## NHS BLOOD AND TRANSPLANT

### PANCREAS ADVISORY GROUP

## ORGAN DAMAGE/QUALITY

#### INTRODUCTION

- 1 This paper reports on the information reported on the HTA B form on grade of surgical damage for pancreases that were accepted for whole pancreas transplantation.
- 2 Information reported on damage and quality from the 'Pancreas Damage/Quality' sections by the retrieval team and recipient transplant centre of the Deceased Donor Pancreas Information (DDPI) Form have also been investigated.

#### DATA

3 Data on 221 donors between 1 January 2021 and 31 December 2021 whose pancreas was taken and accepted for whole pancreas transplantation were analysed from the UK Transplant Registry (UKTR).

#### RESULTS

- 4 Of the 221 donor pancreases accepted, 121 (55%) were transplanted. **Table 1** shows the grade of damage reported on the HTA B form by whether or not the pancreas was transplanted. 38 (17%) had a grade of surgical damage reported on the HTA B form, 15 (39%) were not utilised due to the grade of damage. The recorded descriptions relating to reported surgical damage are provided in Table A in the Appendix.
- 5 For the ten pancreases that had 'severe' surgical damage reported, the sections relating to organ damage/quality reported by the retrieval team and the recipient transplant centre on the Deceased Donor Pancreas Information (DDPI) form were also investigated. Six forms were completed and returned by the retrieval team and of these, one also had the section completed by the recipient centre. This one DDPI form that had both sections completed had no damage reported on either the recipient form or the retrieval form.

#### ACTION

- 6 Members are reminded that if the accepting centre receive a pancreas that has severe surgical damage then an incident must be raised via the ODT website <u>link</u>. Only by raising an incident can the data be monitored and acted upon. Members are also reminded of the importance of the completion and return of the HTA B and the DDPI forms to ODT Information Services.
- 7 Members are asked to consider the information presented and make any recommendations as appropriate.

#### Lewis Simmonds Statistics and Clinical Research

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Table 1Pancreas damage reported on HTA B ffor a pancreas that was accepted for a1 January 2021 - 31 December 2021			
Grade surgical damage reported on HTAB forms	Transplanted	Not Transplanted	Total
1 January – 21 July 2021		Tanoplanca	
0 - None	49	28	77
1 - Mild = no surgical repair required	2	0	2
2 - Moderate = surgical repair required to make usable	3	3	6
3 - Severe = not used due to damage	0	2	2
4 - Not Reported	0	3	3
22 July – 31 December 2021			
10 - No Effect/No Damage = Surgical damage was absent or had no clinical effect	55	30	85
11 - Mild Effect = Damage was present but organ was repaired for transplant	9	6	15
12 - Moderate Effect = Damage contributed, along with other serious concerns, to the decision not to use the organ	0	5	5
13 - Severe Effect = Damage was the primary factor in the decision to decline for transplantation. The organ would have been used if no damage was present	0	8	8
14 - Not performed = Organ not inspected for damage	0	10	10
1 January – 31 December 2021			
Missing form	3	5	8
Total	121	100	221

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# Appendix

Table A below presents the description provided for the 38 pancreases that had reported surgical damage on the HTA B form. The highlighted rows show the 14 pancreases that were transplanted.

Table A	Description of the damage for the 38 pancreases that were accepted for whole organ transplantation and had surgical damage reported on the HTA B form
Surgical grade reported <sup>1</sup>	Description of the organ damage
Mild	
1	small capsular tear at parenchymal limb of pancreas ascending behind GDA
1	Small capsular breach in hilum cm
11	Iliac artery injury at bifurcation of IIA/EIA. Splenic off coeliac trunk; SMA giving rise to hepatic artery proper. Therefore SMA/CA on anastomosed aortic patch. Y graft not used
11	iliac y graft damaged. Internal iliac avulsed at origin. had to use 3rd party graft for reconstruction
11	Fatty pancreas, 2 cm capsular tear, Iliac vessel calcified
11	Damage to donor external iliac vein
11	Capsular/parenchymal tear (2x1)cm on the posterior surface of the body of pancreas
11	Pancreas accepted for SPK Transplant. 2x2 cm capsular tear on the anterior surface of the head and neck of pancreas along the upper border. This damage coupled with the fact that it was moderately fatty pancreas and small size (in keeping with donor's BMI), we decided to decline the pancreas.
11	dissection posteriorly near splenic vein, capsular damage at superior border
11	Hole in the bifurcation of the Y-graft with intimal dissection
11	mesentery not stapled. cut very short to pancreas although still transplantable. increased benchwork time and a lot of bleeding during implant
11	Mesenteric root not stapled - SMA and SMV open.
11	Mesenteric suture included duodenum so difficult to oversew and resulted in post repercussion bleeding
11	Damage to head of pancreas near bile duct-2.5cm laceration. Damage to pancreatic capsule from bile duct to splenic artery. Moderately fatty
11	Pancreas head is hard and nodular with nodules in body and tail. Common bile duct 1.4cm cm/ diated and untied.
11	small capsular tear in the posterior aspect
11	Portal vein cut short, but iliac vein graft provided for extension.
Moderate	
2	DISCUSSION WITH LIVER CENTRE WHO WANTED ACCESSORY RIGHT PRESERVED DUE TO COMPLEX PAEDIATRIC RECIPIENT. DESPITE CAREFUL DISSECTION BY RETREIVAL SURGEON PANCREAS SIGNIFICANTLY COMPROMISED
2	significant Injury to donor arterial Y graft and therefore transplant abandoned.
2	traction injury and tear at the bifurcation of iliac Y graft, requiring vascular reconstruction
2	Traction injury to the Y graf

Table A	Description of the damage for the 38 pancreases that were accepted for whole organ transplantation and had surgical damage reported on the HTA B form	
Surgical grade reported <sup>1</sup>	Description of the organ damage	
2	2cm capsular tear near hilum. Traction injury to bifurcation of Y-graft meaning that limbs could not be used.	
2	"Pancreatic capsular tear, SMV - SV lifted of the pancreatic bed" (taken from TOM System)	
12	damage to splenic artery, no ileac vessel sent, body and tail of pancreas hard and nodular	
12	Pancreas wasn't Transplant able due portal vein cut short & poor perfusion	
12	Tear in the confluence of the splenic and IMV was identified. This was associated with a small capsular breach of the pancreas. A repair of this injury would have compromised the venous drainage of the pancreas, potentially narrowing the outflow and increased the risk of graft thrombosis. Three consultants reviewed the organ - Mr Van Dellen, Mr Moinuddin and Professor Augustine and agreed that the organ was untransplantable. Incident form - ODT-OCC-7335	
12	Portal vein cut obliquely such that the cut extends medially into the splenic vein for a distance of about 0.5 to 1.0 cm.	
12	Significant Fatty infiltration	
Severe		
3	Poorly perfused head of pancreas compared with tail of pancreas.	
3	CBD not ligated therefore bile contamination	
13	We received pancreas and left kidney at Guy's Hospital, London, for SPK transplant. During benching, two small traction injuries were noted on internal iliac artery which came with the organs. We noticed similar traction injuries on the renal artery as well. Renal artery had intimal dissection upto the division in its branches (trifurcation). There were extensive and multiple mural haematomas along the renal artery and just beyond one of its brancesh. Decision made not to utilise this kidney. Hence declined for SPK transplantation.	
13	Damage during benching at Guy's Hospital (recipient centre) - Inadvertent injury to tail of pancreas during benching. Pancreas tail had an unusual shape and going into the spleen	
13	multiple hematomas in pancreatic parenchyma and peripancreatic tissue	
13	Multiple capsular tears / root of mesentery staple line flush to pancreas surface and encroaching duodenum - ?affecting duodenum vascularity	
13	Haematoma of the pancreas head and capsular tears	
13	1. Pancreas laceration in the region of uncinate process, 2. Injury at the confluence of SMV and splenic vein; IMV and Splenic vein junction	
13	Warm ischeamia	
13	Pancreas found to be fatty and nodular with damage to the parenchyma surrounding the portal vein. Deemed un-transplantable.	
<sup>1</sup> Codes 1, 2, 3	3 relate to 1 January – 21 July 2021 and codes 11, 12, 13 relate to 22 July – 31 December 2021	

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