

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 14 months of this initiative; 18 January 2017 to 17 March 2018. Any forms returned after 17 April 2018 were not considered. The time period was split into 2-3 month periods to compare returns over time.

DATA

- 5 Between 18 January 2017 and 17 March 2018 there were 250 hearts retrieved, of which 236 were transplanted in the UK, 3 were transplanted overseas and 11 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 40% from retrieval teams and 28% from UK transplant teams (those transplanted overseas were not considered). There has been a slight improvement over time for retrieval teams, with a 45% return rate for the last two months. For transplant teams the return rate has decreased in the last two periods, from 45% to 39%. See **Table 1a** and **Table 1b** for a breakdown of rates by retrieval team and transplant team, respectively.
- 6 There were 265 lung retrievals during the 14 month period, which led to 237 lung transplants in the UK, 8 overseas and 28 were subsequently declined after retrieval. For those not transplanted, it was assumed that they were received by the accepting centre except in 3 cases where there was information in the notes to suggest otherwise. The overall return rate was 39% from retrieval teams and 32% 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 half of the period compared with the latter half, for both retrieval teams and transplant teams. See **Table 2a** and **Table 2b** for a breakdown of rates by retrieval team and transplant team.

Retrieval Team	18 Jan – 17 Apr 2017		18 Apr – 17 Jul 2017		18 Jul – 17 Oct 2017		18 Oct - 17Jan 2018		18 Jan – 17 Mar 2018		Overall	
	Retrieved	Returned (%)	Retrieved	Returned (%)	Retrieved	Returned (%)	Retrieved	Returned (%)	Retrieved	Returned (%)	Retrieved	Returned (%)
Birmingham	5	2 (40%)	7	3 (43%)	6	3 (50%)	9	2 (22%)	4	1 (25%)	31	11 (35%)
Glasgow	1	1 (100%)	4	2 (50%)	0	-	4	3 (75%)	4	1 (25%)	13	7 (54%)
Harefield	7	2 (29%)	15	2 (13%)	9	0 (0%)	12	2 (17%)	11	6 (55%)	54	12 (22%)
Manchester	9	5 (56%)	10	5 (50%)	9	6 (67%)	7	4 (57%)	10	5 (5%)	45	25 (56%)
Newcastle	8	1 (13%)	5	2 (40%)	10	2 (20%)	8	1 (13%)	4	2 (50%)	35	8 (23%)
Papworth	11	5 (45%)	15	8 (53%)	18	9 (50%)	17	11 (65%)	11	5 (45%)	72	38 (53%)
Total	41	16 (39%)	56	22 (39%)	52	20 (38%)	57	23 (40%)	44	20 (45%)	250	101 (40%)

Transplant Team	18 Jan – 17 Apr 2017		18 Apr – 17 Jul 2017		18 Jul – 17 Oct 2017		18 Oct - 17Jan 2018		18 Jan – 17 Mar 2018		Overall	
	Received	Returned (%)	Received	Returned (%)	Received	Returned (%)	Received	Returned (%)	Received	Returned (%)	Received	Returned (%)
Birmingham	6	0 (0%)	5	2 (40%)	3	1 (33%)	8	2 (35%)	3	0 (0%)	25	5 (20%)
GOSH	2	0 (0%)	1	0 (0%)	5	0 (0%)	5	1 (20%)	4	1 (25%)	17	2 (12%)
Glasgow	5	0 (0%)	3	0 (0%)	2	0 (0%)	2	2 (100%)	2	2 (100%)	14	4 (29%)
Harefield	5	1 (20%)	13	1 (8%)	16	2 (13%)	8	4 (50%)	7	1 (14%)	49	9 (18%)
Manchester	5	4 (80%)	5	3 (60%)	3	2 (67%)	7	5 (71%)	7	6 (86%)	27	20 (74%)
Newcastle	6	0 (0%)	7	0 (0%)	12	3 (25%)	11	4 (36%)	9	1 (11%)	45	8 (18%)
Papworth	12	1 (8%)	19	3 (16%)	10	4 (40%)	15	7 (47%)	12	6 (50%)	68	21 (31%)
Total	41	6 (15%)	53	9 (17%)	51	12 (24%)	56	25 (45%)	44	17 (39%)	245	69 (28%)

Note: all but 11 hearts were transplanted and for those that were not it was assumed that they were received by the accepting centre, except in 2 cases. 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.

Retrieval Team	18 Jan – 17 Apr 2017		18 Apr – 17 Jul 2017		18 Jul – 17 Oct 2017		18 Oct - 17Jan 2018		18 Jan – 17 Mar 2018		Overall	
	Retrieved	Returned (%)	Retrieved	Returned (%)	Retrieved	Returned (%)	Retrieved	Returned (%)	Retrieved	Returned (%)	Retrieved	Returned (%)
Birmingham	9	5 (56%)	11	6 (55%)	7	2 (29%)	8	3 (38%)	9	3 (33%)	44	19 (43%)
Glasgow	5	3 (60%)	6	1 (17%)	4	2 (50%)	4	2 (50%)	1	0 (0%)	20	8 (40%)
Harefield	11	7 (64%)	14	1 (7%)	10	0 (0%)	13	3 (23%)	10	3 (30%)	58	14 (24%)
Manchester	7	4 (57%)	11	3 (27%)	10	7 (70%)	9	5 (56%)	7	1 (14%)	44	20 (45%)
Newcastle	8	0 (0%)	11	3 (27%)	12	3 (25%)	7	0 (0%)	4	2 (50%)	42	8 (19%)
Papworth	12	8 (67%)	8	4 (50%)	15	10 (67%)	10	7 (70%)	12	6 (50%)	57	35 (61%)
Total	52	27 (52%)	61	18 (30%)	58	24 (41%)	51	20 (39%)	43	15 (35%)	265	104 (39%)

Transplant Team	18 Jan – 17 Apr 2017		18 Apr – 17 Jul 2017		18 Jul – 17 Oct 2017		18 Oct - 17Jan 2018		18 Jan – 17 Mar 2018		Overall	
	Received	Returned (%)	Received	Returned (%)	Received	Returned (%)	Received	Returned (%)	Received	Returned (%)	Received	Returned (%)
Birmingham	3	1 (33%)	5	3 (60%)	5	4 (80%)	5	2 (40%)	6	5 (83%)	24	15 (63%)
GOSH	3	3 (100%)	0	-	1	1 (100%)	2	2 (100%)	0	-	6	6 (100%)
Harefield	11	4 (36%)	25	1 (4%)	14	4 (29%)	14	2 (14%)	7	1 (14%)	71	12 (17%)
Manchester	10	6 (60%)	5	4 (80%)	10	8 (80%)	7	4 (57%)	7	4 (57%)	39	26 (67%)
Newcastle	8	0 (0%)	12	1 (8%)	11	4 (36%)	16	3 (19%)	10	2 (20%)	57	10 (18%)
Papworth	15	3 (20%)	13	2 (15%)	15	7 (47%)	4	0 (0%)	12	2 (17%)	59	14 (24%)
Total	50	17 (34%)	60	11 (18%)	56	28 (50%)	48	13 (27%)	42	14 (33%)	256	83 (32%)

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

- 7 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.
- 8 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		Submit form	*Mandatory field	NHS <i>Blood and Transplant</i>	
DONOR DETAILS Section 1					
Date donor notified*	<input type="text"/>	Donor hospital	<input type="text"/>	ODT Donor number*	<input type="text"/>
Heart Structure Section 2					
<i>(Please tick ONE of the following options) *</i>					
<input checked="" type="checkbox"/> H0 No repair to heart required	<input type="text"/>				
<input checked="" type="checkbox"/> H1 Repair required – will not affect function (please specify):	<input type="text"/>				
<input checked="" type="checkbox"/> H2 Repair required – will affect function (please specify):	<input type="text"/>				
<input checked="" type="checkbox"/> H3 Damage beyond repair (please specify):	<input type="text"/>				
Suffix: <i>(Please tick all that apply)</i>					
<input type="checkbox"/> a = ASD or PFO present					
<input type="checkbox"/> b = bicuspid aortic valve					
<input type="checkbox"/> c = congenital anomaly (please specify):	<input type="text"/>				
<input type="checkbox"/> p = palpable coronary disease (please specify):	<input type="text"/>				
Vascular Cuffs Section 3					
<i>(Please tick ONE of the following options) *</i>					
<input checked="" type="checkbox"/> V0 Tissue to spare	<input type="text"/>				
<input checked="" type="checkbox"/> V1 No tissue to spare (please specify):	<input type="text"/>				
<input checked="" type="checkbox"/> V2 Material required to bridge anastomosis (please specify):	<input type="text"/>				
Completed by Section 4					
<input checked="" type="checkbox"/> Lead retrieval surgeon (forename & surname):	<input type="text"/>	NORS team*	<input type="text"/>		
OR					
<input checked="" type="checkbox"/> Lead recipient surgeon (forename & surname):	<input type="text"/>	Recipient centre*	<input type="text"/>		
Recipient surgeon ONLY, grade communication from retrieval surgeon <i>(Please tick ONE of the following options) *</i>					
<input checked="" type="checkbox"/> C0 Excellent	<input checked="" type="checkbox"/> C1 Good	<input checked="" type="checkbox"/> C2 Average	<input checked="" type="checkbox"/> C3 Poor	<input checked="" type="checkbox"/> C4 Required but omitted	<input checked="" type="checkbox"/> NR Not required
Comments:	<input type="text"/>				
FRM5722/1	Effective: 18/01/2017				

Lung

UK TRANSPLANT REGISTRY		Submit form	*Mandatory field	NHS <i>Blood and Transplant</i>	
DONOR DETAILS Section 1					
Date donor notified*	<input type="text"/>	Donor hospital	<input type="text"/>	ODT Donor number*	<input type="text"/>
Lung Structure Section 2					
<i>(Please tick ONE of the following options) *</i>					
<input checked="" type="checkbox"/> L0 No lung parenchymal injury	<input checked="" type="checkbox"/> B Bilateral lungs	<input checked="" type="checkbox"/> LS Left single lung	<input checked="" type="checkbox"/> RS Right single lung		
<input checked="" type="checkbox"/> L1 Lung parenchymal injury requiring repair (please specify):	<input type="text"/>				
<input checked="" type="checkbox"/> L2 Lung injury requiring lung resection (please specify):	<input type="text"/>				
<input checked="" type="checkbox"/> L3 Lung untransplantable (please specify):	<input type="text"/>				
Suffix: <i>(Please tick all that apply)</i>					
<input type="checkbox"/> h = "hyper-inflated"	<input type="checkbox"/> u = "under inflated with atelectasis"				
<input type="checkbox"/> b = bullous disease (please specify):	<input type="text"/>				
Airway Section 3					
<i>(Please tick ONE of the following options) *</i>					
<input checked="" type="checkbox"/> A0 Airway to spare	<input checked="" type="checkbox"/> A1 No airway to spare				
<input checked="" type="checkbox"/> A2 Airway repair required (please specify):	<input type="text"/>				
Suffix: <i>(Please tick if applicable)</i>					
<input type="checkbox"/> d = airway denude of surrounding tissues					
Vascular Cuffs Section 4					
<i>(Please tick ONE of the following options) *</i>					
<input checked="" type="checkbox"/> V0 Tissue to spare	<input type="text"/>				
<input checked="" type="checkbox"/> V1 No tissue to spare (please specify):	<input type="text"/>				
<input checked="" type="checkbox"/> V2 Material required to bridge anastomosis (please specify):	<input type="text"/>				
Completed by Section 5					
<input checked="" type="checkbox"/> Lead retrieval surgeon (forename & surname):	<input type="text"/>	NORS team*	<input type="text"/>		
OR					
<input checked="" type="checkbox"/> Lead recipient surgeon (forename & surname):	<input type="text"/>	Recipient centre*	<input type="text"/>		
Recipient surgeon ONLY, grade communication from retrieval surgeon <i>(Please tick ONE of the following options) *</i>					
<input checked="" type="checkbox"/> C0 Excellent	<input checked="" type="checkbox"/> C1 Good	<input checked="" type="checkbox"/> C2 Average	<input checked="" type="checkbox"/> C3 Poor	<input checked="" type="checkbox"/> C4 Required but omitted	<input checked="" type="checkbox"/> NR Not required
Comments:	<input type="text"/>				
FRM5721/1	Effective: 18/01/2017				