

Chapter 8

ET Intestine Allocation System (EIAS)¹

¹ Under the auspices of the ET Liver and Intestine Advisory Committee (ELIAC)

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 recipients 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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8.1 EIAS - Urgencies

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 transplantability and medical urgency.

Urgency codes			
Medical Urgency		Transplantable	Medical urgency
ACO	Approved Combined organ	yes	mandatory exchange
T	transplantable	yes	elective
NT	Temporarily not transplantable	no	no

8.1.1 Approved Combined Organ (ACO)

Patients in need of a multi-organ intestine transplant -except intestine+kidney- can be assigned urgency ACO.

8.1.1.1 ACO audit

The corresponding ACO forms (see Forms at www.eurotransplant.org) must be completed on all items, with a complete and appropriate documentation and justification in English, and is then to be sent back to the ET duty desk. The request is then sent to one member of the ELIAC (liver, intestine) and, depending on the other organ(s), one member of this organ-specific advisory committee(s) (pancreas [PAC], thoracic [ThAC]). Both members must be from outside the requesting country and will be given 24 hours to reach a decision. In case there is no unanimous decision, a third member will decide on the approval or denial of the ACO request.

A remote center cannot assign urgency ACO in ENIS.

8.1.2 Transplantable (T), elective patient

Urgency code T is used for patients awaiting a intestine transplant and who are transplantable.

8.1.3 Not Transplantable (NT)

Patients temporarily not transplantable should be placed in urgency NT. All previously accumulated waiting time is retained in NT.

8.2 EIAS General

The selection of potential recipients is based on AB0 blood group rules, medical urgency and waiting time.

Selected potential recipients are ranked according to their total waiting time. The longest waiting patient in the compatible blood group is ranked on top and receives the first offer. All following offers are in descending order.

8.2.1 ENIS donor profile

A transplant center must specify an ENIS center- or patient-specific donor profile for each recipient.

It is in the transplant center's responsibility to update the profile depending on the recipient's requirements at all time.

For specification of the requirements an 'allocation comment' and a 'waiting list comment' are available. For information see Eurotransplant Manual Chapter 3 Allocation, paragraph Comments for allocation.

8.2.2 General waiting time counter

After registration of a recipient in an active urgency, the general waiting time counter starts. Every day spent in any active urgency (T) counts towards the general waiting time; waiting time is counted in days and is not limited.

8.2.3 AB0 blood group rules

AB0-incompatible intestine transplants are not allowed.

8.2.3.1 *Approved combined organ (ACO)*

AB0 compatible.

Donor blood group	Eligible recipients
A	A and AB
B	B and AB
AB	AB
O	A, B, AB and O

8.2.3.2 Transplantable (T)

ABO identical

Donor blood group	Eligible recipients
A	A
B	B
AB	AB
O	O

before ABO compatible.

Donor blood group	Eligible recipients
A	A and AB
B	B and AB
AB	AB
O	A, B, AB and O

8.2.4 Crossmatch

8.2.4.1 Non-sensitized patients

A crossmatch should be performed retrospectively at the transplant center if required so by the national authorities.

8.2.4.2 Sensitized patients

A crossmatch should be performed prospectively at the donor center if required so by the national authorities.

Transplant centers are asked to send serum to all affiliated tissue typing labs in the Eurotransplant area to ensure that the crossmatch can be performed.

8.2.5 Donor criteria

The following criteria were formulated and serve as guidelines in the donor selection:

- Age \leq 50 years;
- Duration of intensive care \leq 7 days;
- BMI \leq 25, i.e. donor should be normal or slim;
- Laboratory values are no different from those needed for liver, pancreas and liver;

8.2.6 Allocation sequence

If from one donor both pancreas and intestine are reported to ET, the intestine will always be allocated first. In case of an adult donor intestine and pancreas should always be offered both (if both organs were reported to ET). Every effort should be made to prevent loss of the pancreas for anatomical/surgical and/or logistical reasons².

In case at procurement of both intestine and pancreas proper procurement of both organs is not possible, the intestine graft has priority. In such cases a report is sent to ELIAC and to EPAC by the procuring surgeon³.

8.2.7 Requirements

In case extra vessels are required that are normally procured along with the pancreas, this recipient needs to be listed on the pancreas waiting list in an active state as well as listed on the intestine waiting list. For listing on the pancreas waiting list see the Eurotransplant Manual Chapter 7; ET Pancreas Allocation System (EPAS).

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 acceptance⁴.

² Recommendation R-LAC02.09

³ Policy P-LAC08.16, result of the Eurotransplant Intestine Allocation Consensus Meeting June 22, 2016

⁴ Policy P-LAC10.16, result of the Eurotransplant Intestine Allocation Consensus Meeting June 22, 2016

8.3 EIAS – Standard allocation

8.3.1 ACO multi-organ patient

8.3.1.1 Selection

After approval of the ACO request, patients are granted a higher priority before elective (T) patients.

8.3.1.2 Order

Within the constraints of current AB0 blood group rules, ACO patients are only ranked according to the date and time of (re)assignment of the urgency ACO.

8.3.1.3 Allocation

An intestine is mandatory offered to all eligible ACO patients on the EIAS waiting list in descending order.

8.3.2 Elective (T) national patient

8.3.2.1 Selection

Only patients from intestine transplant programs with transplant capacity are selected, based on center or patient specific donor profiles, respectively.

8.3.2.2 Order

Within the constraints of current AB0 blood group rules, elective (T) intestine (adult and pediatric) recipients are ranked on the waiting list according to their total waiting time.

8.3.2.3 Allocation

An intestine is offered to all eligible elective (T) patients on the waiting list.

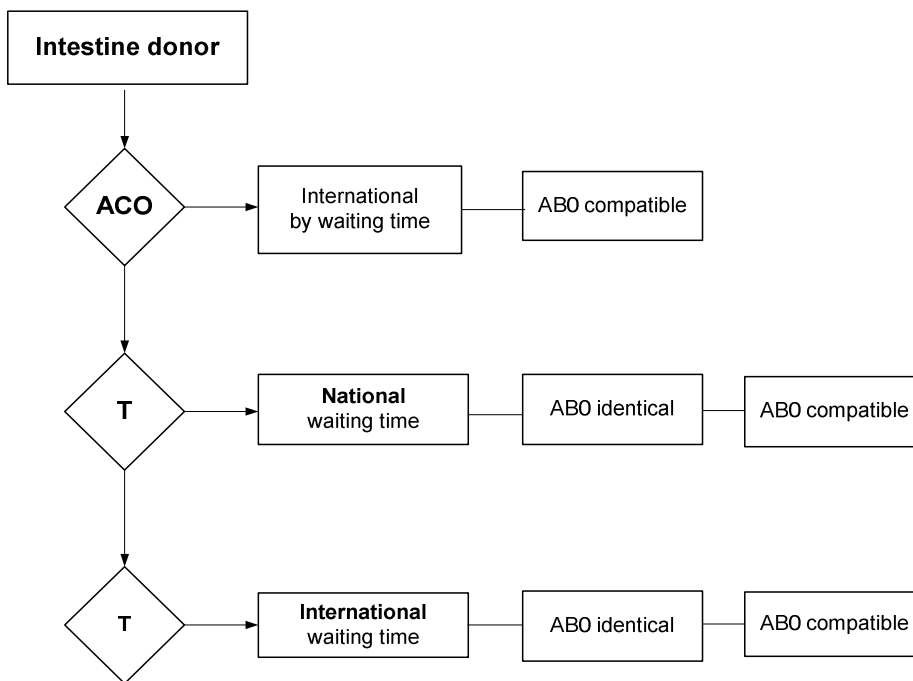
8.4 EIAS - allocation algorithm

first, to ACO patients
(if ≥ 1 ACO patient, they appear in order of waiting time in ACO)

then, to elective T patients in the donor country,
ABO-identical before ABO-compatible, then ranked by waiting time.

then, to elective T patients in the other ET countries,
ABO-identical before ABO-compatible, then ranked by waiting time.

8.4.1 Flowchart – Intestine allocation



8.5 Forms

All forms can be found and downloaded from the section 'Forms' of the Library of the member site at www.eurotransplant.org.