

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

PANCREAS ADVISORY GROUP

ISOLATION STATISTICS

SUMMARY

INTRODUCTION

- 1 Information on islet isolations performed by isolation facilities has previously been provided directly from the isolation facilities. It was requested at the PAGISG meeting in October 2016 that this information be reported by NHS Blood and Transplant in the future.
- 2 This paper provides information on the outcome of pancreases retrieved with the intention to transplant as pancreas islets and includes a summary by islet isolation facility.

DATA

- 3 Data on 111 donors between 1 January and 31 December 2018 whose pancreas was taken and accepted for islet transplantation were analysed from the UK Transplant Registry (UKTR).
- 4 In cases where the islet page of the Pancreas Donor Information (PDI) form was not returned or returned but not completed fully then other sources of data were used to indicate if isolation had taken place, including the reason for non-use recorded by the ODT Hub Operations.

RESULTS

- 5 Of the 111 donors analysed, the islet page of the PDI form was returned in 103 (93%) cases. Of the 111 organs indicated to have arrived at an isolation facility, 109 were indicated to have been used for isolation and 93 (85%) had isolation completed. Of these 93 completed isolations, 49 met the release criteria and 24 of those resulted in transplantation giving a conversion rate of 49%. The overall conversion rate from isolation completed to islets transplanted is 31%.

ACTION

- 6 Members are asked to review and comment on the content of the paper. Isolation facilities are asked to ensure that the islet page of the PDI form is completed fully and returned to ODT Hub Information Services.

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DATA

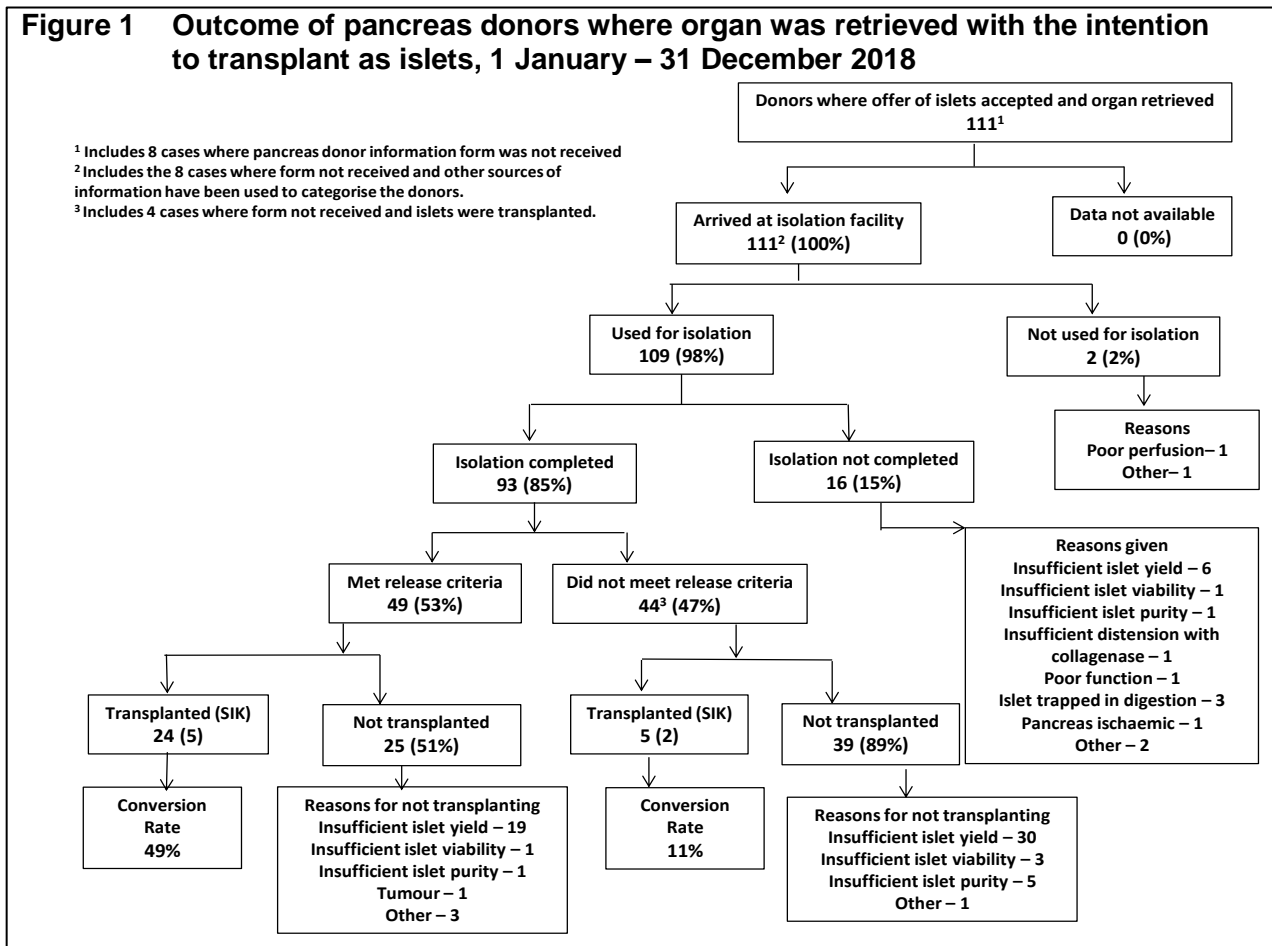
- 9 Data on 111 donors between 1 January and 31 December 2018 whose pancreas was taken and accepted for islet transplantation were analysed from the UK Transplant Registry (UKTR). Information from the islet isolation page of the pancreas donor information (PDI) form was used to identify those pancreases arriving at an isolation facility and whether the pancreas was isolated and subsequently transplanted.
- 10 In cases where the islet page of the PDI form was not returned or returned but not completed fully then other sources of data were used to indicate if isolation had taken place, including the reason for non-use recorded by the ODT Hub Operations.
- 11 After isolation was completed the islets were deemed to be suitable for transplantation or 'met the release criteria' if islet yield $\geq 200,000$, viability $\geq 70\%$ and purity $\geq 50\%$. Viability and purity include 70% and 50%, respectively, because it is not possible to report to one decimal place and it was found that in some cases although exactly 70% viability or 50% purity had been reported, these could have been slightly over and therefore met the criteria. If the final product information was available for yield, viability and purity then this was used to determine the release criteria, otherwise post isolation outcomes were used.
- 12 Data for 300 donors between 1 January 2016 – 31 December 2018, where the islet page of the PDI was completed were analysed to determine conversion rates from isolation to transplantation, by year.

RESULTS

- 13 Of the 111 donors analysed, the islet page of the PDI form was returned in 103 (93%) cases. Of the eight donors where a form was not completed, four

had resulted in an islet transplant and in the other four cases the reason for non-use indicated whether the pancreas was used for isolation.

- 14 **Figure 1** shows the outcome for all the 111 donors where the pancreas was accepted and retrieved with the intention to transplant as islets. Overall, of the 93 indicated to have isolation completed, 29 were transplanted giving a conversion rate of 31%. The majority of reasons for not transplanting were insufficient islet yield.



- 15 In the appendix, the same information as **Figure 1** is shown separately for those donors who were first offered for islet patients and those first offered for whole transplantation.
- 16 **Table 1** shows information on the 111 organs indicated to have arrived at an isolation facility, by the facility as reported on the islet page of the PDI form. This table includes eight cases where the form was not returned, or the isolation facility was not reported on the form but the isolation facility has been found by looking through ODT Hub Operations notes.

Islet isolation facility	Arrived at facility		Isolation started		Isolation completed ¹	
	N	(%)	N	(%)	N	(%)
Edinburgh	25		24	96.0	23	95.8
King's College	37		37	100.0	37	100.0
Oxford	49		48	98.0	33	68.8
TOTAL	111		109	98.2	93	85.3

¹ Isolation completion usually reflects the quality of the pancreas being processed

17 There were a total of 369 donors whose pancreas was taken and accepted for islet transplantation between 1 January 2016 – 31 December 2018. Of these donors 300 (81%) had the relevant information completed on the PDI form to determine if, after isolation, the islets met the release criteria. **Table 2** shows the conversion rates for these donors from isolation to transplantation for the three calendar years.

Met release criteria	Calendar year					
	2016		2017		2018	
	N	(% transplanted)	N	(% transplanted)	N	(% transplanted)
Yes	41	(61)	54	(48)	48	(50)
No	66	(2)	54	(2)	37	(3)
TOTAL	107	(24)	108	(25)	85	(29)

ACTION

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Appendix

Figure I Outcome of pancreas donors where organ was retrieved with the intention to transplant as islets and donor was offered to an islet patient first, 1 January – 31 December 2018

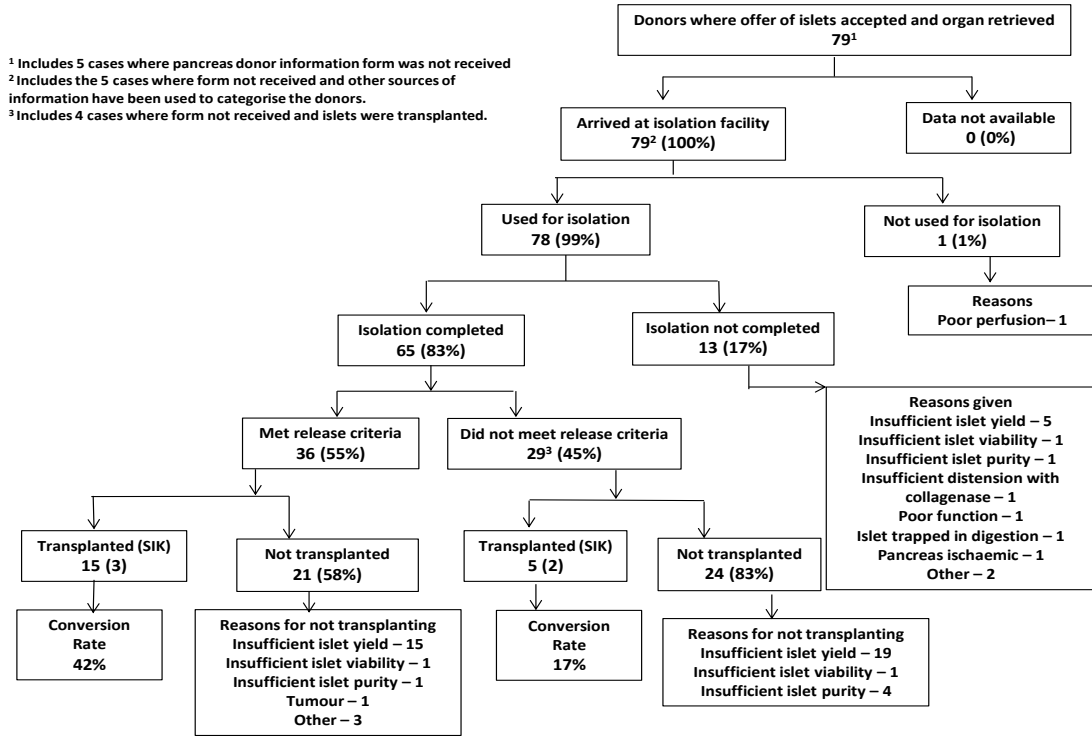


Figure II Outcome of pancreas donors where organ was retrieved with the intention to transplant as islets and donor was offered to a whole pancreas patient first, 1 January – 31 December 2018

