

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

PANCREAS ADVISORY GROUP

ISOLATION STATISTICS

SUMMARY

INTRODUCTION

- 1 Information on islet isolations performed by isolation centres has previously been provided directly from the isolation centres. It was requested 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 centre.

DATA

- 3 Data on 121 donors between 1 April 2017 and 31 March 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 121 donors analysed, the islet page of the PDI form was returned in 103 (85%) cases. Of the 118 organs indicated to have arrived at an isolation centre, 116 were indicated to have been used for isolation and 104 (90%) had isolation completed. Of these 104 completed isolations, 45 met the release criteria and 18 of those resulted in transplantation giving a conversion rate of 40%. The overall conversion rate from isolation completed to islets transplanted is 25%.

ACTION

- 6 Members are asked to review and comment on the content of the paper. Centres 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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INTRODUCTION

- 7 Information on islet isolations performed by isolation centres has previously been provided directly from the isolation centres. It was requested at the PAGISG meeting in October 2016 that this information be reported by NHS Blood and Transplant in the future.
- 8 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 centre.

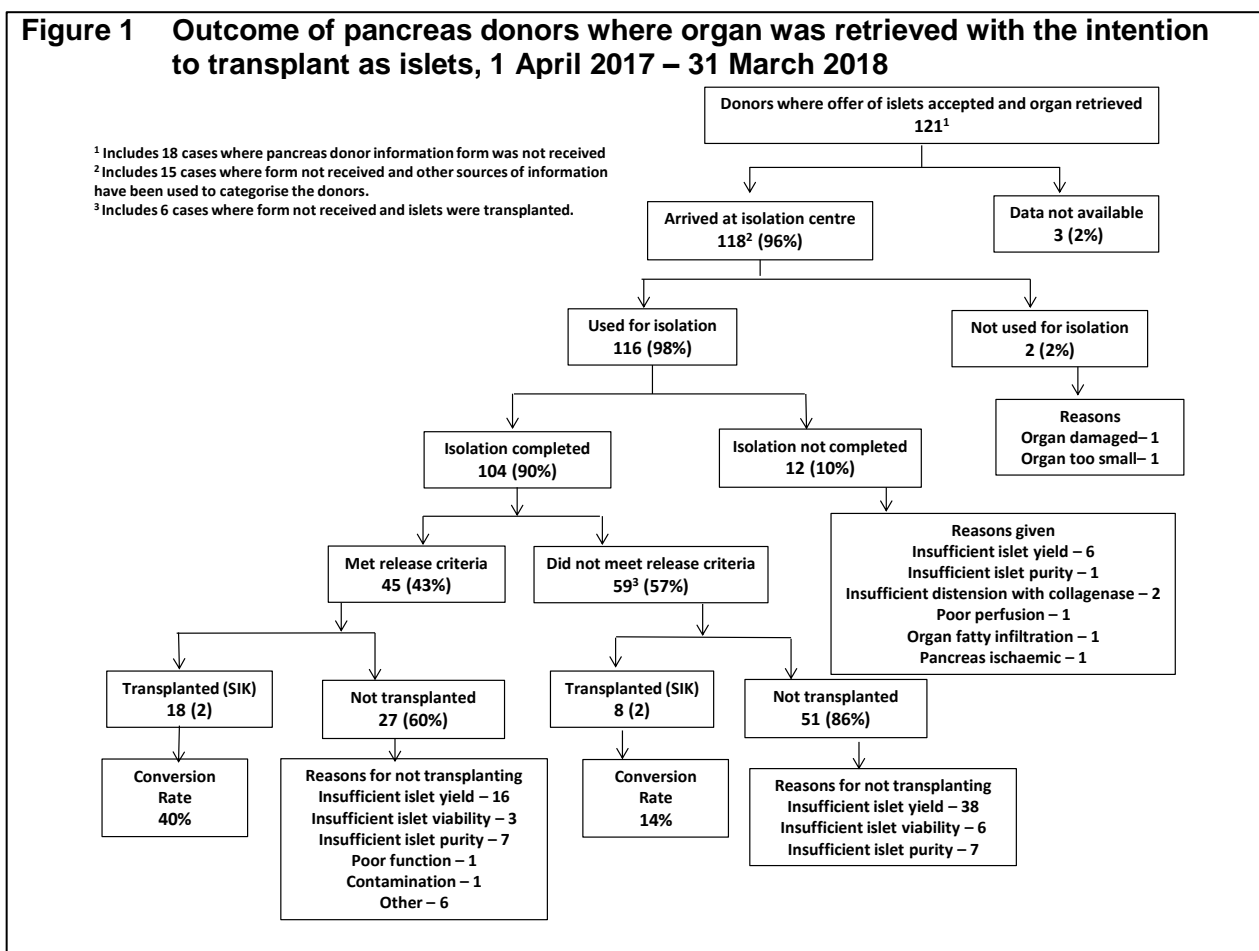
DATA

- 9 Data on 121 donors between 1 April 2017 and 31 March 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 centre 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 the post-isolation outcomes were islet yield $\geq 200,000$, islet viability $>70\%$ and islet purity $> 50\%$.
- 12 Data for 254 donors between 1 April 2015 – 31 March 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 121 donors analysed, the islet page of the PDI form was returned in 103 (85%) cases. Of the 18 donors where a form was not completed, six had resulted in an islet transplant and in a further nine cases the reason for non-use indicated that isolation was completed. For the final three cases it was unclear whether the organ was received at an isolation centre as the reasons for non-use were 'Infection', 'HLA/ABO type' and 'Organ unsuitable for transplant'.

14 **Figure 1** shows the outcome for all the 121 donors where the pancreas was accepted and retrieved with the intention to transplant as islets. Of the 121, 116 were indicated to have been used for isolation and 104 (90%) had isolation completed. Of the 104, 45 (43%) met the release criteria and of these 18 resulted in transplantation giving a conversion rate of 40%. Of the 59 that did not meet the release criteria, or it was not known if the release criteria was met, 8 were transplanted giving a conversion rate of 14%. Therefore, the overall transplant conversion rate from all islets where isolation was completed was 25%. The majority of reasons for not transplanting were insufficient islet yield, purity and viability.



15 **Figures 2 and 3** show similar information to **Figure 1**, but separately for those donors who were first offered for islet patients and those first offered for whole transplantation.

16 The proportion of organs where isolation was completed was higher for those donors first offered to a whole patient than those first offered to an islet patient, 89% and 93% respectively. The conversion rate was higher in the group where the donor was first offered to an islet patient, 27% compared with 19%.

Figure 2 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 April 2017 – 31 March 2018

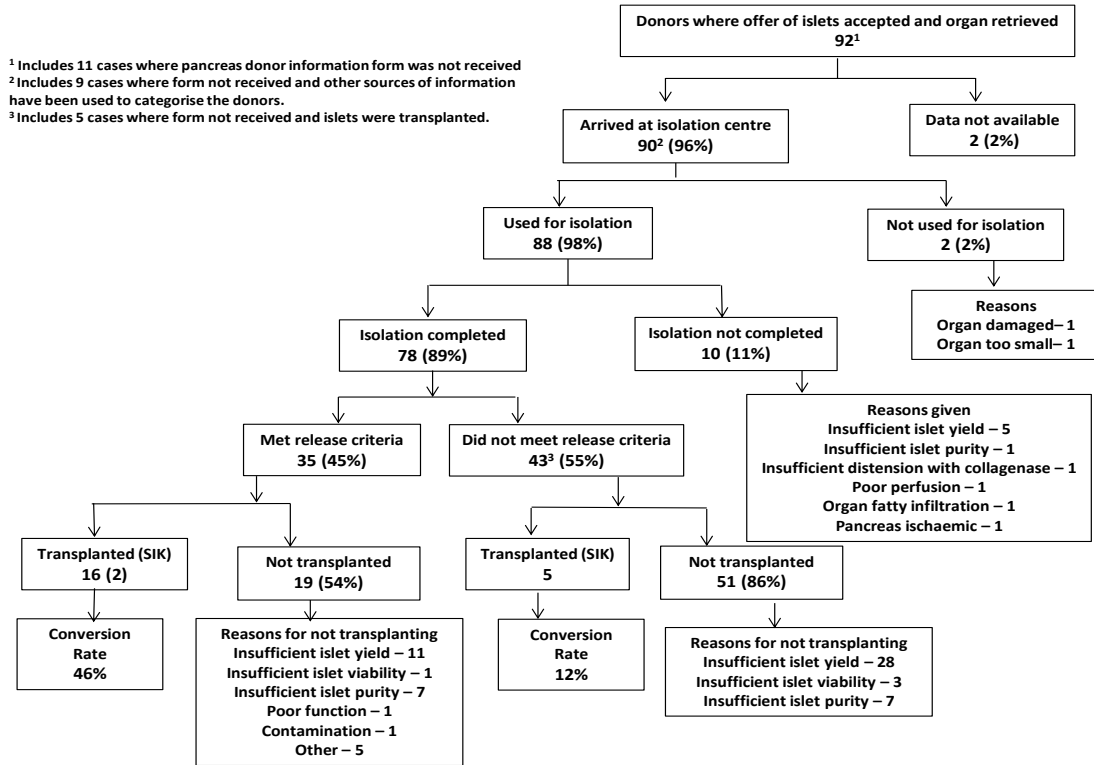
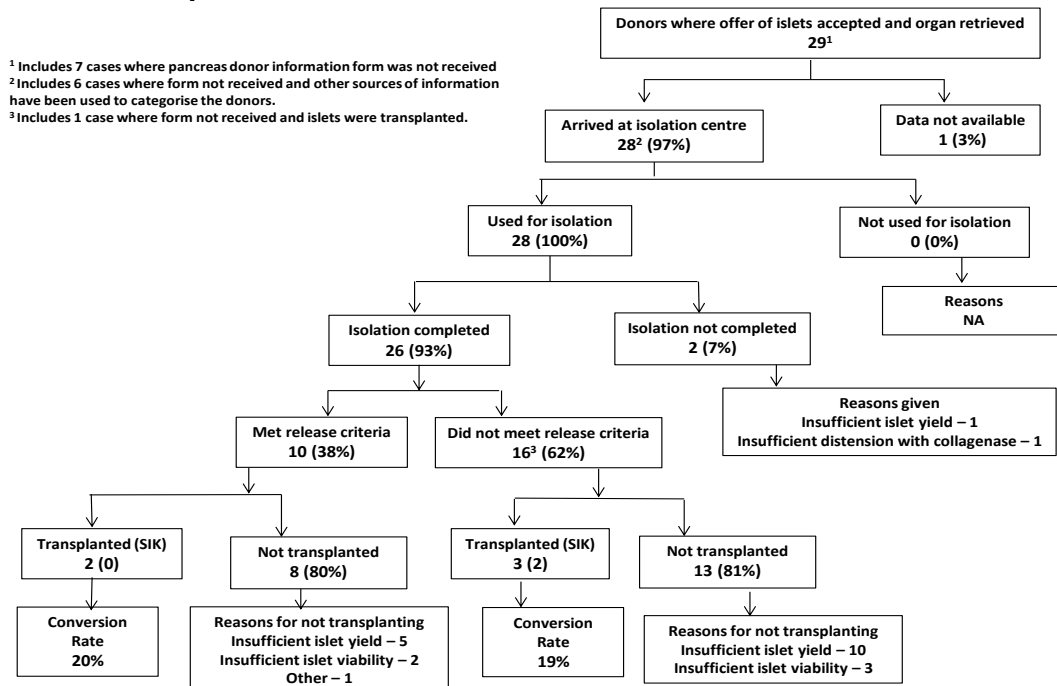


Figure 3 Outcome of pancreas donors where organ was retrieved with the intention to transplant as islets and donor was offered to a whole pancreas patient first, 1 April 2017 – 31 March 2018



- 17 **Table 1** shows information on the 118 organs indicated to have arrived at an isolation centre, by the centre as reported on the islet page of the PDI form. This table includes 15 cases where the form was not returned, or the isolation centre was not reported on the form but the isolation centre has been found by looking through ODT Hub Operations notes.

Islet isolation centre	Arrived at centre		Isolation started		Isolation completed ¹	
	N		N	(%)	N	(%)
Edinburgh	24		24	100	23	95.8
King's College	44		44	100	43	97.7
Oxford	50		48	96	38	79.2
TOTAL	118		116	98.3	104	89.7

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

- 18 There were a total of 395 donors whose pancreas was taken and accepted for islet transplantation between 1 April 2015 – 31 March 2018. Of these donors 254 (64%) had the relevant information to determine if after isolation the islets met the release criteria. **Table 2** shows the conversion rates from isolation to transplantation for the three financial years.

Met release criteria	Financial year					
	2015/16		2016/17		2017/18	
	N	(% transplanted)	N	(% transplanted)	N	(% transplanted)
Yes	49	(37)	43	(51)	45	(40)
No	34	(6)	46	(2)	37	(5)
TOTAL	83	(24)	89	(26)	82	(24)

ACTION

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