

# **Chapter 7**

## **ET Pancreas Allocation System (EPAS)**

# Change record

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The Eurotransplant Manual contains the rules and regulations for the implementation and specification of national legislation and national guidelines for waiting list management, organ procurement and allocation. It has been prepared with the best of knowledge and the utmost care. In case of discrepancies between the content of this manual and national binding provisions, the following applies:

- Insofar, as provisions about the acceptance of organ transplant candidates to the waiting list are concerned, this manual has only an informative character. Only the national provisions which are applicable for the transplant centers are relevant and legally binding.
- For the allocation of organs only the national provisions are legally binding. The display of the allocation provisions in this Manual are based on these legally binding national provisions. As far as necessary, they have been specified by Eurotransplant in this Manual. Deviations from such specifying Eurotransplant provisions cannot be considered as a breach of the national provisions as long as the latter are not violated. Eurotransplant cannot be held liable for a potentially wrongful description in this Manual of procedures, in connection with the organ allocation, as long as the actual allocation follows national provisions.

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**Chapter 7 – EPAS****Table of contents**

<b>7.1</b>	<b>EPAS – LISTING</b> .....	<b>5</b>
7.1.1	Listing criteria .....	5
7.1.2	Required type of Transplant .....	5
7.1.3	Urgency codes .....	6
7.1.3.1	Approved Combined Organ (ACO) .....	6
7.1.3.2	Special Urgency (SU) .....	7
7.1.3.3	SU audit .....	8
7.1.3.4	Duration SU status .....	8
7.1.3.5	SU status re-evaluation .....	8
7.1.4	Transplantable (T), elective patients .....	9
7.1.5	Not Transplantable (NT) .....	9
7.1.6	Return of waiting time .....	9
7.1.6.1	Deviant national regulation: Germany .....	9
<b>7.2</b>	<b>EPAS - GENERAL</b> .....	<b>10</b>
7.2.1	Donor criteria .....	10
7.2.2	EPAS – Allocation Algorithm .....	10
7.2.2.1	Transplant candidate selection .....	10
7.2.2.2	Transplant candidate Ranking .....	11
7.2.2.3	National Net Pancreas Exchange Balance .....	16
7.2.2.4	Filtering on allocation profile .....	16
7.2.2.5	Deviant national regulations .....	17
<b>7.3</b>	<b>COMBINED PANCREAS INTESTINE PROCUREMENT</b> .....	<b>19</b>
<b>7.4</b>	<b>ALLOCATION OF VESSELS IN THE TOOLKIT</b> .....	<b>20</b>
<b>7.5</b>	<b>ALLOCATION OF THE DONATION AFTER CARDIOCIRCULATORY DEATH (DCD) DONOR</b> .....	<b>20</b>
<b>7.6</b>	<b>FORMS</b> .....	<b>20</b>
<b>7.7</b>	<b>APPENDIX</b> .....	<b>20</b>
7.7.1	National SU islet criteria .....	20
7.7.1.1	Belgium .....	20
7.7.1.2	Other countries .....	20

## 7.1 EPAS – Listing

### 7.1.1 Listing criteria<sup>1</sup>

Recipients can be listed for a first transplant on the active pancreas or islet transplant waiting list if antibody screening for GAD, IA2, ICA or ZnT8 antibodies is positive or has been positive in the past. IAA antibodies can also be accepted but only if the serum sample was taken prior to the start of insulin therapy.

If no  $\beta$ -cell antibodies can be detected or in case of a reregistration after a pancreas (+ kidney) transplant, recipients can be listed on the active pancreas transplant waiting list if  $\beta$ -cell deficiency is present.

$\beta$ -cell deficiency is defined as:

- Pre-stimulation C-peptide <0.5 ng/ml (<0.16 nmol/l) with an increase after stimulation of <20% (if no glucose test is available); or
- Pre-stimulation C-peptide <0.5 ng/ml (<0.16 nmol/l) with a correlating Glucose level >70 mg/dl (c.q. > 3.9 mmol/l); or
- Post-stimulation C-peptide < 0.8ng/ml (<0.26 nmol/l) correlated to a rise in Glucose levels >100 mg/dl (c.q. > 5.6 mmol/l).

Stimulation test can be:

- Oral Glucose Tolerance Test (GTT) with serum glucose and/or C-peptide measured before and at 90 or 120 minutes; or
- Mixed Meal Tolerance with serum glucose and/or C-peptide measured before and at 90 or 120 minutes; or
- IV or SC Glucagon with serum glucose and/or C-peptide measured before and at 6 minutes.

In case of listing for a retransplant C-peptide and serum glucose levels must be measured from a serum sample dated after the previous transplant date.

All original lab results regarding auto-antibodies and/or C-peptide must be sent to Eurotransplant ([helpdesk@eurotransplant.org](mailto:helpdesk@eurotransplant.org))

Auto-antibody negative recipients without low C-peptide can be listed after a Pancreas Waiting List (High C-Peptide) request has been approved by the EPAC. A request for approval can be sent to [urgency@eurotransplant.org](mailto:urgency@eurotransplant.org).

Doctors involved in the audit procedure should follow the “Pancreas audit procedure” which is published on the ET member site (see Manuals→ Eurotransplant Manual→Pancreas audit procedure).

### 7.1.2 Required type of Transplant

Transplant candidates can be listed either for Vascularized Pancreas Transplantation, either for endocrine reasons or anatomical reasons (in combination with intestine or in combination with liver and intestine), or Islet Transplantation. For further details please refer to the ENISnext user manual (see Manuals→ ENISnext→ ENISnext user manual).

<sup>1</sup> R-PAC01.14, Approved by the Board on 20-01-2015, Implemented on 14-07-2020

### 7.1.3 Urgency codes

Urgency codes are used to classify patients on the waiting list and to prioritize the patients in the match and allocation procedure. Urgency codes reflect medical urgency.

Urgency codes on the waiting list for a pancreas transplant

Urgency code		Transplantability	Medical urgency
ACO	Approved Combined Organ (mandatory exchange)	yes	multi-organ transplant
SU	Special Urgency	yes	urgent
T	Transplantable	yes	elective
NT	Not Transplantable	no	no

#### 7.1.3.1 Approved Combined Organ (ACO)

Patients in need of a multi-organ pancreas transplant (except the combination pancreas + kidney) can request an ACO status.

A remote center cannot assign an ACO status in ENIS. In case a center has entered in ENIS that they have no capacity for transplantation, ACO patients will still receive the offer.

An ACO status can be requested for cases with the need for pancreas for anatomical reasons in combination with intestine or in combination with liver and intestine, and for endocrine reasons<sup>2</sup>.

##### 7.1.3.1.1 ACO audit

An ACO audit can only be initiated when the transplant candidate is on the active waiting list for all organs concerned (except for pancreas: Not transplantable due to too high C-peptide).

The corresponding ACO forms (see [Eurotransplant ACO Forms](#)) must be completed on all items, with a complete and appropriate documentation and justification written in the English language and has to be sent to [urgency@eurotransplant.org](mailto:urgency@eurotransplant.org). The request is then forwarded to one member of the EPAC and, depending on the other organ(s) and request type, one member of this organ-specific advisory committee(s) (liver, intestine [ELIAC], thoracic [EThAC]). Both auditors must be from outside the requesting country and will be given 24 hours to reach a unanimous decision. In case of a split decision, a third auditor will be contacted according to the specific audit procedure and will decide on the approval or denial of the ACO request.

All ACO requests requiring a pancreas will be audited by a member of the EPAC, except for ACO requests including pancreas for anatomical reasons. Notification of the decision of ACO requests including pancreas for anatomical reasons will be made to the EPAC by Eurotransplant.

Approved ACO requests will be allocated according the leading organ (See Chapter 3 Allocation general §3.2.3).

<sup>2</sup> R-LAC07.16 Intestine – ACO status request including pancreas for anatomical reasons, implemented September 12, 2023

### 7.1.3.2 Special Urgency (SU)

#### 7.1.3.2.1 Vascularized Pancreas Special Urgency (SU) status

The Vascularized Pancreas Special Urgency (SU) status is an international status. Transplant candidates with a Vascularized Pancreas Special Urgency (SU) status will be allocated prior to the transplant candidates with an elective status. An immunized elective candidate has priority over a non-immunized SU candidate.

Any Eurotransplant pancreas transplant center can request the Vascularized Pancreas Special Urgency (SU) status for a transplant candidate on the active waiting list (i.e. SU requests will not be taken into account for transplant candidates in urgency NT, unless the urgency NT is due to a high C-peptide. In that case, a combined request for registration on the waiting list together with a SU status request can be sent).

Inclusion criteria<sup>3</sup>:

A patient can be considered for status SU when she/he fulfils one of the following 2 criteria:

1. when she/he suffers from problematic hypoglycemia defined as  $\geq 2$  episodes of severe hypoglycemia (requiring assistance from a third party) in the past 12 months accompanied by impaired awareness of hypoglycemia (IAH) defined as a CLARK score or GOLD score  $\geq 4$  points.

Requirements:

In order to be accepted, the request for SU should be accompanied by a letter of the treating diabetologist (in English) stating:

- that the above criteria are fulfilled
- the measures that were taken to deal with the problematic hypoglycemia

2. She/he suffers from early graft failure of a vascularized pancreas transplant with re-registration and SU request within two weeks after transplantation.

Early failure is defined as:

- i. Vascular thrombosis
- ii. Bleeding
- iii. Primary non function
- iv. Anastomotic leaks

Requirements:

In order to be accepted, the request for SU should be accompanied by a letter of the treating transplant surgeon (in English) stating the reason for early graft failure and the reason for early re-transplantation.

A recipient fulfilling one of the above criteria can be accepted on the SU waiting list only upon approval by the EPAC.

If a recipient does not fulfill one of the above criteria, but is still regarded to be in need of an SU status, then a special request for listing on the SU waiting list should be sent to ET together with a letter from the treating diabetologist describing in detail the clinical history and data of the recipient and the reason for the SU request. The request will be evaluated by members of the ET Pancreas Advisory Committee (EPAC). Listing of such a recipient on the SU waiting list can be performed upon approval by the EPAC.

#### 7.1.3.2.2 Islets Special Urgency (SU) status

A SU status can be requested for islet transplantation in non-German countries.

The SU islet status is a national status and valid until the transplant candidate receives a status other than active within that time period.

The national SU status is granted according to the national criteria described for each member country in 7.7.1 National SU islet criteria.

<sup>3</sup> R-PAC02.19, approved by the Board on 27-05-2019, implemented on 12-09-2023

### 7.1.3.3 SU audit

The corresponding SU form (see [Eurotransplant SU Pancreas Forms](#)) must be completed on all items and sent to: [urgency@eurotransplant.org](mailto:urgency@eurotransplant.org). All requests are evaluated by members of the Eurotransplant Pancreas Advisory Committee (EPAC).

Doctors involved in the audit procedure should follow the “Pancreas audit procedure” which is published on the ET member site (see Manuals→ Eurotransplant Manual→Pancreas audit procedure). For Vascularized Pancreas SU status two members of the EPAC, from outside the requesting center, are contacted to evaluate the SU request according to the above mentioned criteria, and only after its approval will urgency SU be granted and will the urgency be changed in ENIS by the Urgency Desk. In case of a split decision, a third EPAC auditor will decide on the approval or denial of the SU request.

In case of doubt in a combined vascularized pancreas-kidney SU request concerning the indication for the kidney transplant, an ETKAC member can be asked for advice<sup>4</sup>.

Islet Special Urgency (SU) status can be audited by the Eurotransplant medical staff. In case a request for Islet SU does not fulfill the national criteria, the request is sent to the national auditor.

A transplant center cannot assign urgency SU in ENIS.

### 7.1.3.4 Duration SU status<sup>5</sup>

The Vascularized Pancreas Special Urgency (SU) status in case of a first transplant is valid for 91 days or until the transplant candidate receives a status other than active within that time period.

For an urgent pancreas-only re-transplantation within two weeks after transplantation, the Vascularized Pancreas Special Urgency (SU) status will be granted for the duration of 61 days or until the transplant candidate receives a status other than active within that time period. The patient is eligible for return of waiting time (see § 7.1.6 Return of waiting time).

### 7.1.3.5 SU status re-evaluation

In case of a first pancreas (+kidney) transplant, the time limit for the vascularized pancreas SU status is set to 91 days. If a patient has not been transplanted within this time frame and the transplant center involved wants to prolong the SU status, the center will have to submit a renewed request accompanied by a comprehensive letter in English. The request will again be audited by the pancreas audit committee<sup>6</sup>.

A renewed request should preferably be submitted 3 days before the end of the SU period. If the renewed request has not been sent in by the end of the SU period, the patient will be downgraded to the T status the next day.

Prolongation of the SU status for an urgent pancreas-only re-transplantation, granted for the duration of 61 days, is not possible.

Patients in SU status who become (temporarily) not transplantable (NT) have to be reported as NT to Eurotransplant and will at that moment lose the SU status. However, each day in the SU status will be retained and added to the previously accumulated waiting time in an active status. If these transplant candidates become transplantable again, a new SU request must be sent to Eurotransplant.

<sup>4</sup> Board recommendation RPAC01.11; EPAC meeting October 2011

<sup>5</sup> R-PAC 01.16, approved by the Board on 24-01-2018, implemented on 14-07-2020

<sup>6</sup> Board recommendation RPAC02.08 ; EPAC meeting October 2008



#### 7.1.4 Transplantable (T), elective patients

Urgency T is used for elective patients awaiting a vascularized pancreas or islet transplant and who are transplantable.

#### 7.1.5 Not Transplantable (NT)<sup>7</sup>

Urgency NT is used for patients who are temporarily not transplantable. All previously accumulated waiting time in an active status (T or SU) is retained during the NT status.

Patients can accumulate waiting time points without restriction when on urgency NT for medical reasons. In order to preserve the NT status of a patient, the NT status should be reconfirmed every 61 days by the center. If no reconfirmation is received in time, the time listed in this urgency will no longer be used for further accumulation of waiting time. If reconfirmation is done at a later timepoint, accumulation of waiting time and a new re-confirmation period will start as per this timepoint. For more information please refer to the ENISnext user manual (see Manuals→ ENISnext→ ENISnext user manual).

Waiting days in urgency NT for other than medical reasons will not be used for accumulation of waiting time and do not have to be re-confirmed.

In case a patient does not yet fulfill the pancreas listing criteria, the patient should be registered on the pancreas waiting list in the NT status with reason incomplete recipient information. The waiting days listed in this urgency will not be used for accumulation of waiting time.

Patients with urgency NT are not selected in matching procedures.

#### 7.1.6 Return of waiting time<sup>8</sup>

If re-registration on the pancreas vascularized or islets waiting list takes place not later than 365 days after transplantation, the patient is eligible for return of waiting time.

The percentage of waiting time returned will differ, dependent on the date of re-registration in relation to the transplant date:

- 100% waiting time return, if re-registration takes place not later than 91 days after the transplant;
- 75% waiting time return, if re-registration takes place 92 to 183 days after the transplant;
- 50% waiting time return, if re-registration takes place 184 to 275 days after the transplant;
- 25% waiting time return, if re-registration takes place 276 days to 365 days after the transplant

After this period, no bonus whatsoever will be granted.

##### 7.1.6.1 Deviant national regulation: Germany

For German patients, the return of waiting time is based on the date of failure of the pancreas instead of the date of re-registration:

If pancreas graft failure occurs within 365 days post-transplant the patient is eligible for return of waiting time.

The percentage of waiting time returned will differ, dependent on the date of failure in relation to the transplant date:

- 100% waiting time return, if graft failure occurs not later than 91 days after the transplant;
- 75% waiting time return, if graft failure occurs 92 to 183 days after the transplant;

<sup>7</sup> R-PAC01.17, approved by the Board on 24-01-2018, implemented 12-09-2023

<sup>8</sup> R-PAC 01.16, approved by the Board on 24-01-2018, implemented on 14-07-2020

- 50% waiting time return, if graft failure occurs 184 to 275 days after the transplant;
- 25% waiting time return, if graft failure occurs 275 days to 365 days after the transplant

After this period, no bonus whatsoever will be granted.

## 7.2 EPAS - general

### 7.2.1 Donor criteria

DBD Donors with age  $\leq 60$  years and with BMI  $<30$  Kg/m<sup>2</sup> are selected primarily for vascularized pancreas transplantation. DBD Donors with age  $> 60$  years or with a BMI  $\geq 30$  Kg/m<sup>2</sup> are considered extended criteria donors and, after offering to SU patients awaiting a vascularized pancreas transplantation, selected for islet transplantation. For DCD donors the maximum age limit is 50 years to be primarily selected for vascularized pancreas transplantation.<sup>9</sup> For deviant national regulations see 7.2.2.5 Deviant national regulations.

### 7.2.2 EPAS – Allocation Algorithm

This section describes the allocation of a donor pancreas to those transplant candidates awaiting either a pancreas-only (vascularized or islet) transplantation, or a simultaneous vascularized pancreas kidney or islet kidney transplantation.

Transplant candidates awaiting pancreas transplantation in combination with either thoracic organs, the liver or intestine are considered in the higher ranked organ allocation algorithm. Please refer to the respective organ specific chapter at [Eurotransplant Manual](#).

Pancreas matching and allocation will start after the donor HLA typing is entered into the system. In case the donor HLA is not known 3 hours prior to the planned explantation, matching and allocation will start not taking the HLA into account. In this case a provisional offer will be made awaiting the donor HLA and the result of the cross match (virtual and if requested serological).

The EPAS Allocation algorithm consists of:

- Transplant candidate selection (see 7.2.2.1)
- Transplant candidate ranking (see 7.2.2.2)
- Filtering on donor profile (see 7.2.2.4)

#### 7.2.2.1 Transplant candidate selection

The selection of potential transplant candidates is based on Required type of Transplant, donor age, donor body mass index (BMI=weight [in kilograms] / (height [in meters])<sup>2</sup>), and ABO blood group rules.

##### 7.2.2.1.1 ABO blood group rules

In all countries the allocation is blood group identical before compatible, within each patient group, and national before international<sup>10</sup>.

ABO-incompatible pancreas transplants are not allowed.

##### 7.2.2.1.1.1 ABO identical

<sup>9</sup> R-PAC01.21 Approved by the Board on 21-11-2022, Implemented on 21-01-2025 for all countries but Germany

<sup>10</sup> As per 9 December 2013 all countries follow the same blood group rules (RPAC02.11)

Donor blood group	Eligible transplant candidates
A	A
B	B
AB	AB
O	O

#### 7.2.2.1.1.2 ABO compatible

Donor blood group	Eligible transplant candidates
A	A and AB
B	B and AB
AB	AB
O	O, A, B, AB

### 7.2.2.2 Transplant candidate Ranking<sup>11</sup>

Pancreas-kidney transplant candidates will not be favored over pancreas-only transplant candidates in the allocation.

#### 7.2.2.2.1 Immunized pancreas recipients<sup>12</sup>

In case of a vascularized pancreas match, pancreas and pancreas-kidney recipients with the lowest probability to receive an organ are prioritized over the other recipients per recipient tier. For inclusion in the immunized program, the chance of the immunized patient to receive an organ, based on the percentage of ABO compatible donors with no unacceptable HLA antigens in the pool (ETRL reference database v3.0) should be < 10% as otherwise the recipient can be transplanted without the advantage of the immunized program. For deviant national regulations see 7.2.2.5 Deviant national regulations.

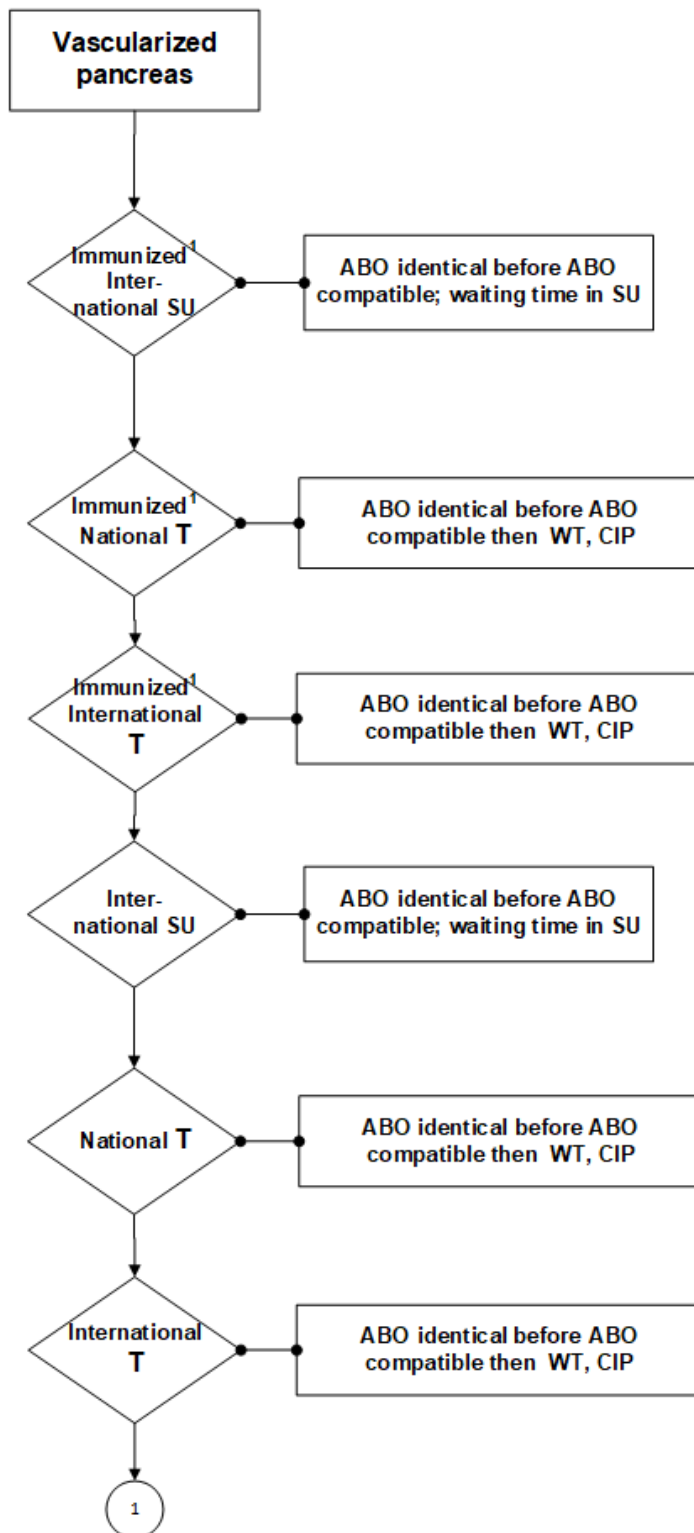
In case the organ is accepted for a recipient having unacceptable HLA mismatches, ET will continue with back-up offers until the pancreas is also accepted by a recipient without unacceptable HLA mismatches (if time allows).

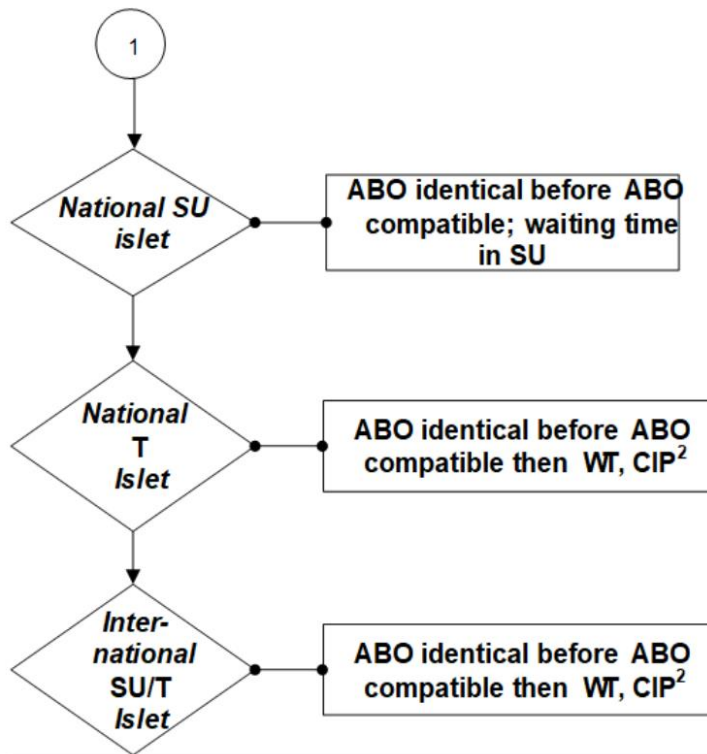
In case the crossmatch result is positive or the donor HLA typing is still unknown at time of planned explantation, the provisional offer to the accepting recipient in the immunized program will be withdrawn by ET and the pancreas will be allocated to the recipient for whom the back-up offer was accepted.

<sup>11</sup> R-PAC 01.18 Approved by the Board on 14-05-2018, Implemented on 14-07-2020

<sup>12</sup> R-PAC01.23 Approved by the board on 20-03-2024, Implemented on 21-01-2025

7.2.2.2.2 Flowchart 1 - Vascularized pancreas allocation.



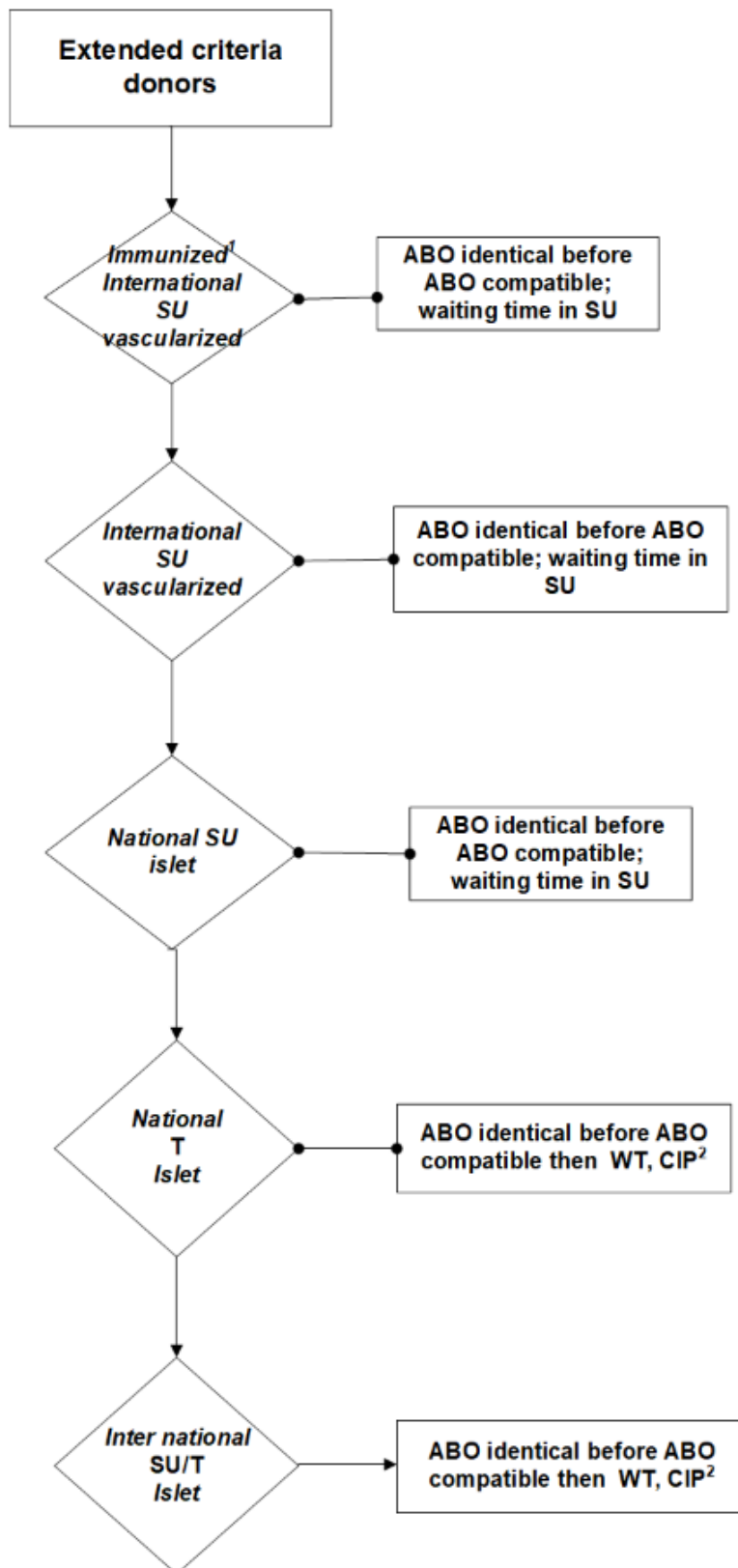


<sup>1</sup> Immunized program for pancreas recipients (see 7.2.2.2.1) <sup>13</sup>

<sup>2</sup> Center offer according to the highest ranked recipient

<sup>13</sup> R-PAC 01.15, Approved by the Board on 21-01-2016, implemented on 14-07-2020

7.2.2.2.3 Flowchart 2 – Allocation of extended criteria donors



<sup>1</sup> Immunized program for pancreas recipients (see 7.2.2.2.1)

<sup>2</sup> Center offer according to the highest ranked recipient

#### 7.2.2.2.4 Point score system

Elective (T) transplant candidates are ranked, within the ABO blood group rules with the help of a point score system. In order to keep the cold ischemia as short as possible, points are added to the waiting time when the donor and the transplant candidate share a region (See 7.2.2.2.4.2):. The transplant candidate with the highest point score is ranked on top of the tier concerned. All offers, primary or back-up, are made in descending order. Points are assigned as follows:

- Waiting time (see §7.2.2.2.4.1):
  - 3<sup>14</sup> points/day
- Distance:
  - Same Region
    - 2<sup>13</sup> points/day
  - Other Region:
    - 0 points
- Pancreas exchange balance  
In case a pancreas cannot be allocated nationally, it will be offered to the other ET member states. In this case in addition to the waiting time points pancreas exchange balance points will be considered for the ranking (see § 7.2.2.3 National Net Pancreas Exchange Balance)

##### 7.2.2.2.4.1 Waiting time

For every day on the waiting list, the transplant candidate is given three<sup>13</sup> points. Waiting time starts with the first day that the transplant candidate had an active urgency (T or SU). Each day the transplant candidate is on the waiting list in an active urgency a waiting time day will be added to the previously accumulated waiting time in an active status. No distinction will be made in the accumulated waiting time between patients in the urgency T or SU.

While in urgency NT transplant candidates can accumulate waiting time points without restriction when on urgency NT for medical reasons. In order to preserve the NT status of a patient, the NT status should be reconfirmed every 61 days by the center. (see7.1.5)

##### 7.2.2.2.4.2 ET countries/regions

The Eurotransplant region is divided into 7 countries for pancreas procurement. In addition, Germany further is divided into 7 procurement subregions.

To minimize the CIP, national transplant candidates are prioritized over international transplant candidates.

Pancreas transplant candidates in the same German region as the donor achieve region calculated points in the match to reduce the cold ischemic period. See 7.2.1

##### 7.2.2.2.4.2.1 Belgium/Luxemburg

Belgium and Luxemburg are considered one procurement region as Luxemburg has no pancreas transplantation program.

##### 7.2.2.2.4.2.2 Germany

Germany consists of the following seven donor subregions:

GBYOR	Bayern
GBWOR	Baden-Württemberg
GMIOR	Mitte
GOSOR	Ost

<sup>14</sup> For technical (rounding off) reasons allocation points are multiplied by 3

GNOOR	Nord-Ost
GNDOR	Nord
GNWOR	Nordrhein-Westfalen

#### 7.2.2.2.4.2.3 Other member states

All other member states (Austria, Croatia, Hungary, Slovenia and The Netherlands) are considered individual procurement regions.

### 7.2.2.3 National Net Pancreas Exchange Balance

Once every day the national balance is calculated over a 365 days period prior to the respective day. Individually for each ET country<sup>15</sup> a national balance is calculated.

The national balance is calculated as import minus export.

\**Import* is defined as the number of pancreas transplanted within the country and procured outside the respective country

\**Export* is defined as the number of pancreas transplanted outside the country and procured within the respective country

Formula:

National Balance Points = (highest current national balance of all pancreas transplanting countries – transplant candidate country balance) x 30<sup>16</sup>

Example of the pancreas exchange balance on a certain day:

- Austria	-1
- Belgium+Luxembourg	-5
- Netherlands	-2
- Croatia	-1
- Germany	+12
- Hungary	0
- Slovenia	-3

The balance points for transplant candidates in the countries of regions as mentioned:

- Austria	$(12 - (-1)) \times 30 = 390$
- Belgium+Luxembourg	$(12 - (-5)) \times 30 = 510$
- Netherlands	$(12 - (-2)) \times 30 = 420$
- Croatia	$(12 - (-1)) \times 30 = 390$
- Germany	$(12 - 12) \times 30 = 0$
- Hungary	$(12 - 0) \times 30 = 360$
- Slovenia	$(12 - (-3)) \times 30 = 450$

#### 7.2.2.4 Filtering on allocation profile

For the individual transplant candidate or the entire waiting list centers can enter allocation specific requirements like Age, Virology, Other transmittable diseases etc. For further information see Chapter 3 Allocation. § 3.2.2

<sup>15</sup> In the calculation of the National Net Pancreas Exchange Balance, Belgium & Luxemburg are considered as one country.

<sup>16</sup> For technical (rounding off) reasons allocation points are multiplied by 3



## 7.2.2.5 Deviant national regulations

### 7.2.2.5.1 Austria

Organ offers from Austrian donors are center offers for the donor center or the assigned center. If a pancreas can't be allocated in the donor center or the assigned center, ET shall offer the pancreas patient-oriented according to the match list.

### 7.2.2.5.2 Belgium

DBD Donors with age  $\leq 50$  years and with BMI  $<30$  Kg/m<sup>2</sup> are selected primarily for vascularized pancreas transplantation. DBD Donors with age  $> 50$  years or with a BMI  $\geq 30$  Kg/m<sup>2</sup> are considered extended criteria donors and, after offering to SU patients awaiting a vascularized pancreas transplantation, selected for islet transplantation<sup>17</sup>.

The HLA-typing is mandatory for the pancreas allocation.

In case of a Belgian donor and Belgian recipients on the match, the allocation starts as soon as HLA is known. In case of a non-Belgian donor without HLA-typing at the time of offering, only the Belgian SU transplant candidates will receive an offer. Belgian transplant candidates in urgency T will be excluded from the allocation in case of a non-Belgian donor without HLA-typing at the time of offering.

### 7.2.2.5.3 Germany

Islets are considered in Germany as tissue and herewith beyond the competence of Eurotransplant. Therefore, the German pancreas donors are not offered for islet transplantation (see 7.2.2.5.4.1). German pancreas donors with age  $> 50$  years or BMI  $\geq 30$  will be allocated, after offering to recipients within the immunized program (recipients within the immunized program will be prioritized only if the HLA typing of the donor is already known at time of offering<sup>18</sup>) and SU transplant candidates, as extended criteria donors according to the vascularized pancreas extended allocation (see 7.2.2.5.4.2). If an Extended Allocation was not successful, a center-oriented rescue allocation will be started.

Non-German islet-donors will not be offered to German transplant candidates.

### 7.2.2.5.4 Netherlands

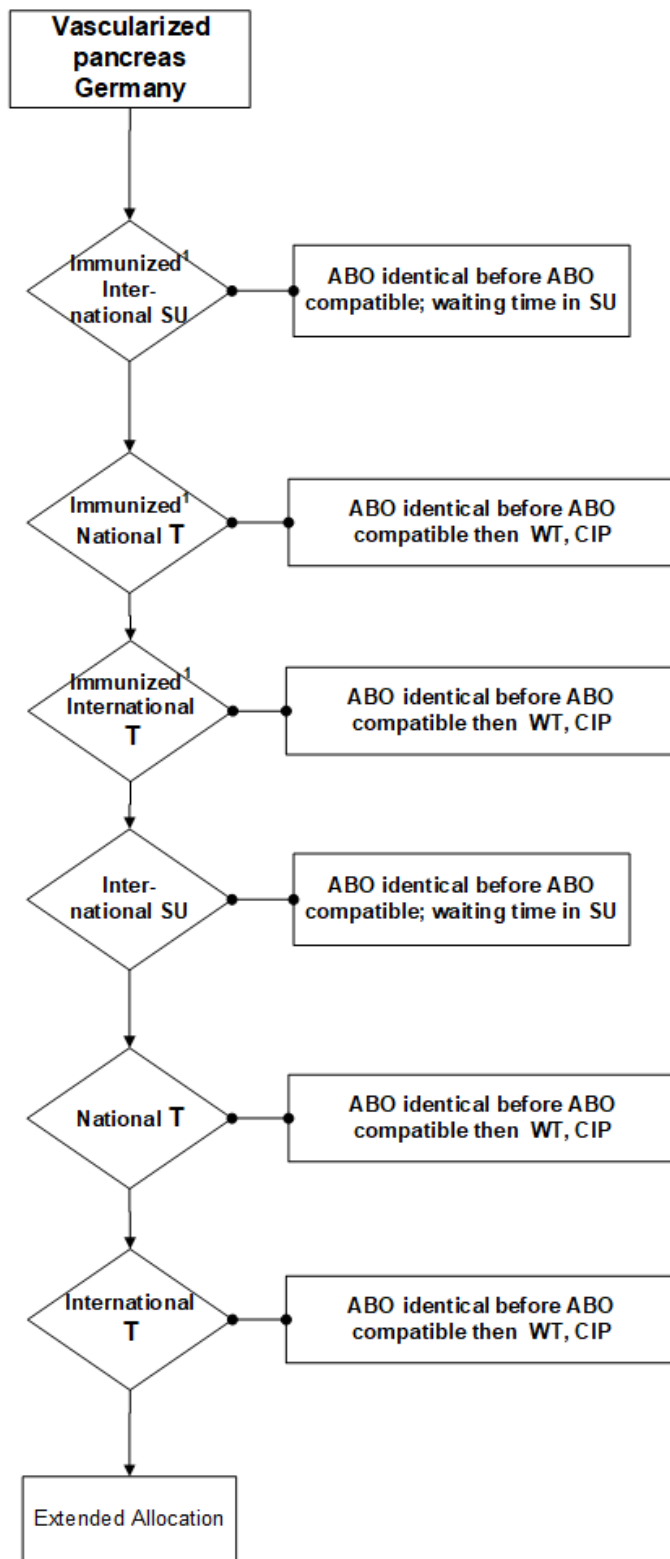
In case a patient receives plasmapheresis therapy, the pre-intervention chance to receive an organ will be considered for defining the match rank position<sup>19</sup>.

<sup>17</sup> R-PAC01.21 Approved by the Board on 21-11-2022, Implemented on 21-01-2025 for all countries but Germany

<sup>18</sup> R-PAC01.18 Approved by the Board on 14-05-2018, Implemented on 14-07-2020

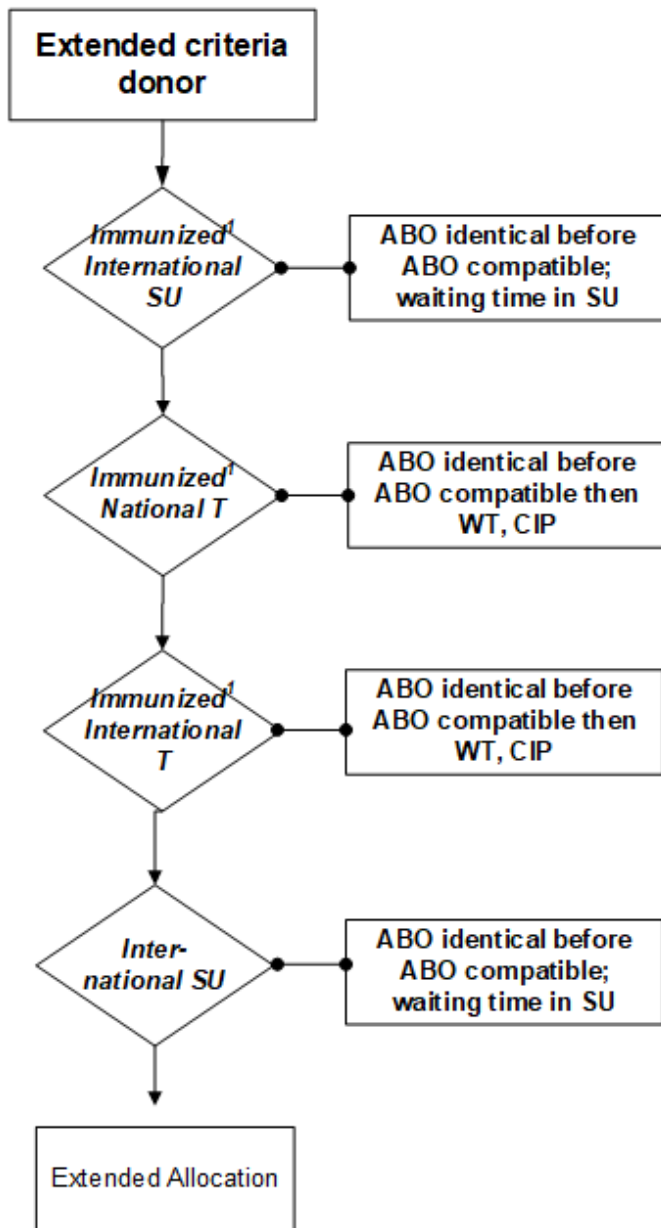
<sup>19</sup> R-PAC 01.15, Approved by the Board on 21-01-2016, implemented on 14-07-2020

7.2.2.5.4.1 Flowchart 3 - Vascularized pancreas allocation German donor



<sup>1</sup> Immunized program for pancreas recipients (see 7.2.2.2.1)

## 7.2.2.5.4.2 Flowchart 4 – Allocation of extended criteria donor Germany



<sup>1</sup> Immunized program for pancreas recipients (see 7.2.2.2.1)

### 7.3 Combined Pancreas intestine procurement

If from one donor both pancreas and intestine are reported to ET, the intestine will always be allocated first. Intestine and pancreas should always be offered both according to the match (if both organs were reported to ET). Every effort should be made to prevent loss of the pancreas for anatomical/surgical and/or logistical reasons<sup>20</sup>.

<sup>20</sup> Recommendation R-LAC02.09

In case proper procurement of both intestine and pancreas is not possible, the intestine graft has priority. In such cases a report has to be sent to ELIAC and to EPAC by the procuring surgeon<sup>21</sup>.

## 7.4 Allocation of vessels in the toolkit

The minimum of standard vessels in the toolkit in case of separate transplantation of liver, pancreas and intestine for transplantation should be:

- Intestine: iliac vessels (artery and vein) and bifurcation
- Pancreas: iliac vessels (artery and vein) and bifurcation
- Liver: common hepatic artery, celiac trunk
- Cannulation in the donor should be done at the level of the aorta

In case all three organs are going to be procured the liver center has to be informed about the limitation in the toolkit at time of acceptance<sup>22</sup>.

## 7.5 Allocation of the Donation after Cardiocirculatory Death (DCD) donor

The Netherlands, Belgium and Austria have a Donation after Cardiocirculatory Death (DCD) pancreas transplantation program, for vascularized pancreas (donor age  $\leq 50$  years and BMI  $< 30$  Kg/m<sup>2</sup>) transplantation, for Belgium and the Netherlands this also includes pancreatic islets transplantation.

## 7.6 Forms

All forms can be found and downloaded from the collection page of the pancreas on the member site at [Quick access: Pancreas – Eurotransplant](#).

## 7.7 Appendix

### 7.7.1 National SU islet criteria

#### 7.7.1.1 Belgium

SU status for islets should be granted to type 1 diabetic patients who:

- Need re-transplantation within a shortest time possible because of an insufficient primary graft yield and
- Participate in a clinical islet transplant study aiming at efficacy as primary endpoint. The protocol of the study must be submitted to an institutional review board and ethical committee.

The letter of SU should explain the need for re-transplantation and includes the name of the study, an official registration number (EutraCT or other) and the approval by a review board and ethical committee.

#### 7.7.1.2 Other countries

No national SU islet criteria are indicated by the Netherlands.

<sup>21</sup> Policy P-LAC08.16, result of the intestine allocation consensus meeting June 22, 2016

<sup>22</sup> Policy P-LAC10.16, result of the intestine allocation consensus meeting June 22, 2016