

NHS BLOOD AND TRANSPLANT
CARDIOTHORACIC ADVISORY GROUP
CHANGE IN ALLOCATION OF DCD HEARTS

INTRODUCTION

1. DCD heart retrieval began in February 2015 for a 15-month initial evaluation period involving two centres; Harefield and Papworth. Since the end of the evaluation period, activity has continued with Manchester joining the programme in December 2016, Newcastle joining in October 2018 and Glasgow joining in July 2019 although offering has been on an ad-hoc basis.
2. Following a three-year funding arrangement to support a national DCD heart programme it has been proposed that the allocation of DCD donor hearts will move to a more formal offering process and follow the same offering pathway as the non-urgent DBD heart scheme (See Appendix 1 – Heart Allocation Policy). This paper looks at the potential for DCD heart donation and how these potential donors are distributed across the current DBD allocation zones.

DATA AND METHODS

3. Potential DCD heart donors from 1 January to 31 December 2019 have been considered in the analysis and compared against actual DBD heart donors across each of the current DBD allocation zones. A comparison was made to determine whether the distribution of DCD donors allocated to each zone was similar to that of DBD donors.
4. The following criteria were used to identify potential DCD heart donors
 - UK only
 - Consent was given for heart donation
 - One or more organs were offered
 - Aged 60 or less
 - 30kg or more in weight
 - Hepatitis B negative
 - Hepatitis C negative
 - HIV negative
 - Cause of death not listed as cardiac arrest or myocardial infarction
 - No previous history of cardiothoracic disease

RESULTS

5. In the period 1 January to 31 December 2019, there were 456 potential DCD heart donors and 154 actual DBD heart donors (**Table 1**).
6. Similar distributions are seen between DBD donors and potential DCD donors across each zone; all within a 5% margin.
7. Across the 6 zones, the largest difference was seen by Birmingham with the proportion of potential DCD donors 4.3% less than that of DBD donors. Papworth saw the second largest difference with the proportion of potential DCD donors 3.8% greater than the proportion of DBD donors across zones (**Table 1** and **Figure 1**).
8. Distributions of potential DCD donors are also seen to be comparable with the spread of registrations across the zones. Of the differences, **Table 1** shows the largest disparity at Papworth with a proportion of potential DCD donors 6.5% less than the proportion of

heart registrations across zones. Conversely, Newcastle see the proportion of potential DCD heart donors 5.2% greater than the proportion of heart registrations.

CONCLUSION

9. Over the period from 1 January to 31 December 2019, 456 potential DCD donors met the criteria for heart donation. The distribution of these donors across the current DBD allocation zones was reviewed in comparison to the spread of DBD heart donors of the same period. The distributions of DCD donors were seen to be comparable with DBD donors for each zone in addition to the proportion of heart registrations. However, further investigation is required to validate these conclusions.

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Figure 1 Proportions of actual DBD and potential DCD heart donors by DBD allocation zones, 1 January 2019 – 31 December 2019

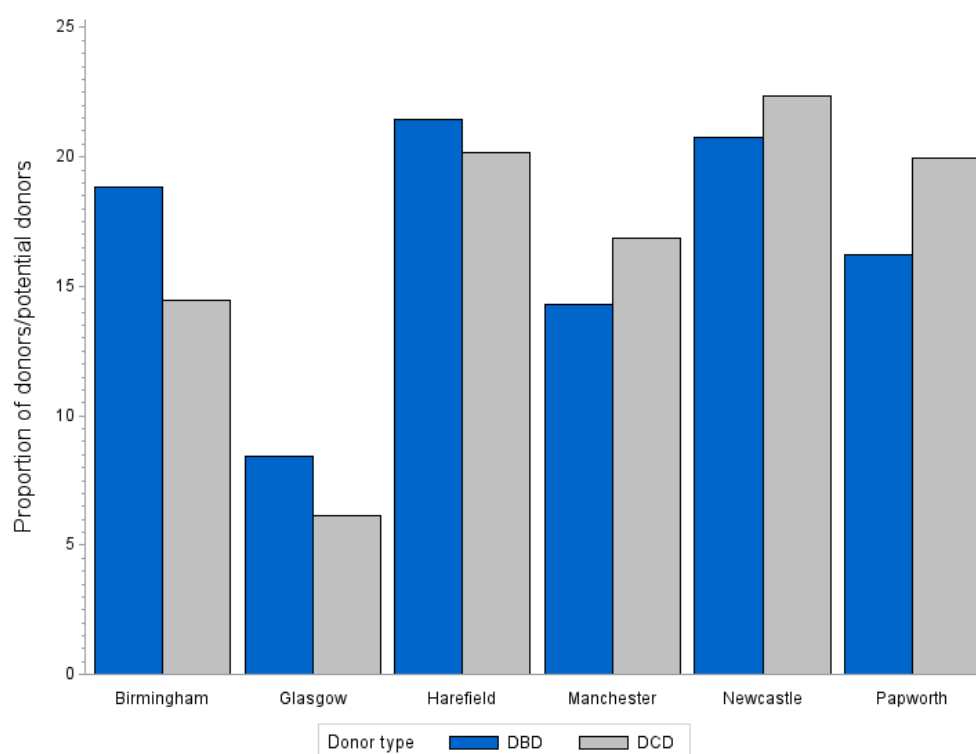


Table 1 Distribution of potential and actual deceased heart donors by DBD allocation zone and donor type, 1 January 2019 – 31 December 2019

DBD Allocation Zone	Registrations		DBD				DCD	
	N	% across zones	Hearts offered	% across zones	Donors	% across zones	Potential Donors	% across zones
Birmingham	52	17.9	104	18.2	29	18.8	66	14.5
Glasgow	14	4.8	62	10.8	13	8.4	28	6.1
Harefield	59	20.3	111	19.4	33	21.4	92	20.2
Manchester	39	13.4	69	12.0	22	14.3	77	16.9
Newcastle	50	17.2	132	23.0	32	20.8	102	22.4
Papworth	77	26.5	95	16.6	25	16.2	91	20.0
Total	291	100.0	573	100.0	154	100.0	456	100.0