

NHS BLOOD AND TRANSPLANT

CARDIOTHORACIC ADVISORY GROUP

AUDIT OF REASONS FOR DECLINING CARDIOTHORACIC OFFERS

INTRODUCTION

- 1 It was agreed by CTAG that from 1 December 2017, centres should start maintaining a log of all cardiothoracic offers they receive and decline from NHSBT ODT Hub Operations or from a Specialist Nurse in Organ Donation. The aim of this is to gain a greater insight into reasons for non-acceptance of donor organs, ultimately leading to increased organ utilisation.
- 2 Ahead of this, Statistics and Clinical Studies distributed a spreadsheet to be used to record declines, using the new reasons agreed by the CTAG Core Group. A list of these reasons can be found in **Appendix A1**. This paper reports on how many centres have returned information and briefly summarises the information that has been reported in the spreadsheets.
- 3 Declined offers include those that are declined outright and those that are initially accepted but later declined (e.g. at retrieval). Declines for individual patients as well as group offers to centres are included.

RESULTS

- 4 **Table 1** shows the information that has been returned, by centre and month, as at 10 April 2018. Centres were asked in mid-March to submit completed spreadsheets up to the end of February, however only two centres sent this information. Three centres (Newcastle, Manchester, and Glasgow) have not sent any information on declined offers. Birmingham submitted the data in a different format and so have not been analysed further due to time constraints.

Centre	Month			
	December 2017	January 2018	February 2018	March 2018
Birmingham	✓	✓	✓	✓
Harefield	✓	✓	✓	✓
Glasgow	x	x	x	x
Great Ormond Street	✓	x	x	x
Manchester	x	x	x	x
Newcastle	x	x	x	x
Papworth	✓	x	x	x

- 5 Due to the low level of data returns and time constraints, only information for December 2017 could be analysed for three centres where the data did not need to be reformatted (Harefield, Great Ormond Street, and Papworth).

- 6 In December 2017, a total of 271 declined cardiothoracic organ offers were recorded by the three centres as seen in **Table 2**. Note that as this is on an offer basis, several declines can refer to the one donor. There were 94 unique donors, however 5 donors in the spreadsheet returned from Great Ormond Street had missing donor ID. There was only one single lung decline recorded in the time period and so has been grouped together with bilateral lungs declines.

Centre	Organ declines			Total
	Heart	Lungs	Heart-lung block	
Great Ormond Street	8	30	11	49
Harefield	87	46	11	144
Papworth	25	46	7	78
Total	120	122	29	271

- 7 **Table 3** summarises the primary reason recorded by the three centres combined for declining cardiothoracic organs, by organ. **Appendix A2** shows the centre specific recorded reasons.

Primary reason for decline	Lungs N (%)	Heart N (%)	Heart-Lung Block N (%)
A1 Donor Unsuitable - Age	7 (6)	4 (3)	6 (21)
A2 Donor Unsuitable - Cause of Death	1 (1)	1 (1)	1 (3)
A5 Donor Unsuitable - Past Medical History	29 (24)	11 (9)	3 (10)
A8 Donor Unsuitable - Virology	1 (1)	0 (0)	1 (3)
A98 Other, Please Specify	7 (6)	3 (3)	0 (0)
B1 Coronary Artery Disease	1 (1)	2 (2)	0 (0)
B11 Aspiration	2 (2)	0 (0)	1 (3)
B12 Atelectasis	0 (0)	0 (0)	1 (3)
B13 Bullous Disease / Emphysema	2 (2)	0 (0)	0 (0)
B23 Infection	6 (5)	0 (0)	0 (0)
B25 Organ Damaged at Retrieval	1 (1)	0 (0)	0 (0)
B26 Poor Function	21 (17)	37 (31)	7 (24)
B98 Other, Please Specify	3 (2)	1 (1)	1 (3)
C1 ABO Mismatch	2 (2)	1 (1)	2 (7)
C3 HLA Mismatch	3 (2)	10 (8)	0 (0)
C4 Size Mismatch	19 (16)	26 (22)	1 (3)
C98 Other, Please Specify	0 (0)	1 (1)	0 (0)
D1 No Suitable Recipients	10 (8)	13 (11)	3 (10)
E1 Centre Already Transplanting	6 (5)	7 (6)	2 (7)
E2 Donor Cross Clamp Time Too Imminent	1 (1)	0 (0)	0 (0)
E3 Long Travel Time for Organ	0 (0)	1 (1)	0 (0)
E6 No Theatre	0 (0)	1 (1)	0 (0)
E98 Other, Please Specify	0 (0)	1 (1)	0 (0)
Total	122	120	29

- 8 Overall, for lung offers declined by these three centres, the most common primary reason was **A5 Donor Unsuitable - Past Medical History**, followed by **B26 Poor Function** and **C4 Size Mismatch**. For hearts, they were **B26 Poor Function** followed by **C4 Size Mismatch**, and for heart-lung blocks **B26 Poor Function** and **A1 Donor Unsuitable – Age**. Secondary reasons were reported for 57 (21%) of declines, and tertiary reasons were reported for 6 (2%) of declines. Free-text reasons were provided for 31 (11%) of declines.

SUMMARY

- 9 This initiative began in December 2017 and so far, three centres have returned data in a standardised usable format. This however was for one month only. Using the limited information available, the three most prominent reasons for declining cardiothoracic organs were **A5 Donor Unsuitable - Past Medical History**, **B26 Poor Function** and **C4 Size Mismatch**.
- 10 As more information becomes available, a better picture of why cardiothoracic organs are declined and what can be done to increase utilisation will emerge.

Rachel Hogg and Sally Rushton
Statistics and Clinical Studies

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Appendix A1: List of reasons for declining cardiothoracic organs as developed by CTAG Core Group

A	Donor Unsuitable
1	DONOR UNSUITABLE - AGE
2	DONOR UNSUITABLE - CAUSE OF DEATH
3	DONOR UNSUITABLE - HIGH RISK LIFESTYLE
4	DONOR UNSUITABLE - MEDICATION
5	DONOR UNSUITABLE - PAST MEDICAL HISTORY
6	DONOR UNSUITABLE - SMOKING HISTORY
7	DONOR UNSUITABLE - TUMOUR
8	DONOR UNSUITABLE - VIROLOGY
9	DONOR UNSUITABLE - DCD
10	NO BLOOD FOR VIROLOGY
98	OTHER, PLEASE SPECIFY
B	Organ Unsuitable
Heart	
1	CORONARY ARTERY DISEASE
2	EXCESSIVE CATECHOLAMINES
3	VENTRICULAR HYPERTROPHY
Lung	
11	ASPIRATION
12	ATELECTASIS
13	BULLOUS DISEASE / EMPHYSEMA
Generic	
21	ANATOMICAL ANOMALY
22	EXTENSIVE ADHESIONS
23	INFECTION
24	ORGAN TRAUMA – CONTUSION, LACERATION
25	ORGAN DAMAGED AT RETRIEVAL
26	POOR FUNCTION
98	OTHER, PLEASE SPECIFY
C	Organ unsuitable for named recipient
1	ABO MISMATCH
2	AGE MISMATCH
3	HLA MISMATCH
4	SIZE MISMATCH
98	OTHER, PLEASE SPECIFY
D	Recipient unsuitable
1	NO SUITABLE RECIPIENTS
2	RECIPIENT DIED
3	RECIPIENT REFUSED
4	RECIPIENT TRAVEL TIME TOO LONG
5	RECIPIENT UNAVAILABLE
6	RECIPIENT UNFIT
98	OTHER, PLEASE SPECIFY
E	Logistic Issue
1	CENTRE ALREADY TRANSPLANTING
2	DONOR CROSS CLAMP TIME TOO IMMINENT
3	LONG TRAVEL TIME FOR ORGAN
4	NO ICU BEDS
5	NO STAFF
6	NO THEATRE
7	NO TIME
8	NO UK RETRIEVAL TEAM AVAILABLE
9	POOR WEATHER
10	TRANSPORT DIFFICULTIES
98	OTHER, PLEASE SPECIFY

Appendix A2.1: Primary reason for declining cardiothoracic organs, by organ, as recorded by Great Ormond Street in December 2017

Primary reason for decline	Lungs N (%)	Heart N (%)	Heart-Lung Block N (%)
A1 Donor Unsuitable - Age	5 (17)	3 (38)	5 (45)
A2 Donor Unsuitable - Cause of Death	1 (3)	0 (0)	0 (0)
A5 Donor Unsuitable - Past Medical History	3 (10)	0 (0)	0 (0)
A98 Other, Please Specify	1 (3)	1 (13)	0 (0)
B1 Coronary Artery Disease	1 (3)	1 (13)	0 (0)
B11 Aspiration	1 (3)	0 (0)	1 (9)
B12 Atelectasis	0 (0)	0 (0)	1 (9)
B26 Poor Function	4 (13)	0 (0)	1 (9)
B98 Other, Please Specify	1 (3)	1 (13)	0 (0)
C1 Abo Mismatch	2 (7)	1 (13)	2 (18)
C4 Size Mismatch	11 (37)	0 (0)	1 (9)
E1 Centre Already Transplanting	0 (0)	1 (13)	0 (0)
Total	30	8	11

Appendix A2.2: Primary reason for declining cardiothoracic organs, by organ, as recorded by Harefield in December 2017

Primary reason for decline	Lungs N (%)	Heart N (%)	Heart-Lung Block N (%)
A1 Donor Unsuitable - Age	1 (2)	1 (1)	1 (9)
A2 Donor Unsuitable - Cause of Death	0 (0)	1 (1)	1 (9)
A5 Donor Unsuitable - Past Medical History	10 (22)	6 (7)	1 (9)
A8 Donor Unsuitable - Virology	1 (2)	0 (0)	0 (0)
A98 Other, Please Specify	5 (11)	0 (0)	0 (0)
B1 Coronary Artery Disease	0 (0)	1 (1)	0 (0)
B23 Infection	2 (4)	0 (0)	0 (0)
B25 Organ Damaged at Retrieval	1 (2)	0 (0)	0 (0)
B26 Poor Function	8 (17)	32 (37)	5 (45)
B98 Other, Please Specify	2 (4)	0 (0)	1 (9)
C3 HLA Mismatch	1 (2)	9 (10)	0 (0)
C4 Size Mismatch	8 (17)	21 (24)	0 (0)
C98 Other, Please Specify	0 (0)	1 (1)	0 (0)
D1 No Suitable Recipients	2 (4)	8 (9)	0 (0)
E1 Centre Already Transplanting	5 (11)	5 (6)	2 (18)
E6 No Theatre	0 (0)	1 (1)	0 (0)
E98 Other, Please Specify	0 (0)	1 (1)	0 (0)
Total	46	87	11

Appendix A2.3: Primary reason for declining cardiothoracic organs, by organ, as recorded by Papworth in December 2017

Primary reason for decline	Lungs N (%)	Heart N (%)	Heart-Lung Block N (%)
A1 Donor Unsuitable - Age	1 (2)	0 (0)	0 (0)
A5 Donor Unsuitable - Past Medical History	16 (35)	5 (20)	2 (29)
A8 Donor Unsuitable - Virology	0 (0)	0 (0)	1 (14)
A98 Other, Please Specify	1 (2)	2 (8)	0 (0)
B11 Aspiration	1 (2)	0 (0)	0 (0)
B13 Bullous Disease / Emphysema	2 (4)	0 (0)	0 (0)
B23 Infection	4 (9)	0 (0)	0 (0)
B26 Poor Function	9 (20)	5 (20)	1 (14)
C3 HLA Mismatch	2 (4)	1 (4)	0 (0)
C4 Size Mismatch	0 (0)	5 (20)	0 (0)
D1 No Suitable Recipients	8 (17)	5 (20)	3 (43)
E1 Centre Already Transplanting	1 (2)	1 (4)	0 (0)
E2 Donor Cross Clamp Time Too Imminent	1 (2)	0 (0)	0 (0)
E3 Long Travel Time for Organ	0 (0)	1 (4)	0 (0)
Total	46	25	7