

NHS BLOOD AND TRANSPLANT

CARDIOTHORACIC ADVISORY GROUP

Lung decline rates by centre - Preliminary analysis
Summary**Introduction**

This paper summarises analyses that have been performed to compare transplant centre organ decline rates with the national decline rate, for lung offers. This analysis was performed for all organs for a recent Advisory Group Chairs' meeting.

Data

Data were obtained from the UK Transplant Registry for lungs transplanted in the UK between 1 April 2010 and 31 March 2013. Offering data for these organs were analysed using certain criteria for each organ type. Within this analysis, declined offers were counted as those where the offer was declined straight away and also those where the organ was accepted and then not used. Decline rates were calculated for each centre and compared to the national average using a funnel plot analysis. Note that no risk-adjustment for patient case-mix has been made.

Results

A significant difference in decline rates was found across the transplant centres for lung offers. **Table 1** summarises the centres with significantly high and significantly low decline rates. For organs such as donor lungs, that are offered zonally, these differences may be a factor of waiting list size. Details of the waiting list size at each centre are provided in **Appendix II**.

Table 1 Summary of organ decline rate analysis by organ type		
Organ	Significantly high decline rates	Significantly low decline rates
Lung (single)	Harefield	(none)
(double)	Birmingham	Harefield

Summary

A significant difference in centre decline rates has been found for lung offers. For all organs where a significant difference was observed, this variation will be further investigated and reviewed.

NHS BLOOD AND TRANSPLANT

CARDIOTHORACIC ADVISORY GROUP

Lung decline rates by centre - Preliminary analysis

Introduction

This paper summarises analyses that have been performed to compare transplant centre organ decline rates with the national decline rate, for lung offers. This analysis was performed for all organs for a recent Advisory Group Chairs' meeting.

Data

Data were obtained from the UK Transplant Registry for lungs transplanted in the UK between 1 April 2010 and 31 March 2013. Offering data for these organs were analysed using certain criteria for each organ type, as described below. Within this analysis, declined offers were counted as those where the offer was declined straight away and also those where the organ was accepted and then not used. Decline rates were calculated for each centre and compared with the national average using a funnel plot analysis. Note that no risk-adjustment for patient case-mix has been made.

Lungs

DBD lungs that were transplanted into adult patients were included in this analysis and these were separated into those that were transplanted as a single lung and those that were transplanted as a lung pair. Any lungs used in multi-organ transplants or transplants that were not first grafts were excluded, as were 3 double lungs that were transplanted into adults by GOSH. There were 176 UK offers of lungs that were transplanted as single lungs and 725 UK offers of lungs that were transplanted as double lungs. Offers of single lungs that were not transplanted were excluded, as were fast-track offers and offers to GOSH or Glasgow.

Results

Table 2 shows the centre decline rates for lung offers. The table is colour-coded to indicate any centres which have a decline rate significantly above the national rate, above the national rate, below the national rate and significantly below the national rate. The key to the colour coding is as follows:

Significantly below the national rate	Below the national rate	Consistent with the national rate	Above the national rate	Significantly above the national rate
---------------------------------------	-------------------------	-----------------------------------	-------------------------	---------------------------------------

The funnel plot used for the analysis can be found in **Appendix I**.

Table 2 DBD donor lung offer decline rates by lung transplant centre				
Centre	Single lungs		Double lungs	
	No. offers	Decline rate	No. offers	Decline rate
Birmingham	34	(74)	120	(73)
Harefield	24	(92)	161	(27)
Manchester	38	(55)	125	(61)
Newcastle	49	(53)	172	(41)
Papworth	31	(48)	147	(52)
UK	176	(62)	725	(49)

Table 2 shows the DBD lung decline rates for lungs that were transplanted singly and lungs that were transplanted as a pair. The Harefield single lung decline rate is significantly higher than the national decline rate. However, their double lung decline rate is significantly lower than the national rate. Birmingham has a significantly high decline rate for double lungs.

Summary

A significant difference in centre decline rates has been found for lung offers and this variation will be further investigated and reviewed. Waiting list size may affect the decline rates of the transplant centres for organs that are offered zonally as smaller waiting lists may increase the need to decline certain offers. **Appendix II** contains waiting list information for patients waiting at 31 March 2013 for each organ type, by transplant centre.

Appendix I – funnel plots of transplant centre decline rates

Figure 1 Funnel plot of lung transplant centre DBD single lung decline rates

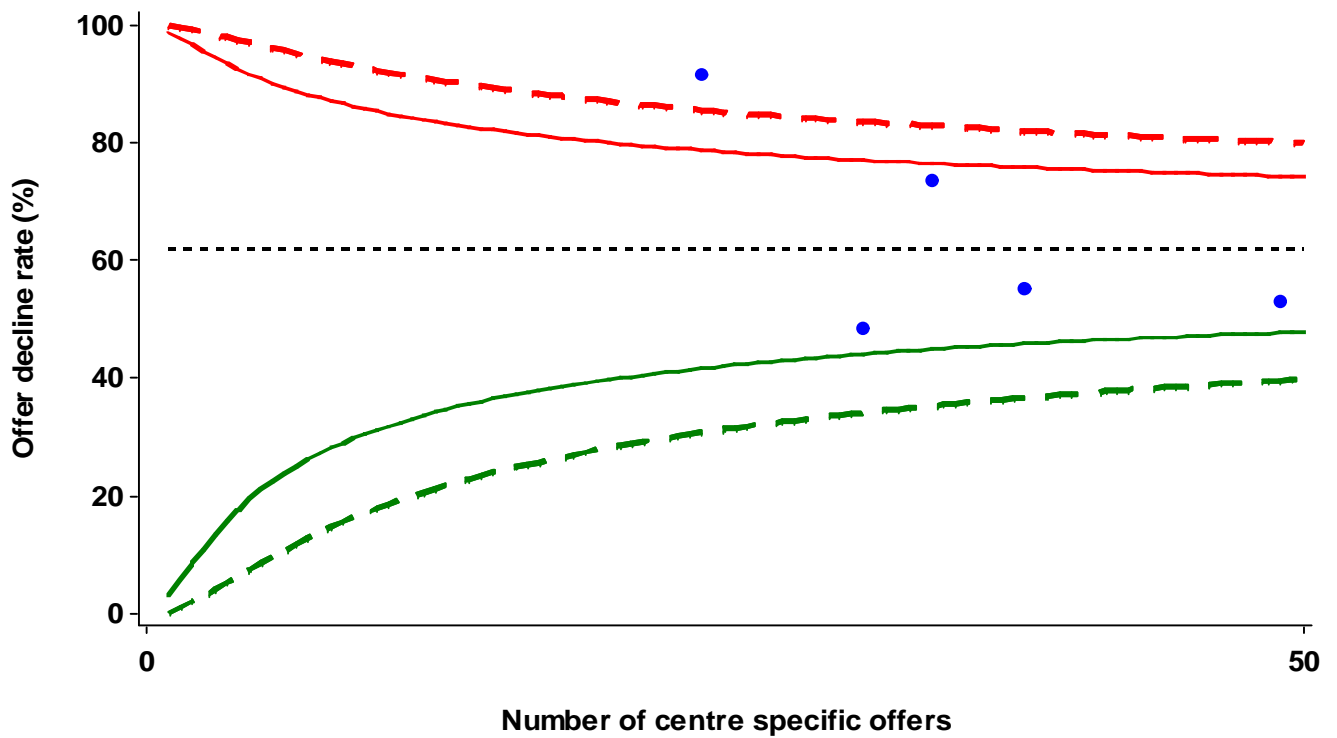
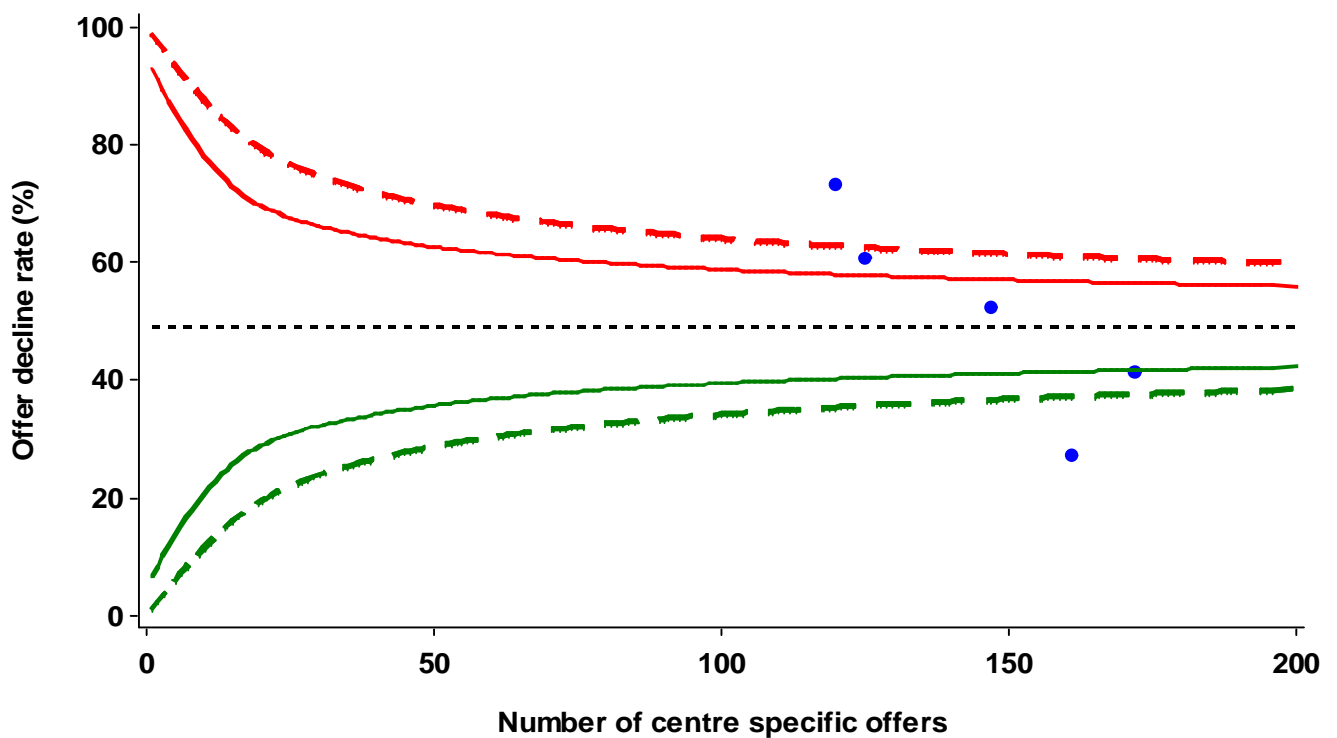


Figure 2 Funnel plot of lung transplant centre DBD double lung decline rates



Appendix II – transplant waiting lists

Table 3 Adult patients of the cardiothoracic transplant lists at 31 March 2013 (2012) in the UK, by centre										
Centre	Active transplant lists								TOTAL	
	Heart		Heart/lung		Lung					
	Non-urgent	Urgent								
Birmingham	17	(7)	2	(0)	0	(2)	20	(16)	39	(25)
Glasgow	6	(8)	2	(1)	0	(0)	0	(0)	8	(9)
Great Ormond Street	2	(1)	0	(0)	0	(0)	2	(0)	4	(1)
Harefield	51	(39)	2	(3)	2	(2)	68	(66)	123	(110)
Manchester	13	(16)	2	(1)	0	(0)	39	(24)	54	(41)
Newcastle	37	(33)	4	(2)	2	(3)	55	(74)	98	(112)
Papworth	44	(42)	4	(2)	10	(6)	29	(23)	87	(73)
TOTAL	170	(146)	16	(9)	14	(13)	213	(203)	413	(371)