

DRAFT ORGAN NOMENCLATURE

This document includes three components:

- 1) Creating categories, relevant for transplantation, to describe each organ independently of donation / donor characteristics.
- 2) Analysis of relevant characteristics of organs, identifying for each organ "what is relevant for transplantation".
- 3) Organizing all information by categories, i.e. creating a structure for "what is in the box".

For the sake of understanding and relating to real practices, the Organ Draft Nomenclature is the necessary information that:

- must be available for the safety, efficacy and ethics of transplantation and that therefore should be accessible in the most reliable possible form.
- should come in a structured manner.

A) The first two components are classified in tables below. The classes where defined: Kidney; Liver; Heart; Lung; Pancreas; Islet; Small Bowel and Vascularized Composite Allograft.

The qualifiers for each class are also individualized in fields. General comments will appear at the end.

KIDNEY:

CHARACTERISTIC	CATEGORY	SUB-CATEGORY	DESCRIPTION
1. Donor identification			Unique identification of the donation.
2. Donor type	2.1 Deceased donor	2.1.1 Circulatory death	
		2.1.2 Brain death	
	2.2 Living donor		
3. Graft type	3.1 Single	3.1.1 Single left	
		3.1.2 Single right	
	3.2 En bloc		Excised T variant left or right. Two kidneys with a common blood supply.
	3.3 Intended double		Two kidneys from one donor
4. Associated risk	4.1 Graft quality	4.1.1 Normal Function	
		4.1.2 Abnormal Function	
		4.1.3 Normal Anatomy	
		4.1.4 Abnormal Anatomy	
	4.2 Risk of transmitting infectious disease		Indicates if known increased risk of disease transmission on the basis of questionnaire and physical examination.
5. Immunogenetics	5.1 HLA		
	5.2 Blood type ABO		
6. Preservation	6.1 Machine perfusion		
	6.2 Type of	6.2.1 Euro-Collins	

	solution	6.2.2 HTK	
		6.2.3 UW	
		6.2.4 Other	
	6.3 Cross clamp time		
7.Consent for alternative use	7.1 Clinical	7.1.1 For clinical use - directed	
		7.1.2 For clinical use - non directed	
	7.2 Education, research		
8.Essential Transmissible disease status	HIV		Test results
	HBV		Test results
	HCV		Test results

LIVER:

CHARACTERISTIC	CATEGORY	SUB-CATEGORY	DESCRIPTION
1. Donor identification			Unique identification of donation
2. Donor type	2.1 Deceased donor	2.1.1 Circulatory death	
		2.1.2 Brain death	
	2.2 Living donor		
3. Graft type	3.1 Whole graft		
	3.2 Partial graft	3.2.1 Reduced size	
		3.2.2 Right hemi liver	
		3.2.3 Left hemi liver	
		3.2.4 Left lateral segment	
3.2.5 Others			
4. Associated risk	4.1 Graft quality	4.1.1 Normal Function	
		4.1.2 Abnormal Function	
		4.1.3 Normal Anatomy	
		4.1.4 Abnormal Anatomy	
	4.2 Risk of transmitting infectious disease		Indicates if known increased risk of disease transmission on the basis of questionnaire and physical examination.
	4.3 Thrombogenic risk		
5. Immunogenetics	5.1 Blood type ABO		
6. Preservation	6.1 Machine perfusion		
	6.2 Type of solution	6.2.1 Euro-Collins	
		6.2.2 HTK	

		6.2.3 UW	
		6.2.4 Other	
	6.3 Cross clamp time		
7. Consent for alternative use	7.1 Clinical	7.1.1 For clinical directed	
		7.1.2 For clinical non directed	
	7.2 Education, research		
8. Essential Transmissible disease status	HIV		Test results
	HBV		Test results
	HCV		Test results

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HEART:

CHARACTERISTIC	CATEGORY	SUB-CATEGORY	DESCRIPTION
1. Donor identification			
2. Donor type	2.1 Deceased donor	2.1.1 Circulatory death	
		2.1.2 Brain death	
3. Graft type	3.1 Whole graft		
4. Associated risk	4.1 Graft quality	4.1.1 Normal Function	
		4.1.2 Abnormal Function	
		4.1.3 Normal Anatomy	
		4.1.4 Abnormal Anatomy	
	4.2 Risk of transmitting infectious disease		Indicates if known increased risk of disease transmission on the basis of questionnaire and physical examination.
5. Immunogenetics	5.1 HLA		
	5.2 Blood type ABO		
6. Preservation	6.1 Machine perfusion		
	6.2 Type of solution	6.2.1 Euro-Collins	
		6.2.2 HTK	
		6.2.3 UW	
		6.2.4 Other	
6.3 Cross clamp time			
7. Consent for alternative use	7.1 Clinical	7.1.1 For clinical directed	
		7.1.2 For clinical non directed	
	7.2 Education, research		

9. Essential Transmissible disease status	HIV		Test results
	HBV		Test results
	HCV		Test results

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LUNG:

CHARACTERISTIC	CATEGORY	SUB-CATEGORY	DESCRIPTION
1. Donor identification			
2. Donor type	2.1 Deceased donor	2.1.1 Circulatory death	
		2.1.2 Brain death	
	2.2 Living donor		
3. Graft type	3.1 Bilateral	3.1.2 En bloc	
		3.1.3 Sequential	
	3.2 Single	3.2.1 Single left	
		3.2.2 Single right	
		3.2.3 Partial or reduced left	
	3.2.4 Partial or reduced right		
4. Associated risk	4.1 Graft quality	4.1.1 Normal Function	
		4.1.2 Abnormal Function	
		4.1.3 Normal Anatomy	
		4.1.4 Abnormal Anatomy	
	4.2 Risk of transmitting infectious disease		Indicates if known increased risk of disease transmission on the basis of questionnaire and physical examination.
5. Immunogenetics	5.1 HLA		
	5.2 Blood type ABO		
6. Preservation	6.1 Machine perfusion		
	6.2 Type of solution	6.2.1 Euro-Collins	
		6.2.2 HTK	
		6.2.3 UW	

		6.2.4 Other	
	6.3 Cross clamp time		
7. Consent for alternative use	7.1 Clinical	7.1.1 For clinical directed	
		7.1.2 For clinical non directed	
	7.2 Education, research		
8. Essential transmissible disease status	HIV		Test results
	HBV		Test results
	HCV		Test results

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HEART-LUNG:

CHARACTERISTIC	CATEGORY	SUB-CATEGORY	DESCRIPTION
1. Donor identification			
2. Donor type	2.1 Deceased donor	2.1.1 Circulatory death	
		2.1.2 Brain death	
3. Graft type	3.1 Double	3.1.1 Grouped or en bloc	
		3.1.2 Sequential	
	3.2 Single	3.2.1 Single left	
		3.2.2 Single right	
		3.2.3 Reduced	
4. Associated risk	4.1 Graft quality	4.1.1 Normal Function	
		4.1.2 Abnormal Function	
		4.1.3 Normal Anatomy	
		4.1.4 Abnormal Anatomy	
	4.2 Risk of transmitting infectious disease		Indicates if known increased risk of disease transmission on the basis of questionnaire and physical examination.
5. Immunogenetics	5.1 HLA		
	5.2 Blood type ABO		
6. Preservation	6.1 Machine perfusion	Y/N	
	6.2 Type of solution	6.2.1 Euro-Collins	
		6.2.2 HTK	
		6.2.3 UW	
		6.2.4 Other	
6.3 Cross clamp time			

7. Consent for alternative use	7.1 Clinical	7.1.1 For clinical directed	
		7.1.2 For clinical non directed	
	7.2 Education, research		
8. Essential Transmissible disease status	HIV		Test results
	HBV		Test results
	HCV		Test results

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SMALL BOWEL:

CHARACTERISTIC	CATEGORY	SUB-CATEGORY	DESCRIPTION
1. Donor identification			
2. Donor type	2.1 Deceased donor	2.1.1 Circulatory death	
		2.1.2 Brain death	
	2.2 Living donor		
3. Graft type			
4. Associated risk	4.1 Graft quality	4.1.1 Normal Function	
		4.1.2 Abnormal Function	
		4.1.3 Normal Anatomy	
		4.1.4 Abnormal Anatomy	
	4.2 Risk of transmitting infectious disease		Indicates if known increased risk of disease transmission on the basis of questionnaire and physical examination.
5. Immunogenetics	5.1 HLA		
	5.2 Blood type ABO		
6. Preservation	6.1 Machine perfusion		
	6.2 Type of solution	6.2.1 Euro-Collins	
		6.2.2 HTK	
		6.2.3 UW	
		6.2.4 Other	
6.3 Cross clamp time			
7. Consent for alternative use	7.1 Clinical	7.1.1 For clinical directed	
		7.1.2 For clinical non directed	
	7.2 Education,		

	research		
8. Essential Transmissible disease status	HIV		Test results
	HBV		Test results
	HCV		Test results

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MULTIVISCERAL:

CHARACTERISTIC	CATEGORY	SUB-CATEGORY	DESCRIPTION
1. Donor identification			
2. Donor type	2.1 Deceased donor	2.1.1 Circulatory death	
		2.1.2 Brain death	
	2.2 Living donor		
3. Graft type			
4. Associated risk	4.1 Graft quality	4.1.1 Normal Function	
		4.1.2 Abnormal Function	
		4.1.3 Normal Anatomy	
		4.1.4 Abnormal Anatomy	
	4.2 Risk of transmitting infectious disease		Indicates if known increased risk of disease transmission on the basis of questionnaire and physical examination.
5. Immunogenetics	5.1 HLA		
	5.2 Blood type ABO		
6. Preservation	6.1 Machine perfusion		
	6.2 Type of solution	6.2.1 Euro-Collins	
		6.2.2 HTK	
		6.2.3 UW	
		6.2.4 Other	
6.3 Cross clamp time			
7. Consent for alternative use	7.1 Clinical	7.1.1 For clinical directed	
		7.1.2 For clinical non directed	
	7.2 Education,		

	research		
8. Essential Transmissible disease status	HIV		Test results
	HBV		Test results
	HCV		Test results

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PANCREAS:

CHARACTERISTIC	CATEGORY	SUB-CATEGORY	DESCRIPTION
1. Donor identification			
2. Donor type	2.1 Deceased donor	2.1.1 Circulatory death	
		2.1.2 Brain death	
	2.2 Living donor		
3. Graft type	3.1 Pancreas for transplant	3.1.1 Partial	
		3.1.2 Whole	
	3.2 Pancreas for islets cell production		
4. Associated risk	4.1 Graft quality	4.1.1 Normal Function	
		4.1.2 Abnormal Function	
		4.1.3 Normal Anatomy	
		4.1.4 Abnormal Anatomy	
	4.2 Risk of transmitting infectious disease		Indicates if known increased risk of disease transmission on the basis of questionnaire and physical examination.
5. Immunogenetics	5.1 HLA		
	5.2 Blood type ABO		
6. Preservation	6.1 Machine perfusion		
	6.2 Type of solution	6.2.1 Euro-Collins	
		6.2.2 HTK	
		6.2.3 UW	
		6.2.4 Other	
6.3 Cross clamp time			

7. Consent for alternative use	7.1 Clinical	7.1.1 For clinical directed	
		7.1.2 For clinical non directed	
	7.2 Education, research		
8. Essential transmissible disease status	HIV		Test results
	HBV		Test results
	HCV		Test results

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VASCULARIZED COMPOSITE ALLOGRAFT:

CHARACTERISTIC	CATEGORY	SUB-CATEGORY	DESCRIPTION
1. Donor identification			
2. Donor type	2.1 Deceased donor	2.1.1 Circulatory death	
		2.1.2 Brain death	
3. Graft type	3.1 Upper limb		
	3.2 Face		
	3.3 Other (abdominal wall, trachea, larynx)		
4. Associated risk	4.1 Graft quality	4.1.1 Normal Function	
		4.1.2 Abnormal Function	
		4.1.3 Normal Anatomy	
		4.1.4 Abnormal Anatomy	
	4.2 Risk of transmitting infectious disease		Indicates if known increased risk of disease transmission on the basis of questionnaire and physical examination.
5. Immunogenetics	5.1 HLA		
	5.2 Blood type ABO		
6. Preservation	6.1 Machine perfusion		
	6.2 Type of solution	6.2.1 Euro-Collins	
		6.2.2 HTK	
		6.2.3 UW	
		6.2.4 Other	
6.3 Cross clamp time			
7. Consent for	7.1 Clinical	7.1.1 For clinical directed	

alternative use		7.1.2 For clinical non directed	
	7.2 Education, research		
8. Essential Transmissible disease status	HIV		Test results
	HBV		Test results
	HCV		Test results

Comments:

- Infectious marker status should come with the donor.
- Graft quality - Indicator flag: Further information must accompany the organ.
 - Examples of abnormal function would include biopsy showing sclerosis, proteinuria.
 - Examples of abnormal anatomy would include damaged artery that needs repair, tumor that has been repaired, multiple renal arteries, stripped capsule; damaged vessels, or anatomical variations.
- Further details of the abnormality would be included in accompanying information.
- Machine perfusion- Binary response Y/N. If Yes, additional information to be included. Link to outcome characteristic of the perfusion.
- Ischemia time- information of the donor and for the machine perfusion and a link.

B) The third component, organizing all information by categories, i.e. creating a structure for "what is in the box" is described below:

Donation Specific Information

Item	Required?
Unique Donation Identification Number*	Yes
Cross clamp time	Yes
Summary information on infectious disease status	Yes
ABO group	
HLA type	Depends on graft
Detailed infectious risk information	

*A globally unique identifier for the donation event provides the ability to trace from recipient to donor. It provides linkage between the organ and the characteristic of the donor of the organ. The unique identifier allows traceability and provides access to donor information that affects the graft.

An overall infectious risk status could be encoded using defined values, with further description (specific test results, risk factors etc.) included as additional text.

Organ Description

Item	Required?
Donation type	Yes
Organ type	Yes
Graft description	Yes
Quality of graft	
Preservation	
Consent	

For each category shown above, the following values are defined:

Donation Type

Item	Definition where required (work in progress)
Living donor	
Deceased	
Deceased – brain death	
Deceased – circulatory death	

Organ Type

Item	Definition where required (work in progress)
Kidney	
Liver	
Heart	
Lung	
Heart-Lung	
Pancreas	
Small bowel	
Vascularized composite allograft (VCA)	Hand, face, and other (abdominal wall, trachea, larynx)

Graft Description

Item	Definition where required (work in progress)
Kidney, single	
Kidney, single, left	
Kidney, single, right	
Kidney, en bloc	Two kidneys with a common blood supply
Kidney, double	Two kidneys without a common blood supply
Liver, whole	
Liver, partial	
Liver, partial, reduced size	
Liver, partial, split	
Liver, partial, right hemi liver	
Liver, partial, left hemi liver	
Lung, single	
Lung, single, left	
Lung, single, right	
Lung, single, reduced	
Lung, bilateral	
Lung, bilateral, en bloc	
Heart-Lung, single	
Heart-Lung, single, left	
Heart-Lung, single, right	
Heart-Lung, single, reduced	
Heart –Lung, double	
Heart –Lung, double, grouped or en bloc	
Heart –Lung, double, sequential	
Pancreas, for islet cell production	
Pancreas, for transplant, partial	
Pancreas, for transplant, whole	
VCA, upper limb	
VCA, face	
Other VCA grafts will be added as required	

Quality of Graft

Item	Definition where required (work in progress)
Normal function and anatomy	
Normal function, abnormal anatomy	
Abnormal function, normal anatomy	
Abnormal function, abnormal anatomy	

Risk of transmitting infectious disease

Item	Definition where required (work in progress)
None identified	
Yes	

Preservation

Item	Definition where required (work in progress)
Cold storage, Euro-Collins	
Cold storage, HTK	
Cold storage, UW	
Cold storage, other	
Machine perfusion, Euro-Collins	
Machine perfusion, HTK	
Machine perfusion, UW	
Machine perfusion, other	

Consent

Item	Definition where required (work in progress)
For transplant only	
For transplant or research	
For transplant or education	
For transplant, research or education	