

NHS BLOOD AND TRANSPLANT

CARDIOTHORACIC ADVISORY GROUP

GRADING OF RETRIEVED ORGAN FORMS RETURN RATES

INTRODUCTION

1. The **Grading of Retrieved Donor Heart (FRM5722)** and **Grading of Retrieved Donor Lung(s) (FRM5721)** forms were introduced as a pilot on 18 January 2017 for all hearts and lungs that were retrieved with the intention of transplantation.
2. One copy of these grading forms should be completed by the lead retrieval surgeon after retrieval, and one copy by the lead recipient (transplant) surgeon on receipt of the organ, prior to implantation. The aim is to collect more detailed data on organ retrieval damage beyond what is captured on the HTA-A and HTA-B forms, in order to provide feedback and improve retrieval standards.
3. The forms, shown in **Appendix A1**, should be completed at the time of retrieval/transplant. They can initially be filled in by hand, but they must be submitted to NHSBT electronically using the submit button on the form, which will automatically return the form as an attachment to CardiothoracicStatistics@nhsbt.nhs.uk.
4. This report examines the form return rates for organs retrieved during the first 8 months of this initiative; 18 January 2017 to 17 August 2017. Any forms returned after 24 August 2017 were not considered.

DATA

5. Between 18 January 2017 and 17 August 2017 there were 116 hearts retrieved, of which 108 were transplanted in the UK, 3 were transplanted overseas and 5 were subsequently declined after retrieval. For those not transplanted, it was assumed that they were received by the accepting centre unless there was information in the notes to suggest otherwise. The overall return rate was 37% from retrieval teams and 17% from UK transplant teams (those transplanted overseas were not considered). There has been no improvement over time for retrieval teams, with a 39% return rate for the first 4 months and a 36% return rate for the latter 4 months. For transplant teams the return rate has improved slightly from 12% to 19%. See **Table 1a** and **Table 1b** for a breakdown of rates by retrieval team and transplant team, respectively. Note that Great Ormond Street Hospital, Glasgow and Newcastle have not returned any forms for hearts they received for transplantation.

Table 1a Grading of Retrieved Donor Heart form return rates by heart retrieval team, during the first 8 months of the pilot

Retrieval team	18 Jan - 17 Apr 2017			18 Apr - 17 Aug 2017			Overall		
	Hearts retrieved	Grading form submitted		Hearts retrieved	Grading form submitted		Hearts retrieved	Grading form submitted	
	N	N	%	N	N	%	N	N	%
Birmingham CT team	5	2	40	11	5	45	16	7	44
Glasgow CT team	1	1	100	4	2	50	5	3	60
Harefield CT team	7	2	29	20	2	10	27	4	15
Manchester CT team	9	5	56	12	6	50	21	11	52
Newcastle CT team	8	1	13	9	3	33	17	4	24
Papworth CT team	11	5	45	19	9	47	30	14	47
Total	41	16	39	75	27	36	116	43	37

Table 1b Grading of Retrieved Donor Heart form return rate by heart transplant team, during the first 8 months of the pilot

Transplant team	18 Jan - 17 Apr 2017			18 Apr - 17 Aug 2017			Overall		
	Hearts received	Grading form submitted		Hearts received	Grading form submitted		Hearts received	Grading form submitted	
	N	N	%	N	N	%	N	N	%
Birmingham	6	0	0	6	2	33	12	2	17
Great Ormond Street Hospital	2	0	0	3	0	0	5	0	0
Glasgow	5	0	0	4	0	0	9	0	0
Harefield	5	1	20	20	3	15	25	4	16
Manchester	5	4	80	5	3	60	10	7	70
Newcastle	6	0	0	11	0	0	17	0	0
Papworth	12	0	0	23	6	26	35	6	17
Total	41	5	12	72	14	19	113	19	17

Note: all but 5 hearts were transplanted and for those that were not it was assumed that they were received by the accepting centre. 3 of the hearts in Table 1a were transplanted overseas and so are not included in this table as we would not expect a form.

6. There were 126 lung retrievals during the 8 month period, which led to 116 lung transplants in the UK, 5 overseas and 8 were subsequently declined after retrieval. For those not transplanted, it was assumed that they were received by the accepting centre except in 2 cases where there was information in the notes to suggest otherwise. The overall return rate was 40% from retrieval teams and 27% from transplant teams (excluding those transplanted overseas or not received). For both retrieval teams and transplant teams the return rates were better in the first 4 months compared with the latter 4 months: 52% compared with 32%, and 34% compared with 22%, respectively. See **Table 2a** and **Table 2b** for a breakdown of rates by retrieval team and transplant team.

Table 2a Grading of Retrieved Donor Lung form return rates by lung retrieval team, during the first 8 months of the pilot

Retrieval team	18 Jan - 17 Apr 2017			18 Apr - 17 Aug 2017			Overall		
	Lung retrievals	Grading form submitted		Lung retrievals	Grading form submitted		Lung retrievals	Grading form submitted	
	N	N	%	N	N	%	N	N	%
Birmingham CT team	9	5	56	13	8	62	22	13	59
Glasgow CT team	5	3	60	6	1	17	11	4	36
Harefield CT team	11	7	64	18	1	6	29	8	28
Manchester CT team	7	4	57	14	6	43	21	10	48
Newcastle CT team	8	0	0	13	3	23	21	3	14
Papworth CT team	12	8	67	10	5	50	22	13	59
Total	52	27	52	74	24	32	126	51	40

Table 2b Grading of Retrieved Donor Lung form return rate by lung transplant team, during the first 8 months of the pilot

Transplant team	18 Jan - 17 Apr 2017			18 Apr - 17 Aug 2017			Overall		
	Lungs received	Grading form submitted		Lungs received	Grading form submitted		Lungs received	Grading form submitted	
	N	N	%	N	N	%	N	N	%
Birmingham	3	1	33	6	4	67	9	5	56
Great Ormond Street Hospital	3	3	100	0	-	-	3	3	100
Harefield	11	4	36	29	3	10	40	7	18
Manchester	10	6	60	7	6	86	17	12	71
Newcastle	8	0	0	14	0	0	22	0	0
Papworth	15	3	20	16	3	19	31	6	19
Total	50	17	34	70	16	22	122	33	27

Note: this table counts double lungs accepted for a bilateral lung transplant just once. If both lungs were retrieved and accepted by different centres this is counted once in Table 2a but twice in this table. Lungs transplanted overseas were removed as were those where the notes suggested the lungs were declined before travelling to the accepting centre.

CONCLUSION

- It has been agreed that return rates must be above 60% before any meaningful analysis can be done. Centres are asked to discuss how best to embed the submission of these forms into retrieval/transplant practise.
- If you would like the form resending to you, or have any queries about how to use them, please email CardiothoracicStatistics@nhsbt.nhs.uk

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Appendix A1 – screen shots of Grading of Retrieved Donor Heart (FRM5722) and Grading of Retrieved Donor Lung(s) (FRM5721)

Heart

UK TRANSPLANT REGISTRY Blood and Transplant

Submit form **Mandatory field

DONOR DETAILS Section 1

Date donor notified* Donor hospital ODT Donor number*

Heart Structure Section 2

(Please tick ONE of the following options) *

H0 No repair to heart required

H1 Repair required – will not affect function (please specify):

H2 Repair required – will affect function (please specify):

H3 Damage beyond repair (please specify):

Suffic: (Please tick all that apply)

a = ASD or PFO present

b = bicuspid aortic valve

c = congenital anomaly (please specify):

p = palpable coronary disease (please specify):

Vascular Cuffs Section 3

(Please tick ONE of the following options) *

V0 Tissue to spare

V1 No tissue to spare (please specify):

V2 Material required to bridge anastomosis (please specify):

Completed by Section 4

Lead retrieval surgeon (forename & surname): NORIS team*

OR

Lead recipient surgeon (forename & surname): Recipient centre*

Recipient surgeon ONLY, grade communication from retrieval surgeon (Please tick ONE of the following options) *

C0 Excellent C1 Good C2 Average C3 Poor C4 Required but omitted NR Not required

Comments:

FRM5722 CTAGS(17)301217

Lung

UK TRANSPLANT REGISTRY Blood and Transplant

Submit form **Mandatory field

DONOR DETAILS Section 1

Date donor notified* Donor hospital ODT Donor number*

Lung Structure Section 2

(Please tick ONE of the following options) *

L0 No lung parenchymal injury

L1 Lung parenchymal injury requiring repair (please specify):

L2 Lung injury requiring lung resection (please specify):

L3 Lung untransplantable (please specify):

Suffic: (Please tick all that apply)

h = hyper-inflated u = under inflated with atelectasis

b = bullous disease (please specify):

B Bilateral lungs LS Left single lung RS Right single lung

Airway Section 3

(Please tick ONE of the following options) *

A0 Airway to spare A1 No airway to spare

A2 Airway repair required (please specify):

Suffic: (Please tick if applicable)

d = airway erode of surrounding tissues

Vascular Cuffs Section 4

(Please tick ONE of the following options) *

V0 Tissue to spare

V1 No tissue to spare (please specify):

V2 Material required to bridge anastomosis (please specify):

Completed by Section 5

Lead retrieval surgeon (forename & surname): NORIS team*

OR

Lead recipient surgeon (forename & surname): Recipient centre*

Recipient surgeon ONLY, grade communication from retrieval surgeon (Please tick ONE of the following options) *

C0 Excellent C1 Good C2 Average C3 Poor C4 Required but omitted NR Not required

Comments:

FRM5721 CTAGS(17)301217