819 89%	79 84%	786 88%		74 52%	565 54%	70 55%	564 51%
Colour key - comparison with funnel plot confidence limits		G Gold A Amber		S Silver R Red			B Bronze			

¹ DBD - A patient with suspected neurological death

Note that from 1 April 2016 to 31 March 2017 there were 3 eligible DBD donors and 2 eligible DCD donors for whom consent for donation was ascertained who are not included in this section because they were either over 80 years of age or did not die in a unit participating in the PDA.

DCD - A patient in whom imminent death is anticipated, ie a patient receiving assisted ventilation, a clinical decision to withdraw treatment has been made and death is anticipated within 4 hours

² DBD - Death confirmed by neurological tests and no absolute contraindications to solid organ donation

DCD - Imminent death anticipated and treatment withdrawn with no absolute contraindications to solid organ donation



3. Stages WhereOpportunities were Lost

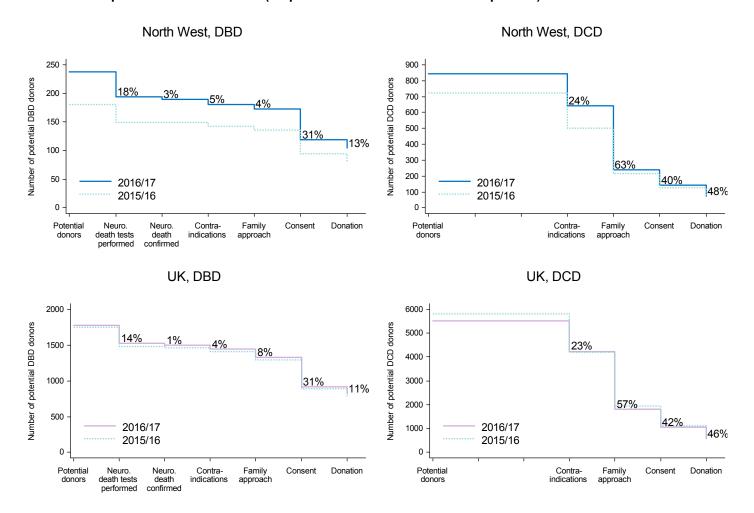
Stages at which potential donors lost the opportunity to become actual donors

3.1 Overview of lost opportunities

Of the 238 potential DBD donors with suspected neurological death, 104 proceeded to donation and 134 did not proceed. Of the 643 eligible DCD donors, 74 proceeded to donation and 569 did not proceed.

Figure 3.1.1 gives an overview of the various stages where opportunities were lost. There are four charts showing DBD and DCD stages separately for the North West team and the UK, all of which contain a comparison with 2015/16. The number of potential donors is shown on the vertical axis for each chart and at each 'step' the proportion of potential donors lost at that stage is displayed. Caution should be applied when interpreting percentages based on small numbers. Further information is available for individual Trust / Health Boards in Tables 4.1.1 and 4.1.2 in Section 4.

Figure 3.1.1 Stages at which potential donors lost the opportunity to become actual donors, 1 April 2016 - 31 March 2017 (1 April 2015 - 31 March 2016 for comparison)





3.2 Neurological death testing

A funnel plot of neurological death testing rates is displayed in Figure 3.2.1. The goal is to ensure that neurological death tests are performed wherever possible. For information about how to interpret the funnel plots, please see Appendix A.4.

Figure 3.2.1 Funnel plot of neurological death testing rates, 1 April 2016 - 31 March 2017

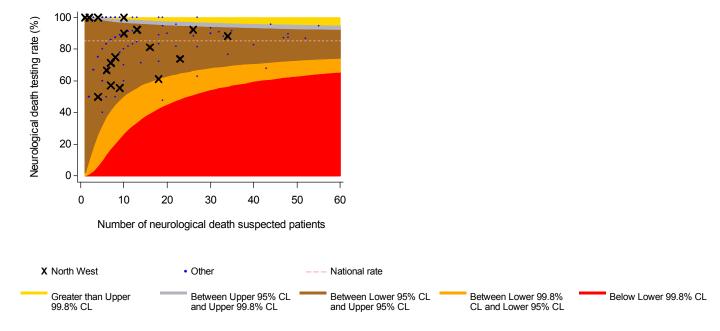


Table 3.2.1 shows the reasons why neurological death tests were not performed, if applicable, for your Team. Patients for whom the reason for not performing neurological tests is given as 'cardiac arrest despite resuscitation', 'brainstem reflexes returned', or 'neonates - less than 2 months post term' are now excluded from the calculation of the neurological death testing rate.

Table 3.2.1 Reasons given for neurological death tests not being performed, 1 April 2016 - 31 March 2017										
	N	%								
Family declined donation Family pressure not to test Patient haemodynamically unstable Biochemical/endocrine abnormality Hypothermia Inability to test all reflexes Clinical reason/Clinicians decision SN-OD advised that donor not suitable Medical contraindication to donation Patient had previously expressed a wish not to donate Other Unknown	2 16 5 1 4 7 2 1 1 2	4.5 4.5 36.4 11.4 2.3 9.1 15.9 4.5 2.3 4.5 2.3								
Total	44	100.0								
If 'other', please contact your local SN-OD for more information, if	required.									



3.3 Referral to Specialist Nurse - Organ Donation (SN-OD)

Funnel plots of DBD and DCD referral rates are displayed in Figure 3.3.1. Every patient who meets the referral criteria should be identified and referred to the SN-OD, as per NICE CG135¹ and NHS Blood and Transplant (NHSBT) Best Practice Guidance on timely identification and referral of potential organ donors².

Figure 3.3.1 Funnel plots of referral rates, 1 April 2016 - 31 March 2017

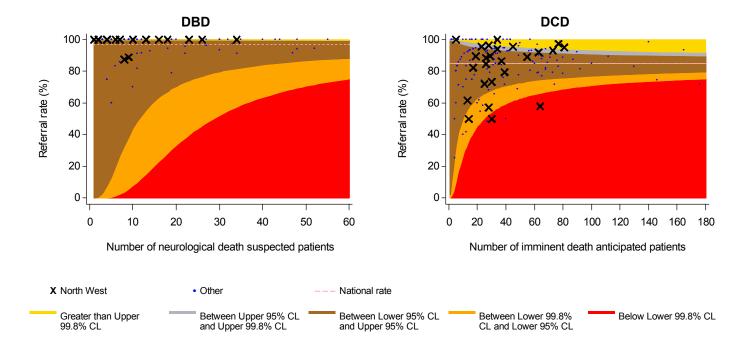


Table 3.3.1 shows the reasons why patients were not referred to a SN-OD, if applicable, for your Team.

Table 3.3.1 Reasons given why patient not referred, 1 April 2016 - 31 March 2017										
		DBD		DCD						
	N	%	N	%						
Not identified as a potential donor/organ donation not considered	-	-	28	20.1						
Coroner/Procurator Fiscal Reason	-	-	2	1.4						
Family declined donation prior to neurological testing	1	33.3	1	0.7						
Family declined donation following decision to withdraw treatment	-	-	2	1.4						
Medical contraindications	-	-	22	15.8						
Thought to be medically unsuitable	-	-	36	25.9						
Other	2	66.7	48	34.5						
Total	3	100.0	139	100.0						

If 'other' or 'medical contraindications', please contact your local SN-OD for more information, if required. Please note that patients may appear in this table more than once if they met the referral criteria for both DBD and DCD donation.



Early referral to the SN-OD is important to enable the opportunity for donation to be maximised. Early referral triggers should be in place to ensure all donors are identified to the SN-OD to allow the family the option of organ donation. For patients who were referred, Table 3.3.2 shows the timing of the first contact with the SN-OD by the clinical staff. All patients meeting the referral criteria should be referred as early as possible to enable attendance of the SN-OD to assess suitability for donation and ensure that a planned approach for consent to the family is made in line with NICE CG135¹ and NHSBT Best Practice Guidance on approaching the families of potential organ donors³.

Table 3.3.2 Timing of first contact with a SN-OD by clinical staff, for patients who were referred, 1 April 2016 - 31 March 2017

	N I	DBD %	N	DCD %
		70	N	70
Before sedation stopped	14	5.8	14	1.8
Absence of one or more cranial nerve reflexes and GCS of 4 or less not explained by sedation	110	45.6	40	5.0
No sedation or after sedation stopped, decision made to carry out BSD tests, before 1st set of tests	85	35.3	11	1.4
After 1st set and before 2nd set of BSD tests	4	1.7	-	0.0
After neurological death confirmation	2	8.0	3	0.4
Clinical decision to withdraw life-sustaining treatment has been made, before treatment withdrawn	26	10.8	715	89.9
After treatment withdrawn	-	0.0	12	1.5
Not reported	-	0.0	-	0.0
Total	241	100.0	795	100.0

NB, 43 patients with suspected neurological death also went on to meet the referral criteria for DCD donation, and are therefore included twice.

¹ NICE, 2011. *NICE Clinical Guidelines - CG135* [online]. Available at: https://www.nice.org.uk/guidance/cg135 [accessed 8 May 2017]

² NHS Blood and Transplant, 2012. *Timely Identification and Referral of Potential Organ Donors - A Strategy for Implementation of Best Practice* [online]. Available at:

http://www.odt.nhs.uk/pdf/timely-identification-and-referral-potential-donors.pdf [accessed 8 May 2017]

³ NHS Blood and Transplant, 2013. *Approaching the Families of Potential Organ Donors – Best Practice Guidance* [online]. Available at:

http://www.odt.nhs.uk/pdf/family approach best practice guide.pdf> [accessed 8 May 2017]



3.4 Contraindications

Table 3.4.1 shows the primary absolute medical contraindications to solid organ donation, if applicable, for potential DBD donors confirmed dead by neurological death tests and potential DCD donors in your Team.

Table 3.4.1 Primary absolute medical contraindications to solid organ donation 1 April 2016 - 31 March 2017	,	
	DBD	DCD
Any cancer with evidence of spread outside affected organ (including lymph nodes) within 3 years	4	119
Melanoma (except completely excised Stage 1 cancers)	1	<u>-</u>
Choriocarcinoma Active haematological malignancy (myeloma, lymphoma, leukaemia)	2	29
TB: active and untreated	-	6
HIV disease (but not HIV infection)	-	1
No transplantable organ in accordance with organ specific contraindications	2	42
Total	9	198



3.5 Family approach

Funnel plots of DBD and DCD family approach rates are displayed in Figure 3.5.1. All families of eligible donors should be formally approached for a decision about organ donation.

Figure 3.5.1 Funnel plots of approach rates, 1 April 2016 - 31 March 2017

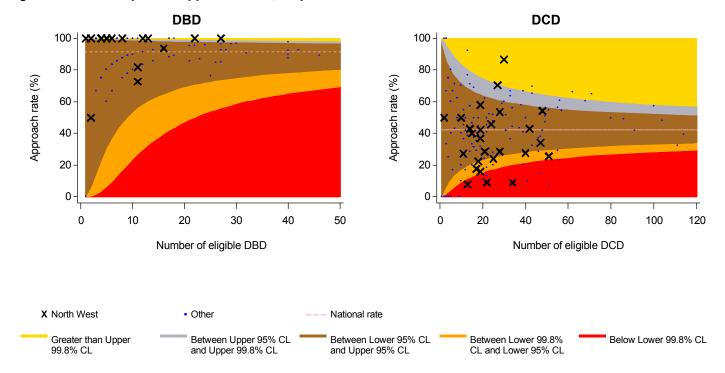


Table 3.5.1 shows the reasons why patients were not formally approached to discuss organ donation, if applicable, for your Team.

	1	DBD	DCD		
	N	%	N	%	
Family stated that they would not support donation before they were formally approached	-	-	11	2.7	
Family untraceable	_	-	1	0.2	
Coroner / Procurator Fiscal refused permission	4	57.1	4	1.0	
Patient's general medical condition	-	-	193	47.7	
Other medical reason	1	14.3	39	9.6	
Other	2	28.6	121	29.9	
Not identified as a potential donor / organ donation not considered	-	-	34	8.4	
Patient had previously expressed a wish not to donate	-	-	2	0.5	
Total	7	100.0	405	100.0	

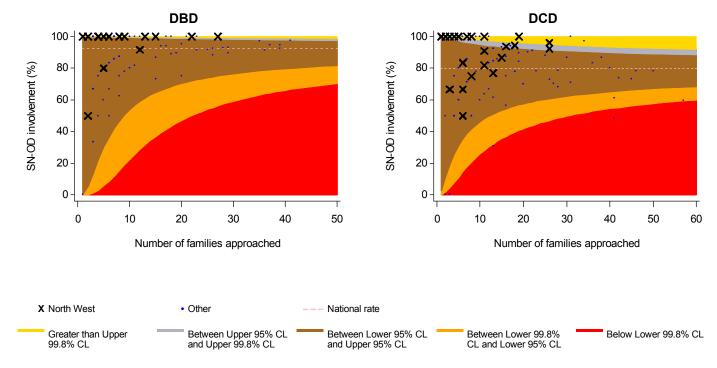


3.6 Proportion of approaches involving a SN-OD

In the UK, in 2016/17, when a SN-OD was not involved in the approach to the family for a decision about organ donation, DBD and DCD consent rates were 39% and 25%, respectively, compared with DBD and DCD consent rates of 71% and 66%, respectively, when a SN-OD was involved. NICE CG135¹ and NHSBT Best Practice Guidance on approaching the families of potential organ donors³ reinforces that every approach to those close to the patient should be planned with the multidisciplinary team (MDT), should involve the SN-OD and should be clearly planned taking into account the known wishes of the patient. The Organ Donor Register (ODR) should be checked in all cases of potential donation and this information must be discussed with the family as it represents the eligible donor's legal consent to donation.

Funnel plots of DBD and DCD SN-OD involvement rates are displayed in Figure 3.6.1. A SN-OD should be actively involved in the formal approach to the family and an approach plan made and followed.

Figure 3.6.1 Funnel plots of SN-OD involvement rates, 1 April 2016 - 31 March 2017





3.7 Consent

Funnel plots of DBD and DCD consent rates are displayed in Figure 3.7.1. The 2016/17 national targets of 72% and 68% for DBD and DCD, respectively, are also shown, for information.

Figure 3.7.1 Funnel plot of consent rates, 1 April 2016 - 31 March 2017

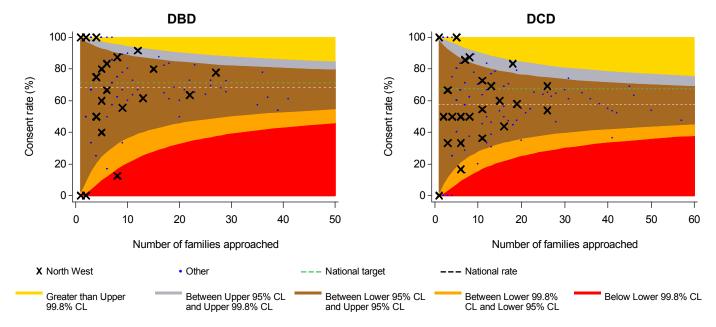


Table 3.7.1 shows the reasons why families did not support donation, if applicable, for your Team.

		DBD		DCD		
	N	%	N	%		
Patient previously expressed a wish not to donate	9	16.7	11	11.6		
Family were not sure whether the patient would have agreed to donation	9	16.7	24	25.3		
Family did not believe in donation	1	1.9	2	2.1		
Family felt it was against their religious/cultural beliefs	7	13.0	2 3 5 8	3.2		
Family were divided over the decision	6	11.1	5	5.3		
Family felt the patient had suffered enough	6 2	3.7	8	8.4		
Family did not want surgery to the body	10	18.5	4	4.2		
Family wanted to stay with the patient after death	1	1.9	4	4.2		
Family had difficulty understanding/accepting neurological testing	_	_	1	1.1		
Family felt the length of time for donation process was too long	2	3.7	14	14.7		
Family felt the body needs to be buried whole (unrelated to religious or	2 2	3.7	1	1.1		
cultural reasons)						
Family concerned that organs may not be transplanted	_	_	1	1.1		
Families concerned about organ allocation	_	_	i 1	1.1		
Strong refusal - probing not appropriate	1	1.9	3	3.2		
Other	4	7.4	13	13.7		
Total	54	100.0	95	100.0		



3.8 Reasons why solid organ donation did not occur

Table 3.8.1 shows the reasons why solid organ donation did not occur, if applicable, for your Team.

Table 3.8.1 Reasons why solid organ donation did not occur, 1 April 2016 - 31 March 2017										
	ı	DBD DCD								
	N	%	N	%						
Family changed mind	=	_	2	2.9						
Coroner/ Procurator Fiscal refusal	2	13.3	3	4.3						
Organs deemed medically unsuitable by recipient centres	5	33.3	27	39.1						
Organs deemed medically unsuitable on surgical inspection	2	13.3	1	1.4						
Prolonged time to asystole	-	-	23	33.3						
Cardiac arrest	2	13.3	2	2.9						
General instability	3	20.0	5	7.2						
Other	1	6.7	6	8.7						
Total	15	100.0	69	100.0						
If 'other', please contact your local SN-OD for more information,	if required.									



4. PDA data by Trust / Health Board

A summary of key numbers and rates from the PDA by Trust / Health Board

4.1 Key numbers and rates by Trust / Health Board

Tables 4.1.1 and 4.1.2 show the key numbers and rates for patients who met the DBD and/or DCD referral criteria, respectively. Caution should be applied when interpreting percentages based on small numbers.

	1 7)rii 2016 -	31 March	2017 (1 April 20	15 - 31 IVI	arch 2016	for cor	nparison)			
Patients where neurological death was suspected	Patients that were tested	Neurological death testing rate (%)	Patients where neurological death was suspected that were referred to SN-OD	DBD referral rate (%)	Patients confirmed dead by neurological testing	Eligible DBD donors (Death confirmed by neurological tests and no absolute contra- indications)	Eligible DBD donors whose family were approached	DBD approach rate (%)	Consent ascertained	DBD consent rate (%)	Actual DBE and DCD donors from eligible DBD donors	DBD SN-OD involvement rate (%)
1 April 2016 t	o 31 March	2017										
Aintree Unive	rsity Hospita 4	ls NHS Found 57	lation Trust 7	100	4	4	4	100	3	75	3	100
Alder Hey Chi 9	ildren's NHS 5	Foundation To 56	rust 8	89	5	5	5	100	4	80	2	80
Betsi Cadwala 13	adr University 12	/ Health Board 92	13	100	12	12	12	100	11	92	11	92
Blackpool Tea 10	aching Hospi 9	tals NHS Foul 90	ndation Trust 10	100	7	5	5	100	3	60	3	100
Bolton NHS F 4	oundation Tr 4	rust 100	4	100	4	4	4	100	4	100	3	100
Central Manci 18	hester Unive 11	rsity Hospitals 61	NHS Foundat 18	ion Trust 100	11	11	8	73	1	13	1	100
Countess Of (Chester Hos 10	pital NHS Fou 100	ndation Trust 10	100	9	8	8	100	7	88	5	100
East Cheshire	NHS Trust 1	100	1	100	1	1	1	100	0	0	0	100
East Lancash 16	ire Hospitals 13	NHS Trust 81	16	100	13	13	13	100	8	62	7	100
Isle of Man 2	2	100	2	100	2	2	2	100	2	100	2	50
Lancashire Te	eaching Hos _l 17	oitals NHS Foo 74	undation Trust 23	100	17	16	15	94	12	80	11	100
Liverpool Hea 0	rt and Chest 0	Hospital NHS	Foundation Tr 0	ust -	0	0	0	-	0	-	0	-
Mid Cheshire 7	Hospitals Ni 5	HS Foundation 71	n Trust 7	100	5	4	4	100	2	50	1	100
Pennine Acute	e Hospitals I 12	NHS Trust 92	13	100	12	11	9	82	5	56	3	100
Royal Liverpo 8	ol and Broad 6	lgreen Univers 75	ity Hospitals № 7	IHS Trust 88	6	6	6	100	4	67	2	100
Salford Royal 34	NHS Found	ation Trust 88	34	100	30	27	27	100	21	78	19	100



Table 4.1.1 Patients who met the DBD referral criteria - key numbers and rates, 1 April 2016 - 31 March 2017 (1 April 2015 - 31 March 2016 for comparison)

Patients where neurological death was suspected 2	that were death	Pati wh neurol death suspen clogical testing e (%) SN-100	ere ogical ı was ected were ed to re	DBD eferral te (%) 100	Patients confirmed dead by neurological testing 2	Eligible DBD donors (Death confirmed by neurological tests and no absolute contra-indications)	Eligible DBD donors whose family were approached 2	DBD approach rate (%) 100	Consent ascertained 0	DBD consent rate (%)	Actual DBD and DCD donors from eligible DBD donors 0	DBD SN-OD involvement rate (%) 100
St Helens and	Knowsley Hospita 6	als NHS Trust 75	7	88	6	6	6	100	5	83	5	100
Stockport NHS 4	S Foundation Trus 4	at 100	4	100	4	4	4	100	3	75	3	100
Tameside Hos	spital NHS Founda 0	ation Trust -	0	-	0	0	0	-	0	-	0	-
The Walton Co	entre NHS Founda 24	ation Trust 92	26	100	22	22	22	100	14	64	14	100
University Hos 4	spital of South Ma 4	nchester NHS 1 100	Foundation 4	Trust 100	4	4	4	100	3	75	2	100
University Hos	spitals of Morecan 2	nbe Bay NHS F 100	oundation 2	Trust 100	2	2	1	50	1	100	1	100
Warrington an 6	d Halton Hospitals 4	s NHS Foundat 67	ion Trust 6	100	4	4	4	100	2	50	2	100
Wirral Univers 7	ity Teaching Hosp 5	oital NHS Found 71	dation Trus 7	t 100	5	5	5	100	2	40	2	80
Wrightington, 4	Wigan and Leigh I 2	NHS Foundation 50	n Trust 4	100	2	2	2	100	2	100	2	100
1 April 2015 to	o 31 March 2016	(for compariso	n purpose	es)								
Aintree Univer 6	sity Hospitals NH 4	S Foundation T 67	rust 6	100	4	4	3	75	3	100	3	100
Alder Hey Chi	ldren's NHS Foun 4	dation Trust 40	4	40	4	4	3	75	2	67	0	33
Betsi Cadwala 8	ndr University Hea 7	Ith Board 88	8	100	7	6	6	100	4	67	4	100
Blackpool Tea 4	nching Hospitals N 3	IHS Foundation 75	Trust 4	100	3	3	3	100	2	67	2	100
Bolton NHS F	oundation Trust 0	-	0	-	0	0	0	-	0	-	0	-
Central Manch 18	nester University I 15	Hospitals NHS 83	Foundation 17	Trust 94	15	14	12	86	9	75	7	100
Countess Of 0	Chester Hospital N 4	NHS Foundation 80	Trust 5	100	4	4	4	100	4	100	4	100
East Cheshire 1	NHS Trust 1	100	1	100	1	1	1	100	1	100	0	100
East Lancashi 5	ire Hospitals NHS 5	Trust 100	5	100	5	5	5	100	2	40	1	100
Isle of Man 1	1	100	1	100	1	1	1	100	1	100	1	100
Lancashire Te	eaching Hospitals 10	NHS Foundatio 83	n Trust 12	100	10	9	8	89	4	50	4	100
Liverpool Heal	rt and Chest Hosp 1	oital NHS Found 100	dation Trust 1	100	1	1	1	100	1	100	0	0
Mid Cheshire	Hospitals NHS Fo	oundation Trust 100	2	100	2	2	2	100	2	100	2	100



Table 4.1.1 Patients who met the DBD referral criteria - key numbers and rates, 1 April 2016 - 31 March 2017 (1 April 2015 - 31 March 2016 for comparison)

Patients where neurological death was suspected	Patients that were tested	Neurological death testing rate (%)	Patients where neurological death was suspected that were referred to SN-OD	DBD referral rate (%)	Patients confirmed dead by neurological testing	Eligible DBD donors (Death confirmed by neurological tests and no absolute contra- indications)	Eligible DBD donors whose family were approached	DBD approach rate (%)	Consent ascertained	DBD consent rate (%)	Actual DBE and DCD donors from eligible DBD donors	DBD SN-OD involvement rate (%)
Pennine Acute	Hospitals	NHS Trust 77	13	100	10	10	10	100	7	70	5	100
Royal Liverpoo	ol and Broa	dgreen Univers 56	ity Hospitals I 8	NHS Trust 89	5	4	4	100	4	100	4	100
Salford Royal 35	NHS Found 31	lation Trust 89	35	100	31	31	31	100	19	61	14	97
Southport and 2	Ormskirk I 2	Hospital NHS T 100	rust 2	100	2	2	2	100	1	50	1	100
St Helens and 5	Knowsley I 4	Hospitals NHS 80	Trust 5	100	4	3	3	100	1	33	1	100
Stockport NHS	S Foundatio	n Trust -	0	-	0	0	0	-	0	-	0	-
Tameside Hos	spital NHS I 1	oundation Trus	s <i>t</i> 1	100	1	1	1	100	1	100	1	100
The Walton Co	entre NHS 1 17	Foundation True 100	st 17	100	17	17	16	94	10	63	10	100
University Hos	spital of Soเ 7	ith Manchester 78	NHS Founda 9	tion Trust 100	7	6	6	100	3	50	3	83
University Hos	spitals of M 2	orecambe Bay 100	NHS Foundat 2	tion Trust 100	2	2	2	100	2	100	2	50
Warrington an	d Halton Ho	ospitals NHS Fo 100	oundation Trus 6	st 100	6	6	5	83	4	80	3	80
Wirral Univers 6	ity Teachin 4	g Hospital NHS 67	S Foundation 7 6	Trust 100	4	4	4	100	4	100	4	100
Wrightington, 3	Wigan and	Leigh NHS Fou 100	ndation Trust	100	3	3	. 3	100	3	100	3	100



Table 4.1.2 Patients who met the DCD referral criteria - key numbers and rates, 1 April 2016 - 31 March 2017 (1 April 2015 - 31 March 2016 for comparison)

Eligible DCD donors (Imminent death Patients for anticipated and whom imminent treatment withdrawn with Eligible DCD Actual DCD Patients for Patients for death was whom imminent anticipated that whom no absolute donors whose donors from DCD SN-OD DCD referral DCD approach DCD consent death was were referred treatment was contrafamily were Consent eligible DCD involvement to SN-OD rate (%) anticipated rate (%) withdrawn indications) approached rate (%) ascertained rate (%) donors 1 April 2016 to 31 March 2017 Aintree University Hospitals NHS Foundation Trust Alder Hey Children's NHS Foundation Trust Betsi Cadwaladr University Health Board Blackpool Teaching Hospitals NHS Foundation Trust Bolton NHS Foundation Trust Central Manchester University Hospitals NHS Foundation Trust Countess Of Chester Hospital NHS Foundation Trust East Cheshire NHS Trust East Lancashire Hospitals NHS Trust Isle of Man Lancashire Teaching Hospitals NHS Foundation Trust Liverpool Heart and Chest Hospital NHS Foundation Trust Mid Cheshire Hospitals NHS Foundation Trust Pennine Acute Hospitals NHS Trust Royal Liverpool and Broadgreen University Hospitals NHS Trust Salford Royal NHS Foundation Trust Southport and Ormskirk Hospital NHS Trust St Helens and Knowsley Hospitals NHS Trust Stockport NHS Foundation Trust Tameside Hospital NHS Foundation Trust The Walton Centre NHS Foundation Trust University Hospital of South Manchester NHS Foundation Trust



Table 4.1.2 Patients who met the DCD referral criteria - key numbers and rates, 1 April 2016 - 31 March 2017 (1 April 2015 - 31 March 2016 for comparison)

Eligible DCD donors (Imminent death Patients for anticipated and whom imminent treatment withdrawn with Eligible DCD Actual DCD Patients for Patients for death was whom imminent anticipated that whom no absolute donors whose donors from DCD SN-OD DCD referral DCD approach DCD consent death was were referred treatment was contrafamily were Consent eligible DCD involvement rate (%) anticipated to SN-OD rate (%) withdrawn indications) approached rate (%) ascertained rate (%) donors University Hospitals of Morecambe Bay NHS Foundation Trust Warrington and Halton Hospitals NHS Foundation Trust Wirral University Teaching Hospital NHS Foundation Trust Wrightington, Wigan and Leigh NHS Foundation Trust 1 April 2015 to 31 March 2016 (for comparison purposes) Aintree University Hospitals NHS Foundation Trust Alder Hey Children's NHS Foundation Trust Betsi Cadwaladr University Health Board Blackpool Teaching Hospitals NHS Foundation Trust Bolton NHS Foundation Trust Central Manchester University Hospitals NHS Foundation Trust Countess Of Chester Hospital NHS Foundation Trust East Cheshire NHS Trust East Lancashire Hospitals NHS Trust Isle of Man Lancashire Teaching Hospitals NHS Foundation Trust R Liverpool Heart and Chest Hospital NHS Foundation Trust Mid Cheshire Hospitals NHS Foundation Trust Pennine Acute Hospitals NHS Trust Royal Liverpool and Broadgreen University Hospitals NHS Trust Salford Royal NHS Foundation Trust Southport and Ormskirk Hospital NHS Trust St Helens and Knowsley Hospitals NHS Trust



Table 4.1.2 Patients who met the DCD referral criteria - key numbers and rates, 1 April 2016 - 31 March 2017 (1 April 2015 - 31 March 2016 for comparison)

Patients for whom imminent death was anticipated	Patients for whom imminent death was anticipated that were referred to SN-OD	DCD referral rate (%)	Patients for whom treatment was withdrawn	Eligible DCD donors (Imminent death anticipated and treatment withdrawn with no absolute contraindications)	Eligible DCD donors whose family were approached	DCD approach rate (%)	Consent ascertained	DCD consent rate (%)	Actual DCD donors from eligible DCD donors	DCD SN-OD involvement rate (%)			
Stockport NHS Foundation Trust													
11	5	45	11	6	2	33	1	50	0	50			
Tameside Hos	Tameside Hospital NHS Foundation Trust												
10	10	100	7	6	1	17	1	100	1	100			
The Walton Centre NHS Foundation Trust													
25	25	100	25	24	15	63	12	80	7	93			
	pital of South Ma												
42	35	83	35	23	9	39	6	67	4	100			
University Hos	pitals of Morecar	mbe Bay NHS	Foundation Trus	st									
32	27	84	27	22	10	45	8	80	3	80			
Warrington and	Warrington and Halton Hospitals NHS Foundation Trust												
6	4	67	6	5	3	60	2	67	1	67			
Wirral University Teaching Hospital NHS Foundation Trust													
16	16	100	12	7	6	86	4	67	3	100			
Wrightington, Wigan and Leigh NHS Foundation Trust													
39	32	82	38	29	5	17	5	100	4	100			

Tables 4.1.1 and 4.1.2 show the unit where the patient died. However, it is acknowledged that there are some occasions where a patient is referred in an Emergency Department but moves to a critical care unit. In total, for the North West team in 2016/17 there were 77 such patients.

It is acknowledged that the PDA does not capture all activity. In total there were 158 patients referred in 2016/17 who are not included in Section 2 onwards because they were either over 80 years of age or did not die in a unit participating in the PDA. 4 of these are included in Section 1 because they became a solid organ donor.



5. Paediatric ICU data

A summary of key rates from the PDA for Paediatric ICUs

5.1 PICU data

The UK average rates for paediatric ICUs are displayed on the radar charts along with the rates achieved by the paediatric ICUs covered by your Team. A comparison is also provided for the equivalent period last year. Caution should be applied when interpreting percentages based on small numbers. Note that neonatal ICUs have not been included.

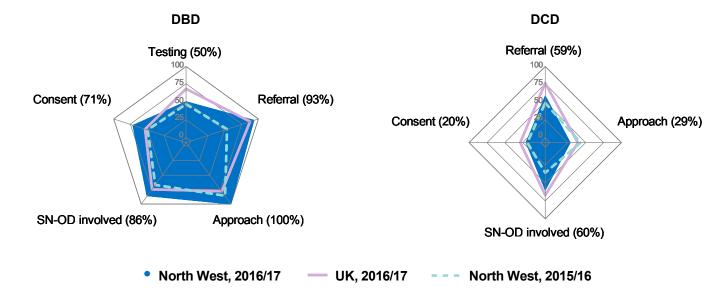
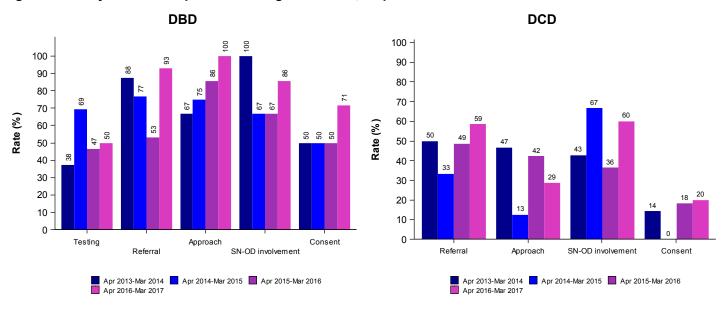


Figure 5.1.2 Key rates on the potential for organ donation, 1 April 2013 - 31 March 2017





Appendices

Appendix A.1 Bar charts of key rates

Figure A.1.1 shows the same information as the radar charts in Section 2 but in an alternative format. The bars show the latest rates for your Team. Purple lines have been superimposed to provide a comparison with the UK and turquoise dashed lines show the rates achieved by your Team in the equivalent period last year. The colour of the rate label indicates the Team performance as shown in the appropriate funnel plot using the gold, silver, bronze, amber, and red (GoSBAR) scheme.

Figure A.1.1 DBD and DCD key rates

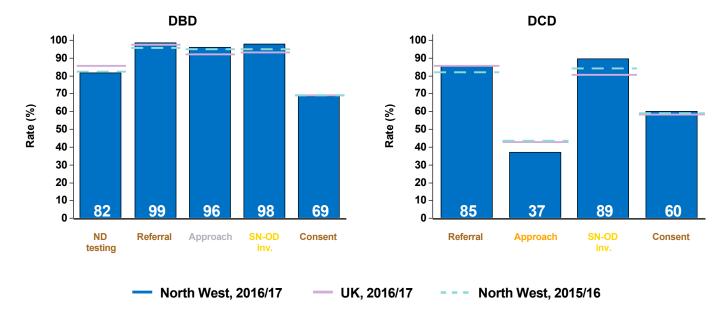
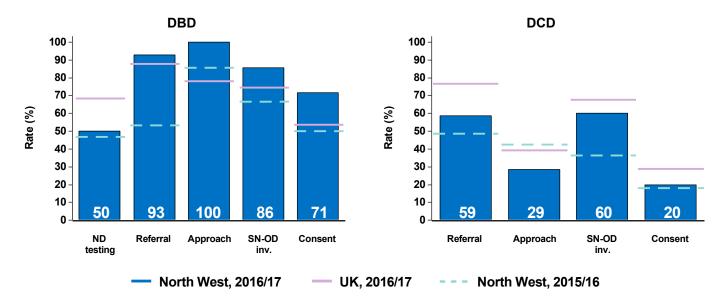


Figure A.1.2 DBD and DCD key rates for paediatric ICUs





Appendix A.2 Definitions

POTENTIAL DONOR AUDIT / REFERRAL RECORD

Data excluded Patients who did not die on a critical care unit or an emergency department and

patients aged over 80 years are excluded.

Donors after brain death (DBD)

Suspected Neurological Death A patient who meets all of the following criteria: Apnoea, coma from known aetiology

and unresponsive, ventilated, fixed pupils. Excluding those not tested due to reasons 'cardiac arrest despite resuscitation', 'brainstem reflexes returned', 'neonates - less

than 2 months post term'.

Potential DBD donor A patient who meets all four criteria for neurological death testing excluding those not

tested due to reasons 'cardiac arrest despite resuscitation', 'brainstem reflexes returned', 'neonates – less than 2 months post term' (ie suspected neurological death,

as defined above).

DBD referral criteria A patient with suspected neurological death

Discussed with Specialist A patient with suspected neurological death discussed with the Specialist

Nurse – Organ Donation Nurse – Organ Donation (SN-OD)

Neurological death tested Neurological death tests were performed

Eligible DBD donor A patient confirmed dead by neurological death tests, with no absolute medical

contraindications to solid organ donation

Absolute contraindications Absolute medical contraindications to organ donation are listed here:

http://www.odt.nhs.uk/pdf/contraindications_to_organ_donation.pdf

Family approached for formal organ

donation discussion

Family of eligible DBD asked to: support the patient's expressed or deemed consent/authorisation decision, informed of a nominated/appointed representative, make a decision themselves on donation, or informed of a patient's op-out decision via

the Organ Donor Register

Consent / authorisation ascertained Family supported expressed or deemed consent/authorisation, nominated/appointed

representative gave consent, or where applicable the family gave

consent/authorisation

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 eligible DBD families or nominated/appointed representatives

approached for formal organ donation discussion

Consent / authorisation rate Percentage of families or nominated/appointed representatives approached for formal

organ donation discussion where consent/authorisation was ascertained

Expected consent / authorisation rate
Consent / authorisation rate adjusted for ethnicity case mix (white or BAME (black,

asian and minority ethnic)), based on those patients whose family or

nominated/appointed representative were approached to discuss organ donation where consent/authorisation was ascertained and patient ethnicity was known

SN-OD involvement rate Percentage of family or nominated/appointed representative approaches where a

SN-OD was involved

SN-OD consent / authorisation rate Percentage of families or nominated/appointed representatives approached for formal

organ donation discussion by a SN-OD where consented / authorisation for organ

donation was ascertained



Donors after circulatory death (DCD)

Imminent death anticipated A patient, not confirmed dead using neurological criteria, receiving assisted ventilation,

a clinical decision to withdraw treatment has been made and death is anticipated

within 4 hours

DCD referral criteria A patient in whom imminent death is anticipated (as defined above)

Discussed with Specialist Patients for whom imminent death was anticipated who were discussed with the

Nurse – Organ Donation SN-OD

Potential DCD donor A patient who had treatment withdrawn and death was anticipated within four hours

Eligible DCD donor A patient who had treatment withdrawn and death was anticipated within four hours,

with no absolute medical contraindications to solid organ donation

Absolute contraindications Absolute medical contraindications to organ donation are listed here:

http://www.odt.nhs.uk/pdf/contraindications_to_organ_donation.pdf

Family approached for formal organ

donation discussion

Family of eligible DCD asked to: support the patient's expressed or deemed consent/authorisation decision, informed of a nominated/appointed representative, make a decision themselves on donation, or informed of a patient's op-out decision via

the Organ Donor Register

Consent / authorisation ascertained Family supported expressed or deemed consent/authorisation, nominated/appointed

representative gave consent, or where applicable the family gave

consent/authorisation

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 eligible DCD families or nominated/appointed representatives

approached for formal organ donation discussion

Consent / authorisation rate Percentage of families or nominated/appointed representatives approached for formal

organ donation discussion where consent/authorisation was ascertained

asian and minority ethnic)), based on those patients whose family or

nominated/appointed representative were approached to discuss organ donation where consent/authorisation was ascertained and patient ethnicity was known

SN-OD involvement rate Percentage of family or nominated/appointed representative approaches where a

SN-OD was involved

organ donation discussion by a SN-OD where consented / authorisation for organ

donation was ascertained

UK Transplant Registry (UKTR)

Donor type Type of donor: Donation after brain death (DBD) or donation after circulatory death

(DCD)

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 and 6 for a DCD.

Number of organs transplanted Total number of organs transplanted by organ type

On 1 April 2013 significant changes were made to the PDA. The main changes that should be borne in mind, especially when making comparisons across time periods, are as follows:

- Upper age limit increased from 75 to 80 years.
- Cardiothoracic ICUs included.
- Changes to imminent death definition to be clear that death was anticipated within four hours.
- Contraindications brought in line with current practice.
- Terminology changes, eg 'potential donor' changed to 'eligible donor', for consistency with World Health Organisation definitions.



Appendix A.3 Data description

This report 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), the accompanying Referral Record and the UK Transplant Registry for the North West Team. The report covers the time period 1 April 2016 to 31 March 2017 and data from 1 April 2015 to 31 March 2016 are also provided in certain sections for comparison purposes.

As part of the PDA, patients aged over 80 years of age and those who did not die on a critical care unit or an emergency department are not audited nationally and are therefore excluded from the majority of this report. Data from neonatal Intensive Care Units have also been 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 accompanying Referral Record or from the UK Transplant Registry, as appropriate.

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)



Appendix A.4 Table and figure description

Each table and figure displayed throughout the report is described below to aid interpretation.

1.1 Donor outcomes

Table 1.1.1

The number of actual donors, the resulting number of patients transplanted and the average number of organs donated per donor have been obtained from the UK Transplant Registry (UKTR) for your Team. Results have been displayed separately for donors after brain death (DBD) and donors after circulatory death (DCD).

Table 1.1.2

The number of organs transplanted by type from donors within your Team has been obtained from the UKTR. Further information can be obtained from your local Specialist Nurse – Organ Donation (SN-OD), specifically regarding organs that were not transplanted. Results have been displayed separately for DBD and DCD.

Figure 1.1.1

The number of actual donors and the resulting number of patients transplanted obtained from the UKTR for your Trust/Board for the past 10 equivalent time periods are presented on a line chart.

2.1 Key rates

Figure 2.1.1

Radar charts are displayed showing specific percentage measures of potential donation activity for your Team compared with national data for the UK, and compared with an equivalent time period from the previous financial year, using data from the Potential Donor Audit (PDA). The DBD charts show the percentage of patients tested for neurological death, and all four charts also show the referral rates, approach rates, proportion of approaches involving a SN-OD and observed consent/authorisation rates. Appendix A.2 gives a fuller explanation of terms used.

The blue shaded area represents your Team, and the national rates are superimposed as a solid purple line for comparison. The equivalent period from the previous year is superimposed as a dashed turquoise line. The fuller the blue shaded area the better. Note that 0% and 'not applicable (N/A)' rates appear the same. The rates have therefore been displayed on the spokes of the radar charts. The rates are coloured using the gold, silver, bronze, amber, and red (GoSBAR) colour scheme to show the performance of one Trust/Board as reflected in the plots (see description in figure 3.2.1 below)

Note that caution should be applied when interpreting percentages based on small numbers and when comparing time periods.

Figure 2.1.2

Specific percentage measures of DBD and DCD potential donation activity for your Trust/Board are presented for the last three years, using data from the PDA. Appendix A.4 gives a fuller explanation of the terms used.

2.2 Key numbers, rates and comparison with national targets

Table 2.2.1

A summary of DBD and DCD data and key rates have been obtained from the PDA. A national comparison and a time period comparison are provided. Note that caution should be applied when interpreting percentages based on small numbers and comparing time periods. Appendix A.2 gives a fuller explanation of terms used. The key rates are highlighted using the gold, silver, bronze, amber, and red (GoSBAR) colour scheme to show the performance of the Trust/Board as reflected in the funnel plots (see description for figure 3.2.1 below)

National consent rate targets specific to the financial year are displayed throughout Section 3.

3.1 Overview of lost opportunities

Figure 3.1.1

The stages at which potential donors lose the opportunity to become actual donors have been obtained from the PDA. There are four charts showing the DBD and DCD stages separately for your Team and the UK, all of which contain a comparison against an equivalent period from the previous financial year. The number of potential donors is shown on the vertical axis for each chart and at each 'step' the proportion of potential donors lost at that stage is displayed. Caution should be applied when interpreting percentages based on small numbers and comparing time periods.

3.2 Neurological death testing

Figure 3.2.1

A funnel plot of the neurological death testing rate is displayed using data obtained from the PDA. Each Trust/Board is represented on the plot as a blue dot, although one dot may represent more than one Trust/Board. Trusts/Boards within your Team are shown on the plot as large black crosses. The national rate is shown on the plot as a pink horizontal dashed line, together with 95% and 99.8% confidence limits for this rate. These limits form a 'funnel', shaded using a gold, silver, bronze, amber, and red (GoSBAR) colour scheme. Graphs obtained in this way are known as funnel plots.

If a Trust/Board lies within the 95% limits, shaded bronze, 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, shaded silver or amber, 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, shaded gold, this indicates a rate that is significantly higher than the national rate, while a Trust/Board that lies below the lower limit, shaded red, 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 funnel plots can also be used to identify the maximum rates currently being achieved by Trusts/Boards with similar donor potential.

Table 3.2.1

The reasons given for neurological death tests not being performed have been obtained from the PDA, if applicable.



3.3 Referral to Specialist Nurse - Organ Donation

Funnel plots of DBD and DCD referral rates are displayed using data obtained from the PDA. See Figure 3.3.1

description for Figure 3.2.1 above.

The reasons for not referring the patient to the SN-OD have been obtained from the PDA, if applicable. Table 3.3.1 Table 3.3.2

For patients who were referred, the timings of the first contact with the SN-OD by clinical staff have been

obtained from the PDA

3.4 Contraindications

Table 3.4.1 The primary absolute medical contraindications to solid organ donation have been obtained from the PDA, if

applicable.

3.5 Family approach

Funnel plots of DBD and DCD approach rates are displayed using data obtained from the PDA. See Figure 3.5.1

description for Figure 3.2.1 above.

Table 3.5.1 The reasons why families were not formally approached for a decision about solid organ donation have been obtained from the PDA, if applicable.

3.6 Proportion of approaches involving a SN-OD Figure 3.6.1 Funnel plots of DBD and DCD SN-OD involvement rates are displayed using data obtained from the PDA.

See description for Figure 3.2.1 above.

3.7 Consent Figure 3.7.1

Funnel plots of DBD and DCD consent/authorisation rates are displayed using data obtained from the PDA.

See description for Figure 3.2.1 above. In addition the national consent/authorisation target rate is shown in

Table 3.7.1 The reasons why families did not give consent/authorisation for solid organ donation have been obtained

from the PDA, if applicable.

3.8 Reasons why solid organ donation did not occur

Table 3.8.1 The reasons why solid organ donation did not occur have been obtained from the PDA, if applicable.

4.1 Key numbers and rates by Trusts/Boards within your Team

DBD key numbers and rates by Trusts/Boards covered by your Team have been obtained from the PDA. Table 4.1.1

Data for the current time period are included, along with an equivalent comparison period from the previous

year.

If the Trusts/Boards are not equivalent for the two time periods, this is due to Trust/Board changes, and/or

there were no patients for whom neurological death was suspected or imminent death was anticipated in one

of the time periods.

Caution should be applied when interpreting percentages based on small numbers and comparing time

periods.

Table 4.1.2 DCD key numbers and rates by unit where the patient died have been obtained from the PDA. See

description for Table 4.1.1 above.

5.1 PICU data

Figure 5.1.1 Radar charts have been used to display the DBD and DCD key rates from the PDA for paediatric ICUs. The

> UK average rates for paediatric ICUs are displayed along with the rates achieved by paediatric ICUs covered by your Team. A comparison is also provided for the equivalent period from the previous year. See

description for Figure 2.1.1 above.

Caution should be applied when interpreting percentages based on small numbers and comparing time

periods.

Figure 5.1.2 Specific percentage measures of DBD and DCD potential paediatric donation activity for your Team are

presented for the last three years, using data from the PDA.

Appendix A.4 gives a fuller explanation of the terms used. Note that caution should be applied when

interpreting percentages based on small numbers and comparing time periods.

Appendix A.1 Bar charts of key rates

Figure A.1.1 Bar charts have been used to display the DBD and DCD key rates from the PDA. This is an alternative way

of displaying the information in Figure 2.1.1.

The percentages for your Team in the latest time period are displayed on each bar. Note that caution should

be applied when interpreting percentages based on small numbers and comparing time periods.

Figure A.1.2 Bar charts have been used to display DBD and DCD key rates for paediatric data. See description for Figure

A.1.1 above. Note that caution should be applied when interpreting percentages based on small numbers.