

**NHS BLOOD AND TRANSPLANT
ORGAN & TISSUE DONATION AND TRANSPLANTATION DIRECTORATE**

PANCREAS ADVISORY GROUP

DCD PANCREAS DONOR AGE CRITERIA

LAY SUMMARY

Currently the upper donor age limit for pancreas donation from donors after circulatory death (DCD) is 55 years. This paper looks at what the benefits may be if this age limit was increased to 60 years. This was done by estimating the potential number of additional donations that the group of DCD donors aged between 56 and 60 years may provide.

In 2023, there were 107 DCD donors aged 56–60 years. Of these, 16 were identified as potentially being suitable for pancreas donation. If all of these pancreases had been transplanted, this would have increased the number of DCD pancreas transplants performed that year by 26%. These findings suggest that extending the DCD donor age limit may help increase pancreas transplantation.

PAG are asked to consider if the upper age limit for DCD whole pancreas donors should be changed.

INTRODUCTION

- 1 In the National Pancreas Offering Scheme (NPOS), donation after circulatory death (DCD) donors must currently be aged 55 years old or younger to be considered suitable for whole pancreas donation. In October 2025, PAG members discussed the possibility of increasing the DCD pancreas donor age limit to 60 years, to expand the pool of potential whole pancreas donors.
- 2 Donation after brain death (DBD) whole pancreas donors must be <61 years. A previous large UK study suggests that there are no significant differences in outcomes between pancreases transplanted from DCD versus DBD donors ^[1].
- 3 This paper aims to estimate how many additional whole pancreas donors could become available if the DCD donor age limit was increased to 60 years, in line with DBD donors. This was done by reviewing donors from 2023 to see how many of these donors may have been suitable for pancreas donation.

DATA AND METHODS

- 4 Data on solid organ DCD donors in the UK between 1 January 2023 to 31 December 2023, and data on pancreas and kidney transplants resulting from this donor cohort were obtained from the UK Transplant Registry. The main section of this paper focuses on donors aged 56–60 years, but donors aged 50–55 years were also analysed to provide context of current practice.
- 5 The proportion of DCD donor pancreases that could be utilised within this cohort was estimated by assessing donors against a set of pre-defined criteria. The criteria are as follows and were applied sequentially in this order:
 - i. BMI < 28 kg/m²
 - ii. No history of diabetes
 - iii. Amylase < 300 IU/L

- iv. Transplantation of both kidneys
- v. Transplantation of the liver

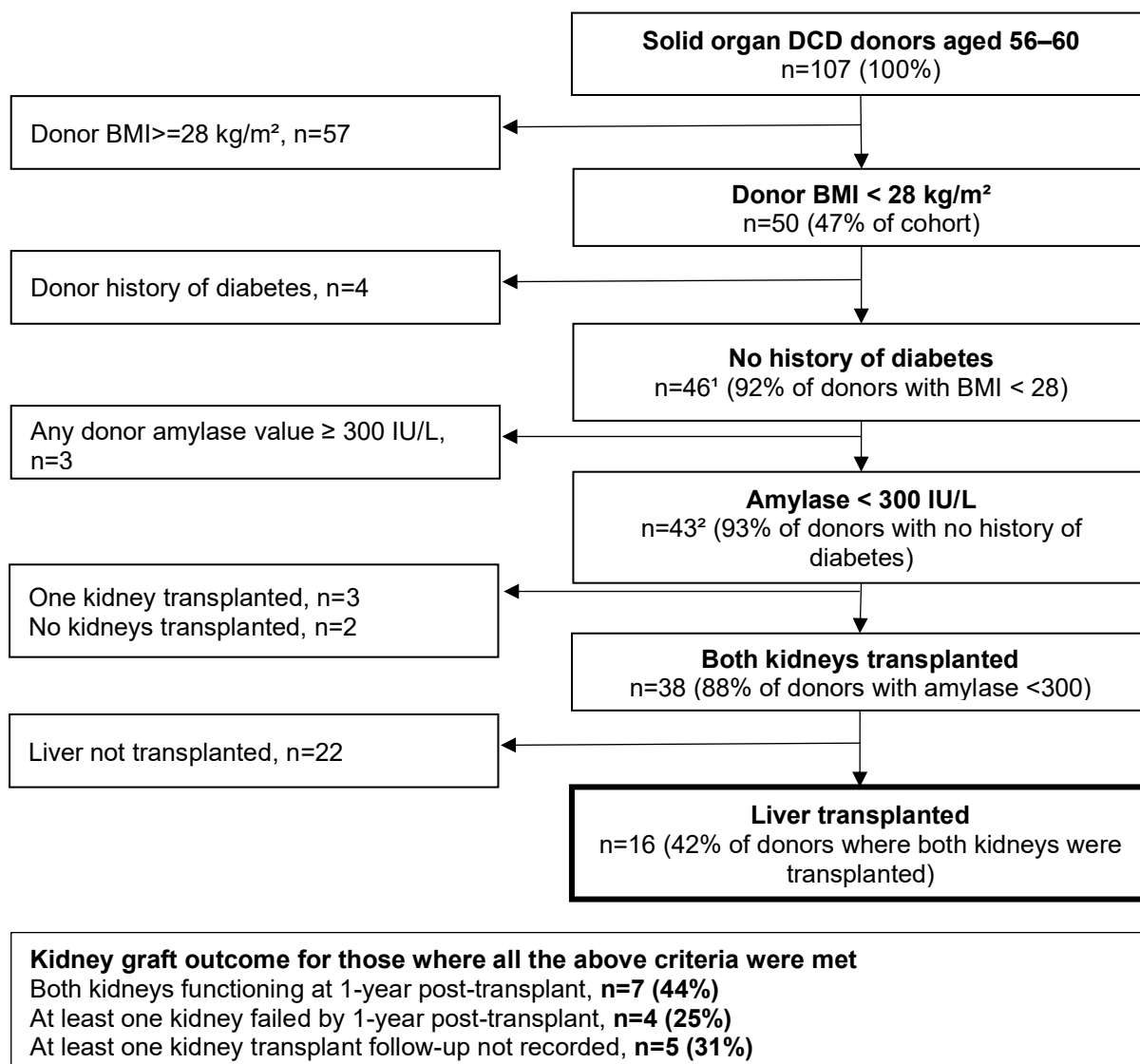
These criteria were selected as indicators of acceptable pancreas quality given the absence of pancreas outcome data for DCD donors aged over 55 years. As most whole pancreases are transplanted as SPKs, kidney utilisation and outcomes were also assessed. A flowchart was used to incrementally quantify the number and percentage of donors meeting each step. As diabetes history and amylase values were not always available, donors with missing data for these variables were assumed to meet the criteria and were carried forward to the next stage of the flowchart.

- 6 The number and percentage of donors resulting in both kidney transplants functioning at 1-year post-transplant have also been reported. If graft function was reported at least 10-months post-transplant, the graft was defined to be functioning at 1-year. Cases where either of the two kidney transplants had no follow-up reported at 1-year were classed as having insufficient follow-up.

RESULTS

- 7 **Figure 1** shows that in 2023, there were 107 solid organ DCD donors aged between 56 and 60 years. After sequential application of the flowchart criteria, 16 (15%) of these donors were considered to be potentially suitable for pancreas transplantation.
- 8 The kidneys transplanted from these 16 donors had median (IQR) eGFR at 1-year post-transplant of 43 (31, 56) mL/min/1.73 m². For these donors, both kidneys were utilised for transplantation and 7 (44%) of the 16 reported both kidneys as functioning at 1-year post-transplant. It should be noted that, of these 32 transplanted kidneys, 11 (34%) had incomplete follow-up for eGFR and 7 (22%) had incomplete follow-up for graft function at 1-year post-transplant.
- 9 There were 62 DCD whole pancreas and SPK transplants performed in 2023. Therefore, if an additional 16 pancreas transplants had been performed, this would have been an increase of 26%.
- 10 The same flowchart was produced for DCD donors aged 51–55 years in 2023, as shown in the **Appendix Figure A**, which provides a benchmark for comparison. In this age group, 5 (5%) of the donors were utilised for pancreas transplantation and all of these pancreas grafts were functioning at 1-year post-transplant. However, not all of these 5 donors met all the criteria stated in the flowcharts. The number and proportion who met the defined criteria in this age group was comparable to in the older age group, 16 (15%) of 104 donors.

Figure 1 Flowchart showing assessment of DCD donors aged 56–60 years against criteria for pancreas donation suitability, 1 January – 31 December 2023



¹ Includes 1 donor with history of diabetes not reported

² Includes 15 donors with amylase not reported

SUMMARY

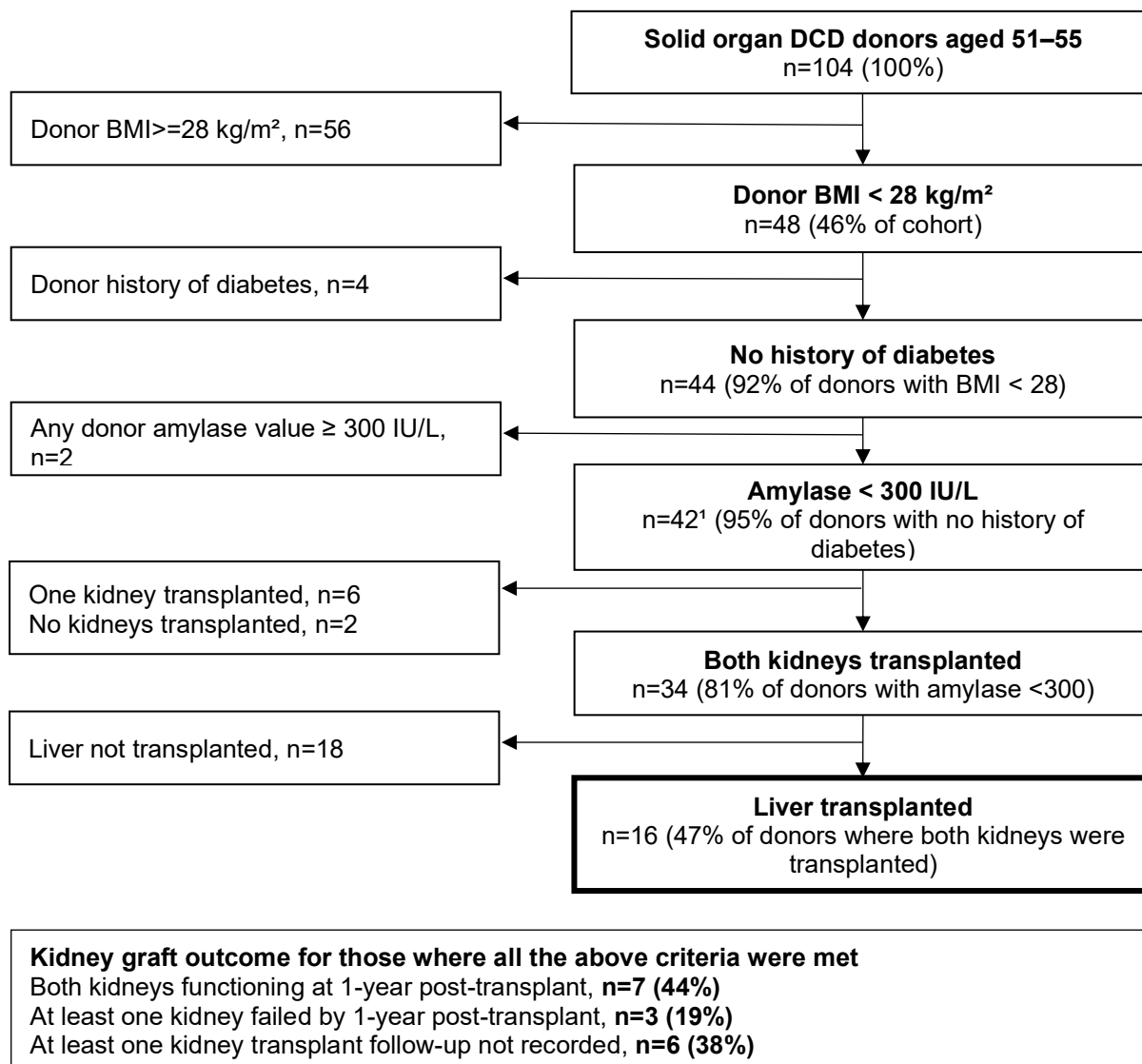
- 11 Based on the criteria used to identify suitable pancreas donors, increasing the DCD age limit to 60 years could increase the pool of pancreas donors. In 2023, 16 additional pancreases from donors aged 56–60 years could have been suitable for transplantation, with a potential 26% increase in DCD donor pancreas alone and SPK transplants. These findings suggest that revising the upper age limit could meaningfully increase donor pancreas availability.

ACTION

- 12 PAG members are asked to consider the information in this paper and discuss whether the pancreas DCD donor upper age limit should be changed.

APPENDIX

Figure A Flowchart showing assessment of DCD donors aged 51–55 years against criteria for pancreas donation suitability, 1 January – 31 December 2023



¹ Includes 9 donors with amylase not reported

REFERENCES

- [1] Callaghan CJ, Ibrahim M, Counter C, et al. Outcomes after simultaneous pancreas–kidney transplantation from donation after circulatory death donors: A UK registry analysis. *Am J Transplant*. 2021;21:3673–3683. <https://doi.org/10.1111/ajt.16604>