World Health Organization

WHO Standard Organ Transplant Nomenclature

Version 1.0

Collaboratively Developed by WHO and ICCBBA

through the SONG project

(Standardization of Organ Nomenclature Globally)

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Background

The number of available organs for transplantation is far lower than the number of people who await them. In attempts to expand transplant opportunity for patients in need, organs are increasingly shared and transported across national borders.

Matching a specific organ to a specific recipient is essential for good outcomes. Transplantation of incompatible ABO blood groups, virally infected, or graft size mismatched organs can result in serious adverse consequences or even death of the recipient of the organ. It is unfortunate that errors in organ identification and allocation have occurred to the detriment of those receiving the organs. In other areas of public safety and quality, acceptance of international standards for nomenclature has led to a clearer and more consistent presentation of information resulting in an improvement in practice and outcomes.

Current organ/donor identification and nomenclature do not consistently characterize the contents of "what is in the box" when an organ arrives for transplantation. The safety of the process of matching an organ with the intended recipient would be enhanced if critical information were to be expressed using an internationally agreed standard nomenclature.

World Health Assembly Resolution WHA63.22 on Human Organ and Tissue Transplantation endorsed the Guiding Principles on Human Cell, Tissue and Organ Transplantation, a set of 11 principles to guide on ethical and legal frameworks on the process of donation and transplantation. These are available on the WHO website at http://www.who.int/transplantation/en.

WHA63.22 urges Member States to collaborate in collecting data including adverse events and reactions on the practices, safety, quality, efficacy, epidemiology and ethics of donation and transplantation; and encourages the implementation of globally consistent coding systems for human cells, tissues and organs as such in order to facilitate national and international traceability of materials of human origin for transplantation. Internationally standardized coding systems would increase the reliability of traceability systems which are required to ensure the safety of medicinal products of human origin (MPOHO).

Cross boundary circulation of MPOHO, including organs, is increasing. Sub-regional allocation systems such as Eurotransplant, and multinational agreements to ensure timely transplantation such as for livers in an emergency, are routinely resulting in organs crossing national boundaries and therefore being exchanged between national organ donation and transplantation systems. Assistance schemes enabling citizens from less advanced countries to have access to living related donor kidneys abroad create another source of cross border activity.

The role of traceability in the safety of MPOHO is crucial. Effective traceability relies on transparency, availability of documentation and international standardization. An internationally agreed basis for coding transplanted organs and their systematic registration using a globally unique identification number would allow an unprecedented level of transparency on the origin and movement of organs.

Standardization of nomenclature for organ transplant products is needed to improve traceability, vigilance, surveillance and activity reporting. Agreeing on a standard nomenclature will also set the basis for the future introduction of a coding system to support electronic data capture. Such developments will help to eliminate human transcription errors and improve data accuracy.

SONG Project

WHO and the International Council for Commonality in Blood Banking Automation (ICCBBA) have developed a common plan of work in line with World Health Assembly resolution WHA63.22 to provide guidance for Member States on "suitable and traceable coding systems". The SONG (Standardization of Organ Nomenclature Globally) Project has been established in order to develop a global consensus on the nomenclature of organs for transplant. Such a nomenclature is a pre-requisite to introducing standardized coding.

ICCBBA is participating in this project because of its enormous experience in nomenclature, coding and labeling for blood, cells and tissues. ICCBBA manages the ISBT 128 Information Standard which is used extensively among blood transfusion facilities to meet the needs of safety and interoperability and is being increasingly used for coding and labeling of cell therapy and tissue products.

The first meeting of the SONG project took place on 4th and 5th May 2011 and involved experts from all WHO Regions together with representatives of ICCBBA. The report of this meeting, together with the initial nomenclature framework is available at http://www.who.int/transplantation/tra_song/en/index.html. Public comment on the report and its outcome was invited.

Subsequently ICCBBA, together with support from UNOS have further developed the terms and definitions of an initial group of organ products. These terms and definitions have been approved by the SONG participants and now form a first version of the WHO Standard Organ Nomenclature. It is recognised that a broader range of terms will be required to cover all organ transplants and this version is seen as the first step in a path to a more comprehensive nomenclature.

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KIDNEY

Graft Type	Structured Name	Definition
Kidney, Single	Kidney, Single	A single kidney
Kidney, en bloc	Kidney, en bloc	Two kidneys connected by a common blood supply
Kidney, double	Kidney, double	Two separated kidneys from the same donor intended for a single recipient.

Associated Attributes

- Deceased/Living/not specified
- Left/Right

LIVER

Graft Type	Structured Name	Definition
Whole Liver	Liver, Whole	Whole Liver graft (Segments 1,2,3,4,5,6,7,8)
Liver, Right Lobe	Liver, Lobe, Right	Right lobe of liver (Segments 5,6,7,8)
Liver, Extended Right Lobe	Liver, Extended Lobe Right	Extended right lobe of liver (Segments 4,5,6,7,8)
Liver, Left Lobe	Liver, Lobe Left	Left lobe of liver (Segments 2,3,4)
Liver, Left Lateral Segment	Liver, Left Lateral Segment	Left Lateral Segment of liver (Segments 2,3)
Liver, Mono-Segment 2	Liver, Mono-Segment 2	Segment 2 of liver
Liver, Mono-Segment 3	Liver, Mono-Segment 3	Segment 3 of liver

Associated Attributes

- Middle Hepatic Vein (MHV) segment present/not present
- Inferior Vena Cava (INV) present/not present
- Living/Deceased/not specified

LUNG

Graft Type	Structured Name	Definition
Lung, Left	Lung, Left	Left lung including contiguous pulmonary artery, left bronchus and left atrial cuff
Lung, Right	Lung, Right	Right lung including contiguous pulmonary artery, right bronchus and left atrial cuff
Lung, Double	Lung, Double	Right and left lungs including contiguous pulmonary artery, bronchi, trachea and left atrial cuff
Lung, Left Lobe	Lung, Lobe, Left	Lower lobe of left lung including a short length of the inferior pulmonary artery, the inferior pulmonary vein and the inferior lobe bronchus
Lung, Right Lobe	Lung, Lobe, Right	Lower lobe of right lung including a short length of the inferior pulmonary artery, the inferior pulmonary vein and the inferior lobe bronchus

Associated Attributes

- Living/Deceased/not specified

HEART

Graft type	Structured Name	Definition
Heart	Heart	Heart

HEART-LUNG

Graft type	Structured Name	Definition
Heart Lung	Heart Lung	Heart with both lungs including bronchi and trachea

PANCREAS

Graft type	Structured Name	Definition
Pancreas	Pancreas, whole	Pancreas with duodenum, may include spleen and splenic artery

SONG Project Participants

Invited Experts

Dr Jaroslaw CZERWINSKI	Medical Director, POLTRANSPLANT	Poland
Dr Visist DHITAVAT	Director, Thai Red Cross Organ Donation Centre	Thailand
Dr Sudhir GUPTA	Chief Medical Officer, Directorate General of Health Services	India
Dr Jongwon HA	Professor, Department of Surgery Seoul National University College of Medicine	Republic of Korea
Dr Delawir KAHN	Professor, Head of Department of Surgery Groote Schuur Hospital	South Africa
Dr Beatriz MAHILLO	Organización Nacional de Trasplantes	Spain
Dr Timothy L. PRUETT	Professor of Surgery and Internal Medicine University of Minnesota	USA
Dr Martín TORRES	Director, INCUCAI	Argentina
Dr Haibo WANG	Assistant Director China Liver Transplant Registry	China

ICCBBA

Mr Paul ASHFORD	Executive Director	United Kingdom
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WHO

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