

DCD Heart Operational Group

DCD Heart Data review

16 April 2025

1. Summary

This paper reviews the DCD Heart data across the UK from April 2023-March 2025. Primarily to identify occasions when hearts have not been considered for transplant, which has resulted in a 14% reduction in the number of heart transplants for 24/25.

2. Background

Since the end of the DCD Heart Joint Innovation Fund (JIF) in August 2021, 3 of the 6 cardiothoracic NORS teams have been providing DCD Heart retrieval for the UK, with one team being available on call at any time.

The UK has seen an increase in the number of DCD Hearts accepted and transplanted since the national service was implemented in September 2020 and now accounts for 27% of all hearts transplants in the UK being from DCD donors.

This success has proved challenging for both the teams facilitating DCD Heart retrievals due to the longer length of the process in delivering the heart on the OCS to the recipient centre and the donor families waiting for a team to be available. There have been occasions reported when the hearts of donors meeting DCD heart criteria have not been offered due to the team already being committed to other retrievals, and cases where families have not been willing to wait for a DCD Heart team and so withdrawn consent for heart donation. In addition to this, there are also occasions hearts have been accepted but due to no teams being available, heart donation has had to be stood down.

3. DCD Heart Potential

The authors have reviewed all cases of donors meeting DCD Heart criteria of weight >50kg referred to Specialist Nurses for Organ Donation (SNODs) from 1st April 2023 to 31st March 2025.

Figure 1: Overview of DCD Heart potential donors to transplants April 2023 to March 2025

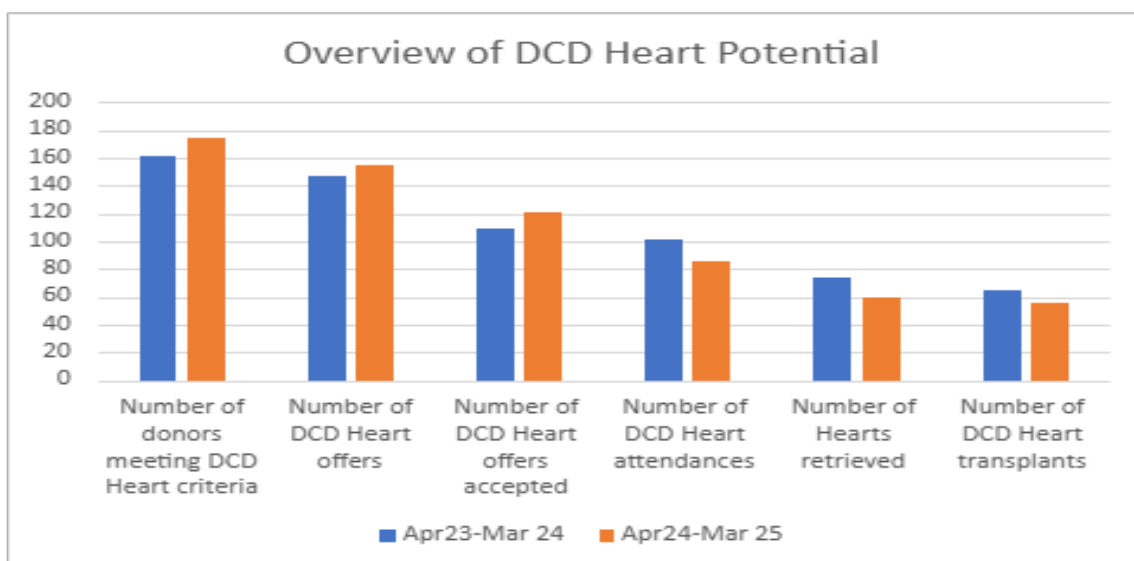


Figure 1 shows an overview of the numbers of hearts meeting criteria, offered, accepted, attended and transplanted. Culminating in the 65 heart transplants in 23/24 and 56 heart transplants in 24/25 from DCD Heart donors.

Figure 2: DCD Heart data to show why DCD hearts accepted are stood down prior to NORS mobilisation.

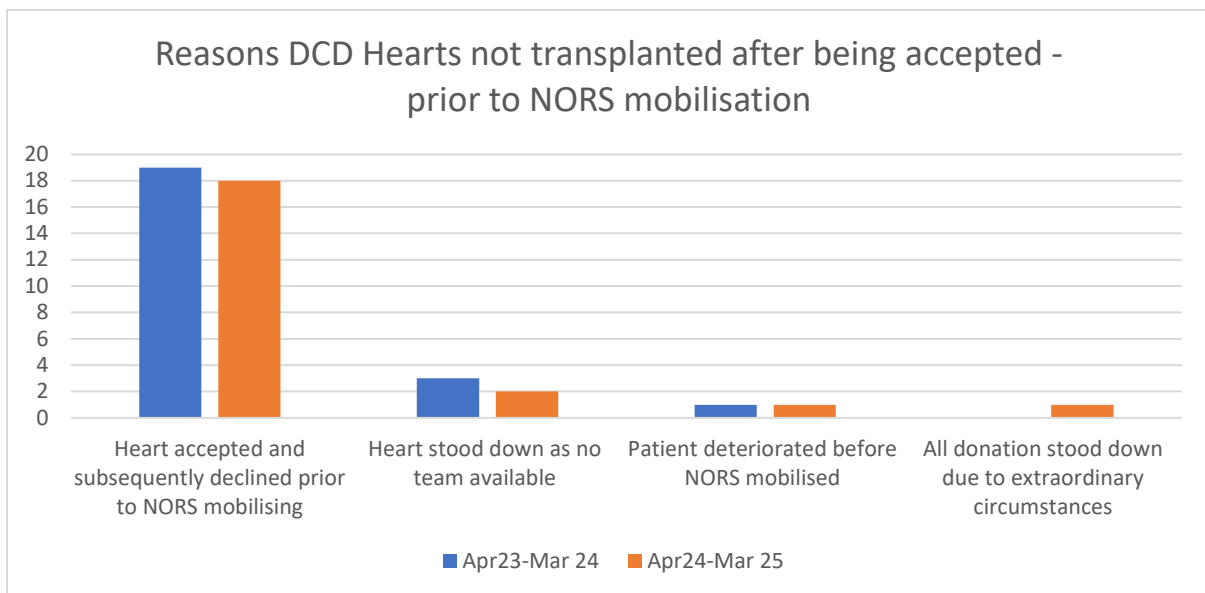


Figure 2 explores the reasons why hearts are not transplanted after they have been accepted, and before a NORS team has been mobilised. The vast majority of these are cases where the recipient centre has later declined the heart for clinical, recipient or capacity reasons. However there have been 5 occasions over these 2 years when the heart has been accepted but due to no NORS teams being available to retrieve (due to multiple activity) it has not been possible to attend and so the heart donation was stood down. At least one of these is documented to be due to no flights being available, and all due to simultaneous demand for DCD heart teams rather than other CT retrieval demand.

Figure 3: DCD Heart data to show why DCD hearts accepted are stood down after NORS attending.

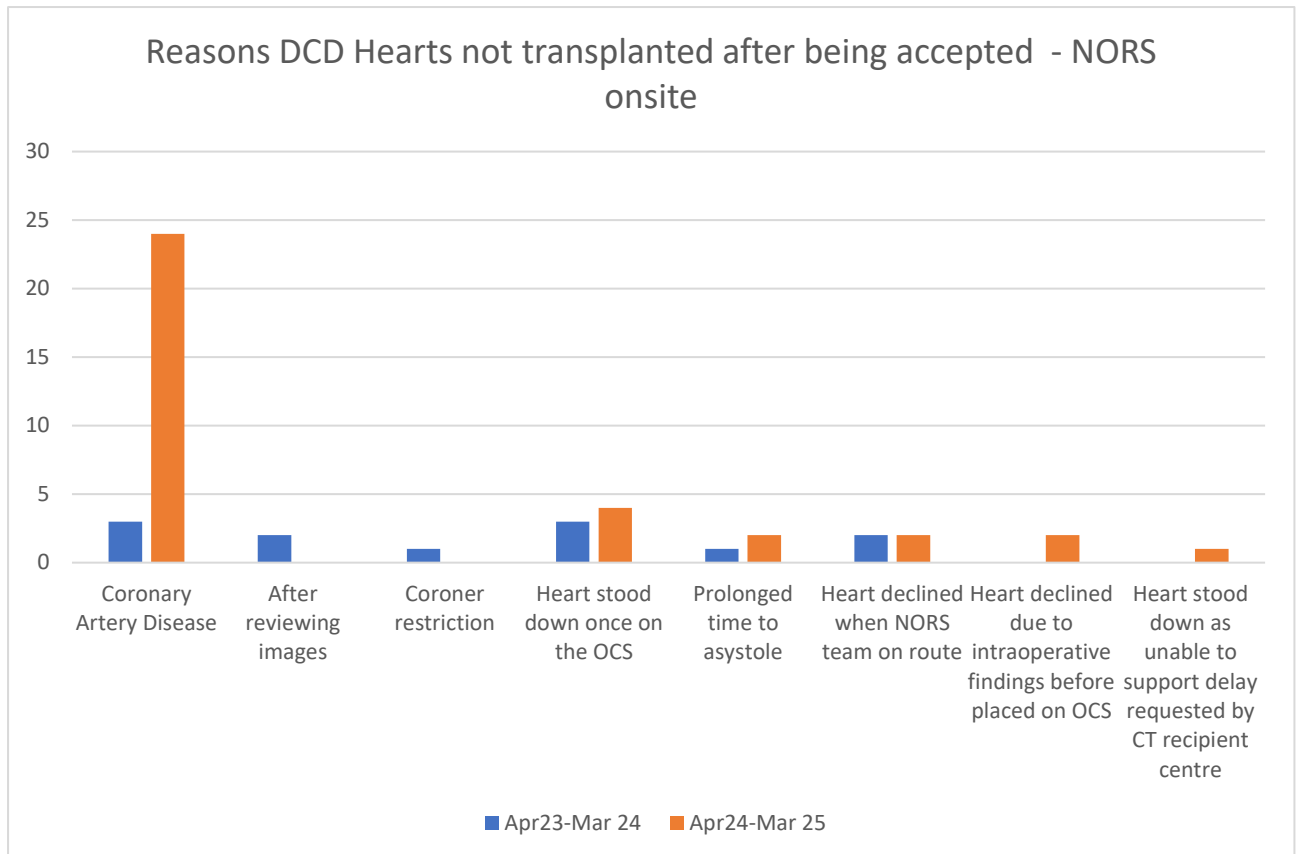
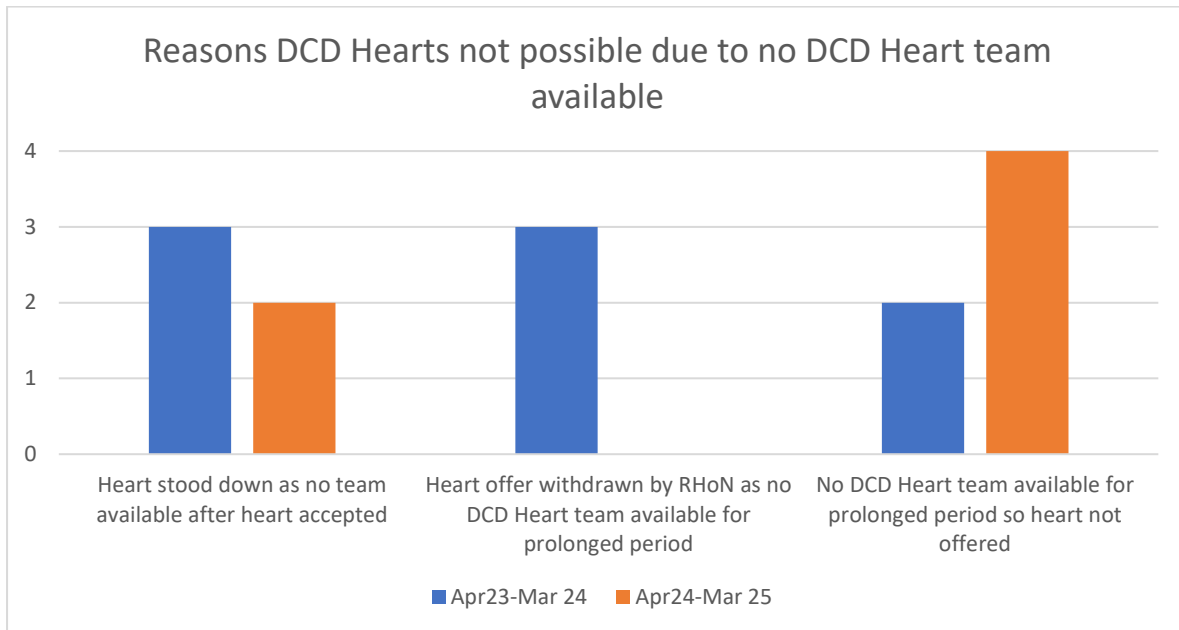


Figure 3 shows the reasons why hearts are not transplanted after they have been accepted, and NORS teams are onsite. This shows that there has been a significant increase over the last year in occasions that hearts are declined due to teams finding coronary artery disease on inspection. This has jumped from 3 cases in 23/24 to 24 cases in 24/25. If we consider the cost impact of these 24 lost transplants this would result in the following potential savings:

Approximate cost of attendance at a DCD Heart donor ~£23,000 x 24 lost transplants due to CAD = ~£554,000

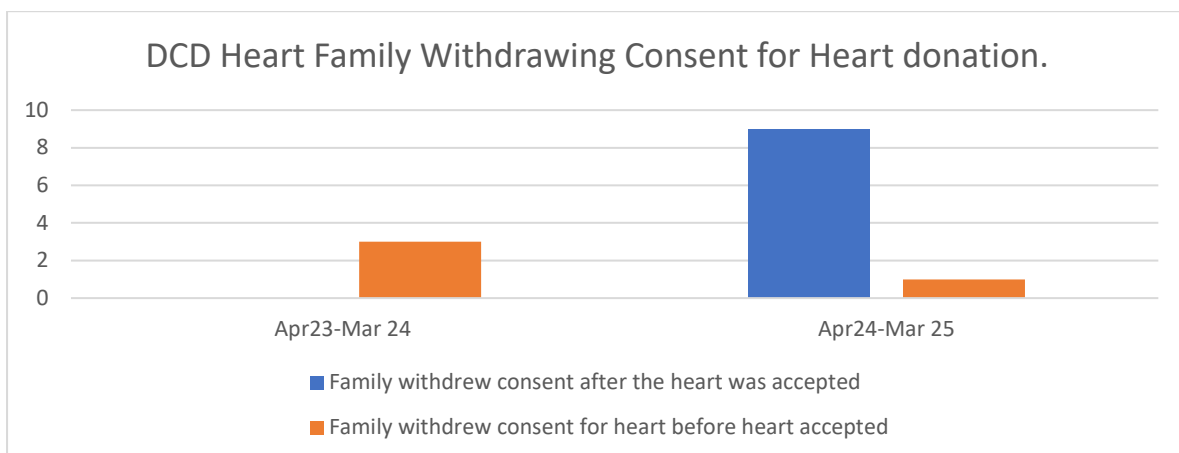
There have also been 2 occasions in 23/24 when teams arrived onsite and reviewed the imaging available, then declined the heart. The incidence of hearts being declined onsite once on the OCS machine remains low, at 7 cases over the 2 years. There have also been 4 cases the hearts have been declined on the OCS when on route from the donor hospital to the recipient centre.

Figure 4: Reasons why DCD Heart not possible due to no DCD Heart team being available.



If we then consider those cases when DCD Hearts were not able to be considered due to logistics, figure 4 separates these into occasions hearts were not offered as no teams available, hearts which were offered but had the offer withdrawn as no teams available, and those who had hearts accepted and no DCD Heart team available. These account for 14 occasions over the last 2 years. In 5 of these occasions the hearts had been accepted.

Figure 5: Occasions donor families withdrew their consent for DCD Hearts



Finally, the other reason we know that DCD Hearts are not considered is due to donor families finding the long wait for a DCD Heart team to be too great and they withdraw their consent for heart donation. Figure 5 has been separated into 2 columns, those families who withdraw their consent before the heart has been accepted, and those who withdraw the heart offer after a centre has accepted the heart. For the latter, there have been 10

occasions in the last 2 years a DCD heart has been accepted, and the heart donation is stood down because the family have withdrawn their consent. These are described as being due to the family being unwilling to wait longer for a team to be available.

If we consider the cases when a heart has been accepted and the donor has not been attended due to no DCD Heart team being available or the family withdrawing their consent for heart donation, there have been 14 occasions, 11 of which have been in 24/25. This could have increased the number of DCD heart transplants by an additional potential of 3-4 hearts (7%).

4. Conclusions

Review the resource capacity as part of the DCD heart service review following the granting of substantive funding.

Review of clinical information available at time of offering considering ancillary testing e.g. CT Angio and comprehensive ECHO's etc.

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