

NHS BLOOD AND TRANSPLANT

BOWEL ADVISORY GROUP

POTENTIAL FOR ORGAN DONATION, 1 APRIL 2010 – 31 MARCH 2011

INTRODUCTION

- 1 This paper identifies the potential for organ donation and the points at which potential donors are 'lost'. It also examines the reasons why donors do not proceed to donation. 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 1 July 2011. Patients aged 76 years or older and those that died in a Cardiothoracic ICU were not audited.

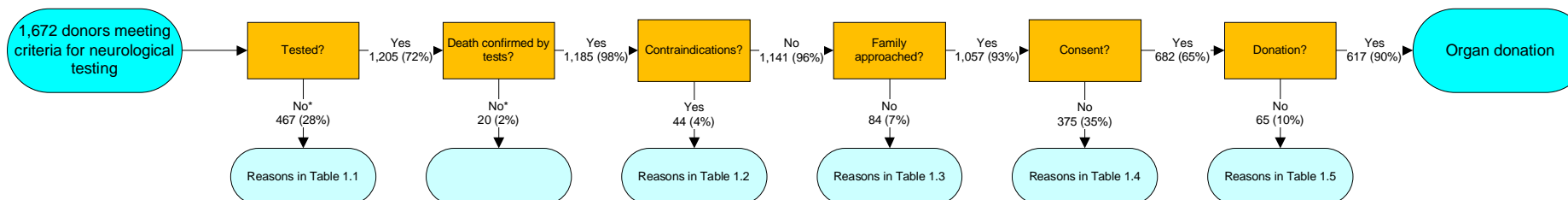
DEFINITIONS

- 3 **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.
- 4 **Possible donors after circulatory death (DCD)** are defined as patients for whom death was not confirmed following neurological death tests.
- 5 All possible DBD donors who either do not undergo the neurological tests or are not confirmed dead following them, are considered to be possible DCD donors.

POTENTIAL ORGAN DONORS

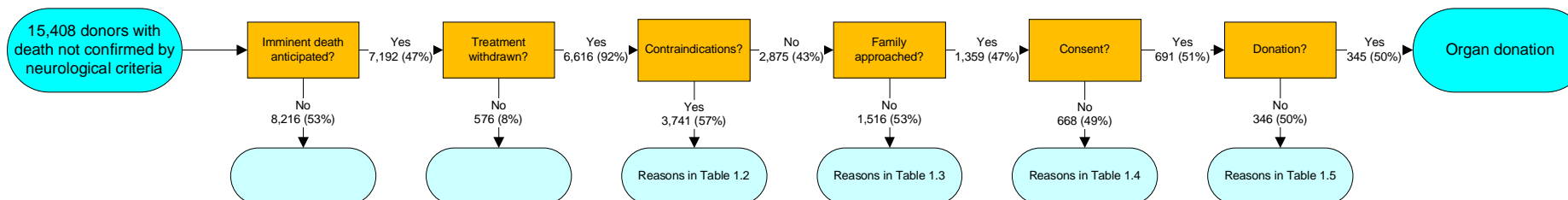
- 6 Between 1 April 2010 and 31 March 2011, there were 1,672 possible DBD donors and 15,408 possible DCD donors. Of these, 617 (37%) became DBD donors and 345 (2%) became DCD donors. **Figures 1 and 2** give a detailed overview of this process.

Figure 1 Possible DBD donor flowchart to organ donation, 1 April 2010 – 31 March 2011



* will be considered for DCD donation

Figure 2 Possible DCD donor flowchart to organ donation, 1 April 2010 – 31 March 2011



NEUROLOGICAL DEATH TESTING RATE

- 7 1,205 (72%) possible DBD donors underwent neurological tests to establish whether neurological death had occurred. 467 (28%) did not undergo tests, the primary reasons for which are summarised in **Table 1.1**. The most common reason for not testing, given in 94 (20%) of cases, was that the patient was haemodynamically unstable.
- 8 Of the 1,205 possible donors tested, 1,185 (98%) were confirmed dead following neurological death tests.

Table 1.1 Reasons given for neurological death tests not being performed		
	N	%
Patient haemodynamically unstable	94	20.1
Clinical reason/Clinician's decision	52	11.1
Family declined donation	45	9.6
Cardiac arrest despite resuscitation	40	8.6
Continuing effects of sedatives	39	8.4
Treatment withdrawn	31	6.6
Biochemical/endocrine abnormality	15	3.2
Inability to test all reflexes	12	2.6
Medical contraindication to donation	11	2.4
Family pressure not to test	10	2.1
Neonates - Less than 2 months post term	9	1.9
Coordinator advised that donor not suitable	9	1.9
Brain stem reflexes returned	5	1.1
Pressure on ICU beds	4	0.9
Other	54	11.6
Unknown	37	7.9
Total	467	100.0

- 9 **NHSBT action**
The introduction of the performance improvement framework (balanced scorecard) across ODT has enabled each region to analyse in detail the explicit reasons for neurological death tests not being performed. Performance is being addressed through the introduction of regional collaboratives and via the Clinical Lead network and Donation Committees as the most influential group of staff to affect the rates of testing. The national clinical lead for donation is working with colleagues to understand the barriers to testing and to identify solutions. It is worthy of note that the rate of testing for the first quarter of 2011 is at its highest point since January 2010 and remains on an upward trend.

IMMINENT DEATH

- 10 Imminent death was anticipated for 7,192 (47%) of the possible DCD donors. Of these, 6,616 (92%) 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 44 (4%) of patients confirmed dead following neurological tests had a contraindication, while the equivalent figure for patients who had treatment withdrawn was 3,741 (57%). 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					
	DBD		DCD		
	N	%	N	%	
Known HIV positive	6	13.6	62	1.7	
Known or suspected CJD	0	0	3	0.1	
Active untreated tuberculosis	3	6.8	27	0.7	
Any malignancy within last 12 months	31	70.5	1,223	32.7	
Multi-organ failure	9	20.5	3,062	81.8	
Total patients with contraindications	44		3,741		

APPROACH RATE

- 13 Families of potential donors were approached in 1,057 (93%) and 1,359 (47%) of DBD and DCD cases, respectively. **Table 1.3** shows the reasons given where the family were not approached.
- 14 The reason given for no approach in 30 (36%) of DBD cases was that the Coroner or Procurator Fiscal refused permission, whereas this reason only accounted for 2% of the potential DCD families not approached. A further 17 (20%) were not approached because the family had already indicated that they would not consent to donation. Again, this reason accounted for a further 2% of the potential DCD cases.
- 15 The reason given for no approach in 964 (64%) of DCD cases was 'other'. The additional text provided showed that in 410 (43%) of these cases, the patient was either not identified or considered as a potential donor. In addition, the families of 18% of potential DCD donors were not approached because of the patient's general medical condition.

Table 1.3 Reasons given why family not formally approached about organ donation

	DBD		DCD	
	N	%	N	%
Coroner/Procurator Fiscal refused permission	30	35.7	22	1.5
Family stated that they would not consent (before they were formally approached)	17	20.2	30	2.0
Patient's general medical condition	7	8.3	265	17.5
Family untraceable	6	7.1	22	1.5
Family considered too upset to approach	3	3.6	39	2.6
Other medical reason	2	2.4	111	7.3
Resource failure	-	-	14	0.9
Patient outside age criteria	-	-	49	3.2
Other	19	22.6	964	63.6
Total	84	100.0	1,516	100.0

16 NHSBT action

In order to address the coroner/procurator fiscal refusals in the areas where this is a particular concern, active engagement with coroners/procurator fiscals is being pursued to promote collaboration. In these areas, the newly appointed regional clinical leads and team managers are meeting with coroners/procurator fiscal to address and seek solutions to local issues. The specialist nurses in organ donation report every case of refusal via the clinical governance monitoring system to ensure that the root causes and trends are identified. 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.

CONSENT RATE

- 17 The consent rate is based on potential donors whose family were formally approached for consent to donation. The consent rate is the proportion of these families who consented to solid organ donation.
- 18 During the financial year, the DBD consent rate was 65% (95% confidence limits 62% - 68%). The DCD consent rate was 51% (95% confidence limits 48% - 54%).
- 19 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 rate was 94%. This dropped to 50% when a patient had not expressed a wish to donate. For DCD, the equivalent rates were 80% and 39%, respectively.
- 20 When a specialist nurse in organ donation (SN-OD) was involved in the approach to the family, the DBD consent rate was 72%, compared with 50% when the SN-OD was not involved. Similarly, for DCD the rate was 68%, compared with 31% when the SN-OD was not involved.

- 21 The reasons why the family did not give consent are shown in **Table 1.4**. The main reason that families of potential DBD patients did not give consent was that the patient had stated in the past that they did not wish to be a donor (16%). The main reason that families of potential DCD patients gave was that the family were not sure whether the patient would have agreed to donation (17%).

Table 1.4 Reasons given why family did not give consent				
	DBD		DCD	
	N	%	N	%
Patient had stated in past they did not wish to be donor	61	16.3	101	15.1
Family not sure patient would have agreed to donation	51	13.6	114	17.1
Family did not want surgery to the body	45	12.0	27	4.0
Strong refusal - probing not appropriate	43	11.5	73	10.9
Family felt it was against their religious/cultural beliefs	29	7.7	19	2.8
Family did not believe in donation	21	5.6	56	8.4
Family were divided over the decision	19	5.1	45	6.7
Family felt the patient had suffered enough	19	5.1	39	5.8
Family felt the body needs to be buried whole (unrelated to religious or cultural reasons)	17	4.5	12	1.8
Family had difficulty understanding/accepting neurological testing	10	2.7	-	-
Family felt length of time for donation process too long	10	2.7	75	11.2
Family wanted to stay with the patient after death	4	1.1	4	0.6
Family concerned that other people may disapprove/be offended	3	0.8	1	0.1
Family concerned that organs may not be transplanted	2	0.5	6	0.9
Families concerned about organ allocation	1	0.3	2	0.3
Family concerned donation may delay the funeral	1	0.3	-	-
Other	39	10.4	94	14.1
Total	375	100.0	668	100.0

22 NHSBT action

- A robust annual training programme exists for all newly appointed and experienced specialist nurses in organ donation. A key aspect of the training surrounds communicating with the acutely bereaved, discussing their options and addressing and gently probing their concerns about donation. The training aims to provide skills in securing a firm yes or no answer from families.
- At team level, interactive training sessions are facilitated and role play is routinely utilised as a model of experiential learning.
- Collaboration continues with specialist nurses, clinical leads and other key hospital personnel to encourage a team approach (SN-OD involvement) in the planning of the approach to potential donors' families and involvement in the donation conversation.
- All cases are reviewed individually at team level and best practice is identified and shared where consent is obtained. Where consent is not obtained individual cases are reviewed to understand the reason and to identify if any changes in practice are indicated.

ORGAN DONATION FROM POTENTIAL DONORS WITH CONSENT

- 23 Of the potential donors whose families consented to donation, 617 (90%) became DBD donors and 345 (50%) became DCD donors. **Table 1.5** shows the reasons why some potential donors whose families had consented did not become actual solid organ donors, as reported through the PDA.
- 24 The main reason given in 16 (25%) cases where DBD donation did not proceed, was that the organs were deemed medically unsuitable by the recipient centres, which was also the reason for 74 (21%) of potential DCD donors.
- 25 The main reason given in 170 (49%) cases why DCD donation did not proceed was prolonged time to death.

Table 1.5 Reasons why solid organ donation did not happen

	DBD		DCD	
	N	%	N	%
Organs deemed medically unsuitable by recipient centres	16	24.6	74	21.4
Coroner/ Procurator Fiscal refusal	11	16.9	5	1.4
Organs deemed medically unsuitable on surgical inspection	9	13.8	15	4.3
Cardiac arrest	8	12.3	1	0.3
Positive virology	5	7.7	6	1.7
Family changed mind	4	6.2	17	4.9
General instability	1	1.5	13	3.8
Prolonged time to asystole	-	-	170	49.1
Logistic reasons	-	-	2	0.6
Family placed conditions on donation	-	-	2	0.6
Retrieval team not available ¹	-	-	6	1.7
Other	11	16.9	35	10.1
Total	65	100.0	346	100.0

¹ Due to adverse weather / not all teams being fully compliant with requirements in first year of NORS

Michael Patrick, Rachel Johnson, Kerri Barber
Statistics and Clinical Audit

Fiona Wellington
Regional Manager, ODT

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