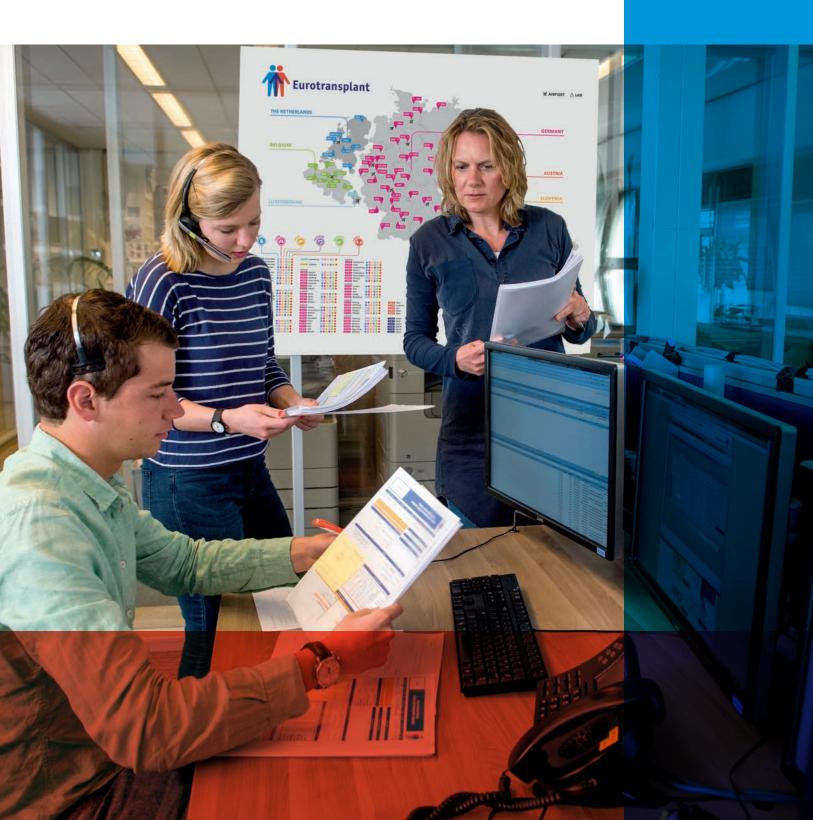


Annual Report 20 15

Eurotransplant International Foundation



Edited by Peter Branger and Undine Samuel

Central office

P.O. box 2304

2301 CH Leiden

The Netherlands

Tel. +31-71-579 57 00

Fax. +31-71-579 00 57

www.eurotransplant.org

y twitter.com/eurotransplant

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying or elswise, without prior permission.

CIP-GEGEVENS KONINKLIJKE BIBLIOTHEEK, DEN HAAG

Annual Report/Eurotransplant International Foundation.—Leiden: Eurotransplant Foundation. -III., graf., tab. Published annually Annual report 2015 / ed. by Peter Branger and Undine Samuel ISBN-EAN: 978-90-71658-34-1 Keyword: Eurotransplant Foundation; annual reports.

Table of contents

Fore	vord	5
1.	The Eurotransplant community	9
2.	Report of the Board and the central office	13
3.	Transplant programs and their delegates in 2015	31
4.	Eurotransplant: donation, waiting lists and transplants	41
5.	Kidney: donation, waiting lists and transplants	65
6.	Thoracic organs: donation, waiting lists and transplants	85
7.	Liver and Intestine: donation, waiting lists and transplants	107
8.	Pancreas and Islets: donation, waiting lists and transplants	121
9.	Agreements between transplant programs within and outside Eurotransplant	135
10.	Reporting of non-resident transplants in Eurotransplant	139
11.	Histocompatibility Testing	141
12.	Scientific Output in 2015	147
13.	Eurotransplant personnel related statistics	151
14.	Abbreviated financial statements	153
Annu	al Report list of abbreviations	159



Foreword

In this Annual Report, we look back to a stable year 2015, in which Eurotransplant has been able to allocate 7.145 organs from 2.063 deceased donors to patients on the waiting list who received their life-saving organ transplant.

In 2015, Eurotransplant was actively involved in developing new recommendations and policies to further improve organ allocation and transplant outcomes. Eurotransplant together with all transplant centers in the eight member states is continuously working on that issue. National competent authorities as well as the respective national transplant societies are close cooperation partners in this goal. Seven recommendations for adaptation of the allocation rules were developed by medical experts of the Eurotransplant member states (see chapter 2.3). Maintaining a solid and transparent allocation system that provides the best achievable transplantation to patients in the Eurotransplant region is our key objective. One of the components to reach this goal is completeness of data for which support from transplant programs and cooperation with registries is a prerequisite. The cooperation with the European Liver Transplant Registry (ELTR), which was established in December 2014, as well as with other national and international registries, has a great impact on the completeness of figures.

Organ exchange

The international cooperation between our eight member states Austria, Belgium, Croatia, Germany, Luxembourg, Hungary, the Netherlands and Slovenia is highly beneficial and life saving for patients on the waiting list. A larger donor and patient pool allows a better matching between organs and patients and in addition, a better chance to get transplanted. For patients in special groups such as children, patients with acute organ failure (high urgent patients) as well as patients with a complex medical background (highly sensitized patients), the chance that a suitable organ can be found within the Eurotransplant community is significantly higher than in a single country. In case there is no suitable recipient in the donor country, organ loss can be prevented by making the organ available to patients in other Eurotransplant member countries.

In 2015, the benefit of international organ exchange was also shown when data from 25 years of the Acceptable Mismatch (AM) Program were analyzed by the Eurotransplant Reference Laboratory (ETRL). This program provides increased chances for transplantation of highly sensitized kidney patients. Since the start of the program more than 1000 patients were transplanted. Follow-up data of this patient group showed excellent transplant survival, comparable to non-AM transplants.

European framework

Eurotransplant actively participates in international cooperation within the European framework. Knowledge about the different processes in organ donation, allocation and transplantation in the individual European member states stimulates further development of recommendations on allocation and organ exchange. In 2015, the work on the FOEDUS (Facilitating exchange of organs donated in EU member states) work package, managed by Eurotransplant, was finished. Recommendations were provided on how legal, logistical, financial and other barriers that currently prevent cross border exchange between EU member states can be diminished. The second achievement was a standardized contract for cross border exchange of organs which can be used by all EU countries. In the framework of the ACCORD project (Achieving Comprehensive Coordination in Organ Donation), Eurotransplant actively participated and delivered knowledge on the design and the management of a structured living donor registry and supranational data sharing.

Leiden office

On April 1, 2015, a new general director joined the organization. Dr. Peter Branger commenced this position in the Leiden office and brought in extensive experience in both healthcare and information technology. In 2015, the staff in the Leiden office implemented 9 recommendations and several improvement projects. These included a change in the liver match, implementation of the Eurotransplant Audit System (EAS) and preparations for introduction of a future Cadiac Allocation Score (CAS). Furthermore, in 2015 the preparatory phase of the CORE program to renew Eurotransplant's core IT-system ENIS was started.

Audit results

As in previous years, Eurotransplant continued its close cooperation with the responsible national authorities to support the audit committees that perform on-site audits. Feedback from the auditors comfirmed that Eurotransplant is working according to the agreed upon standards and allocation procedures. Also the quality assurance of the processes of the Leiden office (ISO 9001:2008) was audited by an external auditor with a positive

International cooperation

This Annual Report represents an important element of our mission to be fully accountable for all the ongoing initiatives and activities. It is our pleasure to provide you with detailed statistics on waiting list, donation and transplantation in 2015. As you might be aware, more detailed statistics are available on the Eurotransplant website (www.eurotransplant.org).

The staff of Eurotransplant, together with experts in our member countries, worked with great commitment on efficient allocation services, continuous allocation development and further enhancing transparency throughout 2015. To demonstrate our great value for our good relationships and open communication with all players in our international working field, contributions of our cooperation partners have been included in this year's Annual Report. We hope you will enjoy reading their statements on our cooperation in 2015 on the pages dividing the chapters of this report.

We would like to use this opportunity to thank all of you for the good cooperation in 2015, in the interest of all patients waiting for their organ transplant.

Prof.dr.med. Bruno Meiser

President

Dr. Peter Branger General Director

Dr. Undine Samuel Medical Director



The Eurotransplant community

The Stichting Eurotransplant International Foundation is a non-profit international organization that facilitates allocation and cross border exchange of deceased donor organs for its members: Austria, Belgium, Croatia, Germany, Hungary, Luxembourg, the Netherlands and Slovenia. In this international collaborative framework, the participants include all transplant hospitals, tissue typing laboratories and hospitals where organ donations take place. The Eurotransplant region numbers well over 135 million inhabitants.

Eurotransplant is fully connected with the members of its community. The organizational structure is democratic, with a Board of Management, a management team, an Assembly, a Council, eight Advisory Committees of which four organ specific (kidney, liver/intestine, heart/lung, pancreas) and four in charge of organ procurement, tissue typing, ethics and finance as well as an Information Services Working Group (ISWG).

At every level it is arranged for the national competent authorities, the national scientific transplant societies and the transplant programs in the transplant centers to have an input in the policy and practice of Eurotransplant.

Mission 1.1

Organ transplantation offers life-saving and quality-of-life enhancing treatment options to patients with end-stage organ failure. Aiming to fulfill this potential, Eurotransplant was established and acts as a mediator between donor hospitals and transplant centers, for the benefit of such patients.

As such,

- Eurotransplant manages the complex process of achieving the best possible match between available donor organs and patients on the transplant waiting list.
- Eurotransplant acts transparently and in accordance with European Union regulations and ethical principles, and fully complies with national member state legislation.
- Eurotransplant is actively engaged in developing best practice recommendations and policies to further improve organ allocation and transplant outcomes, based on robust data collection and state-of-the-art scientific research.

To achieve its mission Eurotransplant has set the following goals:

- To achieve an optimal use of available donor organs and tissues;
- To secure a transparent, objective and fair allocation system, in compliance with national rules, based upon medical and ethical criteria:
- To support donor procurement to increase the supply of donor organs and tissues;
- To further improve the results of transplantation through collection and evaluation of donor, recipient, allocation, transplantation and follow-up data, scientific research and to publish and present these results;
- The promotion, support and coordination of organ donation and transplantation in the broadest sense of terms.

1.2 **Basic Mandate**

The Basic Mandate describes the basic services that Eurotransplant provides to its member states. It was approved by all national authorities of the Eurotransplant member states. The budget for Eurotransplant's basic services is quaranteed by all national authorities. Specific wishes from member states can be laid down in country specific Service Level Agreements and are financed separately.

Services according to the Basic Mandate:

Allocation services

- 24/7 duty desk organ allocation services;
- 24/7 immunological support to the allocation office and transplant centers by ETRL;
- On-line waiting list data-entry;
- On-line donor data-entry services;
- Evaluation of post transplant results by sustaining a follow-up registry.

Development of allocation process

- Eurotransplant Advisory Committees [AC] (kidney, liver/intestine, pancreas, thoracic, organ procurement, information services, ethics, tissue typing and finance) update and improve the allocation process of Eurotransplant;
- · Recommendations are developed by AC's in cooperation with the different national transplant organizations and national authorities => approval by the Board => forwarded to national competent authority for approval => implementation by Eurotransplant office;
- Participation in European projects related to organ transplantation;
- Participation in national and international regulatory projects.

External networking

- Stimulating cooperation by organizing the annual Eurotransplant meeting and annual Eurotransplant winter meeting;
- Information on recommendations and current developments in organ allocation to stakeholders through the Eurotransplant Newsletter;
- Cooperation with international organ exchange organizations.

Reporting and accounting

- Annual Report;
- Close cooperation with national authorities;
- Standard donor-, organ-, and quality forms issued through the Eurotransplant website;
- Lectures by Eurotransplant staff members at congresses and meetings;
- Approval of the Eurotransplant financial accounts by an external auditor.

Support

Eurotransplant organizes supportive processes:

- · Clearing house function concerning the settlements of costs between the donating and receiving transplant
- Development and maintenance of information systems.

1.3 **Information and Quality**

The allocation of organs is an information-intensive process which depends on an effective and efficient information and communication system. Therefore Eurotransplant continuously develops and maintains information systems that are required to support this process. These systems process the vast amount of information, support the analysis of processes, of allocation rules and of other information and transform this into effective information systems. It is an integrated automated system designed to collect, store and share information pertinent to the services provided by Eurotransplant.

Eurotransplant adequately tests all procedures and systems and maintains a quality system to assure this.

Eurotransplant is committed to protecting the privacy of individuals and ensuring the security of their personal health information. It has designed a privacy and security framework which enables an effective coordination of privacy and security policies. The Information Security Policy and the data policies are living documents which are updated as the privacy and security programs evolve over time. The documents are available on the Eurotransplant website.

1.4 Governance

Eurotransplant has a governance structure with a Board (20 members) representing all member states cooperating within Eurotransplant.

The Board constitutes of:

- representatives of the transplant programs (members A);
- representatives of the national scientific transplant societies (members B);
- a representative of the Eurotransplant Reference Laboratory (member C);
- a financial expert and an ethicist (members D).

The Board is responsible for the management of the foundation and supervises the general director and the members of the management team. The Board meets on a regular basis with the management team. These meetings are prepared by the management team and staff of Eurotransplant.

The general director is responsible for the day-to-day management of the organization. The general director and the members of the management team are appointed by the Board.

The directors of the different transplant programs appoint the members of the General Assembly. The General Assembly meets annually in Leiden during which meeting the delegates appoint the Board members A.

In the Eurotransplant Council the Board members B meet the representatives of the national competent authorities to discuss various subjects.

The Board has adopted a Code of Conduct which outlines the foundations commitment to conducting itself with honesty, fairness and integrity and to observing the legal environment in which Eurotransplant operates.

The Ethical Charter outlines the vision and the values of Eurotransplant in relation to specific issues in organ donation and transplantation. It also presents the goals and responsibilities of the Ethics Committee of Eurotransplant.

1.5 **Finances**

Eurotransplant's activities are entirely financed by the health insurance companies in the participating member states. The organization's budget and the resulting registration fees are negotiated annually with the financers and/or the national competent authorities

"The Eurotransplant duty officers work – day and night – highly motivated to allocate donor organs to the most suitable recipients. We all feel very dedicated to the donor and to every person in need of an organ!"



Ms. Annet van der Plas, Senior allocation officer at Eurotransplant

Report of the Board and the central office

The Board of Stichting Eurotransplant International Foundation met on January 21, May 11 and October 14, 2015. Two Board members A were re-elected by the Assembly; Prof.Dr. Uwe Heemann in the kidney section and Prof.Dr. Caner Süsal in the tissue typing section. In the kidney section Prof.Dr. Ferdinand Mühlbacher stepped down and Prof.Dr. Gabriela Berlakovich was elected by the Assembly as a new Board member A. Furthermore, Prof. Dr. Gabriela Berlakovich and Dr. Mirela Busic stepped down from the Board as members B, and were replaced by the national competent authorities by Prof.Dr. Andreas Zuckermann and Dr. Branislav Kocman.

The Board decided to elect Prof.Dr. Xavier Rogiers as new vice-president during the Board meeting in May; he was instituted in October 2015.

Report of the Board 2.1

Implementation of recommendations

The Board decided to implement a number of recommendations per country based on approval. Also, two recommendations were changed into a policy and one recommendation was repealed.

Recommendation R-KAC01.14 (return of waiting time) was scheduled for implementation before the end of 2015. As waiting time is crucial for patients, the Board decided to implement this recommendation already manually until the technical implementation is complete.

Recommendation R-LAC04.14 (ABO-incompatible liver offers for pediatric recipients <1 year if no suitable ABOcompatible recipient can be found) was ranked as high priority by the ELIAC and was scheduled for implementation this year for all countries but Germany.

Management structure

After several selection rounds, new general director Dr. Peter Branger was introduced to the Board. Branger has a medical background as he completed medical school and in addition has a master and a PhD in medical informatics. Branger started his work at Eurotransplant on April 1, 2015.

Renewal ENIS / CORE

The Board discussed the renewal of the ENIS software system (renamed CORE). In January, a program plan was presented. Because this plan would mean a substantial reduction of capacity for the implementation of other projects and recommendations, the Board decided to have an external party audit and review the project documentation including the budget to evaluate the estimates and avoid any additional risks. The audit resulted in the recommendation to develop a business case and project plan for ENIS renewal. With the

assistance of an external expert, the business case and program plan, including a budget plan were developed and presented to the Board in October. The Board agreed to enroll the advised program which entails a partnership scenario: develop large parts of the system with external partners followed by a training of the internal staff to maintain the software to ensure the 24/7 support. Some parts might need to be developed internally as they may be very specialized. The program will start in 2016.

Finance

The financiers agreed to the proposed budget that included a budget for the ENIS renewal.

The Dutch budget negotiators requested a different distribution of the Eurotransplant basic budget; the current distribution key (number of registrations) has proved volatile due to the developments in Germany. They pleaded for a more stable distribution key, being the number of inhabitants per country. The distribution of the budget is, however, not the business of Eurotransplant but of the different national financiers.

During the preparation meeting for the annual negotiations with the financiers it was decided to set the basic budget distribution key for 2016-2018 by taking the average of 2013 and the calculated 2016 distribution. This will be the key for the coming 3 years. In 2018 a new key will be discussed.

The Board approved the budget for 2016.

The Board discussed the possible reimbursement of travel and accommodation costs for invited speakers for Advisory Committee meetings and for all invited speakers of the Annual Meeting and Winter Meeting. The Board decided that if Eurotransplant invites a speaker, it should cover the costs for travel and accommodation under the regulations of the Eurotransplant Financial Policy. The general director or the president should approve all invitations to keep this under control.

Following an issue in the transport costs for pay-back livers, the Board decided to investigate if this is an international problem. It was agreed with the Eurotransplant Council in 2012 to investigate the costs for the transport of these HU pay-back livers. However, not all data were received from all countries. It was decided to re-discuss this topic with the Council.

International cooperation

The Board approved twinning agreements between Vienna and Cyprus, Vienna and Estonia and Vienna and Athens for lungs. The Board decided to delay the decision about the prolongation of the twinning agreement for lungs between Vienna and Bucharest until more information is available. This request will be re-discussed in January 2016.

The cooperation between Innsbruck and the regions Trentino and Bozen of SüdTirol was discussed. Since there is no official twinning agreement, the waiting list patients from Trentino are officially considered non-residents. There is, however, a long-term contract between Innsbruck and Trentino – agreed upon by the Eurotransplant Board in the mid nineties - that these patients are transplanted in Innsbruck. The Board decided to request a Eurotransplant twinning agreement for livers between Innsbruck and Trentino in order to not violate any laws/contracts and to ensure that the pay-back is adhered to.

The contract regarding Bozen is supported under the condition that several points are adjusted. It was concluded that the Board needs more information and that the contract has to be opened up again and adjusted, as discussed already in previous Board meetings.

Henk Schippers Young Investigator Award (HSYI)

The Board was informed about the applications for the Henk Schippers Young Investigator Award 2015. The members of the HSYI Award committee unanimously declared Dr. Rupert Oberhuber from Innsbruck, Austria, as the winner of the 2015 HSYI Award.

Dr. Oberhuber gave a presentation entitled 'Treatment with tetrahydrobiopterin overcomes brain death-associated injury in a murine model of pancreas transplantation' during the Eurotransplant Winter Meeting in Alpbach, Austria, January 20-22, 2016.

Registry

The Board discussed the cooperation with other registries. Within that framework, the question of data safety was raised. All centers that participate in a data exchange with Eurotransplant and the other registries have given written consent to that. This consent has not been renewed in the last years, and is not always specified with regard to which registries they consent to exchange data with.

The Board agreed that a general policy should be formulated about data exchange, data use, governing of data etc. Following this decision, the Board adapted a Eurotransplant Data Policy and a Eurotransplant Data Disclosure Policy.

Also, Eurotransplant will renew the agreements with centers and contracts with registries. The Eurotransplant coworker for legal affairs was appointed as privacy officer of the organization.

The Board discussed a cooperation with ELTR (European Liver Transplant Registry). Records have been exchanged as part of the respective agreement. There was a problem with the rather outdated Eurotransplant application overstrained by the huge number of incoming records. At the end of the year the application was updated and as of then will run much faster.

A possible cooperation with ERA-EDTA (European Renal Association-European Dialysis and Transplant Association) was also discussed. The problem in exchanging data is that there is at the moment no common identifier so that there is no link possible to connect the data between the two registries. A solution will be sought.

The Board agreed that the topic of registry and post-transplant data is very important for the future of Eurotransplant and more focus should lie on that in the coming years. Also, national authorities should be asked to support mandatory data supply.

The data completeness was discussed. The Board decided that the median time to transplant for every organ should be available to everybody on the member site. Also, all centers will receive an overview of the completeness of data for their center compared to average completeness of the country and average of Eurotransplant annually, which could encourage centers to send in their data.

Language of donor reports

As the official language within Eurotransplant is English, the COLD (Classification of Language Donor Information) project was initiated in order to solve this problem of non-English donor reports in such a way that standard phrases in English can be ticked. This project has been put on hold in 2014 as it will be built into the new CORE program. However, the complaints became more evident and a short-term solution for the problem was sought. The Board decided that for all free text fields only text entered in English will be accepted. In the meantime, the telephone number of the transplant coordinator and the telephone number of the surgeon will be added if possible to facilitate a direct contact between the recipient surgeon and the responsible persons at the donor site as an interim solution. Furthermore, implementation of the COLD project was planned in the first phase of CORE.

Serious Adverse Events and Reactions (SAE/R)

Since February 5 Eurotransplant introduced a service in handling the SAE/R. The service consists of:

- In case a SAE/R is reported by phone, Eurotransplant sends out a form were the SAE/R can be reported. This form fulfills the criteria as laid down in the EU directive;
- Eurotransplant informs the involved transplant center(s), donor center, delegated body and national competent authority;
- All cases are stored in a dedicated database.

Regarding handling Eurotransplant has published on the website (on the member as well as on the public site) an explanatory text including examples of what could be considered as a SAE/R.

Miscellaneous

As requested by the Board, the Eurotransplant Ethics Committee (ETEC) has drafted a proposal for a Code of Conduct for the Board and Advisory Committee members. The Board accepted the Code of Conduct for Board and Advisory Committee members. In this Code of Conduct, an Annex has been included which lists all advisory, paid and other work performed by Board and Committee members for other companies/Boards/pharmaceutical companies in the last year. It was decided that the Board members will, starting with the reporting year 2015, annually send their completed forms to Eurotransplant to be kept on file.

The Board discussed the procedure of study proposals received by Eurotransplant. Study proposals are discussed by the respective organ Advisory Committees and if agreed, carried out by Eurotransplant staff (statistics, biostatistics, registry, etc.). This causes a heavy workload for the different staff members involved as some studies require a large number of working hours. Their regular work is then receiving not enough time and attention as it should. The Board decided that each study proposal will be discussed in the respective organ Advisory Committee. After approval, the organ committee ranks the study proposal on importance and urgency. If more than one study proposal is approved and ranked evenly in importance (of all studies) the Eurotransplant Board will then decide which study should be started first.

As there were no regulations or procedures laid down for the appointment of chairpersons of the Advisory Committees, the Board decided that an appointment and selection procedure should be laid down to quarantee a transparent and objective procedure. The Board decided to appoint chairpersons for three years, from all possible candidates for that position. During the Board meeting in January 2016, the Board will appoint the respective chairpersons. The Articles of Association will be changed so that all chairpersons for all Committees can only be Board members A. Also, the by-laws will be changed accordingly.

A new midterm strategy for Eurotransplant needs to be developed. It was decided to organize an additional strategy meeting of the Board in May 2016 to discuss and develop the strategy for the coming years.

In 2017, Eurotransplant will celebrate its 50 years anniversary. An additional budget was requested for communication and PR as the year will consist of several Jubilee outings such as a Jubilee Annual Report, Jubilee Newsletters, Jubilee statistics on the website, etc. Also, Eurotransplant will provide assistance in national campaigns and transplant congresses by means of speakers, information and statistics. The Board decided to combine the Annual Meeting with a Jubilee Conference in October. Since this conference will be considerably larger in program and organization, the Board decided to install a small registration fee for this conference. Also, the Board voted and approved the making of a Jubilee Book.

Board of Eurotransplant International Foundation as per December 31, 2015

Prof.Dr. B. Meiser, Munich president Dr. E. Homan, Voorhout secretary / treasurer (D) Prof.Dr. G. Berlakovich, Vienna on behalf of the kidney section (A) Prof.Dr. D. Ysebaert, Antwerp on behalf of the kidney section (A) Prof.Dr. U. Heemann, Munich on behalf of the kidney section (A) Prof.Dr. X. Rogiers, Ghent on behalf of the liver section (A) Prof.Dr. M. Guba, Munich on behalf of the liver section (A) Prof.Dr. W. Schareck, Rostock on behalf of the pancreas section (A) Prof.Dr. G. Laufer, Vienna on behalf of the thoracic section (A) Prof.Dr. D. Van Raemdonck, Leuven on behalf of the thoracic section (A) PD Dr. F. Wagner, Hamburg on behalf of the thoracic section (A) Prof.Dr. C. Süsal, Heidelberg on behalf of the tissue typing section (A) Prof.Dr. A. Zuckermann, Vienna on behalf of the Austrian Transplant Society (B) Prof.Dr. J. Pirenne, Leuven on behalf of the Belgian Transplant Society (B) Dr. B. Kocman, Zagreb on behalf of the Republic of Croatia (B) Prof.Dr. B. Nashan, Hamburg on behalf of the German Transplant Society (B) Prof.Dr. L. Hilbrands, Nijmegen on behalf of the Dutch Transplant Society (B) Dr. V. Sojar, Ljubljana on behalf of the Slovenian Transplant Society (B) Prof.Dr. Z. Mathe, Budapest on behalf of the Hungarian Transplant Society (B) on behalf of the Eurotransplant Reference Laboratory (C) Prof.Dr. F.H.J. Claas, Leiden Drs. M. Bos, The Haque ethics advisor (D)

The Board of Stichting Eurotransplant International Foundation consists of a president and:

10 members A: members representing organ / tissue typing sections

7 members B: members representing national transplant societies

1 member C: head of the Eurotransplant Reference Laboratory

2 members D: one member being financial expert, one member representing society (ethicist)

2.2 **Advisory Committees**

Eurotransplant positions itself as an independent scientifically oriented organization. Various organ Advisory Committees, of which the chairmen hold a position in the Board of ET, meet several times a year and discuss the impact of new scientific developments in the field of organ allocation, organ procurement as well as transplant ethics. Their conclusions are proposed as recommendations or policies to the Board of ET.

In the course of 2012, the Board decided to make a distinction between recommendations and policies. The difference between these two instruments is:

Eurotransplant Recommendation

Recommendations that formally fall under the competence of the responsible national authorities in some countries. These recommendations have to be approved by the responsible national authorities of these countries prior to implementation. A typical example of a Eurotransplant recommendation according to this distinction would be a change in allocation rules.

With the approval of the recommendation by the responsible national authority it becomes binding in that country and ET can refer to this approval and use the respective national authority to enforce the recommendation.

Eurotransplant Policy

Recommendations that concern a working procedure or policy of Eurotransplant. These recommendations are only sent for information to the national authorities; their main goal is to increase transparency of the working procedures of ET and its partners.

A complete list of all recommendations and policies approved in 2015 is published under section 2.3 of this chapter.

Through this practice transplant regulations throughout ET have a great degree of uniformity.

In 2015, the various Advisory Committees met 16 times and submitted 7 recommendations and 13 policies; 19 of them were approved by the Board and 1 was not approved.

The composition of the various Advisory Committees as per December 31, 2015 was as follows:

KIDNEY ADVISORY COMMITTEE (ETKAC)

Name	As of	Remarks
Prof.Dr. U. Heemann, Munich	05.2009	chairman, representative Board
Vacancy	10.2015	representative Austria
Prof.Dr. A. Rosenkranz, Graz	01.2008	representative Austria
Dr. L. Weekers, Liège	10.2011	representative Belgium
Prof.Dr. J-L. Bosmans, Antwerp	06.2013	representative Belgium
Prof.Dr. J. Pasini, Zagreb	04.2008	representative Croatia
Dr. D. Hauptman, Zagreb	12.2011	substitute representative Croatia
Prof.Dr. U. Kunzendorf, Kiel	01.2002	representative Germany
Prof.Dr. B. Krämer, Mannheim	01.2006	representative Germany
Prof.Dr. I. Hauser, Frankfurt	01.2012	representative Germany
Dr. P. Pisarski, Freiburg	01.2010	representative Germany
Dr. E. Szederkenyi, Szeged	01.2012	representative Hungary
Dr. P. Duhoux, Luxembourg	09.1994	representative Luxembourg
Dr. A. van Zuilen, Utrecht	01.2012	representative the Netherlands
Dr. F. Bemelman, Amsterdam	05.2013	representative the Netherlands
Dr. M. Arnol, Ljubljana	01.2006	representative Slovenia
Prof.Dr. F.H.J. Claas, Leiden (ETRL)	09.1994	representative TT Assembly
Dr. I. Tieken, Eurotransplant	01.2014	secretary
Dr. S. Marks, Eurotransplant	01.2014	substitute secretary
Ms. L. Sanders, Eurotransplant	10.2010	assistant secretary

LIVER INTESTINE ADVISORY COMMITTEE (FLIAC)

TIVER INTESTINE ADVISORY COMMI	IIEE (ELIAC)	
Name	As of	Remarks
Prof.Dr. R. Rogiers, Ghent	09.2007	chairman, representative Board
Prof.Dr. G. Berlakovich, Vienna	07.2014	representative Austria
Prof.Dr. H. Zoller, Innsbruck	04.2013	substitute representative Austria
Prof.Dr. P. Michielsen, Antwerp	01.2008	representative Belgium
Prof.Dr. H. Van Vlierberghe, Ghent	01.2012	substitute representative Belgium
Dr. B. Kocman, Zagreb	04.2008	representative Croatia
Dr. S. Jadrijevic, Zagreb	01.2011	substitute representative Croatia
Prof.Dr. Ch. Strassburg, Bonn	01.2010	representative Germany
PD Dr. M. Guba, Munich	01.2014	representative Germany
Prof.Dr. B. Nashan, Hamburg	01.2011	substitute representative Germany
Dr. M. Scherer, Regensburg	01.2012	substitute representative Germany
Dr. L. Kobori, Budapest	01.2012	representative Hungary
Vacancy	04.2015	representative the Netherlands
Dr. J. Ringers, Leiden	01.2012	substitute representative the Netherlands
Dr. D. Stanisavljević, Ljubljana	08.2013	representative Slovenia
Dr. M. Hafner, Ljubljana	01.2012	substitute representative Slovenia
Dr. M. van Rosmalen, Eurotransplant	12.2013	secretary
Dr. J. de Boer, Eurotransplant	12.2013	substitute secretary
Ms. B. Smit, Eurotransplant	01.2015	assistant secretary

PANCREAS ADVISORY COMMITTEE (EPAC)

Name	As of	Remarks
Prof.Dr. W. Schareck, Rostock	12.2005	chairman, representative Board
Dr. C. Margreiter, Innsbruck	12.2015	representative Austria
Prof.Dr. P. Gillard, Leuven	03.2010	representative Belgium
Dr. S. Jadrijević, Zagreb	04.2008	representative Croatia
Dr. A. Kahl, Berlin	01.2006	representative Germany
Dr. H. Arbogast, Munich	03.2009	representative Germany
Dr. P. Schenker, Bochum	11.2014	representative Germany
Dr. K. Kalmar Nagy, Pecs	01.2012	representative Hungary
Dr. J. Ringers, Leiden	04.1998	representative the Netherlands
Dr. A. Tomazič, Ljubljana	01.2007	representative Slovenia
Prof.Dr. F.H.J. Claas, Leiden (ETRL)	08.1994	representative TT Assembly
Dr. J. De Boer, Eurotransplant	01.2014	secretary
Dr. W. Kopp, Eurotransplant	04.2014	substitute secretary
Ms. A. Ramsoebhag, Eurotransplant	07.2015	assistant secretary

THORACIC ADVISORY COMMITTEE (ETHAC)

Name	As of	Remarks
Prof.Dr. G. Laufer, Vienna	10.2001	chairman, representative Board
Prof.Dr. G. Lang, Vienna	01.2012	representative Austria
Prof.Dr. A. Zuckermann, Vienna	01.2008	representative Austria
Prof.Dr. P. Evrard, Brussels (LA)	01.2004	representative Belgium
Dr. M. De Pauw, Ghent	01.2006	representative Belgium
Prof.Dr. Z. Sutlić, Zagreb	04.2008	representative Croatia
Prof.Dr. C. Hagl, Munich	03.2014	representative Germany
Dr. U. Schulz, Bad Oeynhausen	05.2006	representative Germany
Prof.Dr. H. Reichenspurner, Hamburg	02.2008	representative Germany
Dr. C. Knosalla, Berlin	03.2014	representative Germany
Dr. Z. Szabolcs, Budapest	01.2012	representative Hungary
Dr. E. van de Graaf, Utrecht	05.2014	representative the Netherlands
Dr. K. Caliskan, Utrecht	10.2014	representative the Netherlands
Prof.Dr. I. Kneževič, Ljubljana	07.2007	representative Slovenia
Dr. J. Smits, Eurotransplant	07.2002	secretary
Dr. I. Tieken, Eurotransplant	01.2014	substitute secretary
Ms. I. Konter, Eurotransplant	10.2010	assistant secretary

ORGAN PROCUREMENT COMMITTEE (OPC)

Name	As of	Remarks
Prof.Dr. D. Ysebaert, Antwerp	10.2005	chairman, representative Board
Prof.Dr. T. Soliman, Vienna	10.2014	representative Austria
Mr. B. Desschans, Leuven	01.2014	representative Belgium
Dr. D. Mikulić, Zagreb	11.2012	representative Croatia
Prof.Dr. P. Schemmer, Heidelberg	05.2013	representative DSO Germany
Dr. J. Andrassy, Munich	11.2013	representative Germany
Dr. I. Fehervari, Budapest	01.2012	representative Hungary
Ms. J. Hagenaars, Rotterdam	04.2008	representative the Netherlands
Dr. B. Trotovšek, Ljubljana	01.2008	representative Slovenia
Vacancy	10.2015	representative ETKAC
Vacancy	04.2015	representative ELIAC
Dr. J. Ringers, Leiden	04.2002	representative EPAC
Prof.Dr. A. Zuckermann, Vienna	04.2008	representative EThAC
Dr. B. Hepkema, Groningen	01.2014	representative TTAC
Dr. S. Marks, Eurotransplant	01.2014	secretary
Dr. M. van Rosmalen, Eurotransplant	01.2014	substitute secretary
Ms. A. Vijverberg-Poot, Eurotransplant	01.2014	assistant secretary

	INFORMATION	SERVICES	WORKING	GROUP	(ISWG)
--	-------------	-----------------	---------	-------	--------

Name	As of	Remarks
Prof.Dr.M. Guba, Munich	07.2015	chairman, representative Board + ETKAC
Dr. R. Kramar, Wels	09.1995	representative Austria
Mr. W. Van Donink, Antwerp	10.2009	representative Belgium
Dr. M. Knotek, Zagreb	02.2011	representative Croatia
Dr. M. Opgenoorth, Dresden	01.2015	representative Germany
Mr. S. Mihaly, Budapest	01.2012	representative Hungary
Dr. S. Nurmohamed, Amsterdam	01.2012	representative the Netherlands
Dr. G. Čebulc, Ljubljana	05.2010	representative Slovenia
Vacancy		representative ELIAC
Dr. J. Ringers, Leiden	01.2014	representative EPAC
No representative appointed	04.2014	representative EThAC
Prof.Dr. G. Fischer, Vienna	01.2014	representative TTAC
Drs. T. Valkering, Eurotransplant	05.2008	secretary
Drs. M. van Hennik, Eurotransplant	01.2010	assistant secretary

TISSUE TYPING ADVISORY COMMITTEE (TTAC)

Name	As of	Remarks
Prof.Dr. F.H.J. Claas, Leiden (ETRL)	09.1995	chairman, representative Board
Prof.Dr. G. Fischer, Vienna	11.2012	representative Austria
Prof.Dr. M-P. Emonds, Leuven	02.2006	representative Belgium
Prof.Dr. R. Zunec, Zagreb	04.2008	representative Croatia
Dr. C. Schönemann, Berlin	11.2002	representative Germany
Dr. T. Kauke, Munich	11.2014	representative Germany
Dr. A. Szilvasi, Budapest	11.2015	representative Hungary
Dr. F. Hentges, Luxembourg	09.1995	representative Luxembourg
Dr. B. Hepkema, Groningen	01.2014	representative the Netherlands
Dr. B. Vidan Jeras, Ljubljana	12.1999	representative Slovenia
Dr. S. Heidt, Leiden (ETRL)	12.2014	secretary
Dr. J. de Boer, Eurotransplant	01.2014	Eurotransplant liaison officer

ETHICS COMMITTEE (EC)

Name	As of	Remarks
Drs. M. Bos, The Hague	06.2010	chairman, representative Board
Prof.Dr. C. Hörmann, St. Pölten	10.2015	representative Austria
Prof.Dr. S. Van Cromphaut, Leuven	05.2015	representative Belgium
Dr. J. Stoić Brezak, Zagreb	04.2008	representative Croatia
Prof.Dr. R. Viebahn, Bochum	11.2006	representative Germany
Dr. B. Nemes, Debrecen	10.2014	representative Hungary
Dr. M. Siebelink, Groningen	01.2014	representative the Netherlands
Dr. D. Avsec, Ljubljana	01.2014	representative Slovenia
Ms. M. Guijt, Eurotransplant	04.2014	secretary

FINANCIAL COMMITTEE (FC)

Name	As of	Remarks
Dr. E. Homan, Voorhout	05.2015	chairman, representative Board
Mag. O. Postl, Vienna	05.1995	representative Austria
Mr. L. Colenbie, Ghent	03.2010	representative Belgium
Vacancy		representative Croatia
Dr. H. Arbogast, Munich	10.2010	representative Germany
Vacancy	04.2015	representative Hungary
Dr. D. Roelen, Leiden	10.2014	representative the Netherlands
Mr. B. Kušar, Ljubljana	05.2010	representative Slovenia
Drs. T. Valkering, Eurotransplant	05.2008	secretary

2.3 Recommendations approved

In 2015, the following recommendations (R-) and policies (P-) were submitted by the Advisory Committees and approved by the Board of Eurotransplant International Foundation.

Kidney Advisory Committee (ETKAC)

R-KACO3.14 - interruption of dialysis

In case the dialysis of registered patients is (expected to be) interrupted for >90 days the transplant center is responsible to put the patient on no dialysis (ND).

For receiving or maintaining the waiting time, of a dialysis period prior to the interruption of dialysis, the transplant center must send in a request to ET. This rule applies for patients with an interruption period >90 days on the waiting list and for patients with an interruption time >90 days prior to the registration on the waiting list.

R-KACO4.14 - Pediatric waiting list registration

Children either on dialysis or registered on the Eurotransplant waiting list before the age of 16, should be granted a pediatric status until either their first successful graft, or their 30th birthday. In case of a pre-emptive registration on the kidney waiting list, the pediatric status will end on the 17th birthday, if dialysis is not initiated before this date.

Patients on dialysis or registered on the waiting list after their 16th birthday will be granted the pediatric status provided that they are proven to be in maturation. This proof has to be delivered by the transplant center through an X-ray report of the left distal radius by a competent radiologist or pediatric endocrinologist. In this report a statement must be added that the epiphysis of the left distal radius is not closed. The report is to be audited by ET.

The pediatric status will be withdrawn in the event dialysis does not start within one year after registration, but will be restored at time the patient fulfils above criteria for maturation at time of institution of dialysis. In the latter case the pediatric status should be granted until either the first successful graft, or the 30th birthday.

R-KACO5.14 - allocation DCD type II

Donors <65 years (HLA typing must be performed) 000 MM (national only) Donor center offer Extended allocation (EA) – first line extended (national) Second line rescue (international)

Donors ≥65 years Donor center offer Extended allocation (EA) – first line extended (national) Second line rescue (international)

Liver Intestine Advisory Committee (ELIAC)

P-LAC01.15 - High Urgency reconfirmation

In case no liver has been accepted and transplanted in the standard High Urgency (HU) period of 14 days and a reconfirmation of the HU status is requested by the center, a report will be sent to the national Competent Authorities for information biannually.

P-LACO2.15 - Not measurable INR

In case the INR value needed for calculation of the labMELD is not measurable for a reason motivated by the treating physician, an INR equivalent (e.g.derived from the Quick) will be determined by an ELIAC auditor with the use of a conversion table, approved by the ELIAC, which is suitable for the respective coagulation test (different pharmaceuticals companies), that is used in the hospital.

Pancreas Advisory Committee (EPAC)

R-PACO1.14 - Adaptation of pancreas listing criteria

Recipients can be listed for a first transplant on the active pancreas 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 B-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 B-cell deficiency is present.

B-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; before and at 90 or 120 minutes); or
- Mixed Meal Tolerance (before and at 90 or 120 minutes); or
- IV or SC Glucagon (before and at 6 minutes);

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

All original lab results regarding auto-antibodies and/or C-peptide must be sent to Eurotransplant.

Auto-antibody negative recipients without low C-peptide can be listed after EPAC approval.

R-PACO2.14 - Categories of pancreas donors

Pancreas donors can be divided into two categories. These categories may differ from country to country: Donors Aged ≤50 years (for Dutch DBD donors ≤60 years) and BMI <30 Kg/m²

- from Germany: these donors should be allocated to vascularized pancreas transplant recipients only; first according to the EPAS match, if not successful according to the recipient oriented extended allocation respectively rescue allocation scheme.
- from Austria: these donors should be allocated to all pancreas transplant recipients; first to SU recipients, then to the donor/assigned center, then to vascularized pancreas transplant recipients according to the EPAS match, if not successful according to the recipient oriented extended allocation and finally to pancreas islet recipients.
- from Belgium: all DBD donors should be allocated to all pancreas transplant recipients; first to SU recipients, then to vascularized pancreas transplant recipients according to the EPAS match, if not successful according to the recipient oriented extended allocation and finally to pancreas islet recipients. All DCD donors should be allocated to vascularized pancreas transplant recipients with the SU status and thereafter to pancreas islet recipients.
- from all other countries: these donors should be allocated to all pancreas transplant recipients; first to vascularized pancreas transplant recipients according to the EPAS match, if not successful according to the recipient oriented extended allocation and finally to pancreas islet recipients.

Donors Aged >50 years (for Dutch DBD donors >60 years) and/or BMI ≥30Kg/m²

- from Germany: these donors should be allocated to vascularized pancreas transplant recipients only; according to the recipient oriented extended allocation respectively rescue allocation scheme.
- from all other countries: these donors should be allocated to vascularized pancreas transplant recipients with the SU status and thereafter to pancreas islet recipients.

Thoracic Advisory Committee (EThAC)

R-ThACO1.15 - TLC matching

Lung allografts from donors aged ≥6 years or older will be allocated to transplant candidates based on their matching total lung capacities, as indicated in the donor profiles. Lung allografts from donors under the age of 6 years will be allocated to transplant candidates based on their matching heights, as indicated in the donor profiles.

P-ThACO2.15 - LAS Procedures

- Blood gases for evaluation by LAS must adhere to all of the following criteria
- Blood gases should be of arterial or capillary origin;
- Blood gases at rest must be entered. Blood gases during or after exercise, or at night are not acceptable;
- Blood gases should be performed after titration of oxygen flow and adjusted by pulse oximetry to a target oxygen saturation of 90-92%;
- Blood gases with a p02 >100 mmHg (>13.3 KPa) should be repeated with oxygen titration to a target oxygen saturation of 90-92%.
- The last (in date and time) oxygen saturation measured by pulse oximetry after oxygen titration and the corresponding oxygen flow or fraction after titration should be recorded on the blood gas report.
- High flow nasal cannula

High flow (HF)- oxygen therapy (=HF nasal cannula (HFNC)) is defined as an oxygen flow >15L/min; In patients with HF-oxygen therapy, oxygen saturation (SpO₂) should be measured by pulse oximetry continuously including documentation of SpO₂ and oxygen fraction;

In case of a titrated oxygen flow of more than 15L/min, the oxygen fraction should be entered. The maximum allowable value in the data form should be reset from 26 to 15L/min;

Oxygen titration also applies to ventilated patients.

Supplemental oxygen

The most recent value in date and time of the amount of minimum oxygen needed to obtain an SpO₂ of 90-92% at rest must be entered.

Highest-lowest PCO2 values

Irrespective of the supplemental oxygen setting the highest and lowest pCO₂ value should be entered. For highest and lowest pCO₂ only blood gases at rest within the last three months should be used. Venous, transcutaneous blood gases and blood gases during exercise are not allowed to use for pCO₂ trend.

6-MWT

The 6MWT should be performed with the flow rate needed during exercise.

Organ Procurement Committee (OPC)

P-OPCO1.15 - CMV Testing

In CMV testing, the anti-CMV IgM is no longer required for thoracic and / or abdominal organs. The serological testing for only CMV IgG is sufficient and this test result can be used for matching in the thoracic match and allocation.

Tissue Typing Advisory Committee (TTAC)

P-TTACO1.13 - Abandoning prospective local cross match for non-sensitized patients

A prospective cross-match at the transplant center is not required for non-sensitized patients if the transplantation center formulates and adopts a written procedure. The cross match, however, must be done retrospectively and the results as well as the course of the transplantation must be filled.

P-TTACO1.15 – Inclusion criteria for the Acceptable Mismatch program

Only highly sensitized patients with a chance <2% to find a compatible donor are eligible for inclusion in the Acceptable Mismatch program.

R-TTACO2.15 - Choice for AM vs ETKAS and/or ESP

A highly sensitized patient can either receive a donor kidney via the Acceptable Mismatch waiting list or via the ETKAS and/or ESP waiting list. Double listing for AM and other kidney allocation programs is not possible.

Financial Committee (FC)

P-FC01.15 - Approval Annual Accounts 2014

The financial Committee recommends the Board to approve the Annual accounts 2014.

P-FC02.15 - Discharge of treasurer and Management Team

The Financial Committee recommends the Board to discharge the treasurer and the Management Team from their financial duties of 2014.

P-FC03.15 - Exclusion from 2016 budget of transport costs for pay-back livers

The financial committee recommends the Board to await the results of the research on the problem of transport costs for pay-back livers and exclude this item from the 2016 budget.

P-FC04.15 - Approval of request for additional amount of money

The Financial Committee recommends the Board to approve the request for an additional amount of 60k€ as compensation for the deficit in the budget instead of compensating this amount from the reserves.

P-FC06.15 - Approval of budget proposal 2016

The Financial Committee recommends the Board to approve the budget proposal for 2016.

Eurotransplant office

P-ET01.15 - Definition of a center offer in standard allocation

Upon a standard center-oriented organ allocation (excluding rescue allocation) the transplant center can select a recipient deemed suitable provided that:

- the transplant center has capacity for transplantation of the organ involved and
- the recipient is selected via the match (according to the blood group rules of the match list involved) regardless of the profile filtering.

2.4 Report of the Eurotransplant office

This chapter provides a summary of developments at the ET office in Leiden, the Netherlands, as well as an overview of activities by the ET office staff in 2015. An important step for the ET office has been the appointment of a new general director in 2015. Dr. Peter Branger commenced his position on April 1, 2015.

The ET 'Basic Mandate' comprises responsibilities in the areas of allocation services, development of allocation, external networking and supporting processes. In 2015, the following results were achieved and activities were performed in the areas covered by the 'Basic Mandate':

Allocation services

In 2015, electronic document processing was implemented in the allocation duty office. This means that all documents in running allocation processes sent by e-mail or fax to the allocation office are being processed in electronic form. This is a first step in realizing future electronic document processing (paperless procedures) and a digital medical dossier. With this implementation exchanging electronic information between centers and ET is facilitated and a more efficient document processing has been realized.

As part of the business continuity management process, in 2015 the emergency fall back procedures in the allocation process have been reviewed, evaluated and updated. These procedures are essential to ensure that the allocation process can continue in alternative ways in the event ET systems will temporarily be unavailable due to an unforeseen event (calamity). In 2016, all updated procedures and protocols will be tested during a calamity exercise.

In 2015, a new internal coordinator for the flex staff (medical students) has been appointed. One allocation duty officer left the organization and two new junior allocation officers joined the organization. They are currently following the internal education, training and certification program. A group of allocation officers that regularly supports journalist visits by explaining their work for radio or television programs participated in a media training workshop.

Development of allocation

Supporting the work of the Eurotransplant Advisory Committees (ACs) in the further development of allocation rules and evaluation of implemented allocation rules required a lot of effort of the teams in Allocation Development in 2015. Extensive data on waiting list, donation and transplantation for the different organs were assembled, analyzed and delivered to the ACs to facilitate their work. In the area of follow-up data collection, much effort was put into further increasing completeness and quality of the data. The electronic exchange of data with the European Liver Transplant Registry (ELTR) which commenced end of 2014 supports achieving higher completeness rates. This will further improve the data base for the development of the liver allocation rules. Additional opportunities to expand data exchange with other registries will be further researched in the coming

The Eurotransplant Senior Program (ESP) for transplantation of kidneys from donors of ≥65 years to recipients in the similar age category, is now operational for 16 years. The evaluation of this program was started in 2015 and will continue in 2016. The preliminary first results show that the outcome for recipients in this program might be positive. Nevertheless more data have to be analyzed and Eurotransplant strives to have a high completeness rate of the data in order to achieve reliable results.

With over 10.000 patients on the kidney waiting list and a donor population which is continuously growing older, the kidney allocation scheme needs to be adapted. Elderly organs are not naturally marginal organs, but due to the age of the organ specific changes might be present, which need to be taken into account to find the best suitable recipient. Eurotransplant is continuously working on that in its kidney committee together with the experts from all Eurotransplant member states. In 2015, together with experts in Information Technology, simulations of a new kidney allocation scheme were carried out to examine its effects. Additional and more detailed simulation will be performed in 2016.

The preparations for the implementation of the new Cardiac Allocation Score (CAS), which will replace the existing HU-allocation system in Germany have further been evolved in 2015.

Availability of complete, reliable and high quality data are a prerequisite for development of allocation. The provision of access to these data for transplant centers to enable them to obtain more insight in the centerspecific patient and graft survival is of great importance. In 2015 Eurotransplant has been able to support an increasing number of external allocation development related studies from transplant centers, that were approved by the ACs. An overview of all recommendations and policies for implementation of new or adapted allocation rules that were approved by the Board of Eurotransplant in 2015, is available in chapter 2.3 of this Annual Report.

External networking

ET has an important role in bringing transplant professionals in all ET member states together to meet each other, discuss latest developments and define improvements in organ donation, allocation and transplantation. The ET Annual and Winter Meetings attracted great interest and were well received by the participants. For the first time in 2015, meeting summaries including photo and video impressions were made available as online meeting magazines. Presentations, slide kits and statistics are available on the ET member site. In 2015, the number of visits to the online statistics and slide-kit libraries further increased.

ET has a small communication department that plays an advisory and supporting role in external networking. The communication co-workers are responsible for up-to-date informative and attractive public and member websites, publication of newsletters, information on projects and innovation in working procedures and software applications as well as the promotion and the online communication regarding the ET Annual and Winter Meeting.

Dealing with media in a transparent and reliable manner continued to require much attention in 2015. More than 200 questions from journalists were answered and recordings took place for broadcasts in television and radio programs. Various interviews for articles in newspapers and background information to journalists were provided throughout the year. ET social media channels – mainly twitter – were appreciated by stakeholders to remain up-to-date on news from the organization and as a platform for dialogue. Furthermore, in 2015 a new company

film titled 'More than a Match' was launched. This 13-minutes video - that is available in all languages spoken in the ET member countries - provides an attractive and informative explanation of the work of ET for the benefit of patients.

To support cooperation and sharing of best practices in public information and communication on the topic of organ donation and transplantation, in 2015 again an informal ET Communicators Get-Together was organized. Communication experts from the ET member states gathered in Leiden to exchange new developments and issues in media communication and information campaigns. This group also discussed communication practices and quidelines in case of unexpected events (emergencies). Eurotransplant developed a crisis communication infrastructure - including a fallback website - that was implemented in 2015.

The ET staff in Leiden office plays an important role in facilitating international cooperation and the provision of support and advice to our working partners in hospitals and tissue typing laboratories in ET member states. To ensure they are well able to fulfill this task, it is important that the staff is well-informed on new developments and issues in our working field. To support staff in quickly finding information and being timely informed on new developments, a new digital staff newsletter was introduced in 2015. This newsletter optimally facilitates cross media links to the intranet, where up-to-date project information, working guidelines and procedures are available for employees.

Supporting processes

ET's supporting processes are essential functions to run the daily operations and improvement processes in a fluent and innovative way. Supporting activities are performed by the departments of finance, infrastructure and information services.

Financial management

In 2015, much effort was put into diminishing backlogs in collecting invoices built up in previous years due to personnel problems. These problems were solved and in 2015 the invoicing process was on schedule again. The staff of the finance department participated in the introduction of a new hour registration and planning application, as well as in the development of a new relation management registration system. As the capacity of the financial department remains limited compared to the workload, an evaluation of the capacity has been scheduled for 2016. In the middle of 2015 Prof. A. van Montfort retired as treasurer and was succeeded by Dr. E. Homan. In November 2015, the budget for 2016 was presented to the financing authorities. The budget included the project budget for the renewal of the ENIS system (CORE), which will also be part of the budgets for 2017 and 2018.

Infrastructure

High availability and reliability of IT-systems are essential for the ET services and especially for the allocation processes. The infrastructure department plays a major role in keeping the systems secure. In 2015, the system back-up and recovery infrastructure was completely renewed to keep a high availability and security of the infrastructure. All hardware was replaced and the disaster recovery location in the city of Delft was connected by a high speed internet service. Disaster recovery plans have been developed and tested. Furthermore, an emergency fallback website was added to the IT-infrastructure, to facilitate communication with users in case the regular website is not available during system failure.

In 2015, electronic document processing was introduced in the allocation process. The team of the infrastructure department facilitated the implementation of this new working method with an additional server and new computer screens in the allocation duty office.

To safeguard the IT-infrastructure and systems for now and in the future, a new firewall system has been selected in 2015 and will be implemented in 2016. A security assessment of all systems has been scheduled, which will lead to further actions. The infrastructure department also supported the ET Identity and Access Management (ETIAM) project. The result of this project will be a solid and transparent process of providing users access to the ET applications.

The infrastructure department facilitated the implementation of a number of new applications for the Leiden office in 2015. Examples of new applications are a helpdesk application for technical system failures and support questions as well as a new hour registration and scheduling application.

In preparation of the retirement of the manager infrastructure in 2016, a new team manager was appointed who took up his new role on September 1, 2015.

Information services

In 2015, nine projects and nine recommendations were implemented. These included – amongst others – the liver match change in allocation (and a technical update), implementation of the first audit processes in the ET audit system and preparations were made for introduction of a future Cardiac Allocation Score (CAS). Also in 2015, a business continuity and disaster recovery plan were developed and a new Customer Relation Management (CRM) system was selected to optimize processing of information about our relations. Furthermore, the communication regarding releases – wherein new versions of software are implemented – was further improved to ensure users of the ET applications are well aware of upcoming and implemented changes. In addition, the first permanent user groups were formed to provide feedback and input during the development phase for new or adapted applications.

As a consequence of the large amount of projects and implementations that were delivered in 2015, the capacity for execution of maintenance and improvements to the applications remained limited. The growing backlog of recommendations – there are currently more than 50 recommendations awaiting approval by one or more national competent authorities of the ET member states – is a growing concern for the ambitious project portfolio.

The preparations of the CORE program to renew the current ENIS system, required a lot of effort and capacity of the information services team in 2015. CORE comprises of completely rebuilding the modules for patient registration and waiting list status management, lab results, allocation and donor reporting. The CORE project has a time span of three years (2016 - 2019). In the preparatory phase in 2015, a business case, program plan and high level architecture were developed.

Quality Assurance & Safety 2.5

In 2015 quality management focused on a number of topics: performing risk analyses; start of a project to renew the quality management system and further steps to increase the level of information security.

Incidents

With regard to the incident management process emphasis was put on follow-up and feedback after an incident report. The staff was made aware of the added value of incident reporting as a mean of improving the processes by identifying possible problems and monitoring causes.

	Reported ne	ear-incidents	and incidents	;		
Year	2015	2014	2013	2012	2011	2010
Total	382	424	406	362	482	478

The total number of reported incidents has decreased slightly compared to 2014. The lower number of incident reports is an acceptable fluctuation and has no specific cause. All departments were encouraged to report all incidents, even in case of minor errors, in order for the internal incident committees to gain a more complete overview of all errors and (potential) risk areas in the organization's processes. The implementation of the new quality management system with a state of the art incident reporting module may help to further increase the willingness to report incidents.

A cause analysis was performed for all internal incidents (incidents in the processes ET is primarily responsible for). The majority (73%) of the internal incidents are caused by human errors in manual administrative procedures and communication disorders. Organizational errors could be identified as primary cause in 13% of the incidents. 14% of the incidents had equipment failure as primary cause. These percentages are equal to previous years and show no peculiarities.

Complaints

In 2015, 28 complaints were registered at ET. This number is lower than in 2014, but reflects the trend of previous years. 15 complaints concerned dissatisfaction with the services of ET. In 8 cases ET indeed made a mistake or did not deliver the optimal level of services. Immediate actions have been taken by the involved departments to investigate these complaints and find a solution in cooperation with the reporter of the complaint. The other 13 reported complaints were not about the services of ET itself. They concerned third parties complaining about each other to ET. These complaints were addressed in mutual communication among the parties involved and if necessary passed on to national authorities.

	Reported com	ıplaints			
Year	2015	2014	2013	2012	2011
Total	28	36	25	25	27

Audits by third parties

In October 2015 the intermediate examination of ET by Bureau Veritas took place according to the ISO 9001:2008 standard. No remarks were made, no deviations were found and the Veritas auditor complimented ET on the enthusiastic and quality minded attitude of the staff.

Due to organizational issues the third party audit of the Prüfungskommission of the German Bundesärztekammer has not been performed in 2015. The audit is rescheduled for 2016.

The Dutch Transplantation Foundation (NTS) performed a third party audit to assess the service levels as laid down in the mutual agreement. This audit showed that ET is working according to the agreed upon standards. No serious deviations from the agreement were reported.

Internal audits

In the internal audit process the switch in method from norm-based auditing to process-oriented auditing which was made in 2014 has proven to be successful in 2015. Focusing on end-to-end processes enables the audit teams to evaluate risks, incidents and process outcome in a more structured manner. In three clusters internal auditors evaluated five larger internal end-to-end processes in 2015.

The internal quality cycle (PDCA) ensures a systematic monitoring of proposed improvement measures based on a combination of assessed risks, reported incidents, complaints and internal and external audit results.

Information security

Based on the requirements of the ISO-27001 for information security and the ET Information Security Policy, the following projects have been in the focus of attention in 2015 as part of the Information Security program (iSec): 'Business Continuity Management'; Integration of the information security management system (ISMS) into the existing quality management system of ET and 'Identity & Access Management' (access of users to the ET information systems).

"Thanks to cross border cooperation in organ exchange Eurotransplant has been contributing significantly to the quality of medical care for some years now. To be able to continue this task a solid financial basis is required. We are ready to make our contribution to this."



Dr. Wulf-Dietrich Leber, Division Manager Hospitals The National Association of Statutory Health Insurance Funds (GKV-Spitzenverband)

Transplant programs and their delegates in 2015

Definitions

(according to Articles of Association of Stichting Eurotransplant International Foundation, version January 19, 2015)

Program:

Any of the following transplantation areas:

kidney, heart, lungs, liver, intestine, pancreas or any part of a specific organ and/or Tissue Typing, which have the approval of the competent and relevant authorities. (Article 2)

Delegate:

Each program director shall have the right to delegate up to two natural persons in the Assembly for each program in which it performed transplantations during the preceding year. The number of delegates that may be assigned per program shall depend on the number of votes: programs with one vote shall send one delegate, programs with two votes may either send one delegate having two votes or two delegates having one vote each (Article 5.1). On each reference date, in accordance with the previously mentioned, the number of persons delegated (the "delegates") by a center in the Assembly shall be re-determined (Article 5.2).

(If no name is indicated, then no delegate was appointed by transplant/tissue typing program or it concerns a new program in 2015).

Renal Programs Delegates

Austria

GA	Medizinische Universitätsklinik, Graz	H. Müller / A. Rosenkranz
IB	Chirurgische Universitätsklinik, Innsbruck	C. Bösmüller / R. Oberhuber
0E	Krankenhaus der Elisabethinen, Linz	R. Függer / R. Oberbauer
WG	Universitätsklinik für Chirurgie, Wien	G. Berlakovich / R. Oberbauer

Belgium

AN	Universitair Ziekenhuis Antwerpen, Edegem	D. Ysebaert
BJ	Universitair Ziekenhuis Brussel, Campus Jette	J. Sennesael
BR	Université Libre de Bruxelles, Hôpital Erasme, Bruxelles	N. Broeders / A. Lemoine
GE	Universitair Ziekenhuis, Gent	P. Peeters / S. Van Laecke
LA	Cliniques Universitaires St. Luc, Bruxelles	T. Darius / M. Mourad
LE	Universitair Ziekenhuis Gasthuisberg, Leuven (pediatric)	N. Knops
LG	Centre Hospitalier Universitaire, Liège	N. Meurisse / L. Weekers
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	D. Kuypers

Croatia

Croatia		
OS	University Hospital, Osijek	
RI	University Clinical Hospital, Rijeka	S. Zivcic-Cosic
ZA	University Clinical Hospital, Zagreb	
ZM	Clinical Hospital Zagreb Merkur, Zagreb	M. Knotek
Germany	,	
AK	Universitätsklinikum, Aachen	A. Mühlfeld
AU	Zentralklinikum, Augsburg	H. Weihprecht
BB	Universitätsklinikum Knappschaftskrankenhaus, Bochum	P. Schenker
BC	Charité-Campus Virchow Klinikum, Berlin	U. Gerlach / R. Öllinger
BE	Universitätsklinikum Benjamin Franklin, Berlin	M. van der Giet
ВМ	Kliniken der Freien Hansestadt, Bremen	
В0	Universitätsklinikum, Bonn	R. Woitas
DR	Universitätsklinikum Carl Gustav Carus, Dresden	M. Opgenoorth / J. Putz
DU	Universitätsklinikum, Düsseldorf	K. Ivens
ER/NB	Universitätsklinikum Erlangen-Nürnberg, Erlangen	H. Apel / K. Heller
ES	Universitätsklinikum, Essen	
FD	Klinikum Fulda, Fulda	M. Haubitz
FM	Universitätsklinikum, Frankfurt	I. Hauser
FR	Universitätsklinikum, Freiburg	P. Pisarski
GI	Universitätsklinikum Gießen und Marburg, Gießen	H. Karakizlis
HA	Universitätsklinikum, Halle	K. Weigand
НВ	Universitätsklinikum, Heidelberg	C. Morath
HG	Universitätsklinikum Hamburg-Eppendorf, Hamburg	M. Koch / F. Thaiss
НМ	Nephrologisches Zentrum Niedersachsen, Hann. Münden	P. Weithofer
H0	Klinikum der Medizinischen Hochschule, Hannover	N. Richter / F. Lehner
HS	Universitätsklinikum des Saarlandes, Homburg/Saar	U. Sester
JE	Universitätsklinikum, Jena	C. Rüster
KI	Universitätsklinikum Schleswig-Holstein, Kiel	T. Feldkamp
KL	Uniklinik Köln-Lindenthal, Köln	D. Stippel
KM	Krankenhaus Merheim, Köln-Merheim, Köln	W. Arns
KK	Klinik für Kinderheilkunde der Universität Köln-Lindenthal, Köln	W. Arns
KS	Westpfalz-Klinikum, Kaiserslautern	C. Mönch
LP	Universitätsklinikum, Leipzig	H-M. Tautenhahn
LU	Universitätsklinikum Schleswig-Holstein, Lübeck	M. Nitschke
MA	Universitätsmedizin, Mannheim	B. Krüger
MH	Klinikum rechts der Isar, München	U. Heemann
ML	Klinikum der Universität, München	M. Guba / M. Stangl
MN	Universitätsklinikum, Münster	B. Suwelack / T. Vogel
MR	Universitätsklinikum Gießen und Marburg, Marburg	J. Hoyer
MZ	Universitätsmedizin der Johannes-Gutenberg-Universität, Mainz	B. Schamberger
RB	Universitätsklinikum, Regensburg	C. Böger
RO	Universitätsklinikum, Rostock	0. Hakenberg
ST	Katharinenhospital, Stuttgart	S. Lempp
TU	Universitätsklinikum, Tübingen	S. Nadalin
WZ	Universitätsklinikum, Würzburg	K. Lopau
Hungary		
BS	Semmelweis Medical University, Budapest	A. Remport / L. Wagner
DB	Medical Center of the University, Debrecen	
PC	Medical Faculty of the University, Pecs	K. Kalmar-Nagy
SZ	Medical Center of the University, Szeged	E. Szederkenyi

The Netherlands

AE	Emma Kinderziekenhuis, Amsterdam	
AV	VU Medisch Centrum, Amsterdam	F. van Ittersum / S. Nurmohamed
AW	Academisch Medisch Centrum, Amsterdam	F. Bemelman
GR	Academisch Ziekenhuis, Groningen	S. Berger
LB	Leids Universitair Medisch Centrum, Leiden	J. de Fijter
MS	Academisch Ziekenhuis, Maastricht	M. Christiaans
NY	Universitair Medisch Centrum St. Radboud, Nijmegen	L. Hilbrands / M. Warlé
RD	Erasmus Medisch Centrum, Rotterdam	M. Betjes
RS	Sophia Kinderziekenhuis, Rotterdam	K. Cransberg
UT	Universitair Medisch Centrum, Utrecht	F. van Reekum / A. van Zuilen

Slovenia

University Medical Center, Ljubljana G. Mlinsek

Heart Programs Delegates

Austria

GA	Chirurgische Universitätsklinik, Graz	A. Wasler
----	---------------------------------------	-----------

Chirurgische Universitätsklinik, Innsbruck ΙB

WG Universitätsklinik für Chirurgie, Wien A. Zuckermann

Belgium

AN	Universitair Ziekenhuis Antwerpen, Edegem	I. Rodrigus
AS	Onze Lieve Vrouw Ziekenhuis, Aalst	B. Stockman
BR	Université Libre de Bruxelles, Hôpital Erasme, Bruxelles	G. Van Nooten
GE	Universitair Ziekenhuis, Gent	F. Caes
LA	Cliniques Universitaires St. Luc, Bruxelles	O. Van Caenegem
LG	Centre Hospitalier Universitaire, Liège	
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	J. Van Cleemput

Croatia

ZA	University Clinical Hospital, Zagreb	
ZD	Clinical Hospital Dubrava, Zagreb	R. Blazekovic

Germany

AK	Universitätsklinikum, Aachen	A. Moza
BA	Herz- & Diabeteszentrum Nordrhein-Westfalen, Bad Oeynhausen	U. Fuchs / U. Schulz
BD	Deutsches Herzzentrum, Berlin	F. Schönrath
ВН	Kerckhoff Klinik, Bad Nauheim	M. Richter
DU	Universitätsklinikum, Düsseldorf	U. Boeken
ER/NB	Universitätsklinikum Erlangen-Nürnberg, Erlangen	
ES	Universitätsklinikum, Essen	
FM	Universitätsklinikum, Frankfurt	A. Beiras-Fernandez

	omversitätskimkum, Essen	
FM	Universitätsklinikum, Frankfurt	A. Beiras-Fernandez
FR	Universitätsklinikum, Freiburg	M. Berchtold-Herz
GI	Universitätsklinikum Gießen und Marburg, Gießen	J. Thul
GO	Klinikum der Georg-August-Universität, Göttingen	N. Teucher
НВ	Universitätsklinikum, Heidelberg	A. Ruhparwar
HG	Universitätsklinikum Hamburg-Eppendorf, Hamburg	F. Wagner
H0	Klinikum der Medizinischen Hochschule, Hannover	M. Avsar
JE	Universitätsklinikum, Jena	T. Doenst
KI	Universitätsklinikum Schleswig-Holstein, Kiel	A. Reinecke
KL	Uniklinik Köln-Lindenthal, Köln	P. Rahmanian
LP	Universitätsklinikum, Leipzig	J. Garbade
ML	Klinikum der Universität, München	R. Schramm

MN	Universitätsklinikum, Münster	J. Sindermann
RB	Universitätsklinikum, Regensburg	S. Hirt
WZ	Universitätsklinikum, Würzburg	I. Aleksic
Hungary		7.0
BG	Gottesegen György National Cardiology Institute, Budapest	Z. Prodan
BS	Semmelweis Medical University, Budapest	
The Neth	perlands	
GR	Academisch Ziekenhuis, Groningen	J. Brügemann
RD	Erasmus Medisch Centrum, Rotterdam	0. Birim
UT	Universitair Medisch Centrum, Utrecht	N. de Jonge
01	onversitan realisan centrality officent	iii de oonge
Slovenia		
LO	University Medical Center, Ljubljana	I. Knezević / B. Vrtovec
		•
Luna D	V- 014-14-0	Dologotos
Lung P	rograms	Delegates
Austria		
IB	Chirurgische Universitätsklinik, Innsbruck	
WG	Universitätsklinik für Chirurgie, Wien	C. Aigner / G. Lang
Belgium		
AN	Universitair Ziekenhuis Antwerpen, Edegem	
BR	Université Libre de Bruxelles, Hôpital Erasme, Bruxelles	C. Knoop / Y. Sokolow
LA	Cliniques Universitaires St. Luc, Bruxelles	
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	D. Van Raemdonck
Germany		
BA	Herz- & Diabeteszentrum Nordrhein-Westfalen, Bad Oeynhausen	A. Renner
BD	Deutsches Herzzentrum, Berlin	D. Kemper / C. Knosalla
ES	Universitätsklinikum, Essen	M. Kamler / N. Pizanis
FR	Universitätsklinikum, Freiburg	P. van Samson-Himmelstjema
GI	Universitätsklinikum Gießen und Marburg, Gießen	K. Mayer
HG	Universitätsklinikum Hamburg-Eppendorf, Hamburg	T. Deuse
H0	Klinikum der Medizinischen Hochschule, Hannover	G. Warnecke
HS	Universitätsklinikum des Saarlandes, Homburg/Saar	F. Langer
JE	Universitätsklinikum, Jena	T. Sandhaus
KI	Universitätsklinikum Schleswig-Holstein, Kiel	A. Haneya
KL	Uniklinik Köln-Lindenthal, Köln	P. Rahmanian
LP	Universitätsklinikum, Leipzig	S. Lehmann
ML	Klinikum der Universität, München	C. Neurohr
MN	Universitätsklinikum, Münster	
MZ	Universitätsmedizin der Johannes-Gutenberg-Universität, Mainz	
The Neth	nerlands	
GR	Academisch Ziekenhuis, Groningen	W. van der Bij / M. Erasmus
RD	Erasmus Medisch Centrum, Rotterdam	J. Bekkers
UT	Universitair Medisch Centrum, Utrecht	E. van de Graaf

Liver Programs Delegates Austria GA Chirurgische Universitätsklinik, Graz D. Kniepeiss Chirurgische Universitätsklinik, Innsbruck M. Maglione / S. Schneeberger ΙB Universitätsklinik für Chirurgie, Wien G. Berlakovich / T. Soliman WG Belgium D. Ysebaert AN Universitair Ziekenhuis Antwerpen, Edegem BR Université Libre de Bruxelles, Hôpital Erasme, Bruxelles T. Gustot / V. Lucidi GF Universitair Ziekenhuis, Gent X. Rogiers LA Cliniques Universitaires St. Luc, Bruxelles N. Jabbour / J. Lerut LG Centre Hospitalier Universitaire, Liège O. Detry / N. Meurisse LM Universitair Ziekenhuis Gasthuisberg, Leuven D. Monbaliu / J. Pirenne Croatia 7A University Clinical Hospital, Zagreb M. Premuzic ZM Clinical Hospital Merkur, Zagreb B. Kocman Germany ΑK Universitätsklinikum, Aachen M. Schmeding / F. Ulmer ВС Charité-Campus Virchow Klinikum, Berlin R. Öllinger / A. Pascher B0 Chirurgische Universitätsklinik, Bonn J.-M. Pollok Universitätsklinikum Erlangen-Nürnberg, Erlangen R. Croner ER/NB Universitätsklinikum, Essen A. Paul ES Universitätsklinikum, Frankfurt A. Schnitzbauer FM ΗВ Universitätsklinikum, Heidelberg P. Schemmer HG Universitätsklinikum Hamburg-Eppendorf, Hamburg L. Fischer / B. Nashan Н0 Klinikum der Medizinischen Hochschule, Hannover F. Lehner / N. Richter Universitätsklinikum des Saarlandes, Homburg/Saar HS JΕ Universitätsklinikum, Jena Universitätsklinikum Schleswig-Holstein, Kiel F. Braun ΚI Uniklinik Köln-Lindenthal, Köln R. Wahba ΚI H-M. Tautenhahn ΙP Universitätsklinikum, Leipzig MB Klinikum Otto-von-Guericke Universität, Magdeburg J. Arend ML Klinikum der Universität, München M. Guba

ΜZ Universitätsmedizin der Johannes-Gutenberg-Universität, Mainz

M. Loss / M. Scherer Universitätsklinikum, Regensburg RB

Universitätsklinikum, Rostock R0

Universitätsklinikum, Münster

S. Nadalin TH Universitätsklinikum, Tübingen WZ Universitätsklinikum, Würzburg I. Klein

Hungary

MN

G. Huszty / J. Szabo RS Semmelweis Medical University, Budapest

The Netherlands

GR Academisch Ziekenhuis, Groningen A. van den Berg / R. Porte LB Leids Universitair Medisch Centrum, Leiden J. Ringers W. Polak RDErasmus Medisch Centrum, Rotterdam

Slovenia

10 University Medical Centre, Ljubljana D. Stanisvljević

H-J. Schmidt

Pancrea Austria	s (Islet) Programs	Delegates
GA	Chirurgische Universitätsklinik, Graz	H. Müller
IB	Chirurgische Universitätsklinik, Innsbruck	P. Hengster / C. Margreiter
WG	Universitätsklinik für Chirurgie, Wien	T. Soliman
Belgium		
AN	Universitair Ziekenhuis Antwerpen, Edegem	
BP	JDRF Center for Beta Cell Therapy, Brussel	
LA	Cliniques Universitaires St. Luc, Bruxelles	L. De Pauw
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	P. Gillard
Croatia		
ZM	Clinical Hospital Merkur, Zagreb	S. Jadrijevic
Germany		
BB	Universitätsklinikum Knappschaftskrankenhaus, Bochum	P. Schenker
BC	Charité-Campus Virchow Klinikum, Berlin	A. Kahl
DR	Universitätsklinikum Carl Gustav Carus, Dresden	S. Ludwig
ER/NB	Universitätsklinikum Erlangen-Nürnberg, Erlangen	
ES	Universitätsklinikum, Essen	A. Paul
FM	Universitätsklinikum, Frankfurt	G. Woeste
FR	Universitätsklinikum, Freiburg	P. Pisarski
НВ	Universitätsklinikum, Heidelberg	P. Schemmer
HG	Universitätsklinikum Hamburg-Eppendorf, Hamburg	J. Li
Н0	Klinikum der Medizinischen Hochschule, Hannover	F. Lehner / N. Richter
JE	Universitätsklinikum, Jena	F. Rauchfuss
KI	Universitätsklinikum Schleswig-Holstein, Kiel	F. Braun
KL	Uniklinik Köln-Lindenthal, Köln	D. Stippel
KM	Krankenhaus Merheim, Köln-Merheim, Köln	W. Arns
KS	Westpfalz-Klinikum, Kaiserslautern	C. Mönch
LP	Universitätsklinikum, Leipzig	H-M. Tautenhahn
MH	Klinikum rechts der Isar, München	E. Matevossian
ML	Klinikum der Universität, München	J. Andrassy
MN	Universitätsklinikum, Münster	H-J. Schmidt
MR	Universitätsklinikum Gießen und Marburg, Marburg	J. Hoyer
MZ	Universitätsmedizin der Johannes-Gutenberg-Universität, Mainz	
RB	Universitätsklinikum, Regensburg	M. Loss
RO	Universitätsklinikum, Rostock	W. Schareck
TU	Universitätsklinikum, Tübingen	S. Nadalin
Hungary		
BS	Semmelweis Medical University, Budapest	L. Piros
PC	Medical Faculty of the University, Pecs	K. Kalmar-Nagy
The Neth	erlands	
GR	Academisch Ziekenhuis, Groningen	R. Pol
LB	Leids Universitair Medisch Centrum, Leiden	J. Ringers
Slovenia		
L0	University Medical Centre, Ljubljana	A. Tomazic

Tissue T	yping Laboratories	Delegate
GA	Universitätsklinik, Abteilung für Transfusionsmedizin und Immunohämatologie, Graz	U. Posch
IB	Universitätsklinik, HLA Labor, Innsbruck	A. Mühlbacher
0L	Allgemeines Krankenhaus, Blutzentrale, Linz	C. Gabriel
OW	Allgemeines Krankenhaus, HLA Labor, Wels P. Hoc	hgatterer-Rechberger
WG	Institut für Blutgruppenserologie, Wien	G. Fischer
Belgium		
BJ	Universitair Ziekenhuis Brussel, Bloedtransfusiecentrum Jette	C. Demanet
BR	Université Libre de Bruxelles, Hôpital Erasme, Tissue typing laboratory, Bruxelles	M. Toungouz
LA	Cliniques Université de Louvain, Tissue typing laboratory, Bruxelles	M. Toungouz
LG	Laboratoire des Groupes Sanguins, Liège	G. Maggipinto
ME	Rode Kruis Vlaanderen, Laboratory for Histocompatibility & Immunogenetics (HILA), Mech	:
Croatia RI	Clinical Hospital Center, Tissue Typing Laboratory, Rijeka	
ZA	University Clinical Hospital, Zagreb	R. Zunec
ZA	oniversity clinical hospital, Zagreb	N. Zullec
Germany		
AK	Universitätsklinikum, Transfusionsmedizin, Aachen	K. Angert
BC	Charité-Campus Virchow Klinikum, Institut für Transfusionsmedizin, Berlin	C. Schönemann
DR	DRK Blutspendedienst Nord Ost, Dresden	E. Urban
DU	Institut für Transplantationsdiagnostik und Zelltherapeutika, Düsseldorf	J. Rox
ER/NB	Institut für Klinische Immunologie, Erlangen	
ES	Universitätsklinikum, Institut für Immunologie, Essen	F. Heinemann
FM	Immunohaematologie, Blutspendedienst Hessen, Frankfurt	C. Seidl
FR	Blutspendedienst, Labor für Gewebetypisierung, Freiburg	F. Emmerich
GI	Institut für Klinische Immunologie und Transfusionsmedizin, Gießen	S. Wienzek-Lischka
GO	Klinikum der Universität, HLA Labor, Göttingen	T. Legler
HA	Institut für Pathologische Biochemie, Interdisziplinäres Typisierungslabor, Halle	W. Altermann
HB	Institut für Immunologie und Serologie, Heidelberg	C. Süsal
HG HO	Universitäts-Krankenhaus Eppendorf, HLA Labor, Hamburg Klinikum der Medizinischen Hochschule, Immunohaematologie/Blutbank, Hannover	M. Marget M. Hallensleben
JE	Universitätsklinikum, Transfusionsmedizin, Jena	S. Schröder
KM	Institut für Transfusionsmedizin, Köln-Merheim	U. Bauerfeind
KS	Institut für Rechtsmedizin, Transplantationsimmunologie, Kaiserslautern	o. Baderrema
LP	Klinikum der Universität, Institut für Transfusionsmedizin, Leipzig	C. Lehmann
LU	Institut für Immunologie und Transfusionsmedizin, Lübeck	M. Ziemann
ML	Kinderklinik der Ludwig-Maximilians-Universität, HLA Labor, München	T. Kauke
GMN	Universitätsklinikum, Institut für Transfusionsmedizin, Münster	R. Kelsch
MZ	Universitätsmedizin der Johannes-Gutenberg-Universität, HLA Labor, Mainz	
RO	Klinikum der Universität, Abteilung für Transfusionsmedizin, HLA Labor, Rostock	
ST	Klinikum Stuttgart, Zentralinstitut für Transfusionsmedizin und Blutspendedienst	A. Ender
TU	Klinikum der Eberhard-Karls-Universität, Abt. für Transfusionswesen und Blutbank, Tübing	en B. Schmid-Horch
UL	Institut für Klinische Transfusionsmedizin und Immungenetik, Ulm	J. Mytilineos
Hungary		
HU	Hungarian National Blood Transfusion Service	A. Szilvasi
Luxembo	urg	

Centre Hospitalier, HLA Lab, Luxembourg

LX

F. Hentges

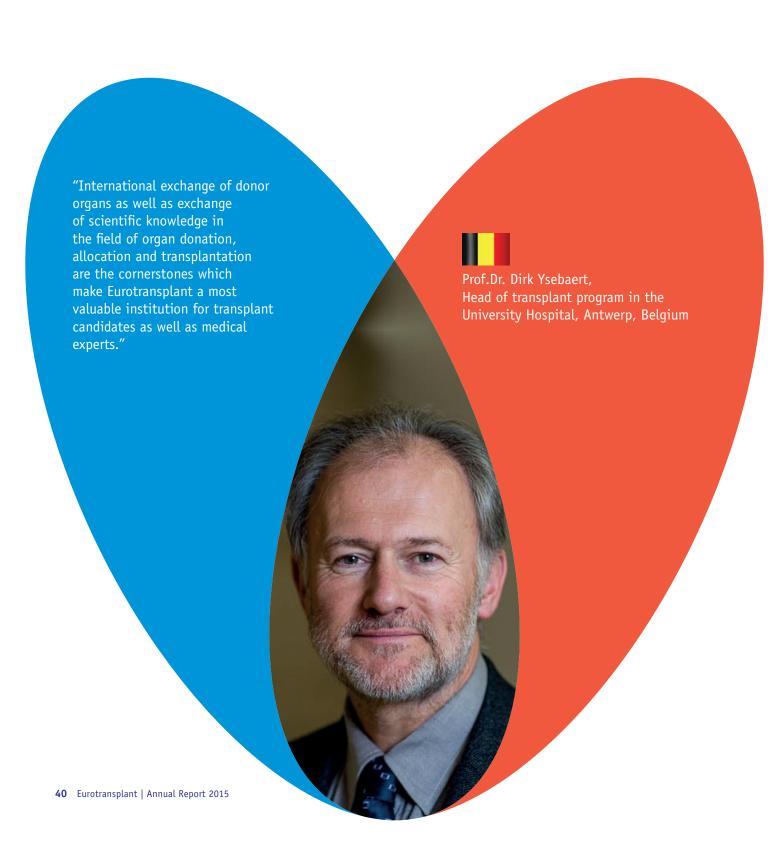
The Netherlands

AW	Centraal Laboratorium Bloedtransfusiedienst, Nederlandse Rode Kruis, Amsterdam	N. Lardy
GR	Laboratorium voor transplantatie-immunologie, Groningen	B. Hepkema
LB	Leiden University Medical Centre, Immunohaematologie, Leiden	F. Claas
MS	Academisch Ziekenhuis, Laboratorium voor weefseltypering, Maastricht	M. Tilanus
NY	Academisch Ziekenhuis St. Radboud, Bloedtransfusiedienst, Nijmegen	W. Allebes
UT	Academisch Ziekenhuis, Bloedbank, Utrecht	E. Spierings

Slovenia

L0	Tissue Typing Centre, Blood	d Transfusion Centre, Ljubljana	B. Vidan-Jeras
----	-----------------------------	---------------------------------	----------------

ETRL Eurotransplant Reference Laboratory, Leids Universitair Medisch Centrum, F. Claas Leiden, the Netherlands



Eurotransplant: donation, waiting lists and transplants

DONATION

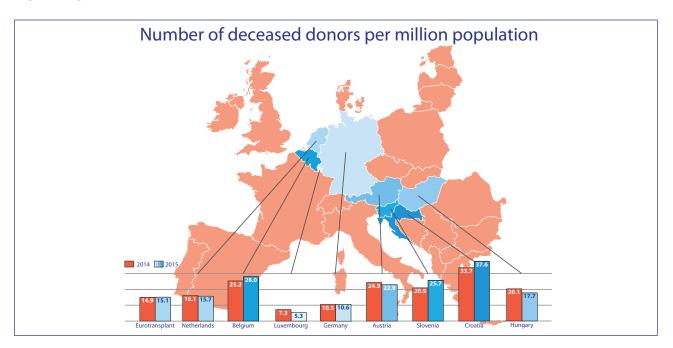


Table 4.1 Number of deceased donors used for a transplant, by donor country, from 2011 to 2015

Donor co	ountry	Population (millions)	2011	2012	2013	2014	2015	pmp	2014/2015
A	Austria	8.6	195	191	187	207	196	22.9	-5.3 %
В	Belgium	11.3	321	320	306	282	315	28.0	11.7 %
HR	Croatia	4.2	144	147	138	143	159	37.6	11.2 %
D	Germany	81.2	1176	1024	865	851	863	10.6	1.4 %
Н	Hungary	9.9		62 *	125 *	199 *	174	17.7	-12.6 %
L	Luxembourg	0.6	9	4	8	4	3	5.3	-25.0 %
NL	Netherlands	16.9	221	252	255	271	265	15.7	-2.2 %
SL0	Slovenia	2.1	31	46	45	43	53	25.7	23.3 %
	ET	134.6	2097	2046	1929	2000	2028	15.1	1.4 %
Non-ET	Non-ET		93	60	46	41	35		-14.6 %
	Total		2190	2106	1975	2041	2063		1.1 %

Hungary: only counting donors where organs were allocated by Eurotransplant



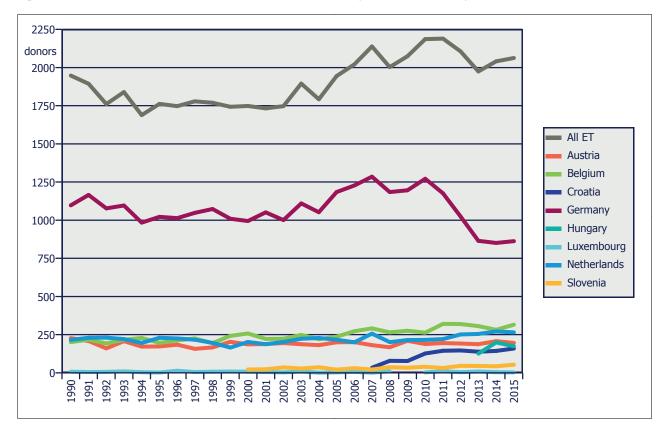


Figure 4.1b Number of deceased donors used for transplant, per million population

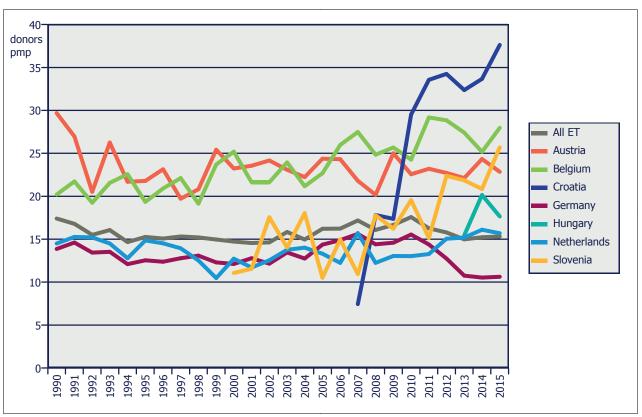


Table 4.2a(i) Number of deceased donors reported to Eurotransplant, by organ, from 2011 to 2015

Donors reported	2011	2012	2013	2014	2015	2014/2015
Kidney	2170	2075	1972	2061	2106	2.2 %
Heart	917	906	898	932	886	-4.9 %
Lung	1032	1113	1164	1171	1123	-4.1 %
Liver	2112	2001	1915	1980	2003	1.2 %
Pancreas	1008	958	951	922	961	4.2 %
Total donors	2481	2421	2302	2299	2317	0.8 %

Table 4.2a(ii) Number of deceased donors reported to Eurotransplant, by organ and donor country, in 2015

Donors reported	Α	В	D	Н	HR	L	NL	SL0	Non-ET	Total
Kidney	207	303	857	179	159	3	338	54	6	2106
Heart	112	107	395	71	48	3	72	31	47	886
Lung	117	186	482	58	31	3	154	20	72	1123
Liver	178	326	849	166	159	3	248	55	19	2003
Pancreas	58	219	290	44	32	3	282	24	9	961
Total donors	214	344	888	189	169	3	348	55	107	2317

Table 4.2b(i) Number of deceased donors used for a transplant, by organ, from 2011 to 2015

Donors used	2011	2012	2013	2014	2015	2014/2015
Kidney	1891	1813	1682	1788	1827	2.2 %
Heart	592	607	589	634	605	-4.6 %
Lung	607	670	671	661	609	-7.9 %
Liver	1727	1642	1515	1591	1606	0.9 %
Pancreas	305	277	228	230	259	12.6 %
Total donors	2190	2106	1975	2041	2063	1.1 %

Table 4.2b(ii) Number of deceased donors used for a transplant, by organ and donor country, in 2015

Donors used	А	В	D	Н	HR	L	NL	SL0	Non-ET	Total
Kidney	181	260	799	162	124	3	253	43	2	1827
Heart	79	81	278	52	39	3	48	20	5	605
Lung	69	119	263	36	21	2	71	6	22	609
Liver	145	263	717	122	143	3	161	43	9	1606
Pancreas	25	50	101	14	8	1	54	6	0	259
Total donors	196	315	863	174	159	3	265	53	35	2063

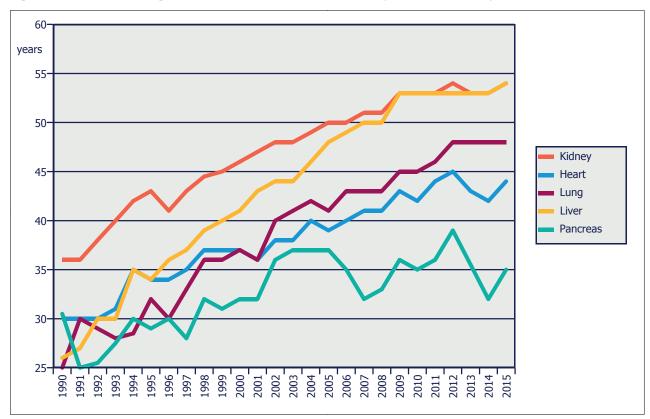


Figure 4.2 Median age of deceased donors used for a transplant in Eurotransplant

Table 4.3a(i) Demographic data on deceased donors, used for a transplant, from 2011 to 2015

Age	2011	2012	2013	2014	2015	2014/2015
0-15	72	65	68	68	73	7.4 %
16-55	1142	1064	1044	1048	1044	-0.4 %
56-64	425	443	409	452	436	-3.5 %
65+	551	534	454	473	510	7.8 %
Total	2190	2106	1975	2041	2063	1.1 %
Gender	2011	2012	2013	2014	2015	2014/2015
Female	1001	943	891	924	940	1.7 %
Male	1189	1163	1084	1117	1123	0.5 %
Total	2190	2106	1975	2041	2063	1.1 %
Blood group	2011	2012	2013	2014	2015	2014/2015
A	967	887	784	903	890	-1.4 %
AB	110	111	110	87	105	20.7 %
В	259	224	235	236	247	4.7 %
0	854	884	846	815	821	0.7 %
Total	2190	2106	1975	2041	2063	1.1 %

Table 4.3a(i) (continued)

Cause of death	2011	2012	2013	2014	2015	2014/2015
Accident	385	388	352	385	376	-2.3 %
Natural	1742	1649	1546	1572	1591	1.2 %
Suicide	50	53	53	63	61	-3.2 %
Other	13	16	24	21	35	66.7 %
Total	2190	2106	1975	2041	2063	1.1 %

Table 4.3a(ii) Demographic data on deceased donors used for a transplant, in 2015

Age	A	В	D	Н	HR	L	NL	SL0	Non-ET	Total	%
0-15	4	9	29	9	4	1	8	1	8	73	3.5 %
16-55	113	182	398	104	66	2	131	25	23	1044	50.6 %
56-64	35	69	175	41	36	0	65	12	3	436	21.1 %
65+	44	55	261	20	53	0	61	15	1	510	24.7 %
Total	196	315	863	174	159	3	265	53	35	2063	100.0 %
Gender	A	В	D	Н	HR	L	NL	SL0	Non-ET	Total	%
Female	83	142	412	71	61	1	131	21	18	940	45.6 %
Male	113	173	451	103	98	2	134	32	17	1123	54.4 %
Total	196	315	863	174	159	3	265	53	35	2063	100.0 %
Blood group	A	В	D	Н	HR	L	NL	SLO	Non-ET	Total	%
A	82	124	398	86	58	1	105	19	17	890	43.1 %
AB	12	9	38	16	7	1	12	4	6	105	5.1 %
В	21	19	112	25	30	0	27	8	5	247	12.0 %
0	81	163	315	47	64	1	121	22	7	821	39.8 %
Total	196	315	863	174	159	3	265	53	35	2063	100.0 %
Cause of death	Α	В	D	Н	HR	L	NL	SL0	Non-ET	Total	%
Accident	49	73	111	30	26	1	52	24	10	376	18.2 %
Natural	127	210	751	144	128	2	184	26	19	1591	77.1 %
Suicide	11	26	0	0	3	0	19	1	1	61	3.0 %
Other	9	6	1	0	2	0	10	2	5	35	1.7 %
Total	196	315	863	174	159	3	265	53	35	2063	100.0 %

Table 4.3b(i) Age of deceased donors used for a transplant, from 2011 to 2015

All donors	2011	2012	2013	2014	2015	2014/2015
0-15	72	65	68	68	73	7.4 %
16-55	1142	1064	1044	1048	1044	-0.4 %
56-64	425	443	409	452	436	-3.5 %
65+	551	534	454	473	510	7.8 %
Total	2190	2106	1975	2041	2063	1.1 %

Table 4.3b(i) (continued)

Kidney donors	2011	2012	2013	2014	2015	2014/2015
0-15	54	47	50	57	61	7.0 %
16-55	1004	938	921	950	956	0.6 %
56-64	391	403	359	405	400	-1.2 %
65+	442	425	352	376	410	9.0 %
Total	1891	1813	1682	1788	1827	2.2 %
Heart donors	2011	2012	2013	2014	2015	2014/2015
0-15	34	38	44	44	41	-6.8 %
16-55	471	483	462	509	476	-6.5 %
56-64	77	73	73	73	79	8.2 %
65+	10	13	10	8	9	12.5 %
Total	592	607	589	634	605	-4.6 %
Lung donors	2011	2012	2013	2014	2015	2014/2015
0-15	24	21	19	24	26	8.3 %
16-55	440	451	477	444	409	-7.9 %
56-64	110	134	114	121	110	-9.1 %
65+	33	64	61	72	64	-11.1 %
Total	607	670	671	661	609	-7.9 %
Liver donors	2011	2012	2013	2014	2015	2014/2015
0-15	59	54	53	55	59	7.3 %
16-55	902	838	811	832	828	-0.5 %
56-64	318	320	303	335	324	-3.3 %
65+	448	430	348	369	395	7.0 %
Total	1727	1642	1515	1591	1606	0.9 %
Pancreas donors	2011	2012	2013	2014	2015	2014/2015
0-15	18	19	18	18	21	16.7 %
16-55	253	231	192	203	205	1.0 %
56-64	22	17	12	7	15	114.3 %
65+	12	10	6	2	18	800.0 %
Total	305	277	228	230	259	12.6 %

Table 4.3b(ii) Age of deceased donors used for a transplant, by organ and donor country, in 2015

All donors	А	В	D	Н	HR	L	NL	SL0	Non-ET	Total	%
0-15	4	9	29	9	4	1	8	1	8	73	3.5 %
16-55	113	182	398	104	66	2	131	25	23	1044	50.6 %
56-64	35	69	175	41	36	0	65	12	3	436	21.1 %
65+	44	55	261	20	53	0	61	15	1	510	24.7 %
Total	196	315	863	174	159	3	265	53	35	2063	100.0 %

Table 4.3b(ii) (continued)

Kidney donors	A	В	D	Н	HR	L	NL	SLO	Non-ET	Total	%
0-15	4	9	26	9	3	1	8	1	0	61	3.3 %
16-55	107	163	378	98	61	2	124	22	1	956	52.3 %
56-64	31	57	169	38	32	0	62	11	0	400	21.9 %
65+	39	31	226	17	28	0	59	9	1	410	22.4 %
Total	181	260	799	162	124	3	253	43	2	1827	100.0 %
Heart donors	Α	В	D	Н	HR	L	NL	SLO	Non-ET	Total	%
0-15	4	5	19	3	4	1	2	1	2	41	6.8 %
16-55	61	63	222	45	33	2	32	15	3	476	78.7 %
56-64	11	12	34	4	2	0	12	4	0	79	13.1 %
65+	3	1	3	0	0	0	2	0	0	9	1.5 %
Total	79	81	278	52	39	3	48	20	5	605	100.0 %
Lung donors	А	В	D	Н	HR	L	NL	SLO	Non-ET	Total	%
0-15	0	4	9	3	2	0	2	0	6	26	4.3 %
16-55	55	80	160	27	17	2	49	4	15	409	67.2 %
56-64	9	23	57	6	2	0	10	2	1	110	18.1 %
65+	5	12	37	0	0	0	10	0	0	64	10.5 %
Total	69	119	263	36	21	2	71	6	22	609	100.0 %
Liver donors	Α	В	D	Н	HR	L	NL	SLO	Non-ET	Total	%
0-15	4	9	24	9	4	1	5	1	2	59	3.7 %
16-55	89	149	341	74	58	2	89	21	5	828	51.6 %
56-64	26	52	141	26	32	0	37	8	2	324	20.2 %
65+	26	53	211	13	49	0	30	13	0	395	24.6 %
Total	145	263	717	122	143	3	161	43	9	1606	100.0 %
Pancreas donors	Α	В	D	Н	HR	L	NL	SLO	Non-ET	Total	%
0-15	0	3	7	4	2	0	5	0	0	21	8.1 %
16-55	25	29	93	10	6	1	35	6	0	205	79.2 %
56-64	0	10	1	0	0	0	4	0	0	15	5.8 %
65+	0	8	0	0	0	0	10	0	0	18	6.9 %
Total	25	50	101	14	8	1	54	6	0	259	100.0 %

Table 4.4a(i) Number of donors used for a transplant, by type of donor, from 2011 to 2015

Donor type	2011	2012	2013	2014	2015	2014/2015
Deceased	2190	2106	1975	2041	2063	1.1%
Domino	16	6	3	6	4	-33.3%
Living	1458	1504	1533	1452	1411	-2.8%
Total	3664	3616	3511	3499	3478	-0.6%

Table 4.4a(ii) Number of donors used for a transplant, by type of donor, in 2015

Donor type	A	В	D	Н	HR	L	NL	SL0	Non-ET	Total
Deceased	196	315	863	174	159	3	265	53	35	2063
%	74.5%	77.8%	55.4%	81.3%	95.8%	100.0%	33.9%	100.0%	100.0%	59.3%
Domino	0	1	3	0	0	0	0	0	0	4
%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Living	67	89	692	40	7	0	516	0	0	1411
%	25.5%	22.0%	44.4%	18.7%	4.2%	0.0%	66.1%	0.0%	0.0%	40.6%
Total	263	405	1558	214	166	3	781	53	35	3478

Table 4.4b(i) Number of deceased donors used for a transplant, by type of donor, from 2011 to 2015

Donor type	2011	2012	2013	2014	2015	2014/2015
SOD	531	503	511	475	489	2.9%
MOD	1659	1603	1464	1566	1574	0.5%
Total	2190	2106	1975	2041	2063	1.1%

Table 4.4b(ii) Number of deceased donors used for a transplant, by type and donor country, in 2015

Donor type	A	В	D	Н	HR	L	NL	SL0	Non-ET	Total
SOD	45	64	154	46	44	0	89	15	32	489
%	23.0%	20.3%	17.8%	26.4%	27.7%		33.6%	28.3%	91.4%	23.7%
MOD	151	251	709	128	115	3	176	38	3	1574
%	77.0%	79.7%	82.2%	73.6%	72.3%	100.0%	66.4%	71.7%	8.6%	76.3%
Total	196	315	863	174	159	3	265	53	35	2063

MOD - multiple organ donor - a donor from which more than one organ type has been used in a transplant

SOD - single organ donor

Table 4.4c(i) Non-heart beating (NHB) donors used for a transplant, from 2011 to 2015

NHB Category	2011	2012	2013	2014	2015	2014/2015
I - Dead on arrival	1	2	1	0	0	0.0%
II - Unsuccesful resuscitation	4	8	1	2	1	-50.0%
III - Awaiting cardiac arrest	172	185	216	202	248	22.8%
IV - Cardiac arrest in brain dead donor	1	3	0	1	1	0.0%
Total	178	198	218	205	250	22.0%

Table 4.4c(ii) Non-heart beating donors used for a transplant, by donor country, in 2015

NHB Category	Α	В	NL	Total	%
II - Unsuccesful resuscitation	1	0	0	1	0.4%
III - Awaiting cardiac arrest	5	104	139	248	99.2%
IV - Cardiac arrest in brain dead donor	0	1	0	1	0.4%
Total	6	105	139	250	100.0%

Table 4.4d(i) Transplants from NHB donors, from 2011 to 2015

Type of transplant	2011	2012	2013	2014	2015	2014/2015
Kidney	306	329	353	321	384	19.6%
Kidney en bloc	1	3	2	3	1	-66.7%
Whole liver	81	88	100	98	126	28.6%
Liver + kidney	3	0	0	3	5	66.7%
Single lung	2	8	10	1	3	200.0%
Double lung	42	41	50	37	58	56.8%
Lungs + kidney	0	0	0	0	1	0.0%
Pancreas	1	0	0	0	2	0.0%
Pancreas + kidney	4	1	2	4	9	125.0%
Pancreatic islets	8	12	6	5	20	300.0%
Total	448	482	523	472	609	29.0%

Table 4.4d(ii) Transplants from NHB donors, by donor country, in 2015

Type of transplant	Transplant country	A	В	NL	Total	%
Kidney	Α	11	9	11	31	8.1%
	В	0	117	2	119	30.9%
	NL	0	17	218	235	61.0%
	Total	11	143	231	385	100.0%
Liver	В	0	77	2	79	62.7%
	D*	0	1	0	1	0.8%
	NL	0	1	45	46	36.5%
	Total	0	79	47	126	100.0%
Liver + kidney	В	0	3	0	3	60.0%
	NL	0	0	2	2	40.0%
	Total	0	3	2	5	100.0%
Lung	В	0	30	2	32	52.5%
	NL	0	3	26	29	47.5%
	Total	0	33	28	61	100.0%
Lungs + kidney	В	0	1	0	1	100.0%
	Total	0	1	0	1	100.0%
Pancreas	NL	0	0	2	2	100.0%
	Total	0	0	2	2	100.0%
Pancreas + kidney	NL	0	0	9	9	100.0%
	Total	0	0	9	9	100.0%
Pancreatic islets	В	0	12	4	16	80.0%
	NL	0	0	4	4	20.0%
	Total	0	12	8	20	100.0%
	Total	11	271	327	609	100.0%

^{*}NHB organs transplanted in Germany are from category IV donors (brain death confirmed)

WAITING LIST

Table 4.5(i) Active Eurotransplant waiting lists at year end, from 2011 to 2015

Waiting list type	Composition	2011	2012	2013	2014	2015	2014/2015
Kidney	kidney	10231	10151	10757	10689	10400	4.1%
	kidney + heart	26	25	17	12	14	16.7%
	kidney + lung	2	1	1	1	0	-100.0%
	kidney + liver	72	67	57	55	62	29.2%
	kidney + liver + pancreas	1	1	1	1	1	0.0%
	kidney + pancreas	290	280	287	322	320	1.9%
Kidney	Total	10622	10525	11120	11080	10797	4.2 %
Heart	heart	1222	1235	1250	1140	1140	3.1%
	heart + kidney	26	25	17	12	14	16.7%
	heart + lung	25	25	15	12	13	8.3%
	heart + lung + liver	1	0	0	0	0	0.0%
	heart + liver	3	2	1	0	3	0.0%
Heart	Total	1277	1287	1283	1164	1170	3.5 %
Lung	lung	997	815	779	747	746	-0.1%
	lung + kidney	2	1	1	1	0	-100.0%
	lung + heart	25	25	15	12	13	8.3%
	lung + heart + liver	1	0	0	0	0	0.0%
	lung + liver	1	3	5	6	5	-16.7%
Lung	Total	1026	844	800	766	764	-0.3 %
Liver	liver	2530	2327	2041	1853	1759	0.4%
	liver + kidney	72	67	57	55	62	29.2%
	liver + heart	3	2	1	0	3	0.0%
	liver + heart + lung	1	0	0	0	0	0.0%
	liver + lung	1	3	5	6	5	-16.7%
	liver + pancreas	6	6	6	3	5	66.7%
	liver + pancreas + kidney	1	1	1	1	1	0.0%
Liver	Total	2614	2406	2111	1918	1835	1.4 %
Pancreas	pancreas	92	89	75	87	92	5.7%
	pancreas + kidney	290	280	287	322	320	1.9%
	pancreas + liver	6	6	6	3	5	66.7%
	pancreas + liver + kidney	1	1	1	1	1	0.0%
Pancreas	Total	389	376	369	413	418	3.2 %
All	Total patients	15499	15027	15292	14928	14560	-0.6 %

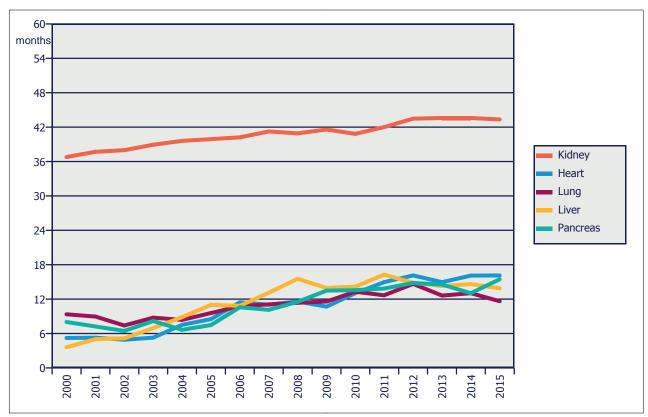
Table 4.5(ii) Active Eurotransplant waiting lists at year end, in 2015

Waiting list type	Composition	А	В	D	Н	HR	NL	SL0	Total	%
Kidney	kidney	608	813	7530	744	111	544	50	10400	96.3 %
	kidney + heart	1	6	7	0	0	0	0	14	0.1 %
	kidney + liver	3	15	36	7	0	1	0	62	0.6 %
	kidney + liver + pancreas	0	0	1	0	0	0	0	1	0.0 %
	kidney + pancreas	13	37	207	11	13	31	8	320	3.0 %
Kidney	Total	625	871	7781	762	124	576	58	10797	100.0 %
Heart	heart	49	110	773	41	24	101	42	1140	97.4 %
	heart + kidney	1	6	7	0	0	0	0	14	1.2 %
	heart + lung	2	2	8	0	0	1	0	13	1.1 %
	heart + liver	0	0	2	0	0	0	1	3	0.3 %
Heart	Total	52	118	790	41	24	102	43	1170	100.0 %
Lung	lung	72	102	396	0	0	176	0	746	97.6 %
	lung + heart	2	2	8	0	0	1	0	13	1.7 %
	lung + liver	0	0	5	0	0	0	0	5	0.7 %
Lung	Total	74	104	409	0	0	177	0	764	100.0 %
Liver	liver	61	172	1233	104	62	109	18	1759	95.9 %
	liver + kidney	3	15	36	7	0	1	0	62	3.4 %
	liver + heart	0	0	2	0	0	0	1	3	0.2 %
	liver + lung	0	0	5	0	0	0	0	5	0.3 %
	liver + pancreas	0	1	3	0	1	0	0	5	0.3 %
	liver + pancreas + kidney	0	0	1	0	0	0	0	1	0.1 %
Liver	Total	64	188	1280	111	63	110	19	1835	100.0 %
Pancreas	pancreas	1	30	37	2	0	21	1	92	22.0 %
	pancreas + kidney	13	37	207	11	13	31	8	320	76.6 %
	pancreas + liver	0	1	3	0	1	0	0	5	1.2 %
	pancreas + liver + kidney	0	0	1	0	0	0	0	1	0.2 %
Pancreas	Total	14	68	248	13	14	52	9	418	100.0 %
All	Total patients	810	1288	10238	909	211	984	120	14560	

60 years 55 Kidney 45-Heart Lung Liver 40-**Pancreas** 35-30-

Figure 4.3 Median age of patients on active waiting list at year end





Based on time since first dialysis for kidney patients, otherwise time on waiting list

12000 patients 10000-All ET 8000 Austria Belgium Croatia 6000 Germany Hungary Luxembourg 4000-Netherlands Slovenia 2000

Figure 4.5a Number of patient registrations (any organ) in Eurotransplant, per year

Counting registrations for both living and deceased donor transplants.

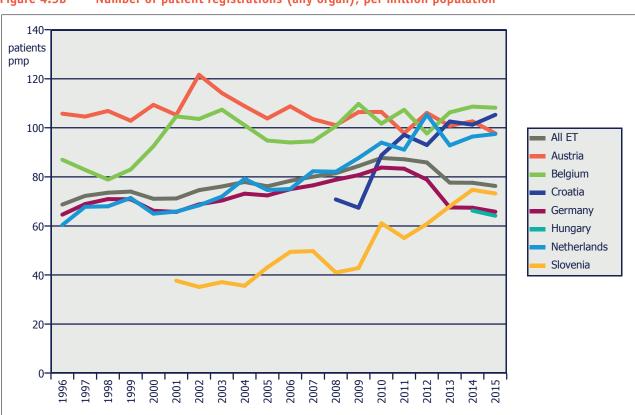


Figure 4.5b Number of patient registrations (any organ), per million population

Registration events on the Eurotransplant waiting lists, by organ, from 2011 to 2015 **Table 4.6(i)**

All registration events	2011	2012	2013	2014	2015	2014/2015
Kidney	6224	6133	6883	6241	6092	-2.4 %
Heart	1020	1026	1053	928	952	2.6 %
Lungs	883	817	829	811	833	2.7 %
Liver	2959	2926	2603	2592	2589	-0.1 %
Pancreas	345	302	313	316	332	5.1 %
Total events	11431	11204	11681	10888	10798	-0.8 %
Total patients	10862	10663	11172	10392	10267	-1.2 %
New registration events	2011	2012	2013	2014	2015	2014/2015
Kidney	5318	5250	6066	5380	5281	-1.8 %
Heart	1005	1001	1035	917	932	1.6 %
Lungs	834	768	791	771	787	2.1 %
Liver	2619	2577	2319	2288	2283	-0.2 %
Pancreas	275	251	265	278	299	7.6 %
Total events	10051	9847	10476	9634	9582	-0.5 %
Total patients	9689	9467	10105	9276	9188	-0.9 %
Re-registration events	2011	2012	2013	2014	2015	2014/2015
Kidney	906	883	817	861	811	-5.8 %
Heart	15	25	18	11	20	81.8 %
Lungs	49	49	38	40	46	15.0 %
Liver	340	349	284	304	306	0.7 %
Pancreas	70	51	48	38	33	-13.2 %
Total events	1380	1357	1205	1254	1216	-3.0 %
Total patients	1327	1309	1173	1226	1187	-3.2 %

Patient registrations for multiple organs are counted for each organ separately. Re-registrations are where a patient has previously received a transplant for the same organ, new registrations are all other patient registration events. Registrations for both deceased and living donor transplants are included.

Table 4.6(ii) Registration events on the Eurotransplant waiting lists, by organ and country, in 2015

All registration events	Α	В	D	Н	HR	NL	SL0	Total	%
Kidney	448	589	3075	436	231	1252	61	6092	56.4 %
Heart	71	129	483	76	65	73	55	952	8.8 %
Lungs	157	143	427	0	0	106	0	833	7.7 %
Liver	178	393	1489	120	157	215	37	2589	24.0 %
Pancreas	16	29	200	21	15	46	5	332	3.1 %
Total events	870	1283	5674	653	468	1692	158	10798	100.0 %
Total patients	838	1216	5339	632	445	1646	151	10267	

Table 4.6(ii) (continued)

New registration events	A	В	D	Н	HR	NL	SL0	Total	%
Kidney	365	526	2646	426	210	1050	58	5281	55.1 %
Heart	70	123	477	72	64	72	54	932	9.7 %
Lungs	145	141	399	0	0	102	0	787	8.2 %
Liver	162	347	1308	116	135	180	35	2283	23.8 %
Pancreas	15	18	185	20	15	41	5	299	3.1 %
Total events	757	1155	5015	634	424	1445	152	9582	100.0 %
Total patients	735	1114	4758	616	408	1411	146	9188	
Re-registration events	Α	В	D	H	HR	NL	SL0	Total	%
Re-registration events Kidney	A 83	B 63	D 429	H 10	HR 21	NL 202	SL0	Total 811	
									66.7 %
Kidney	83	63	429	10	21	202	3	811	% 66.7 % 1.6 % 3.8 %
Kidney Heart	83 1	63 6	429 6	10 4	21 1	202 1	3 1	811 20	66.7 % 1.6 %
Kidney Heart Lungs	83 1 12	63 6 2	429 6 28	10 4 0	21 1 0	202 1 4	3 1 0	811 20 46	66.7 % 1.6 % 3.8 % 25.2 %
Kidney Heart Lungs Liver	83 1 12 16	63 6 2 46	429 6 28 181	10 4 0 4	21 1 0 22	202 1 4 35	3 1 0 2	811 20 46 306	66.7 % 1.6 % 3.8 %

Table 4.7a(i) Removals from the Eurotransplant waiting lists, from 2011 to 2015

Waiting list	Removal reason	2011	2012	2013	2014	2015	2014/2015
Kidney	Deceased	588	557	596	616	599	-2.8 %
	Unfit for transplant	372	351	376	358	324	-9.5 %
	Transplanted	4921	4813	4585	4695	4743	1.0 %
	Recovered	58	46	68	43	105	144.2 %
	Other Other	233	287	359	306	332	8.5 %
Kidney	Total	6172	6054	5984	6018	6103	1.4 %
Heart	Deceased	245	237	232	213	209	-1.9 %
	Unfit for transplant	26	31	51	49	34	-30.6 %
	Transplanted	589	604	587	630	601	-4.6 %
	Recovered	57	41	90	99	66	-33.3 %
	Other .	44	35	75	51	49	-3.9 %
Heart	Total	961	948	1035	1042	959	-8.0 %
Lungs	Deceased	163	126	105	117	113	-3.4 %
	Unfit for transplant	18	40	21	37	34	-8.1 %
	Transplanted	636	698	688	681	619	-9.1 %
	Recovered	7	10	9	12	16	33.3 %
	Other .	56	42	47	59	24	-59.3 %
Lungs	Total	880	916	870	906	806	-11.0 %

Table 4.7a(i) (continued)

Waiting list	Removal reason	2011	2012	2013	2014	2015	2014/2015
Liver	Deceased	609	671	499	468	478	2.1 %
	Unfit for transplant	130	142	153	101	105	4.0 %
	Transplanted	1904	1809	1695	1757	1728	-1.7 %
	Recovered	124	172	292	237	134	-43.5 %
	Other Other	119	134	212	143	157	9.8 %
Liver	Total	2886	2928	2851	2706	2602	-3.8 %
Pancreas	Deceased	31	18	29	32	28	-12.5 %
	Unfit for transplant	15	18	13	16	15	-6.3 %
	Transplanted	265	251	214	212	211	-0.5 %
	Recovered	2	5	3	6	1	-83.3 %
	Other Other	20	29	45	28	21	-25.0 %
Pancreas	Total	333	321	304	294	276	-6.1 %

Reported by year of death, year of transplant, or otherwise by year of removal event. Includes patients with active or non-active urgency at removal. Includes removals while waiting for living or deceased donor transplants. Repeated patient removals are counted each time.

Table 4.7a(ii) Removals from the Eurotransplant waiting lists, in 2015

Waiting list	Removal reason	A	В	D	Н	HR	NL	SL0	Total	%
Kidney	Deceased	38	41	387	47	11	74	1	599	9.8 %
	Unfit for transplant	20	27	179	12	9	73	4	324	5.3 %
	Transplanted	417	528	2195	343	213	983	64	4743	77.7 %
	Recovered	0	3	76	2	1	22	1	105	1.7 %
	0ther	6	2	168	8	7	129	12	332	5.4 %
Kidney	Total	481	601	3005	412	241	1281	82	6103	100.0 %
Heart	Deceased	10	13	148	16	8	11	3	209	21.8 %
	Unfit for transplant	0	4	24	0	4	1	1	34	3.5 %
	Transplanted	67	82	286	51	37	54	24	601	62.7 %
	Recovered	2	9	43	0	2	4	6	66	6.9 %
	0ther	0	0	46	0	2	1	0	49	5.1 %
Heart	Total	79	108	547	67	53	71	34	959	100.0 %
Lungs	Deceased	12	1	80	0	0	20	0	113	14.0 %
	Unfit for transplant	0	2	23	0	0	9	0	34	4.2 %
	Transplanted	130	115	296	0	0	78	0	619	76.8 %
	Recovered	0	3	13	0	0	0	0	16	2.0 %
	0ther	1	0	19	0	0	4	0	24	3.0 %
Lungs	Total	143	121	431	0	0	111	0	806	100.0 %

Table 4.7a(ii) (continued)

Waiting list	Removal reason	Α	В	D	Н	HR	NL	SL0	Total	%
Liver	Deceased	25	62	327	21	11	28	4	478	18.4 %
	Unfit for transplant	8	11	67	1	1	16	1	105	4.0 %
	Transplanted	146	284	893	89	141	151	24	1728	66.4 %
	Recovered	10	14	99	2	0	9	0	134	5.1 %
	Other	4	7	123	3	0	20	0	157	6.0 %
Liver	Total	193	378	1509	116	153	224	29	2602	100.0 %
Pancreas	Deceased	1	4	18	3	1	1	0	28	10.1 %
	Unfit for transplant	3	2	8	1	0	1	0	15	5.4 %
	Transplanted	27	20	105	13	8	33	5	211	76.4 %
	Recovered	0	0	1	0	0	0	0	1	0.4 %
	Other .	1	1	14	0	0	5	0	21	7.6 %
Pancreas	Total	32	27	146	17	9	40	5	276	100.0 %

Table 4.7b(i) Mortality on the Eurotransplant waiting lists, by year of death, from 2011 to 2015

Waiting list	2011	2012	2013	2014	2015	2014/2015
Kidney	588	557	596	616	599	-2.8 %
Heart	245	237	232	213	209	-1.9 %
Lungs	163	126	105	117	113	-3.4 %
Liver	609	671	499	468	478	2.1 %
Pancreas	31	18	29	32	28	-12.5 %
Total	1636	1609	1461	1446	1427	-1.3 %
Total patients	1546	1537	1383	1368	1359	-6.8 %

Table 4.7b(ii) Mortality on the Eurotransplant waiting lists in 2015

Waiting list	A	В	D	Н	HR	NL	SL0	Total
Kidney	38	41	387	47	11	74	1	599
Heart	10	13	148	16	8	11	3	209
Lungs	12	1	80	0	0	20	0	113
Liver	25	62	327	21	11	28	4	478
Pancreas	1	4	18	3	1	1	0	28
Total	86	121	960	87	31	134	8	1427
Total patients	83	112	910	83	30	133	8	1359

Mortality on the Eurotransplant waiting lists, by urgency and year of death, from 2011 to 2015 Table 4.7c(i)

Waiting list	Urgency at death	2011	2012	2013	2014	2015	2014/2015
Kidney	High urgency	1	0	0	0	0	0.0 %
	Elective	125	98	115	102	114	11.8 %
	Non-active	462	459	481	514	485	-5.6 %
Kidney	Total	588	557	596	616	599	-2.8 %

Table 4.7c(i) (continued)

Waiting list	Urgency at death	2011	2012	2013	2014	2015	2014/2015
Heart	High urgency	48	57	33	16	18	12.5 %
	Elective	101	85	94	82	88	7.3 %
	Non-active	96	95	105	115	103	-10.4 %
Heart	Total	245	237	232	213	209	-1.9 %
Lungs	High urgency/LAS	35	31	24	18	31	72.2 %
	Urgent	2	0	0	0	0	0.0 %
	Elective	70	48	33	46	34	-26.1 %
	Non-active	56	47	48	53	48	-9.4 %
Lungs	Total	163	126	105	117	113	-3.4 %
Liver	High urgency	30	24	22	28	26	-7.1 %
	Meld 30+	205	234	177	155	173	11.6 %
	Meld 25-29	75	81	51	55	47	-14.5 %
	Meld 19-24	101	111	77	66	74	12.1 %
	Meld 11-18	103	101	67	58	72	24.1 %
	Meld 06-10	95	120	105	106	86	-18.9 %
Liver	Total	609	671	499	468	478	2.1 %
Pancreas	Elective	4	3	3	8	7	-12.5 %
	Non-active	27	15	26	24	21	-12.5 %
Pancreas	Total	31	18	29	32	28	-12.5 %

Table 4.7c(ii) Mortality on the Eurotransplant waiting lists, by urgency and country, in 2015

Waiting list	Urgency at death	Α	В	D	Н	HR	NL	SL0	Total	%
Kidney	Elective	10	5	71	20	2	6	0	114	19.0 %
	Non-active	28	36	316	27	9	68	1	485	81.0 %
Kidney	Total	38	41	387	47	11	74	1	599	100.0 %
Heart	High urgency	0	1	12	1	0	2	2	18	8.6 %
	Elective	6	6	71	2	1	1	1	88	42.1 %
	Non-active	4	6	65	13	7	8	0	103	49.3 %
Heart	Total	10	13	148	16	8	11	3	209	100.0 %
Lungs	High urgency/LAS	1	0	21	0	0	9	0	31	27.4 %
	Elective	10	1	13	0	0	10	0	34	30.1 %
	Non-active	1	0	46	0	0	1	0	48	42.5 %
Lungs	Total	12	1	80	0	0	20	0	113	100.0 %

Table 4.7c(ii) (continued)

Waiting list	Urgency at death	A	В	D	Н	HR	NL	SL0	Total	%
Liver	High urgency	0	5	11	0	3	6	1	26	5.4 %
	Meld 30+	3	29	125	2	3	11	0	173	36.2 %
	Meld 25-29	1	4	40	0	1	0	1	47	9.8 %
	Meld 19-24	6	8	52	1	1	5	1	74	15.5 %
	Meld 11-18	7	8	47	5	2	3	0	72	15.1 %
	Meld 06-10	8	8	52	13	1	3	1	86	18.0 %
Liver	Total	25	62	327	21	11	28	4	478	100.0 %
Pancreas	Elective	0	0	5	2	0	0	0	7	25.0 %
	Non-active	1	4	13	1	1	1	0	21	75.0 %
Pancreas	Total	1	4	18	3	1	1	0	28	100.0 %

TRANSPLANTATION

Table 4.8(i) Number of transplanted organs**, by donor type, from* 2011 to 2015

Deceased donor transplants

Transplant year	2011	2012	2013	2014	2015	2014/2015
Kidney	3633	3472	3200	3384	3458	2.2 %
Heart	591	607	589	635	604	-4.9 %
Lung	1181	1313	1316	1298	1193	-8.1 %
Liver	1770	1689	1562	1646	1638	-0.5 %
Pancreas	304	277	229	230	259	12.6 %
Total	7479	7358	6896	7193	7152	-0.6 %

Living donor transplants

Transplant year	2011	2012	2013	2014	2015	2014/2015
Kidney	1339	1381	1403	1347	1322	-1.9%
Heart (domino)	0	1	0	0	0	0.0%
Lung (partial)	0	8	0	0	2	
Liver (partial and domino)	135	121	133	112	91	-18.8%
Total	1474	1511	1536	1459	1415	-3.0%

Table 4.8(ii) Number of transplanted organs**, by organ, by donor type, by country, in* 2015

Deceased donor transplants by transplant country

Transplant country	А	В	D	Н	HR	L	NL	SLO	Non-ET	Total	%
Kidney	371	475	1566	303	208	0	471	64	0	3458	48.4 %
Heart	67	82	286	51	37	0	54	24	3	604	8.4 %
Lung	256	224	563	0	0	0	144	0	6	1193	16.7 %
Liver	141	251	846	89	139	0	148	24	0	1638	22.9 %
Pancreas	27	66	105	13	8	0	35	5	0	259	3.6 %
Total	862	1098	3366	456	392	0	852	117	9	7152	100.0 %

Deceased donor transplants by donor country

Donor country	A	В	D	Н	HR	L	NL	SL0	Non-ET	Total	%
Kidney	348	489	1527	312	227	6	467	79	3	3458	48.4 %
Heart	79	81	278	52	39	3	48	19	5	604	8.4 %
Lung	135	233	514	72	42	4	137	12	44	1193	16.7 %
Liver	147	268	728	125	150	3	166	42	9	1638	22.9 %
Pancreas	25	50	101	14	8	1	54	6	0	259	3.6 %
Total	734	1121	3148	575	466	17	872	158	61	7152	100.0 %

Living donor transplants by country

Transplant country	A	В	D	Н	HR	L	NL	SLO	Non-ET	Total	%
Kidney	62	57	645	40	5	0	513	0	0	1322	93.4 %
Lung (partial)	0	0	2	0	0	0	0	0	0	2	0.1 %
Liver (partial and domino)	5	33	48	0	2	0	3	0	0	91	6.4 %
Total	67	90	695	40	7	0	516	0	0	1415	100.0 %

^{*} based on transplant registration date

^{**} each liver split counted as one

^{**} each kidney en bloc counted as two

^{**} each double lung counted as two

Table 4.9(i) Transplants from 2011 to 2015

Deceased donors	2011	2012	2013	2014	2015	2014/2015
Kidney	3255	3139	2951	3086	3169	2.7 %
Kidney en bloc	46	40	16	36	37	2.8 %
Heart	553	569	566	617	593	-3.9 %
Single lung	90	67	60	66	49	-25.8 %
Double lung	527	603	613	605	558	-7.8 %
Liver	1622	1553	1420	1492	1523	2.1 %
Split liver	88	90	92	106	70	-34.0 %
Pancreas	21	24	28	19	13	-31.6 %
Pancreas islets	25	27	16	13	19	46.2 %
Heart + double lung	14	19	14	9	4	-55.6 %
Heart + liver	3	1	1	0	0	0.0 %
Heart + single kidney	21	18	8	9	7	-22.2 %
Double lung + liver	2	1	1	2	9	350.0 %
Single lung + kidney	1	0	0	0	0	0.0 %
Double lung + kidney	2	0	0	0	1	
Liver + pancreas	6	4	5	4	4	0.0 %
Liver + pancreas + kidney	2	1	0	1	0	-100.0 %
Liver + kidney	43	35	39	38	30	-21.1 %
Liver + kidney en bloc	1	0	0	0	0	0.0 %
Split liver + kidney	3	4	4	3	2	-33.3 %
Pancreas + kidney	210	195	164	175	175	0.0 %
Pancreas + kidney en bloc	1	0	1	0	0	0.0 %
Total (deceased donor) transplants	6536	6390	5999	6281	6263	-0.3 %
Living donors	2011	2012	2013	2014	2015	2014/2015
Kidney	1339	1380	1403	1347	1322	-1.9 %
Heart (domino)	0	1	0	0	0	0.0 %
Lung	0	4	0	0	1	
Liver (partial and domino)	135	120	133	112	91	-18.8 %
Kidney + liver	0	1	0	0	0	0.0 %
Total (living donor) transplants	1474	1506	1536	1459	1414	-3.1 %
All donors	2011	2012	2013	2014	2015	2014/2015
Total transplants	8010	7896	7535	7740	7677	-0.8 %

Table 4.9(ii) Transplants in 2015, by transplant country

Deceased donor transplants	Α	В	D	Н	HR	NL	SL0	Non-ET	Total	% of deceased donor transplants
Kidney	308	441	1434	287	200	441	58	0	3169	49.6 %
Kidney en bloc	16	4	16	0	0	1	0	0	37	0.6 %
Heart	65	78	283	51	37	53	23	3	593	9.3 %
Single lung	4	6	27	0	0	12	0	0	49	0.8 %
Double lung	125	103	262	0	0	65	0	3	558	8.7 %
Liver	135	231	774	85	139	135	24	0	1523	23.8 %
Split liver	1	3	58	1	0	7	0	0	70	1.1 %
Pancreas	2	0	8	0	0	3	0	0	13	0.2 %
Pancreas islets	0	11	0	0	0	8	0	0	19	0.3 %
Heart + double lung	0	1	2	0	0	1	0	0	4	0.1 %
Heart + single kidney	2	3	1	0	0	0	1	0	7	0.1 %
Double lung + liver	1	4	4	0	0	0	0	0	9	0.1 %
Double lung + kidney	0	1	0	0	0	0	0	0	1	0.0 %
Liver + pancreas	0	0	4	0	0	0	0	0	4	0.1 %
Liver + kidney	4	12	6	3	0	5	0	0	30	0.5 %
Split liver + kidney	0	1	0	0	0	1	0	0	2	0.0 %
Pancreas + kidney	25	9	93	13	8	22	5	0	175	2.7 %
Total (deceased donors) transplants	688	908	2972	440	384	754	111	6	6263	98.0 %
Living donor transplants	A	В	D	Н	HR	NL	SL0	Non-ET	Total	% of living donor transplants
Kidney	62	57	645	40	5	513	0	0	1322	93.5 %
Lung	0	0	1	0	0	0	0	0	1	0.1 %
Liver (partial and domino)	5	33	48	0	2	3	0	0	91	6.4 %
Total (living donors) transplants	67	90	694	40	7	516	0	0	1414	100.0 %
All donors	Α	В	D	Н	HR	NL	SL0	Non-ET	Total	
Total transplants	755	998	3666	480	391	1270	111	6	7677	

Figure 4.6 Median age of transplant recipients (deceased donor transplants)

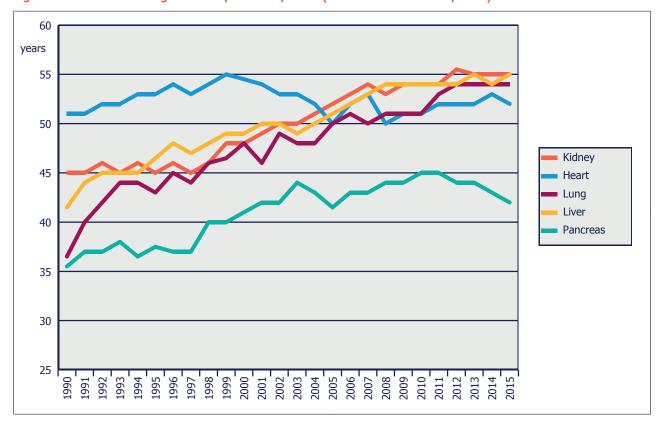
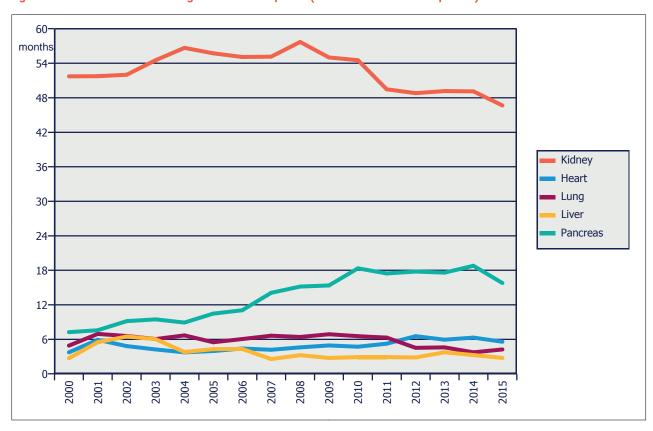


Figure 4.7 Median waiting time to transplant (deceased donor transplants)



Based on time since first dialysis for kidney patients, otherwise time on waiting list

"In a small country like Luxembourg, I understand that it is nearly impossible to achieve a good match for a kidney transplant without being part of a big organization like Eurotransplant, which guarantees the best match available. I also trust Eurotransplant for its high level of professionalism and its integrity."





Mr. Fernand Kneip, Luxembourg waiting list patient

5.

Kidney: donation, waiting lists and transplants

DONATION

Table 5.1(i) Deceased donors / kidneys in Eurotransplant, from 2011 to 2015

Donors	2011	2012	2013	2014	2015	2014/2015
All donors reported	2481	2421	2302	2299	2317	0.8 %
Non-kidney donors	311	346	330	238	211	-11.3 %
Kidney donors reported	2170	2075	1972	2061	2106	2.2 %
Kidney donors not used	279	262	290	273	279	2.2 %
One kidney used	149	154	165	192	188	-2.1 %
Two kidneys used	1742	1659	1517	1596	1639	2.7 %
Total kidney donors used	1891	1813	1682	1788	1827	2.2 %
Kidneys	2011	2012	2013	2014	2015	2014/2015
Reported	4320	4107	3920	4099	4183	2.0 %
Offered	4189	3980	3769	4050	4148	2.4 %
Accepted	3879	3694	3478	3759	3910	4.0 %
Transplanted	3633	3472	3199	3384	3466	2.4 %

Table 5.1(ii) Deceased donors / kidneys in Eurotransplant in 2015

Donors	А	В	D	Н	HR	L	NL	SL0	Total ET	Non-ET	Total	% all donors
All donors reported	214	344	888	189	169	3	348	55	2210	107	2317	100.0 %
Non-kidney donors	7	41	31	10	10	0	10	1	110	101	211	9.1 %
Kidney donors reported	207	303	857	179	159	3	338	54	2100	6	2106	90.9 %
Kidney donors not used	26	43	58	17	35	0	85	11	275	4	279	12.0 %
One kidney used	16	30	65	12	21	0	38	5	187	1	188	8.1 %
Two kidneys used	165	230	734	150	103	3	215	38	1638	1	1639	70.7 %
Total kidney donors used	181	260	799	162	124	3	253	43	1825	2	1827	78.9 %
Kidneys	A	В	D	Н	HR	L	NL	SL0	Total ET	Non-ET	Total	% reported
Reported	411	601	1700	357	316	6	673	108	4172	11	4183	100.0 %
Offered	409	587	1698	356	314	6	659	108	4137	11	4148	99.2 %
Accepted	390	555	1639	341	275	6	608	91	3905	5	3910	93.5 %
Transplanted	346	490	1533	312	227	6	468	81	3463	3	3466	82.9 %

WAITING LIST

Figure 5.1 Kidney waiting list, number of patients at year end, by urgency

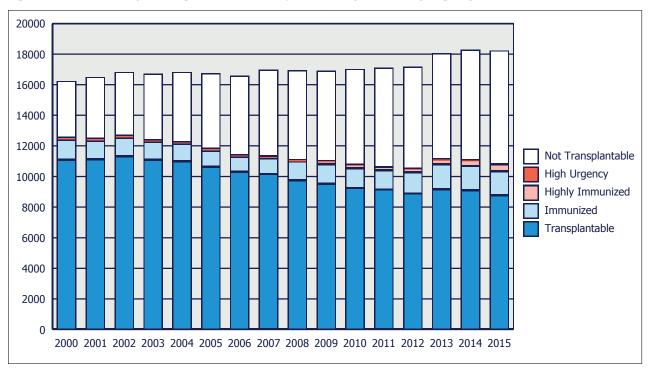
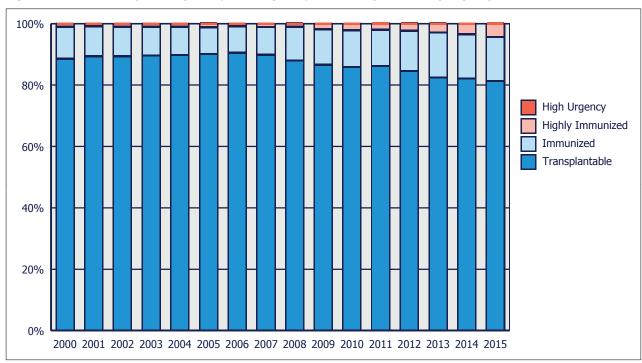


Figure 5.2 Kidney waiting list, percentage of patients at year end, by urgency



Active kidney transplant waiting list at year end, from 2011 to 2015 **Table 5.2(i)**

Type of transplant	2011	2012	2013	2014	2015	2014/2015
Kidney	10231	10151	10757	10689	10400	-2.7 %
Kidney + heart	26	25	17	12	14	16.7 %
Kidney + lung	2	1	1	1	0	-100.0 %
Kidney + liver	72	67	57	55	62	12.7 %
Kidney + liver + pancreas	1	1	1	1	1	0.0 %
Kidney + pancreas	290	280	287	322	320	-0.6 %
Total	10622	10525	11120	11080	10797	-2.6 %

Active kidney transplant waiting list at year end, in 2015 Table 5.2(ii)

Type of transplant	A	В	D	Н	HR	NL	SL0	Total	%
Kidney	608	813	7530	744	111	544	50	10400	96.3 %
Kidney + heart	1	6	7	0	0	0	0	14	0.1 %
Kidney + lung	0	0	0	0	0	0	0	0	0.0 %
Kidney + liver	3	15	36	7	0	1	0	62	0.6 %
Kidney + liver + pancreas	0	0	1	0	0	0	0	1	0.0 %
Kidney + pancreas	13	37	207	11	13	31	8	320	3.0 %
Total	625	871	7781	762	124	576	58	10797	100.0 %

Table 5.3(i) Active kidney-only transplant waiting list at year end, from 2011 to 2015 - characteristics

Blood group	2011	2012	2013	2014	2015	2014/2015
A	3472	3488	3838	3734	3613	-3.2 %
AB	227	236	272	336	344	2.4 %
В	1258	1357	1523	1553	1599	3.0 %
0	5274	5070	5124	5066	4844	-4.4 %
Total	10231	10151	10757	10689	10400	-2.7 %
% PRA current	2011	2012	2013	2014	2015	2014/2015
0-5 %	8734	8500	8792	8762	8424	-3.9 %
6-84 %	1216	1346	1599	1547	1517	-1.9 %
85-100 %	208	232	299	369	449	21.7 %
Not reported	73	73	67	11	10	-9.1 %
Total	10231	10151	10757	10689	10400	-2.7 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	8386	8233	8828	8708	8500	-2.4 %
Repeat	1845	1918	1929	1981	1900	-4.1 %
Total	10231	10151	10757	10689	10400	-2.7 %

Table 5.3(i) (continued)

Waiting time (years) based on date start of dialysis	2011	2012	2013	2014	2015	2014/2015
Pre-emptive	399	423	515	576	660	14.6 %
0-1	2181	2059	2221	2205	2082	-5.6 %
2-4	4587	4386	4521	4308	4105	-4.7 %
5+	3064	3283	3500	3600	3553	-1.3 %
Total	10231	10151	10757	10689	10400	-2.7 %
Waiting time (years) based on date put on WL	2011	2012	2013	2014	2015	2014/2015
0-1	4819	4568	5064	4982	4620	-7.3 %
2-4	3684	3737	3674	3667	3674	0.2 %
5+	1728	1846	2019	2040	2106	3.2 %
Total	10231	10151	10757	10689	10400	-2.7 %
Age	2011	2012	2013	2014	2015	2014/2015
0-15	79	90	83	107	96	-10.3 %
16-55	6232	6095	6462	6333	6215	-1.9 %
56-64	2843	2854	2978	2936	2805	-4.5 %
65+	1077	1112	1234	1313	1284	-2.2 %
Total	10231	10151	10757	10689	10400	-2.7 %

Table 5.3(ii) Active kidney-only transplant waiting list at year end, in 2015 - characteristics

Blood group	А	В	D	Н	HR	NL	SL0	Total	%
A	201	221	2724	271	41	140	15	3613	34.7 %
AB	9	29	260	24	9	10	3	344	3.3 %
В	123	107	1063	179	22	94	11	1599	15.4 %
0	275	456	3483	270	39	300	21	4844	46.6 %
Total	608	813	7530	744	111	544	50	10400	100.0 %
% PRA current	Α	В	D	Н	HR	NL	SL0	Total	%
0-5 %	524	563	6128	652	75	437	45	8424	81.0 %
6-84 %	68	148	1083	87	29	98	4	1517	14.6 %
85-100 %	16	101	315	5	2	9	1	449	4.3 %
Not reported	0	1	4	0	5	0	0	10	0.1 %
Total	608	813	7530	744	111	544	50	10400	100.0 %
Sequence	Α	В	D	Н	HR	NL	SL0	Total	%
First	449	631	6151	737	94	392	46	8500	81.7 %
Repeat	159	182	1379	7	17	152	4	1900	18.3 %
Total	608	813	7530	744	111	544	50	10400	100.0 %

Table 5.3(ii) (continued)

Waiting time (years) based on date start of dialysis	A	В	D	Н	HR	NL	SL0	Total	%
Pre-emptive	28	124	230	180	10	80	8	660	6.3 %
0-1	226	280	1066	210	51	228	21	2082	20.0 %
2-4	304	308	2963	308	37	170	15	4105	39.5 %
5+	50	101	3271	46	13	66	6	3553	34.2 %
Total	608	813	7530	744	111	544	50	10400	100.0 %
Waiting time (years) based on date put on WL	A	В	D	Н	HR	NL	SL0	Total	%
0-1	412	534	2804	448	89	295	38	4620	44.4 %
2-4	174	202	2786	296	17	190	9	3674	35.3 %
5+	22	77	1940	0	5	59	3	2106	20.3 %
Total	608	813	7530	744	111	544	50	10400	100.0 %
Age	A	В	D	Н	HR	NL	SL0	Total	%
0-15	2	13	68	8	3	2	0	96	0.9 %
16-55	377	452	4539	454	71	287	35	6215	59.8 %
56-64	139	222	2067	193	22	152	10	2805	27.0 %
65+	90	126	856	89	15	103	5	1284	12.3 %
Total	608	813	7530	744	111	544	50	10400	100.0 %

TRANSPLANTATION

Figure 5.3 Number of deceased donor kidney transplants, by recipient urgency at transplant

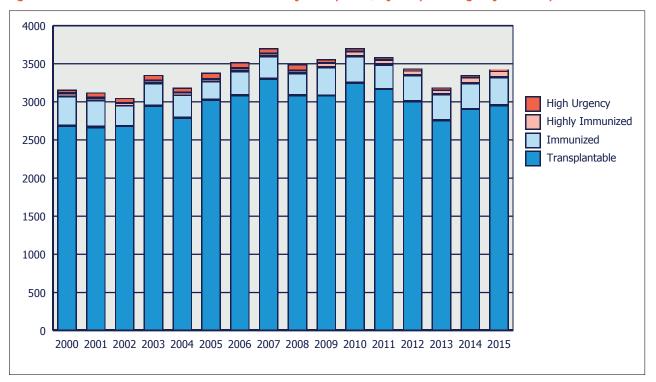
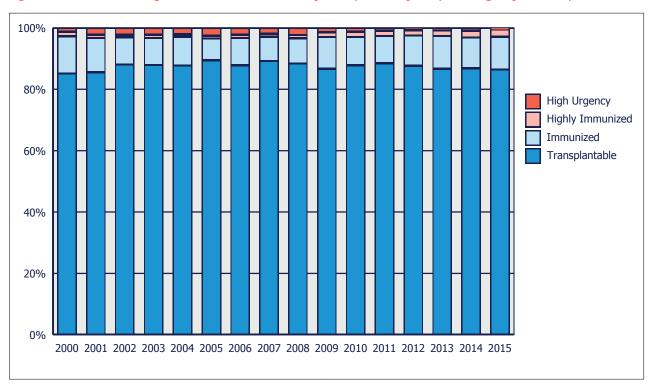


Figure 5.4 Percentage of deceased donor kidney transplants, by recipient urgency at transplant



Kidney transplants (deceased donor) from 2011 to 2015 Table 5.4a(i)

Type of transplant	2011	2012	2013	2014	2015	2014/2015
Kidney-only	3255	3139	2951	3086	3169	2.7 %
Kidney en bloc	46	40	16	36	37	2.8 %
Kidney + heart	21	18	8	9	7	-22.2 %
Kidney + single lung	1	0	0	0	0	0.0 %
Kidney + double lungs	2	0	0	0	1	0.0 %
Kidney + split liver	3	4	4	3	2	-33.3 %
Kidney + whole liver	43	35	39	38	30	-21.1 %
Kidney + whole liver + pancreas	2	1	0	1	0	-100.0 %
Kidney en bloc + whole liver	1	0	0	0	0	0.0 %
Kidney + pancreas	210	195	164	175	175	0.0%
Kidney en bloc + pancreas	1	0	1	0	0	0.0 %
Total	3585	3432	3183	3348	3421	2.2 %

Table 5.4a(ii) Kidney transplants (deceased donor) in 2015

Type of transplant	A	В	D	Н	HR	NL	SLO	Total	%
Kidney-only	308	441	1434	287	200	441	58	3169	92.6 %
Kidney en bloc	16	4	16	0	0	1	0	37	1.1 %
Kidney + heart	2	3	1	0	0	0	1	7	0.2 %
Kidney + both lungs	0	1	0	0	0	0	0	1	0.0 %
Kidney + split liver	0	1	0	0	0	1	0	2	0.1 %
Kidney + whole liver	4	12	6	3	0	5	0	30	0.9 %
Kidney + pancreas	25	9	93	13	8	22	5	175	5.1 %
Total	355	471	1550	303	208	470	64	3421	100.0 %

Table 5.4b(i) Kidney-only transplants (including kidney en bloc) - all allocation programs

HLA - A, B, DR mismatches	2011	2012	2013	2014	2015	2014/2015
0	360	340	317	363	322	-11.3 %
1	244	219	210	187	204	9.1 %
2	746	693	709	644	668	3.7 %
3	1038	1040	916	988	1038	5.1 %
4	564	554	536	580	608	4.8 %
5	272	253	210	272	269	-1.1 %
6	75	77	69	88	91	3.4 %
not calculated	2	3	0	0	6	0.0 %
Total	3301	3179	2967	3122	3206	2.7 %
Blood group	2011	2012	2013	2014	2015	2014/2015
A	1498	1349	1198	1390	1406	1.2 %
AB	176	170	166	131	175	33.6 %
В	390	351	348	371	376	1.3 %
0	1237	1309	1255	1230	1249	1.5 %
Total	3301	3179	2967	3122	3206	2.7 %

Table 5.4b(i) (continued)

PRA	2011	2012	2013	2014	2015	2014/2015
0-5%	2929	2784	2578	2721	2768	1.7 %
6-84%	315	332	331	328	354	7.9 %
85-100%	54	61	57	73	83	13.7 %
Not reported	3	2	1	0	1	0.0 %
Total	3301	3179	2967	3122	3206	2.7 %
Waiting time (months) based on date start of dialysis	2011	2012	2013	2014	2015	2014/2015
Pre-emptive	78	74	71	97	100	3.1 %
0-5	39	48	44	51	59	15.7 %
6-11	107	146	133	132	143	8.3 %
12-23	433	430	416	421	479	13.8 %
24-59	1351	1310	1161	1241	1230	-0.9 %
60+	1293	1171	1142	1180	1195	1.3 %
Total	3301	3179	2967	3122	3206	2.7 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	2851	2743	2547	2707	2766	2.2 %
Repeat	450	436	420	415	440	6.0 %
Total	3301	3179	2967	3122	3206	2.7 %
B. 1.1.	2044	2040	2012	2017	2045	204 / /204 5
Recipient age	2011	2012	2013	2014	2015	2014/2015
0-15	105	74	69	85	98	15.3 %
0-15	105	74	69	85	98	15.3 %
0-15 16-55	105 1562	74 1439	69 1395	85 1436	98 1460	15.3 % 1.7 %
0-15 16-55 56-64	105 1562 779	74 1439 795	69 1395 712	85 1436 779	98 1460 808	15.3 % 1.7 % 3.7 %
0-15 16-55 56-64 65+	105 1562 779 855	74 1439 795 871	69 1395 712 791	85 1436 779 822	98 1460 808 840	15.3 % 1.7 % 3.7 % 2.2 %
0-15 16-55 56-64 65+ Total	105 1562 779 855 3301	74 1439 795 871 3179	69 1395 712 791 2967	85 1436 779 822 3122	98 1460 808 840 3206	15.3 % 1.7 % 3.7 % 2.2 % 2.7 %
0-15 16-55 56-64 65+ Total Allocation program (all donors)	105 1562 779 855 3301	74 1439 795 871 3179	69 1395 712 791 2967	85 1436 779 822 3122 2014	98 1460 808 840 3206	15.3 % 1.7 % 3.7 % 2.2 % 2.7 % 2014/2015
0-15 16-55 56-64 65+ Total Allocation program (all donors) ETKAS	105 1562 779 855 3301 2011	74 1439 795 871 3179 2012	69 1395 712 791 2967 2013	85 1436 779 822 3122 2014	98 1460 808 840 3206 2015	15.3 % 1.7 % 3.7 % 2.2 % 2.7 % 2014/2015 0.1 %
0-15 16-55 56-64 65+ Total Allocation program (all donors) ETKAS ESP	105 1562 779 855 3301 2011 2326 674	74 1439 795 871 3179 2012 2257 631	69 1395 712 791 2967 2013 2140 515	85 1436 779 822 3122 2014 2265 499	98 1460 808 840 3206 2015 2267 496	15.3 % 1.7 % 3.7 % 2.2 % 2.7 % 2014/2015 0.1 % -0.6 %
0-15 16-55 56-64 65+ Total Allocation program (all donors) ETKAS ESP AM	105 1562 779 855 3301 2011 2326 674 94	74 1439 795 871 3179 2012 2257 631 80	69 1395 712 791 2967 2013 2140 515 92	85 1436 779 822 3122 2014 2265 499 84	98 1460 808 840 3206 2015 2267 496 99	15.3 % 1.7 % 3.7 % 2.2 % 2.7 % 2014/2015 0.1 % -0.6 % 17.9 %
0-15 16-55 56-64 65+ Total Allocation program (all donors) ETKAS ESP AM Rescue	105 1562 779 855 3301 2011 2326 674 94 207	74 1439 795 871 3179 2012 2257 631 80 211	69 1395 712 791 2967 2013 2140 515 92 220	85 1436 779 822 3122 2014 2265 499 84 274	98 1460 808 840 3206 2015 2267 496 99 344	15.3 % 1.7 % 3.7 % 2.2 % 2.7 % 2014/2015 0.1 % -0.6 % 17.9 % 25.5 %
0-15 16-55 56-64 65+ Total Allocation program (all donors) ETKAS ESP AM Rescue Total Allocation program	105 1562 779 855 3301 2011 2326 674 94 207 3301	74 1439 795 871 3179 2012 2257 631 80 211 3179	69 1395 712 791 2967 2013 2140 515 92 220 2967	85 1436 779 822 3122 2014 2265 499 84 274 3122	98 1460 808 840 3206 2015 2267 496 99 344 3206	15.3 % 1.7 % 3.7 % 2.2 % 2.7 % 2014/2015 0.1 % -0.6 % 17.9 % 25.5 % 2.7 %
0-15 16-55 56-64 65+ Total Allocation program (all donors) ETKAS ESP AM Rescue Total Allocation program (donors 65+)	105 1562 779 855 3301 2011 2326 674 94 207 3301	74 1439 795 871 3179 2012 2257 631 80 211 3179 2012	69 1395 712 791 2967 2013 2140 515 92 220 2967 2013	85 1436 779 822 3122 2014 2265 499 84 274 3122 2014	98 1460 808 840 3206 2015 2267 496 99 344 3206 2015	15.3 % 1.7 % 3.7 % 2.2 % 2.7 % 2014/2015 0.1 % -0.6 % 17.9 % 25.5 % 2.7 % 2014/2015
0-15 16-55 56-64 65+ Total Allocation program (all donors) ETKAS ESP AM Rescue Total Allocation program (donors 65+) ETKAS	105 1562 779 855 3301 2011 2326 674 94 207 3301 2011	74 1439 795 871 3179 2012 2257 631 80 211 3179 2012 50	69 1395 712 791 2967 2013 2140 515 92 220 2967 2013	85 1436 779 822 3122 2014 2265 499 84 274 3122 2014	98 1460 808 840 3206 2015 2267 496 99 344 3206 2015	15.3 % 1.7 % 3.7 % 2.2 % 2.7 % 2014/2015 0.1 % -0.6 % 17.9 % 25.5 % 2.7 % 2014/2015
0-15 16-55 56-64 65+ Total Allocation program (all donors) ETKAS ESP AM Rescue Total Allocation program (donors 65+) ETKAS ESP	105 1562 779 855 3301 2011 2326 674 94 207 3301 2011	74 1439 795 871 3179 2012 2257 631 80 211 3179 2012 50 631	69 1395 712 791 2967 2013 2140 515 92 220 2967 2013 49 515	85 1436 779 822 3122 2014 2265 499 84 274 3122 2014	98 1460 808 840 3206 2015 2267 496 99 344 3206 2015	15.3 % 1.7 % 3.7 % 2.2 % 2.7 % 2014/2015 0.1 % -0.6 % 17.9 % 25.5 % 2.7 % 2014/2015 55.1 % -0.6 %

Table 5.4b(ii) Kidney-only transplants (including kidney en bloc) in 2015 - all allocation programs

III A. A. D. DD mismatakas	Α.				ш	MI	SLO	Total	0/
HLA - A, B, DR mismatches	Α	В	D	Н	HR	NL	SL0	Total	%
0	36	14	222	23	2	22	3	322	10.0 %
1	14	40	78	18	9	42	3	204	6.4 %
2	67 95	136	262 394	55 112	42 82	90	16 25	668	20.8 % 32.4 %
3 4	95 68	189 56	280	112 60	53	141 81	10	1038 608	19.0 %
5	37	6	159	15	9	42	10	269	8.4 %
6	5	4	53	4	3	22	0	91	2.8 %
Not calculated	2	0	2	0	0	2	0	6	0.2 %
Total	324	445	1450	287	200	442	58	3206	100.0 %
Blood group	A	В	D	н	HR	NL	SL0	Total	%
A	132	191	665	146	82	166	24	1406	43.9 %
AB	24	26	65	25	11	21	3	175	5.5 %
В	33	36	172	40	38	48	9	376	11.7 %
0	135	192	548	76	69	207	22	1249	39.0 %
Total	324	445	1450	287	200	442	58	3206	100.0 %
PRA	A	В	D	Н	HR	NL	SL0	Total	%
0-5%	299	381	1212	251	177	395	53	2768	86.3 %
6-84%	22	43	187	35	23	41	3	354	11.0 %
85-100%	3	21	51	1	0	5	2	83	2.6 %
Not reported	0	0	0	0	0	1	0	1	0.0 %
Total	324	445	1450	287	200	442	58	3206	100.0 %
Waiting time (months) based on date start of dialysis	A	В	D	Н	HR	NL	SLO	Total	%
Pre-emptive	7	26	20	18	8	19	2	100	3.1 %
0-5	5	17	12	2	8	11	4	59	1.8 %
6-11	14	32	26	11	27	24	9	143	4.5 %
12-23	59	96	107	50	72	84	11	479	14.9 %
24-59	171	204	392	148	63	230	22	1230	38.4 %
60+	68	70	893	58	22	74	10	1195	37.3 %
Total	324	445	1450	287	200	442	58	3206	100.0 %
Sequence	Α	В	D	Н	HR	NL	SL0	Total	%
First	253	397	1227	281	188	363	57	2766	86.3 %
Repeat	71	48	223	6	12	79	1	440	13.7 %
Total	324	445	1450	287	200	442	58	3206	100.0 %
Recipient age	A	В	D	Н	HR	NL	SL0	Total	%
0-15	10	9	61	10	1	6	1	98	3.1 %
16-55	163	213	632	141	106	171	34	1460	45.5 %
56-64	72	135	334	83	65	103	16	808	25.2 %
65+	79	88	423	53	28	162	7	840	26.2 %
Total	324	445	1450	287	200	442	58		100.0 %

Table 5.4b(ii) (continued)

Allocation program (all donors)	А	В	D	Н	HR	NL	SL0	Total	%
ETKAS	208	411	852	246	191	304	55	2267	70.7 %
ESP	46	19	313	22	4	91	1	496	15.5 %
AM	9	8	57	1	0	24	0	99	3.1 %
Rescue	61	7	228	18	5	23	2	344	10.7 %
Total	324	445	1450	287	200	442	58	3206	100.0 %
Allocation program (donors 65+)	А	В	D	Н	HR	NL	SL0	Total	%
	A 21	B 7	D 59	H 1	HR 8	NL 10	SL0	Total	% 14.5 %
(donors 65+)									
(donors 65+) ETKAS	21	7	59	1	8	10	1	107	14.5 %
(donors 65+) ETKAS ESP	21 46	7 19	59 313	1 22	8 4	10 91	1 1	107 496	14.5 % 67.4 %

Kidney-only transplants (including kidney en bloc) from 2011 to 2015 - ETKAS allocation program Table 5.4c(i)

	•					
HLA - A, B, DR mismatches	2011	2012	2013	2014	2015	2014/2015
0	345	329	287	350	307	-12.3 %
1	202	165	169	145	159	9.7 %
2	604	574	584	554	566	2.2 %
3	807	808	742	805	816	1.4 %
4	305	305	301	345	357	3.5 %
5	58	57	53	57	54	-5.3 %
6	5	17	4	9	8	-11.1 %
not calculated	0	2	0	0	0	0.0 %
Total	2326	2257	2140	2265	2267	0.1 %
Blood group	2011	2012	2013	2014	2015	2014/2015
A	1066	988	851	994	1024	3.0 %
AB	122	127	137	101	141	39.6 %
В	293	241	256	274	259	-5.5 %
0	845	901	896	896	843	-5.9 %
Total	2326	2257	2140	2265	2267	0.1 %
PRA	2011	2012	2013	2014	2015	2014/2015
0-5%	2082	1983	1877	1979	1953	-1.3 %
6-84%	217	239	236	244	273	11.9 %
85-100%	27	33	26	42	40	-4.8 %
Not reported	0	2	1	0	1	0.0 %
Total	2326	2257	2140	2265	2267	0.1 %

Table 5.4c(i) (continued)

Waiting time (months) based on date start of dialysis	2011	2012	2013	2014	2015	2014/2015
Pre-emptive	61	55	57	72	83	15.3 %
0-5	30	34	37	42	51	21.4 %
6-11	72	97	100	96	113	17.7 %
12-23	266	268	269	301	356	18.3 %
24-59	832	831	762	832	766	-7.9 %
60 +	1065	972	915	922	898	-2.6 %
Total	2326	2257	2140	2265	2267	0.1 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	2013	1921	1835	1961	1966	0.3 %
Repeat	313	336	305	304	301	-1.0 %
Total	2326	2257	2140	2265	2267	0.1 %
Recipient age	2011	2012	2013	2014	2015	2014/2015
0-15	100	70	66	77	97	26.0 %
16-55	1408	1318	1267	1298	1261	-2.9 %
56-64	687	701	621	643	669	4.0 %
65+	131	168	186	247	240	-2.8 %
Total	2326	2257	2140	2265	2267	0.1 %

Table 5.4c(ii) Kidney-only transplants (including kidney en bloc) in 2015 - ETKAS allocation program

HLA - A, B, DR mismatches	Α	В	D	Н	HR	NL	SL0	Total	%
0	34	12	212	23	2	21	3	307	13.5 %
1	10	34	55	17	8	32	3	159	7.0 %
2	46	130	203	51	42	78	16	566	25.0 %
3	66	184	250	97	79	115	25	816	36.0 %
4	41	51	107	51	48	51	8	357	15.7 %
5	10	0	23	6	9	6	0	54	2.4 %
6	1	0	2	1	3	1	0	8	0.4 %
Total	208	411	852	246	191	304	55	2267	100.0 %
Blood group	A	В	D	Н	HR	NL	SL0	Total	%
A	92	180	400	129	81	119	23	1024	45.2 %
AB	21	24	46	22	10	15	3	141	6.2 %
В	22	33	99	32	35	30	8	259	11.4 %
0	73	174	307	63	65	140	21	843	37.2 %
Total	208	411	852	246	191	304	55	2267	100.0 %

Table 5.4c(ii) (continued)

PRA	А	В	D	Н	HR	NL	SL0	Total	%
0-5%	192	357	701	211	168	274	50	1953	86.1 %
6-84%	14	40	131	34	23	28	3	273	12.0 %
85-100%	2	14	20	1	0	1	2	40	1.8 %
Not reported	0	0	0	0	0	1	0	1	0.0 %
Total	208	411	852	246	191	304	55	2267	100.0 %
Waiting time (months) based on date start of dialysis	Α	В	D	Н	HR	NL	SLO	Total	%
Pre-emptive	7	25	14	12	8	15	2	83	3.7 %
0-5	4	16	11	1	8	8	3	51	2.2 %
6-11	8	30	17	6	26	17	9	113	5.0 %
12-23	40	91	54	42	68	51	10	356	15.7 %
24-59	94	181	131	129	60	149	22	766	33.8 %
60+	55	68	625	56	21	64	9	898	39.6 %
Total	208	411	852	246	191	304	55	2267	100.0 %
Sequence	Α	В	D	Н	HR	NL	SL0	Total	%
First	159	367	721	240	179	246	54	1966	86.7 %
Repeat	49	44	131	6	12	58	1	301	13.3 %
Total	208	411	852	246	191	304	55	2267	100.0 %
Recipient age	Α	В	D	Н	HR	NL	SL0	Total	%
0-15	10	8	61	10	1	6	1	97	4.3 %
16-55	130	207	505	136	103	147	33	1261	55.6 %
56-64	49	131	242	75	65	92	15	669	29.5 %
65+	19	65	44	25	22	59	6	240	10.6 %
Total	208	411	852	246	191	304	55	2267	100.0 %

Table 5.4d(i) Kidney-only transplants (including kidney en bloc) from 2011 to 2015 - ESP allocation program

HLA - A, B, DR mismatches	2011	2012	2013	2014	2015	2014/2015
0	2	2	3	0	1	0.0 %
1	13	19	15	7	5	-28.6 %
2	82	69	61	25	25	0.0 %
3	162	152	97	80	95	18.8 %
4	183	183	168	153	140	-8.5 %
5	175	155	122	167	158	-5.4 %
6	57	51	49	67	66	-1.5 %
not calculated	0	0	0	0	6	0.0 %
Total	674	631	515	499	496	-0.6 %

Table 5.4d(i) (continued)

Blood group	2011	2012	2013	2014	2015	2014/2015
A	303	236	213	224	185	-17.4 %
AB	30	25	17	13	10	-23.1 %
В	56	77	54	49	56	14.3 %
0	285	293	231	213	245	15.0 %
Total	674	631	515	499	496	-0.6 %
PRA	2011	2012	2013	2014	2015	2014/2015
0-5%	640	590	480	468	464	-0.9 %
6-84%	34	41	35	28	29	3.6 %
85-100%	0	0	0	3	3	0.0 %
Total	674	631	515	499	496	-0.6 %
Waiting time (months) based on date start of dialysis	2011	2012	2013	2014	2015	2014/2015
Pre-emptive	11	12	4	12	8	-33.3 %
0-5	6	12	4	6	3	-50.0 %
6-11	18	31	17	20	11	-45.0 %
12-23	121	121	99	76	68	-10.5 %
24-59	392	344	293	281	306	8.9 %
60+	126	111	98	104	100	-3.8 %
Total	674	631	515	499	496	-0.6 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	625	601	479	471	462	-1.9 %
Repeat	49	30	36	28	34	21.4 %

Table 5.4d(ii) Kidney-only transplants (including kidney en bloc) in 2015 - ESP allocation program

HLA - A. B. DR mismatches	Α	В	D	Н	HR	NL	SL0	Total	%
0	1	0	0	0	0	0	0	1	0.2 %
1	1	1	2	0	1	0	0	5	1.0 %
2	4	3	12	2	0	4	0	25	5.0 %
3	7	2	66	7	1	12	0	95	19.2 %
4	12	4	94	5	2	22	1	140	28.2 %
5	16	6	99	6	0	31	0	158	31.9 %
6	3	3	38	2	0	20	0	66	13.3 %
Not calculated	2	0	2	0	0	2	0	6	1.2 %
Total	46	19	313	22	4	91	1	496	100.0 %

Table 5.4d(ii) (continued)

Blood group	А	В	D	Н	HR	NL	SL0	Total	%
A	15	6	124	9	0	31	0	185	37.3 %
AB	0	0	7	0	0	3	0	10	2.0 %
В	2	2	37	2	2	10	1	56	11.3 %
0	29	11	145	11	2	47	0	245	49.4 %
Total	46	19	313	22	4	91	1	496	100.0 %
PRA	Α	В	D	Н	HR	NL	SL0	Total	%
0-5%	44	18	285	21	4	91	1	464	93.5 %
6-84%	2	1	25	1	0	0	0	29	5.8 %
85-100%	0	0	3	0	0	0	0	3	0.6 %
Total	46	19	313	22	4	91	1	496	100.0 %
Waiting time (months) based on date start of dialysis	A	В	D	Н	HR	NL	SL0	Total	%
Pre-emptive	0	0	4	3	0	1	0	8	1.6 %
0-5	0	0	0	1	0	2	0	3	0.6 %
6-11	1	1	5	0	1	3	0	11	2.2 %
12-23	9	5	25	4	1	24	0	68	13.7 %
24-59	35	13	183	13	2	60	0	306	61.7 %
60+	1	0	96	1	0	1	1	100	20.2 %
Total	46	19	313	22	4	91	1	496	100.0 %
Sequence	Α	В	D	Н	HR	NL	SL0	Total	%
First	42	19	283	22	4	91	1	462	93.1 %
Repeat	4	0	30	0	0	0	0	34	6.9 %
Total	46	19	313	22	4	91	1	496	100.0 %

Table 5.4e(i) Kidney-only transplants (including kidney en bloc) from 2011 to 2015 - AM allocation program

HLA - A, B, DR mismatches	2011	2012	2013	2014	2015	2014/2015
0	11	9	25	12	12	0.0 %
1	20	23	18	28	32	14.3 %
2	40	22	27	30	22	-26.7 %
3	17	24	18	11	28	154.5 %
4	6	1	4	3	5	66.7 %
5	0	1	0	0	0	0.0 %
Total	94	80	92	84	99	17.9 %
Blood group	2011	2012	2013	2014	2015	2014/2015
A	36	33	36	38	38	0.0 %
AB	9	5	4	4	7	75.0 %
В	15	12	16	11	15	36.4 %
0	34	30	36	31	39	25.8 %
Total	94	80	92	84	99	17.9 %

Table 5.4e(i) (continued)

PRA	2011	2012	2013	2014	2015	2014/2015
0-5%	14	10	9	12	16	33.3 %
6-84%	53	43	52	45	44	-2.2 %
85-100%	27	27	31	27	39	44.4 %
Total	94	80	92	84	99	17.9 %
Waiting time (months) based on date start of dialysis	2011	2012	2013	2014	2015	2014/2015
Pre-emptive	1	1	3	2	1	-50.0 %
6-11	0	2	4	2	1	-50.0 %
12-23	8	11	9	6	4	-33.3 %
24-59	46	35	35	33	50	51.5 %
60+	39	31	41	41	43	4.9 %
Total	94	80	92	84	99	17.9 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	21	20	21	16	22	37.5 %
Repeat	73	60	71	68	77	13.2 %
Total	94	80	92	84	99	17.9 %
Recipient age	2011	2012	2013	2014	2015	2014/2015
0-15	2	2	0	3	1	-66.7 %
16-55	74	63	65	52	70	34.6 %
56-64	13	9	13	23	17	-26.1 %
65+	5	6	14	6	11	83.3 %
Total	94	80	92	84	99	17.9 %

Table 5.4e(ii) Kidney-only transplants (including kidney en bloc) in 2015 - AM allocation program

HLA - A, B, DR mismatches	Α	В	D	H	NL	Total	%
0	1	2	8	0	1	12	12.1 %
1	3	5	15	0	9	32	32.3 %
2	3	0	14	1	4	22	22.2 %
3	2	1	15	0	10	28	28.3 %
4	0	0	5	0	0	5	5.1 %
Total	9	8	57	1	24	99	100.0 %
Blood group	Α	В	D	н	NL	Total	0/
			U		NL	Total	%
A	3	2	25	1	7	38	38.4 %
A	3	2	25	1	7	38	38.4 % 7.1 %
A AB	3 0	2 2	25 4	1 0	7 1	38 7	38.4 %

Table 5.4e(ii) (continued)

PRA	A	В	D	Н	NL	Total	%
0-5%	3	0	5	1	7	16	16.2 %
6-84%	5	1	25	0	13	44	44.4 %
85-100%	1	7	27	0	4	39	39.4 %
Total	9	8	57	1	24	99	100.0 %
Waiting time (months) based on date start of dialysis	Α	В	D	Н	NL	Total	%
Pre-emptive	0	0	0	0	1	1	1.0 %
6-11	0	0	0	0	1	1	1.0 %
12-23	0	0	3	0	1	4	4.0 %
24-59	6	6	25	0	13	50	50.5 %
60+	3	2	29	1	8	43	43.4 %
Total	9	8	57	1	24	99	100.0 %
Sequence	Α	В	D	Н	NL	Total	%
First	1	4	12	1	4	22	22.2 %
Repeat	8	4	45	0	20	77	77.8 %
Total	9	8	57	1	24	99	100.0 %
Recipient age	Α	В	D	н	NL	Total	%
0-15	0	1	0	0	0	1	1.0 %
16-55	8	4	43	1	14	70	70.7 %
56-64	0	3	8	0	6	17	17.2 %
65+	1	0	6	0	4	11	11.1 %
Total	9	8	57	1	24	99	100.0 %

Table 5.5(i) Living donor kidney transplants from 2011 to 2015

Kidney-only	2011	2012	2013	2014	2015	2014/2015
Related	687	728	714	658	634	-3.6 %
Non-related	652	653	689	689	688	-0.1 %
Total	1339	1381	1403	1347	1322	-1.9 %
Related	2011	2012	2013	2014	2015	2014/2015
Brother / sister	216	258	248	213	221	3.8 %
Father	153	146	136	132	131	-0.8 %
Mother	231	216	236	218	200	-8.3 %
Son / daughter	40	59	43	36	34	-5.6 %
Grandfather / -mother	7	5	5	7	6	-14.3 %
Uncle / aunt	18	21	19	23	24	4.3 %
Nephew / niece	14	14	12	17	7	-58.8 %
Cousin	8	7	14	11	10	-9.1 %
Blood related: NOS*	0	2	1	1	1	0.0 %
Total	687	728	714	658	634	-3.6 %

Table 5.5(i) (continued)

Non-related	2011	2012	2013	2014	2015	2014/2015
Spouse / partner	464	481	474	433	425	-1.8 %
Not blood related family	50	60	68	65	69	6.2 %
Friend	57	45	56	73	58	-20.5 %
Not blood related: NOS*	81	67	91	118	136	15.3 %
Total	652	653	689	689	688	-0.1 %

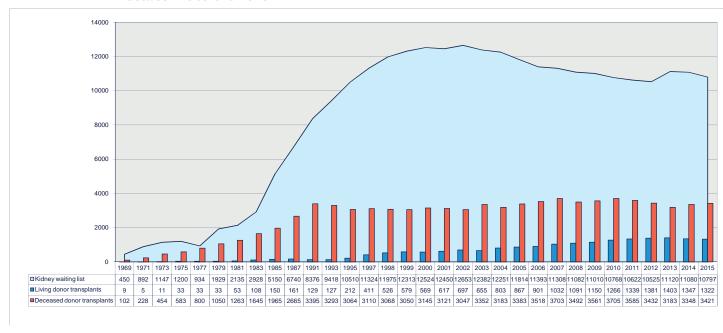
^{*} NOS - Not otherwise specified

Table 5.5(ii) Living donor kidney transplants in 2015

Kidney-only	Α	В	D	Н	HR	NL	Total	%
Related	36	34	334	27	5	198	634	48.0 %
Non-related	26	23	311	13	0	315	688	52.0 %
Total	62	57	645	40	5	513	1322	100.0 %
Related	А	В	D	Н	HR	NL	Total	%
Brother / sister	14	14	103	6	0	84	221	34.9 %
Father	10	5	74	5	0	37	131	20.7 %
Mother	8	9	129	12	5	37	200	31.5 %
Son / daughter	1	3	5	1	0	24	34	5.4 %
Grandfather / - mother	0	1	4	0	0	1	6	0.9 %
Uncle / aunt	3	1	11	2	0	7	24	3.8 %
Nephew / niece	0	0	1	0	0	6	7	1.1 %
Cousin	0	1	6	1	0	2	10	1.6 %
Blood related: NOS *	0	0	1	0	0	0	1	0.2 %
Total	36	34	334	27	5	198	634	100.0 %
Non related	A	В	D	Н	HR	NL	Total	%
Spouse / partner	22	20	253	7	0	123	425	61.8 %
Not blood related family	2	0	35	0	0	32	69	10.0 %
Friend	1	2	19	6	0	30	58	8.4 %
Not blood related: NOS*	1	1	4	0	0	130	136	19.8 %
Total	26	23	311	13	0	315	688	100.0 %

^{*} NOS - Not otherwise specified

Figure 5.5 Dynamics of the Eurotransplant kidney transplant waiting list and transplants between 1969 and 2015



"International exchange of scientific knowledge and skills for the building and improvement of rules in the field of organ donation, allocation and transplantation make Eurotransplant a center of excellence and transparency for European transplant activities."



Prof.Dr. Gabriela Berlakovich, Member of the Eurotransplant Board representing the kidney

Head of the transplantation department of the University Hospital, Vienna, Austria

6.

Thoracic organs: donation, waiting lists and transplants

DONATION

Table 6.1(i) Deceased donors / hearts in Eurotransplant from 2011 to 2015

Donors	2011	2012	2013	2014	2015	2014/2015
All donors reported	2481	2421	2302	2299	2317	0.4 %
Non-heart donors	1564	1515	1404	1367	1431	4.1 %
Heart donors reported	917	906	898	932	886	-4.9 %
Heart donors not used	325	299	309	298	281	10.3 %
Total heart donors used	592	607	589	634	605	-4.8 %
Hearts	2011	2012	2013	2014	2015	2014/2015
Reported	917	906	898	932	886	-5.2 %
Offered	911	901	895	925	882	-4.9 %
Accepted	715	708	685	738	690	-7.0 %
Transplanted	592	607	589	634	605	-4.8 %

Table 6.1(ii) Deceased donors / hearts in Eurotransplant in 2015

Donors	A	В	D	Н	HR	L	NL	SL0	Total ET	Non-ET	Total	% all donors
All donors reported	214	344	888	189	169	3	348	55	2210	107	2317	100.0 %
Non-heart donors	102	237	493	118	121	0	276	24	1371	60	1431	61.8 %
Heart donors reported	112	107	395	71	48	3	72	31	839	47	886	38.2 %
Heart donors not used	33	26	117	19	9	0	24	11	239	42	281	12.1 %
Total heart donors used	79	81	278	52	39	3	48	20	600	5	605	26.1 %
Hearts	A	В	D	Н	HR	L	NL	SLO	Total ET	Non-ET	Total	% of reported
Reported	112	107	395	71	48	3	72	31	839	47	886	100.0 %
Offered	111	107	393	71	48	3	72	31	836	46	882	99.5 %
Accepted	90	89	318	62	42	3	55	21	680	10	690	77.9 %
Transplanted	79	81	278	52	39	3	48	20	600	5	605	68.3 %

Deceased donors / lungs in Eurotransplant from 2011 to 2015 Table 6.2(i)

Donors	2011	2012	2013	2014	2015	2014/2015
All donors reported	2481	2421	2302	2299	2317	0.4 %
Non-lung donors	1449	1308	1138	1128	1194	5.8 %
Lung donors reported	1032	1113	1164	1171	1123	-4.8 %
Lung donors not used	425	443	493	510	514	-0.8 %
One lung used	31	29	26	24	24	0.0 %
Two lungs used	576	641	645	637	582	-8.6 %
Total lung donors used	607	670	671	661	609	-7.9 %
Lungs	2011	2012	2013	2014	2015	2014/2015
Reported	2046	2216	2311	2337	2236	-4.3 %
Offered	2022	2206	2284	2325	2226	-4.3 %
Accepted	1610	1709	1794	1793	1667	-7.0 %
Transplanted	1183	1311	1316	1298	1193	-8.1 %

Table 6.2(ii) Deceased donors / lungs in Eurotransplant in 2015

Donors	Α	В	D	Н	HR	L	NL	SL0	Total ET	Non-ET	Total	% all donors
All donors reported	214	344	888	189	169	3	348	55	2210	107	2317	100.0 %
Non-lung donors	97	158	406	131	138	0	194	35	1159	35	1194	51.5 %
Lung donors reported	117	186	482	58	31	3	154	20	1051	72	1123	48.5 %
Lung donors not used	48	67	219	22	10	1	83	14	464	50	514	22.2 %
One lung used	3	5	11	0	0	0	5	0	24	0	24	1.0 %
Two lungs used	66	114	250	36	21	2	65	6	560	22	582	25.1 %
Total lung donors used	69	119	263	36	21	2	71	6	587	22	609	26.3 %
Lungs	А	В	D	Н	HR	L	NL	SL0	Total ET	Non-ET	Total	% reported
Reported	234	366	961	116	62	6	307	40	2092	144	2236	100.0 %
Offered	230	364	961	116	62	6	307	40	2086	140	2226	99.6 %
Accepted	191	304	697	102	58	4	209	30	1595	72	1667	74.6 %
Transplanted	135	233	514	72	42	4	137	12	1149	44	1193	53.4 %

WAITING LIST

Figure 6.1 Heart waiting list, number of patients at year end, by urgency

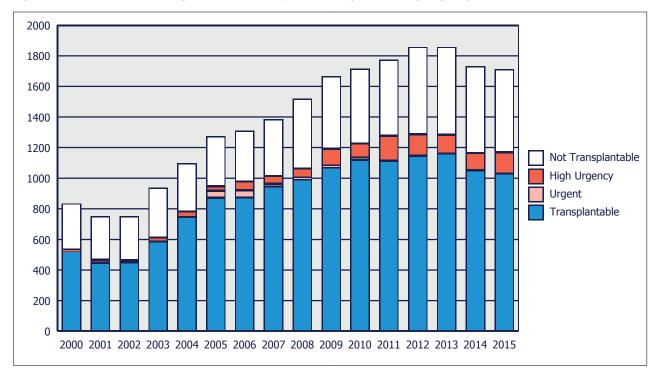
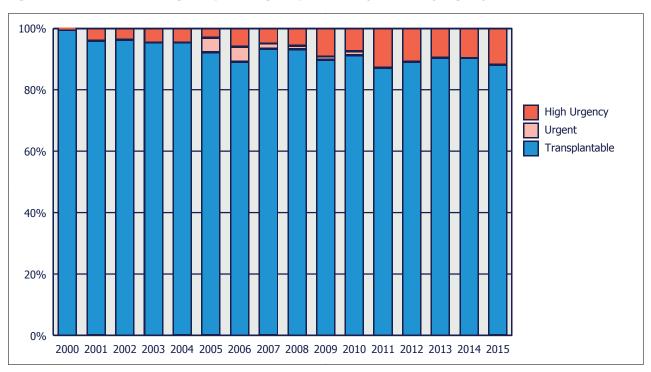


Figure 6.2 Heart waiting list, percentage of patients at year end, by urgency



Active heart transplant waiting list at year end, from 2011 to 2015 **Table 6.3(i)**

	2011	2012	2013	2014	2015	2014/2015
Heart	1222	1235	1250	1140	1140	0.0 %
Heart + kidney	26	25	17	12	14	16.7 %
Heart + lung	25	25	15	12	13	8.3 %
Heart + lung + liver	1	0	0	0	0	0.0 %
Heart + liver	3	2	1	0	3	0.0 %
Total	1277	1287	1283	1164	1170	0.5 %

Table 6.3(ii) Active heart transplant waiting list at year end, in 2015

	А	В	D	Н	HR	NL	SLO	Total	%
Heart	49	110	773	41	24	101	42	1140	97.4 %
Heart + kidney	1	6	7	0	0	0	0	14	1.2 %
Heart + lung	2	2	8	0	0	1	0	13	1.1 %
Heart + liver	0	0	2	0	0	0	1	3	0.3 %
Total	52	118	790	41	24	102	43	1170	100.0 %

Table 6.4(i) Active heart-only transplant waiting list at year end, from 2011 to 2015 - characteristics

Blood group	2011	2012	2013	2014	2015	2014/2015
A	536	547	570	495	485	-2.0 %
AB	37	32	18	27	33	22.2 %
В	104	110	113	111	117	5.4 %
0	545	546	549	507	505	-0.4 %
Total	1222	1235	1250	1140	1140	0.0 %
% PRA current	2011	2012	2013	2014	2015	2014/2015
0-5 %	652	720	734	685	658	-3.9 %
6-84 %	26	42	49	47	42	-10.6 %
85-100 %	1	3	9	7	5	-28.6 %
Not reported	543	470	458	401	435	8.5 %
Total	1222	1235	1250	1140	1140	0.0 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	1206	1215	1234	1129	1130	0.1 %
Repeat	16	20	16	11	10	-9.1 %
Total	1222	1235	1250	1140	1140	0.0 %

Table 6.4(i) (continued)

Waiting time (months) based on date put on WL	2011	2012	2013	2014	2015	2014/2015
0-5	322	291	321	272	294	8.1 %
6-11	197	224	235	204	191	-6.4 %
12-23	288	253	255	261	235	-10.0 %
24+	415	467	439	403	420	4.2 %
Total	1222	1235	1250	1140	1140	0.0 %
Age	2011	2012	2013	2014	2015	2014/2015
0-15	18	41	23	37	37	0.0 %
16-55	642	638	679	608	604	-0.7 %
56-64	434	429	447	404	392	-3.0 %
65+	128	127	101	91	107	17.6 %
Total	1222	1235	1250	1140	1140	0.0 %
Urgency	2011	2012	2013	2014	2015	2014/2015
High urgency	158	130	114	107	132	23.4 %
Elective	1064	1105	1136	1033	1008	-2.4 %
Total	1222	1235	1250	1140	1140	0.0 %

Table 6.4(ii) Active heart-only transplant waiting list at year end, in 2015 - characteristics

Blood group	A	В	D	Н	HR	NL	SL0	Total	%
A	19	50	340	8	14	40	14	485	42.5 %
AB	3	2	18	4	1	4	1	33	2.9 %
В	6	6	79	10	4	7	5	117	10.3 %
0	21	52	336	19	5	50	22	505	44.3 %
Total	49	110	773	41	24	101	42	1140	100.0 %
% PRA current	A	В	D	Н	HR	NL	SLO	Total	%
0-5 %	21	34	470	37	3	93	0	658	57.7 %
6-84 %	0	4	28	1	1	7	1	42	3.7 %
85-100 %	0	0	5	0	0	0	0	5	0.4 %
Not reported	28	72	270	3	20	1	41	435	38.2 %
Total	49	110	773	41	24	101	42	1140	100.0 %
Sequence	A	В	D	Н	HR	NL	SL0	Total	%
First	49	108	767	40	24	101	41	1130	99.1 %
Repeat	0	2	6	1	0	0	1	10	0.9 %
Total	49	110	773	41	24	101	42	1140	100.0 %

Table 6.4(ii) (continued)

Waiting time (months) based on date put on WL	A	В	D	Н	HR	NL	SL0	Total	%
0-5	21	41	159	15	17	26	15	294	25.8 %
6-11	6	27	109	7	3	25	14	191	16.8 %
12-23	9	26	150	13	3	27	7	235	20.6 %
24+	13	16	355	6	1	23	6	420	36.8 %
Total	49	110	773	41	24	101	42	1140	100.0 %
Age	A	В	D	Н	HR	NL	SLO	Total	%
0-15	2	0	32	0	0	3	0	37	3.2 %
16-55	17	67	409	26	10	55	20	604	53.0 %
56-64	22	34	259	13	13	37	14	392	34.4 %
65+	8	9	73	2	1	6	8	107	9.4 %
Total	49	110	773	41	24	101	42	1140	100.0 %
Urgency	A	В	D	Н	HR	NL	SL0	Total	%
High urgency	3	5	105	1	3	5	10	132	11.6 %
Elective	46	105	668	40	21	96	32	1008	88.4 %
Total	49	110	773	41	24	101	42	1140	100.0 %

Table 6.5(i) Active heart + lung transplant waiting list at year end, from 2011 to 2015

Type of transplant	2011	2012	2013	2014	2015	2014/2015
Heart + lung	25	25	15	12	13	8.3 %
Heart + lung + liver	1	0	0	0	0	0.0 %
Total	26	25	15	12	13	8.3 %

Table 6.5(ii) Active heart + lung transplant waiting list at year end, in 2015

Type of transplant	A	В	D	NL	Total	%
Heart + lung	2	2	8	1	13	100.0 %
Total	2	2	8	1	13	100.0 %

Table 6.6(i) Active heart + lung transplant waiting list at year end, from 2011 to 2015 - characteristics

Blood group	2011	2012	2013	2014	2015	2014/2015
A	13	10	3	4	7	75.0 %
AB	1	3	0	0	0	0.0 %
В	0	2	1	1	0	-100.0 %
0	12	10	11	7	6	-14.3 %
Total	26	25	15	12	13	8.3 %
% PRA current	2011	2012	2013	2014	2015	2014/2015
0-5 %	8	10	7	8	7	-12.5 %
6-84 %	2	2	2	1	1	0.0 %
Not reported	16	13	6	3	5	66.7 %
Total	26	25	15	12	13	8.3 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	26	25	14	11	11	0.0 %
Repeat	0	0	1	1	2	100.0 %
Total	26	25	15	12	13	8.3 %
Waiting time (months) based on date put on WL	2011	2012	2013	2014	2015	2014/2015
0-5	6	7	8	2	5	150.0 %
6-11	6	2	3	4	0	-100.0 %
12-23	2	6	1	4	3	-25.0 %
24+	12	10	3	2	5	150.0 %
Total	26	25	15	12	13	8.3 %
Total Age	26	25 2012	15 2013	12 2014	13 2015	8.3 % 2014/2015
Age	2011	2012	2013	2014	2015	2014/2015
Age 0-15	2011	2012	2013	2014	2015	2014/2015 -33.3 %
Age 0-15 16-55	2011 1 22	2012 3 18	2013 2 12	2014 3 9	2015 2 10	2014/2015 -33.3 %
Age 0-15 16-55 56-64	2011 1 22 3	2012 3 18 4	2013 2 12 1	2014 3 9 0	2015 2 10 1	2014/2015 -33.3 % 11.1 %
Age 0-15 16-55 56-64 Total	2011 1 22 3 26	2012 3 18 4 25	2013 2 12 1 1	2014 3 9 0	2015 2 10 1	2014/2015 -33.3 % 11.1 % 8.3 %
Age 0-15 16-55 56-64 Total Urgency	2011 1 22 3 26 2011	2012 3 18 4 25	2013 2 12 1 15 2013	2014 3 9 0 12 2014	2015 2 10 1 13 2015	2014/2015 -33.3 % 11.1 % 8.3 % 2014/2015

Table 6.6(ii) Active heart + lung transplant waiting list at year end, in 2015 - characteristics

Blood group	A	В	D	NL	Total	%
A	1	2	3	1	7	53.8 %
0	1	0	5	0	6	46.2 %
Total	2	2	8	1	13	100.0 %
% PRA current	A	В	D	NL	Total	%
0-5 %	0	0	6	1	7	53.8 %
6-84 %	0	0	1	0	1	7.7 %
Not reported	2	2	1	0	5	38.5 %
Total	2	2	8	1	13	100.0 %
Sequence	A	В	D	NL	Total	%
First	2	1	7	1	11	84.6 %
Repeat	0	1	1	0	2	15.4 %
Total	2	2	8	1	13	100.0 %
Waiting time (months) based on date put on wl	A	В	D	NL	Total	%
0-5	0	2	3	0	5	38.5 %
12-23	1	0	1	1	3	23.1 %
24+	1	0	4	0	5	38.5 %
Total	2	2	8	1	13	100.0 %
Age	Α	В	D	NL	Total	%
0-15	1	0	0	1	2	15.4 %
16-55	1	2	7	0	10	76.9 %
56-64	0	0	1	0	1	7.7 %
Total	2	2	8	1	13	100.0 %
Urgency	A	В	D	NL	Total	%
High urgency	1	0	3	1	5	38.5 %
Elective	1	2	5	0	8	61.5 %
Total	2	2	8	1	13	100.0 %

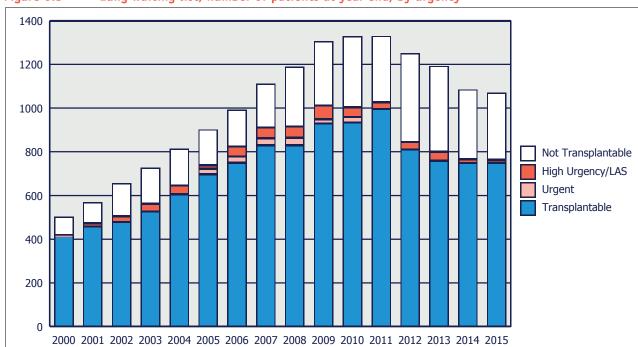
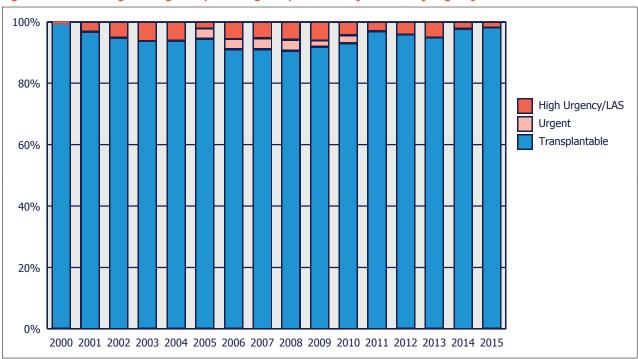


Figure 6.3 Lung waiting list, number of patients at year end, by urgency





Active lung transplant waiting list at year end, from 2011 to 2015 **Table 6.7(i)**

Type of transplant	2011	2012	2013	2014	2015	2014/2015
Lung	997	815	779	747	746	-0.1 %
Lung + kidney	2	1	1	1	0	-100.0 %
Lung + heart	25	25	15	12	13	8.3 %
Lung + heart + liver	1	0	0	0	0	0.0 %
Lung + liver	1	3	5	6	5	-16.7 %
Total	1026	844	800	766	764	-0.3 %

Active lung transplant waiting list at year end, in 2015 Table 6.7(ii)

Type of transplant	Α	В	D	NL	Total	%
Lung	72	102	396	176	746	97.6 %
Lung + heart	2	2	8	1	13	1.7 %
Lung + liver	0	0	5	0	5	0.7 %
Total	74	104	409	177	764	100.0 %

Table 6.8(i) Active lung-only transplant waiting list at year end, from 2011 to 2015 - characteristics

Blood group	2011	2012	2013	2014	2015	2014/2015
A	399	328	315	292	295	1.0 %
AB	18	19	13	10	13	30.0 %
В	83	62	45	54	50	-7.4 %
0	497	406	406	391	388	-0.8 %
Total	997	815	779	747	746	-0.1 %
% PRA current	2011	2012	2013	2014	2015	2014/2015
0-5 %	581	484	460	440	404	-8.2 %
6-84 %	26	39	44	33	49	48.5 %
85-100 %	1	2	3	3	4	33.3 %
Not reported	389	290	272	271	289	6.6 %
Total	997	815	779	747	746	-0.1 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	973	794	761	728	723	-0.7 %
Repeat	24	21	18	19	23	21.1 %
Total	997	815	779	747	746	-0.1 %
Waiting time (months) based on date put on WL	2011	2012	2013	2014	2015	2014/2015
0-5	314	245	269	203	250	23.2 %
6-11	173	113	107	151	130	-13.9 %
12-23	202	193	139	142	133	-6.3 %
24+	308	264	264	251	233	-7.2 %
Total	997	815	779	747	746	-0.1 %

Table 6.8(i) (continued)

Age	2011	2012	2013	2014	2015	2014/2015
0-15	9	9	5	3	7	133.3 %
16-55	580	470	392	384	380	-1.0 %
56-64	382	313	349	333	328	-1.5 %
65+	26	23	33	27	31	14.8 %
Total	997	815	779	747	746	-0.1 %
Urgency	2011	2012	2013	2014	2015	2014/2015
High urgency/LAS	29	25	31	13	9	-30.8 %
Elective	968	790	748	734	737	0.4 %
Total	997	815	779	747	746	-0.1 %

Table 6.8(ii) Active lung-only transplant waiting list at year end, in 2015 - characteristics

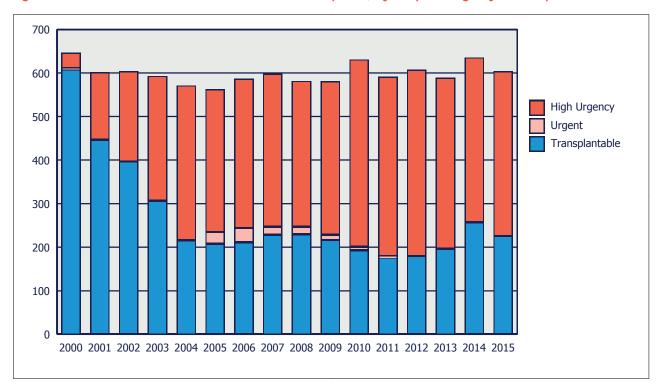
Blood group	Α	В	D	NL	Total	%
A	34	44	140	77	295	39.5 %
AB	2	0	7	4	13	1.7 %
В	6	8	26	10	50	6.7 %
0	30	50	223	85	388	52.0 %
Total	72	102	396	176	746	100.0 %
% PRA current	A	В	D	NL	Total	%
0-5 %	8	6	230	160	404	54.2 %
6-84 %	1	2	35	11	49	6.6 %
85-100 %	0	1	3	0	4	0.5 %
Not reported	63	93	128	5	289	38.7 %
Total	72	102	396	176	746	100.0 %
Sequence	A	В	D	NL	Total	%
First	69	101	379	174	723	97 %
Repeat	3	1	17	2	23	3 %
Total	72	102	396	176	746	100.0 %
Waiting time (months) based on date put on WL	Α	В	D	NL	Total	%
0-5	40	49	125	36	250	33.5 %
6-11	15	36	50	29	130	17.4 %
12-23	13	14	66	40	133	17.8 %
24+	4	3	155	71	233	31.2 %
Total	72	102	396	176	746	100.0 %

Table 6.8(ii) (continued)

Age	А	В	D	NL	Total	%
0-15	4	0	3	0	7	0.9 %
16-55	52	45	192	91	380	50.9 %
56-64	14	49	184	81	328	44.0 %
65+	2	8	17	4	31	4.2 %
Total	72	102	396	176	746	100.0 %
Urgency	A	В	D	NL	Total	%
High urgency/LAS	1	0	7	1	9	1.2 %
Elective	71	102	389	175	737	98.8 %
Total	72	102	396	176	746	100.0 %

TRANSPLANTATION

Figure 6.5 Number of deceased donor heart transplants, by recipient urgency at transplant



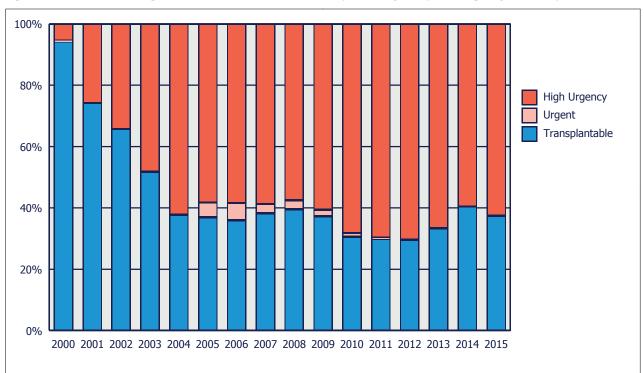


Figure 6.6 Percentage of deceased donor heart transplants, by recipient urgency at transplant

Table 6.9(i) Heart transplants from 2011 to 2015 - characteristics

Deceased donor heart transplants

Type of transplant	2011	2012	2013	2014	2015	2014/2015
Heart	553	569	566	617	593	-3.9 %
Heart + kidney	21	18	8	9	7	-22.2 %
Heart + both lungs	14	19	14	9	4	-55.6 %
Heart + liver	3	1	1	0	0	0.0 %
Total	591	607	589	635	604	-4.9 %

Heart-only transplants

Blood group	2011	2012	2013	2014	2015	2014/2015
A	266	263	257	299	276	-7.7 %
AB	39	51	45	35	39	11.4 %
В	72	75	80	79	99	25.3 %
0	176	180	184	204	179	-12.3 %
Total	553	569	566	617	593	-3.9 %

Table 6.9(i) (continued)

Waiting time (months) based on date put on WL	2011	2012	2013	2014	2015	2014/2015
0-5	294	277	287	304	307	1.0 %
6-11	98	126	106	105	93	-11.4 %
12-23	88	89	84	107	121	13.1 %
24-59	61	69	72	81	53	-34.6 %
60+	12	8	17	20	19	-5.0 %
Total	553	569	566	617	593	-3.9 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	548	560	554	609	581	-4.6 %
Repeat	5	9	12	8	12	50.0 %
Total	553	569	566	617	593	-3.9 %
Recipient age	2011	2012	2013	2014	2015	2014/2015
0-15	41	40	58	49	63	28.6 %
16-55	293	304	293	310	304	-1.9 %
56-64	176	187	165	204	179	-12.3 %
65+	43	38	50	54	47	-13.0 %
Total	553	569	566	617	593	-3.9 %
Allocation type	2011	2012	2013	2014	2015	2014/2015
Standard	462	463	469	523	516	-1.3 %
Rescue	91	106	97	94	77	-18.1 %
Total	553	569	566	617	593	-3.9 %
Urgency	2011	2012	2013	2014	2015	2014/2015
High urgency	384	401	376	365	372	1.9 %
Urgent	2	0	0	0	0	0.0 %
Elective	167	168	190	252	221	-12.3 %
Total	553	569	566	617	593	-3.9 %

Table 6.9(ii) Heart transplants in 2015 - characteristics

Deceased donor heart transplants

Type of transplant	А	В	D	Н	HR	NL	SL0	Non-ET	Total	%
Heart	65	78	283	51	37	53	23	3	593	98.2 %
Heart + kidney	2	3	1	0	0	0	1	0	7	1.2 %
Heart + both lungs	0	1	2	0	0	1	0	0	4	0.7 %
Total	67	82	286	51	37	54	24	3	604	100.0 %

Table 6.9(ii) (continued)

Heart-only transplants

Blood group	Α	В	D	Н	HR	NL	SL0	Non-ET	Total	%
A	32	32	141	20	19	23	8	1	276	46.5 %
AB	3	4	21	6	4	0	1	0	39	6.6 %
В	13	11	41	15	8	4	7	0	99	16.7 %
0	17	31	80	10	6	26	7	2	179	30.2 %
Total	65	78	283	51	37	53	23	3	593	100.0 %
Waiting time (months) based on date put on WL	Α	В	D	Н	HR	NL	SL0	Non-ET	Total	%
0-5	43	25	143	36	26	15	16	3	307	51.8 %
6-11	5	15	50	9	4	8	2	0	93	15.7 %
12-23	12	31	47	4	5	19	3	0	121	20.4 %
24-59	2	7	30	2	2	8	2	0	53	8.9 %
60+	3	0	13	0	0	3	0	0	19	3.2 %
Total	65	78	283	51	37	53	23	3	593	100.0 %
Sequence	A	В	D	Н	HR	NL	SL0	Non-ET	Total	%
First	64	74	277	50	37	53	23	3	581	98.0 %
Repeat	1	4	6	1	0	0	0	0	12	2.0 %
Total	65	78	283	51	37	53	23	3	593	100.0 %
Recipient age	A	В	D	Н	HR	NL	SL0	Non-ET	Total	%
0-15	2	2	47	2	0	7	0	3	63	10.6 %
16-55	0.5		4.54	20				_		
	25	40	151	29	19	31	9	0	304	51.3 %
56-64	25	27	76	18	16	9	9	0	179	30.2 %
56-64 65+										
	25	27	76	18	16	9	8	0	179	30.2 %
65+	25 13	27 9	76 9	18 2	16 2	9 6	8	0	179 47	30.2 % 7.9 %
65+ Total	25 13 65	27 9 78	76 9 283	18 2 51	16 2 37	9 6 53	8 6 23	0 0	179 47 593	30.2 % 7.9 % 100.0 %
Total Allocation type	25 13 65	27 9 78 B	76 9 283 D	18 2 51 H	16 2 37 HR	9 6 53 NL	8 6 23 SL0	0 0 3 Non-ET	179 47 593 Total	30.2 % 7.9 % 100.0 %
Total Allocation type Standard	25 13 65 A 63	27 9 78 B 70	76 9 283 D 236	18 2 51 H	16 2 37 HR 36	9 6 53 NL 48	8 6 23 SL0 15	0 0 3 Non-ET	179 47 593 Total 516 77	30.2 % 7.9 % 100.0 % 87.0 %
Total Allocation type Standard Rescue	25 13 65 A 63 2	27 9 78 B 70 8	76 9 283 D 236 47	18 2 51 H 48 3	16 2 37 HR 36 1	9 6 53 NL 48 5	8 6 23 SL0 15 8	0 0 3 Non-ET 0 3	179 47 593 Total 516 77	30.2 % 7.9 % 100.0 % 87.0 % 13.0 %
Total Allocation type Standard Rescue Total	25 13 65 A 63 2 65	27 9 78 B 70 8	76 9 283 D 236 47 283	18 2 51 H 48 3 51	16 2 37 HR 36 1	9 6 53 NL 48 5	8 6 23 SL0 15 8 23	0 0 3 Non-ET 0 3	179 47 593 Total 516 77 593	30.2 % 7.9 % 100.0 % % 87.0 % 13.0 %
Total Allocation type Standard Rescue Total Urgency	25 13 65 A 63 2 65 A	27 9 78 B 70 8 78	76 9 283 D 236 47 283	18 2 51 H 48 3 51 H	16 2 37 HR 36 1 37	9 6 53 NL 48 5 53	8 6 23 SL0 15 8 23	0 0 3 Non-ET 0 3 3 Non-ET	179 47 593 Total 516 77 593	30.2 % 7.9 % 100.0 % 87.0 % 13.0 % 100.0 %

Table 6.10(i) Heart + lung transplants from 2011 to 2015 - characteristics

Deceased donor heart + lung transplants

Type of transplant	2011	2012	2013	2014	2015	2014/2015
Heart + both lungs	14	19	14	9	4	-55.6 %
Total	14	19	14	9	4	-55.6 %

Heart + lung transplants						
Blood group	2011	2012	2013	2014	2015	2014/2015
A	10	8	5	4	1	-75.0 %
AB	0	1	2	0	0	0.0 %
В	1	3	2	2	0	-100.0 %
0	3	7	5	3	3	0.0 %
Total	14	19	14	9	4	-55.6 %
Waiting time (months) based on date put on WL	2011	2012	2013	2014	2015	2014/2015
0-5	7	16	8	4	3	-25.0 %
6-11	2	1	2	4	1	-75.0 %
12-23	3	1	2	0	0	0.0 %
24-59	2	1	0	1	0	-100.0 %
60+	0	0	2	0	0	0.0 %
Total	14	19	14	9	4	-55.6 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	14	19	14	9	4	-55.6 %
Total	14	19	14	9	4	-55.6 %
Recipient age	2011	2012	2013	2014	2015	2014/2015
0-15	0	0	1	0	0	0.0 %
16-55	13	18	9	9	4	-55.6 %
56-64	1	1	4	0	0	0.0 %
Total	14	19	14	9	4	-55.6 %
Urgency	2011	2012	2013	2014	2015	2014/2015
High urgency	11	15	12	9	2	-77.8 %
Elective	3	4	2	0	2	
Total	14	19	14	9	4	-55.6 %

Table 6.10(ii) Heart + lung transplants in 2015 - characteristics

Deceased donor heart + lung transplants

Type of transplant	В	D	NL	Total	%
Heart + both lungs	1	2	1	4	100.0 %
Total	1	2	1	4	100.0 %

Heart + lung transplants					
Blood group	В	D	NL	Total	%
A	0	1	0	1	25.0 %
0	1	1	1	3	75.0 %
Total	1	2	1	4	100.0 %
Waiting time (months) based on date put on WL	В	D	NL	Total	%
0-5	1	2	0	3	75.0 %
6-11	0	0	1	1	25.0 %
Total	1	2	1	4	100.0 %
Sequence	В	D	NL	Total	%
First	1	2	1	4	100.0 %
Total	1	2	1	4	100.0 %
Recipient age	В	D	NL	Total	%
16-55	1	2	1	4	100.0 %
				4	100.0 %
Total	1	2	1	4	100.0 %
Total Urgency	1 B	D D	NL	Total	%
Urgency	В	D	NL	Total	%

700 600 High Urgency/LAS 500 Urgent Transplantable 400 300 200 100 0 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

Figure 6.7 Number of deceased donor lung transplants, by recipient urgency at transplant

Figure 6.8 Percentage of deceased donor lung transplants, by recipient urgency at transplant

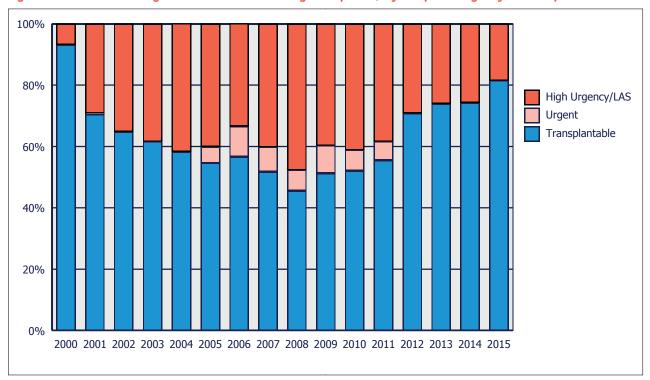


Table 6.11(i) Lung transplants from 2011 to 2015 - characteristics

Deceased donor lung transplants

Type of transplant	2011	2012	2013	2014	2015	2014/2015
Single lung	90	67	60	66	49	-25.8 %
Both lungs	527	603	613	605	558	-7.8 %
Single lung + kidney	1	0	0	0	0	0.0 %
Both lungs + kidney	2	0	0	0	1	0.0 %
Both lungs + heart	14	19	14	9	4	-55.6 %
Both lungs + liver	2	1	1	2	9	350.0 %
Total	636	690	688	682	621	-8.9 %

Lung-only transplants (including	9 9					
Blood group	2011	2012	2013	2014	2015	2014/2015
A	288	303	297	297	287	-3.4 %
AB	28	39	39	37	33	-10.8 %
В	80	79	91	76	78	2.6 %
0	221	249	246	261	209	-19.9 %
Total	617	670	673	671	607	-9.5 %
Waiting time (months) based on date put on WL	2011	2012	2013	2014	2015	2014/2015
0-5	303	381	377	415	355	-14.5 %
6-11	119	115	107	116	104	-10.3 %
12-23	89	92	103	68	76	11.8 %
24-59	88	68	75	58	49	-15.5 %
60+	18	14	11	14	23	64.3 %
Total	617	670	673	671	607	-9.5 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	579	634	649	637	576	-9.6 %
Repeat	38	36	24	34	0.4	-8.8 %
				34	31	0.0 /0
Total	617	670	673	671	607	-9.5 %
Total Recipient age	617 2011	670 2012			607	
			673	671	607	-9.5 %
Recipient age	2011	2012	673 2013	671 2014	607 2015	-9.5 % 2014/2015
Recipient age 0-15	2011 14	2012 19	673 2013 19	671 2014 16	607 2015 15	-9.5 % 2014/2015 -6.3 %
Recipient age 0-15 16-55	2011 14 346	2012 19 347	673 2013 19 362	671 2014 16 361	2015 15 306	-9.5 % 2014/2015 -6.3 % -15.2 %
Recipient age 0-15 16-55 56-64	2011 14 346 228	2012 19 347 278	673 2013 19 362 270	671 2014 16 361 261	2015 15 306 245	-9.5 % 2014/2015 -6.3 % -15.2 % -6.1 %
Recipient age 0-15 16-55 56-64 65+	2011 14 346 228 29	2012 19 347 278 26	673 2013 19 362 270 22	671 2014 16 361 261 33	2015 15 306 245 41 607	-9.5 % 2014/2015 -6.3 % -15.2 % -6.1 % 24.2 %
Recipient age 0-15 16-55 56-64 65+ Total	2011 14 346 228 29 617	2012 19 347 278 26 670	673 2013 19 362 270 22 673	671 2014 16 361 261 33 671	2015 15 306 245 41 607	-9.5 % 2014/2015 -6.3 % -15.2 % -6.1 % 24.2 % -9.5 %
Recipient age 0-15 16-55 56-64 65+ Total Allocation	2011 14 346 228 29 617	2012 19 347 278 26 670 2012	673 2013 19 362 270 22 673 2013	671 2014 16 361 261 33 671 2014	2015 15 306 245 41 607	-9.5 % 2014/2015 -6.3 % -15.2 % -6.1 % 24.2 % -9.5 % 2014/2015

Table 6.11(i) (continued)

Urgency	2011	2012	2013	2014	2015	2014/2015
High urgency/LAS	231	185	167	165	108	-34.5 %
Urgent	38	0	0	0	0	0.0 %
Elective	348	485	506	506	499	-1.4 %
Total	617	670	673	671	607	-9.5 %

Table 6.11(ii) Lung transplants in 2015 - characteristics

Deceased donor lung transplants

Type of transplant	А	В	D	NL	Non-ET	Total	%
Single lung	4	6	27	12	0	49	7.9 %
Both lungs	125	103	262	65	3	558	89.9 %
Both lungs + heart	0	1	2	1	0	4	0.6 %
Both lungs + kidney	0	1	0	0	0	1	0.2 %
Both lungs + liver	1	4	4	0	0	9	1.4 %
Total	130	115	295	78	3	621	100.0 %

Lung-only transplants (including single and both lungs)

Lung-only transplants (includi	ng single	and bot	in lungs)			
Blood group	A	В	D	NL	Non-ET	Total	%
A	62	48	144	33	0	287	47.3 %
AB	9	2	21	0	1	33	5.4 %
В	20	16	32	8	2	78	12.9 %
0	38	43	92	36	0	209	34.4 %
Total	129	109	289	77	3	607	100.0 %
Waiting time (months) based on date put on WL	А	В	D	NL	Non-ET	Total	%
0-5	86	47	188	31	3	355	58.5 %
6-11	26	30	33	15	0	104	17.1 %
12-23	10	27	27	12	0	76	12.5 %
24-59	6	4	24	15	0	49	8.1 %
60+	1	1	17	4	0	23	3.8 %
Total	129	109	289	77	3	607	100.0 %
Sequence	A	В	D	NL	Non-ET	Total	%
First	119	106	275	73	3	576	94.9 %
Repeat	10	3	14	4	0	31	5.1 %
Total	129	109	289	77	3	607	100.0 %
Recipient age	A	В	D	NL	Non-ET	Total	%
0-15	4	1	7	1	2	15	2.5 %
16-55	75	40	154	36	1	306	50.4 %
56-64	40	54	115	36	0	245	40.4 %
65+	10	14	13	4	0	41	6.8 %
Total	129	109	289	77	3	607	100.0 %

Table 6.11(ii) (continued)

Allocation	A	В	D	NL	Non-ET	Total	%
Standard	122	103	152	69	0	446	73.5 %
Rescue	7	6	137	8	3	161	26.5 %
Total	129	109	289	77	3	607	100.0 %
Urgency	Α	В	D	NL	Non-ET	Total	%
Urgency High urgency/LAS	A 22	B 13	D 57	NL 16	Non-ET	Total	% 17.8 %
High urgency/LAS	22	13	57	16	0	108	

Figure 6.9 Dynamics of the Eurotransplant heart waiting list and transplants between 1991 and 2015

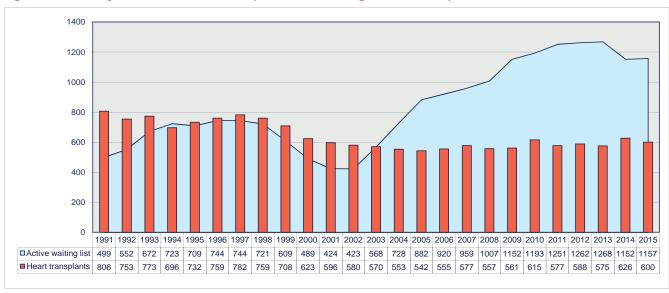
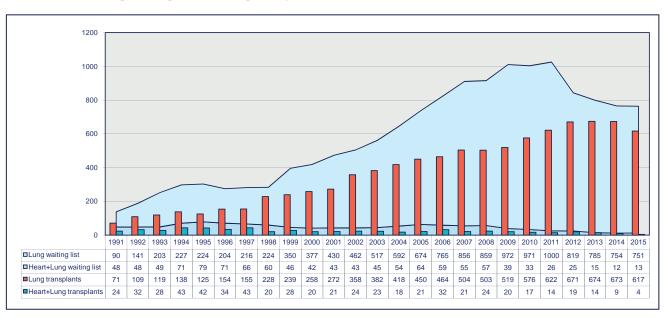


Figure 6.10 Dynamics of the Eurotransplant heart + lung waiting list, heart + lung transplants, lung waiting list and lung transplants, between 1991 and 2014





7.

Liver and Intestine: donation, waiting lists and transplants

DONATION

Table 7.1(i) Deceased donors / livers in Eurotransplant from 2011 to 2015

Donors	2011	2012	2013	2014	2015	2014/2015
All donors reported	2481	2421	2302	2299	2317	0.8 %
Non-liver donors	369	420	387	319	314	1.2 %
Liver donors reported	2112	2001	1915	1980	2003	-1.6 %
Liver donors not used	385	359	400	389	397	1.6 %
One split used	3	0	2	1	2	100.0 %
Both splits used	44	47	47	54	35	-35.2 %
Whole liver used	1680	1595	1466	1536	1569	2.1 %
Total liver donors used	1727	1642	1515	1591	1606	0.9 %
Donor procedures	2011	2012	2013	2014	2015	2014/2015
Whole liver procedure	2064	1953	1862	1919	1965	2.4 %
Split liver procedure	48	48	53	61	38	-37.7 %
Total	2112	2001	1915	1980	2003	1.2 %
Whole livers	2011	2012	2013	2014	2015	2014/2015
Reported	2064	1953	1862	1919	1965	2.4 %
Offered	2056	1945	1855	1916	1962	2.4 %
Accepted	1990	1886	1784	1854	1898	2.4 %
Transplanted	1680	1595	1466	1536	1569	2.1 %
Split livers	2011	2012	2013	2014	2015	2014/2015
Available split livers	96	96	106	122	76	-37.7 %
Split liver not used	5	2	10	13	4	-69.2 %
Split liver transplanted	91	94	96	109	72	-33.9 %

Table 7.1(ii) Deceased donors / livers in Eurotransplant in 2015

Donors	Α	В	D	Н	HR	L	NL	SLO	Total ET	Non-ET	Total	% all donors
All donors reported	214	344	888	189	169	3	348	55	2210	107	2317	100.0%
Non-liver donors	36	18	39	23	10	0	100	0	226	88	314	13.6%
Liver donors reported	178	326	849	166	159	3	248	55	1984	19	2003	86.4%
Liver donors not used	33	63	132	44	16	0	87	12	387	10	397	17.1%
One split used	1	0	1	0	0	0	0	0	2	0	2	0.1%
Both splits used	1	6	13	3	7	0	5	0	35	0	35	1.5%
Whole liver used	143	257	703	119	136	3	156	43	1560	9	1569	67.7%
Total liver donors used	145	263	717	122	143	3	161	43	1597	9	1606	69.3%
Donor procedures	А	В	D	Н	HR	L	NL	SLO	Total ET	Non-ET	Total	%
Whole liver procedure	176	320	835	163	152	3	242	55	1946	19	1965	98.1%
Split liver procedure	2	6	14	3	7	0	6	0	38	0	38	1.9%
Total	178	326	849	166	159	3	248	55	1984	19	2003	100.0%
Whole livers	А	В	D	Н	HR	L	NL	SLO	Total ET	Non-ET	Total	% reported
Reported	176	320	835	163	152	3	242	55	1946	19	1965	100.0%
Offered	176	318	835	163	152	3	242	55	1944	18	1962	99.8%
Accepted	174	309	824	163	151	3	208	55	1887	11	1898	96.6%
Transplanted	143	257	703	119	136	3	156	43	1560	9	1569	79.8%
Split livers	A	В	D	Н	HR	L	NL	SL0	Total ET	Non-ET	Total	%
Available split livers	4	12	28	6	14	0	12	0	76	0	76	100.0%
Split liver not used	1	0	1	0	0	0	2	0	4	0	4	5.3%
Split liver transplanted	3	12	27	6	14	0	10	0	72	0	72	94.7%

WAITING LIST

Figure 7.1 Liver waiting list, number of patients at year end, by urgency

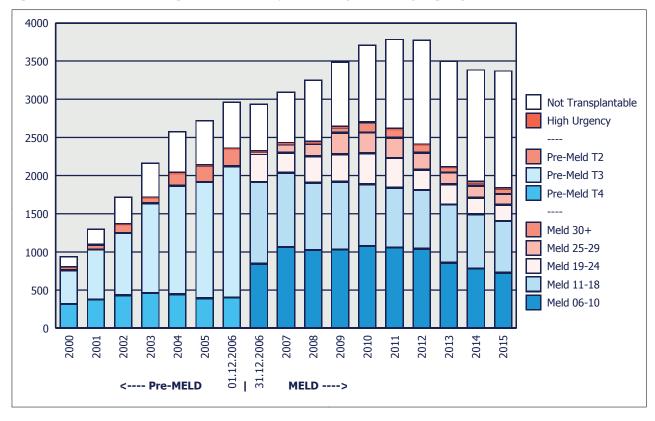


Figure 7.2 Liver waiting list, percentage of patients at year end, by urgency

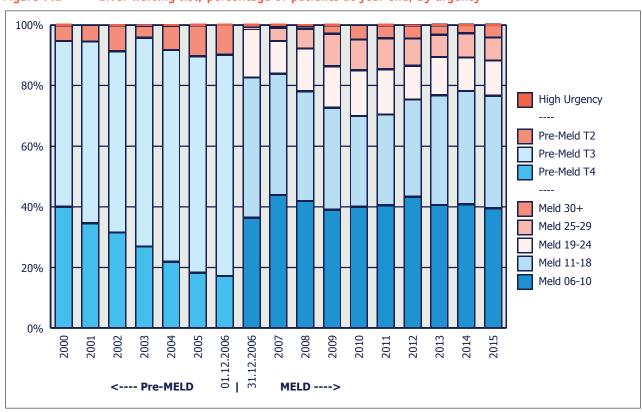


Table 7.2(i) Active liver transplant waiting list at year end, from 2011 to 2015

Type of transplant	2011	2012	2013	2014	2015	2014/2015
Liver	2530	2327	2041	1853	1759	-5.1 %
Liver + kidney	72	67	57	55	62	12.7 %
Liver + heart	3	2	1	0	3	0.0 %
Liver + heart + lung	1	0	0	0	0	0.0 %
Liver + lung	1	3	5	6	5	-16.7 %
Liver + pancreas	6	6	6	3	5	66.7 %
Liver + pancreas + kidney	1	1	1	1	1	0.0 %
Total	2614	2406	2111	1918	1835	-4.3 %

Table 7.2(ii) Active liver transplant waiting list at year end, in 2015

Type of transplant	A	В	D	Н	HR	NL	SL0	Total	%
Liver	61	172	1233	104	62	109	18	1759	95.9 %
Liver + kidney	3	15	36	7	0	1	0	62	3.4 %
Liver + heart	0	0	2	0	0	0	1	3	0.2 %
Liver + lung	0	0	5	0	0	0	0	5	0.3 %
Liver + pancreas	0	1	3	0	1	0	0	5	0.3 %
Liver + pancreas + kidney	0	0	1	0	0	0	0	1	0.1 %
Total	64	188	1280	111	63	110	19	1835	100.0 %

Table 7.3(i) Active liver-only transplant waiting list at year end, from 2010 to 2014 - characteristics

Blood group	2011	2012	2013	2014	2015	2014/2015
A	1064	1004	909	840	764	-9.0 %
AB	63	61	37	43	31	-27.9 %
В	302	298	254	237	228	-3.8 %
0	1101	964	841	733	736	0.4 %
Total	2530	2327	2041	1853	1759	-5.1 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	2404	2216	1945	1767	1663	-5.9 %
Repeat	126	111	96	86	96	11.6 %
Total	2530	2327	2041	1853	1759	-5.1 %
Waiting time (months) based on date put on WL	2011	2012	2013	2014	2015	2014/2015
0-5	667	617	569	554	537	-3.1 %
6-11	390	420	355	309	279	-9.7 %
12-23	479	357	352	292	306	4.8 %
24+	994	933	765	698	637	-8.7 %
Total	2530	2327	2041	1853	1759	-5.1 %

Table 7.3(i) (continued)

Age	2011	2012	2013	2014	2015	2014/2015
0-15	61	69	65	46	60	30.4 %
16-55	1422	1224	1103	963	885	-8.1 %
56-64	796	781	658	606	581	-4.1 %
65+	251	253	215	238	233	-2.1 %
Total	2530	2327	2041	1853	1759	-5.1 %
MELD score	2011	2012	2013	2014	2015	2014/2015
MELD score 6-10	2011 1053	2012 1032	2013 847	2014 775	2015 714	2014/2015 -7.9 %
6-10	1053	1032	847	775	714	-7.9 %
6-10 11-18	1053 772	1032 759	847 751	775 703	714 671	-7.9 % -4.6 %
6-10 11-18 19-24	1053 772 347	1032 759 238	847 751 236	775 703 179	714 671 181	-7.9 % -4.6 % 1.1 %

Table 7.3(ii) Active liver-only transplant waiting list at year end, in 2015 - characteristics

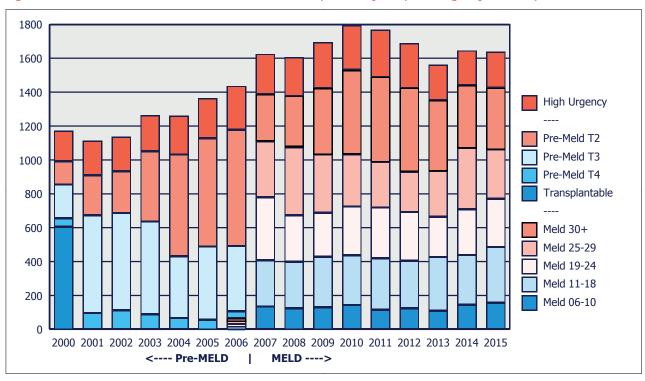
Blood group	Α	В	D	Н	HR	NL	SLO	Total	%
A	25	80	537	40	35	43	4	764	43.4 %
AB	1	1	22	4	1	2	0	31	1.8 %
В	11	22	137	25	14	19	0	228	13.0 %
0	24	69	537	35	12	45	14	736	41.8 %
Total	61	172	1233	104	62	109	18	1759	100.0%
Sequence	Α	В	D	Н	HR	NL	SL0	Total	%
First	55	155	1173	103	57	102	18	1663	94.5 %
Repeat	6	17	60	1	5	7	0	96	5.5 %
Total	61	172	1233	104	62	109	18	1759	100.0%
Waiting time (months) based on date put on WL	A	В	D	Н	HR	NL	SL0	Total	%
0-5	32	77	309	46	24	42	7	537	30.5 %
6-11	16	44	157	21	6	30	5	279	15.9 %
12-23	9	25	214	30	6	18	4	306	17.4 %
24+	4	26	553	7	26	19	2	637	36.2 %
Total	61	172	1233	104	62	109	18	1759	100.0 %
Age	A	В	D	Н	HR	NL	SL0	Total	%
0-15	3	8	38	5	1	4	1	60	3.4 %
16-55	33	75	639	52	25	56	5	885	50.3 %
56-64	17	49	407	36	25	37	10	581	33.0 %
65+	8	40	149	11	11	12	2	233	13.2 %
Total	61	172	1233	104	62	109	18	1759	100.0 %

Table 7.3(ii) (continued)

MELD score	А	В	D	Н	HR	NL	SL0	Total	%
6-10	24	34	504	56	44	44	8	714	40.6 %
11-18	30	41	488	41	14	49	8	671	38.1 %
19-24	2	53	108	2	4	11	1	181	10.3 %
25-29	1	31	98	1	0	0	0	131	7.4 %
30+	4	13	35	4	0	5	1	62	3.5 %
Total	61	172	1233	104	62	109	18	1759	100.0 %

TRANSPLANTATION

Figure 7.3 Number of deceased donor liver transplants, by recipient urgency at transplant



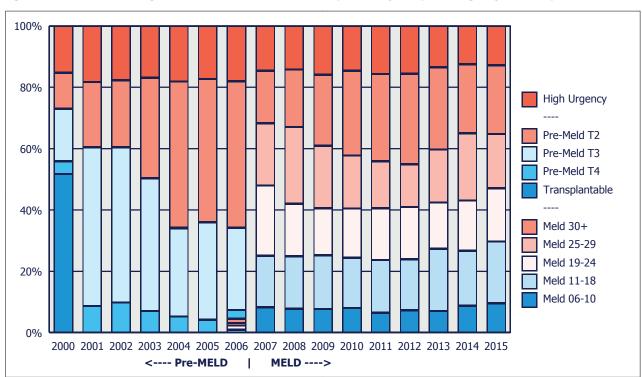


Figure 7.4 Percentage of deceased donor liver transplants, by recipient urgency at transplant

Table 7.4(i) Liver transplants from 2011 to 2015 - characteristics

Deceased donor liver transplants

Type of transplant	2011	2012	2013	2014	2015	2014/2015
Split liver	88	90	92	106	70	-34.0 %
Whole liver	1622	1553	1420	1492	1523	2.1 %
Split liver + kidney	3	4	4	3	2	-33.3 %
Whole liver + kidney	43	35	39	38	30	-21.1 %
Whole liver + kidney en bloc	1	0	0	0	0	0.0 %
Whole liver + heart	3	1	1	0	0	0.0 %
Whole liver + both lungs	2	1	1	2	9	350.0 %
Whole liver + pancreas	6	4	5	4	4	0.0 %
Whole liver + pancreas + kidney	2	1	0	1	0	-100.0 %
Total	1770	1689	1562	1646	1638	-0.5 %

Liver-only transplants (whole and split)

Blood group	2011	2012	2013	2014	2015	2014/2015
A	773	694	623	690	694	0.6 %
AB	115	109	101	91	115	26.4 %
В	230	230	223	233	218	-6.4 %
0	592	610	565	584	566	-3.1 %
Total	1710	1643	1512	1598	1593	-0.3 %

Table 7.4(i) (continued)

Waiting time (months) based on date put on WL	2011	2012	2013	2014	2015	2014/2015
0-5	1103	1062	902	988	1013	2.5 %
6-11	271	227	292	298	283	-5.0 %
12-23	214	211	199	205	182	-11.2 %
24-59	93	118	91	78	87	11.5 %
60+	29	25	28	29	28	-3.4 %
Total	1710	1643	1512	1598	1593	-0.3 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	1490	1427	1321	1397	1399	0.1 %
Repeat	220	216	191	201	194	-3.5 %
Total	1710	1643	1512	1598	1593	-0.3 %
Recipient age	2011	2012	2013	2014	2015	2014/2015
0-15	103	110	97	118	95	-19.5 %
16-55	796	779	696	733	723	-1.4 %
56-64	599	533	517	555	544	-2.0 %
65+	212	221	202	192	231	20.3 %
Total	1710	1643	1512	1598	1593	-0.3 %
Allocation	2011	2012	2013	2014	2015	2014/2015
Standard	1214	1290	1231	1357	1293	-4.7 %
Rescue	496	353	281	241	300	24.5 %
Total	1710	1643	1512	1598	1593	-0.3 %
Urgency/MELD score	2011	2012	2013	2014	2015	2014/2015
Unknown	4	5	5	7	15	114.3 %
06-10	103	117	103	131	133	1.5 %
11-18	296	275	314	295	322	9.2 %
19-24	294	279	226	258	277	7.4 %
25-29	264	226	254	352	283	-19.6 %
30+	475	479	401	350	353	0.9 %
High urgency	274	262	209	205	210	2.4 %
Total	1710	1643	1512	1598	1593	-0.3 %

Table 7.4(ii) Liver transplants in 2015 - characteristics

Deceased donor liver transplants

Type of transplant	Α	В	D	Н	HR	NL	SLO	Total	%
Split liver	1	3	58	1	0	7	0	70	4.3 %
Whole liver	135	231	774	85	139	135	24	1523	93.0 %
Split liver + kidney	0	1	0	0	0	1	0	2	0.1 %
Whole liver + kidney	4	12	6	3	0	5	0	30	1.8 %
Whole liver + both lungs	1	4	4	0	0	0	0	9	0.5 %
Whole liver + pancreas	0	0	4	0	0	0	0	4	0.2 %
Total	141	251	846	89	139	148	24	1638	100.0 %

Liver-only transplants (whole and split)

Liver-only transplants (wh	nole and	split)							
Blood group	Α	В	D	H	HR	NL	SL0	Total	%
A	58	104	375	44	53	49	11	694	43.6 %
AB	11	9	64	7	11	11	2	115	7.2 %
В	16	21	122	13	27	15	4	218	13.7 %
0	51	100	271	22	48	67	7	566	35.5 %
Total	136	234	832	86	139	142	24	1593	100.0 %
Waiting time (months) based	Α	В	D	Н	HR	NL	SL0	Total	%
on date put on WL									
0-5	93	131	532	37	115	84	21	1013	63.6 %
6-11	28	70	133	11	9	31	1	283	17.8 %
12-23	14	24	97	28	6	11	2	182	11.4 %
24-59	1	8	50	10	7	11	0	87	5.5 %
60+	0	1	20	0	2	5	0	28	1.8 %
Total	136	234	832	86	139	142	24	1593	100.0 %
Sequence	Α	В	D	Н	HR	NL	SL0	Total	%
First	124	212	715	83	124	120	21	1399	87.8 %
Repeat	12	22	117	3	15	22	3	194	12.2 %
Total	136	234	832	86	139	142	24	1593	100.0 %
Recipient age	A	В	D	Н	HR	NL	SL0	Total	%
0-15	6	3	69	5	1	11	0	95	6.0 %
16-55	49	106	377	42	65	76	8	723	45.4 %
56-64	54	76	291	26	47	37	13	544	34.1 %
65+	27	49	95	13	26	18	3	231	14.5 %
Total	136	234	832	86	139	142	24	1593	100.0 %
Allocation	Α	В	D	Н	HR	NL	SL0	Total	%
Standard	120	218	573	85	136	137	24	1293	81.2 %
Rescue	16	16	259	1	3	5	0	300	18.8 %
Total	136	234	832	86	139	142	24	1593	100.0 %

Table 7.4(ii) (continued)

Urgency/MELD score	A	В	D	Н	HR	NL	SL0	Total	%
Unknown	2	4	6	0	3	0	0	15	0.9 %
06-10	38	12	32	31	9	4	7	133	8.3 %
11-18	61	25	105	43	51	24	13	322	20.2 %
19-24	15	49	109	1	52	49	2	277	17.4 %
25-29	3	70	173	2	12	23	0	283	17.8 %
30+	6	51	269	2	6	19	0	353	22.2 %
High urgency	11	23	138	7	6	23	2	210	13.2 %
Total	136	234	832	86	139	142	24	1593	100.0 %

Table 7.5(i) Living donor liver transplants from 2011 to 2015

Liver-only	2011	2012	2013	2014	2015	2014/2015
Domino	16	5	3	6	4	-33.3 %
Related	107	104	117	96	79	-17.7 %
Non-related	12	12	13	10	8	-20.0 %
Total	135	121	133	112	91	-18.8 %
Related	2011	2012	2013	2014	2015	2014/2015
Brother / sister	6	11	12	5	4	-20.0 %
Father	40	26	35	32	26	-18.8 %
Mother	42	36	46	41	32	-22.0 %
Son / daughter	11	13	12	5	7	40.0 %
Grandfather / -mother	5	1	5	2	1	-50.0 %
Uncle / aunt	1	12	6	9	6	-33.3 %
Nephew / niece	2	2	1	0	0	0.0 %
Cousin	0	3	0	1	3	200.0 %
Blood related: NOS*	0	0	0	1	0	-100.0 %
Total	107	104	117	96	79	-17.7 %
Non-related	2011	2012	2013	2014	2015	2014/2015
Spouse / partner	7	7	7	6	4	-33.3 %
Not blood related family	5	5	5	4	1	-75.0 %
Friend	0	0	1	0	2	
Not blood related: NOS*	0	0	0	0	1	
Total	12	12	13	10	8	-20.0 %

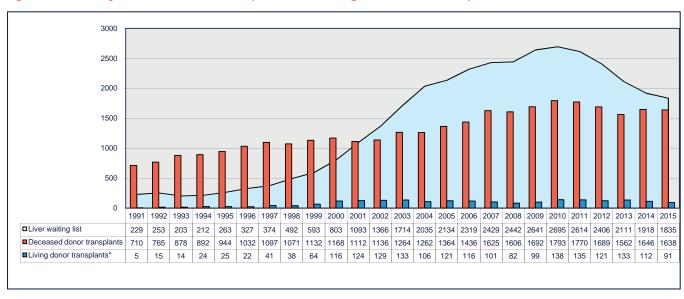
^{*}NOS Not otherwise specified

Living donor liver transplants in 2015 Table 7.5(ii)

Liver-only	Α	В	D	HR	NL	Total	%
Domino	0	1	3	0	0	4	4.4 %
Related	5	31	40	1	2	79	86.8 %
Non-related	0	1	5	1	1	8	8.8 %
Total	5	33	48	2	3	91	100.0 %
Related	A	В	D	HR	NL	Total	%
Brother / sister	0	1	2	1	0	4	5.1 %
Father	3	12	10	0	1	26	32.9 %
Mother	1	11	19	0	1	32	40.5 %
Son / daughter	0	2	5	0	0	7	8.9 %
Grandfather / - mother	0	1	0	0	0	1	1.3 %
Uncle / aunt	1	2	3	0	0	6	7.6 %
Cousin	0	2	1	0	0	3	3.8 %
Total	5	31	40	1	2	79	100.0 %
Non-related	A	В	D	HR	NL	Total	%
Spouse / partner	0	0	3	1	0	4	50.0 %
Not blood related family	0	1	0	0	0	1	12.5 %
Friend	0	0	2	0	0	2	25.0 %
Not blood related: NOS*	0	0	0	0	1	1	12.5 %
Total	0	1	5	1	1	8	100.0 %

^{*}NOS Not otherwise specified

Figure 7.5 Dynamics of the Eurotransplant liver waiting list and liver transplants between 1991 and 2014



Intestine 2015

DONATION

Table 7.6 Deceased donors/intestine in Eurotransplant in 2015

		•									
Donors	А	В	D	Н	HR	L	NL	SL0	Total ET	Non-ET	Total
All donors reported	214	344	888	189	169	3	348	55	2210	107	2317
Non-intestine donors	199	320	722	181	162	3	318	53	1958	94	2052
Intestine donors reported	15	24	166	8	7	0	30	2	252	13	265
Intestine donors used	0	2	1	1	0	0	0	0	4	0	4

Donor blood group		Donor age in years		Donor weight in kg	
A	1	<6	0	<11	0
В	0	6-10	0	11-20	0
AB	0	11-20	3	21-30	0
0	3	21-30	1	31-40	0
Total	4	31-40	0	41-50	1
		41-50	0	51-60	2
		Total	4	61-70	1
				71-80	0
				Total	4

WAITING LIST

Table 7.7 Intestine waiting list in 2015

Waiting list at year end in 2014	Α	В	D	HR	NL	Total	Active	NT	Total
Intestine-only	1	0	4	0	2	7	4	3	7
Combined transplants including intestine	0	3	8	0	0	11	8	3	11
Total	1	3	12		2	18	12	6	18
Waiting list at year end in 2015	Α	В	D	HR	NL	Total	Active	NT	Total
Waiting list at year end in 2015 Intestine-only	A 2	B	D	HR 0	NL 1	Total	Active 8	NT 4	Total
		B 1 2							

Registrations on the waiting list in 2015	Active	NT	Total
Intestine-only	8	2	10
Combined transplants including intestine	3	1	4
Total	11	3	14

(continued) Table 7.7

Removals from the waiting list in 2	015
Deceased	4
Transplanted	4
Total	8

TRANSPLANTATION

Table 7.8 **Intestine transplants in 2015**

Intestine transplants in 2015	
Netherlands NGRTP - Groningen	3
Germany GBCTP - Berlin	1
Total	4

Intestine transplants in Eurotransplant	2011	2012	2013	2014	2015
Belgium	4	2	0	4	0
Germany	9	6	5	6	1
Netherlands	1	2	0	0	3
Total	14	10	5	10	4

Intestine transplants in Eurotransplant	2011	2012	2013	2014	2015
Intestine-only	8	5	3	5	3
Combined transplants including intestine	7	5	2	5	1
Total	15	10	5	10	4

Note: Combined transplants including intestine (for instance liver and intestine) are included in the respective organ chapters but intestine is not specified there.

"For me Eurotransplant represents the bridge between organ donation in the donor hospital and the recipients of an organ in the transplant hospital. Eurotransplant is intensely dedicated in allocating donated organs to the most suitable recipients."



Ms. Caroline Vrijenhoek, Transplant coordinator at the University Hospital, Leiden, the Netherlands

8.

Pancreas and Islets: donation, waiting lists and transplants

DONATION

Table 8.1(i) Deceased donors / pancreas in Eurotransplant from 2011 to 2015

Donors	2011	2012	2013	2014	2015	2014/2015
All donors	2481	2421	2302	2299	2317	0.8 %
Non-pancreas donors	1473	1463	1351	1377	1356	-1.5 %
Pancreas donors	1008	958	951	922	961	4.2 %
Pancreas donors not used	703	681	723	692	702	1.4 %
Pancreatic islet donors used	64	53	31	31	67	116.1 %
Whole pancreas donors used	241	224	197	199	192	-3.5 %
Total pancreas donors used	305	277	228	230	259	12.6 %
Pancreas	2011	2012	2013	2014	2015	2014/2015
Reported	1008	958	951	922	961	4.2 %
Offered	985	935	924	904	945	4.5 %
Accepted	613	577	486	461	544	18.0 %
Transplanted	305	277	228	230	259	12.6 %

Table 8.1(ii) Deceased donors / pancreas in Eurotransplant in 2015

Donors	Α	В	D	Н	HR	L	NL	SL0	Total ET	Non-ET	Total	% all donors
All donors	214	344	888	189	169	3	348	55	2210	107	2317	100.0 %
Non-pancreas donors	156	125	598	145	137	0	66	31	1258	98	1356	58.5 %
Pancreas donors	58	219	290	44	32	3	282	24	952	9	961	41.5 %
Pancreas donors not used	33	169	189	30	24	2	228	18	693	9	702	30.3 %
Pancreatic islet donors used	0	38	0	0	0	0	27	2	67	0	67	2.9 %
Whole pancreas donors used	25	12	101	14	8	1	27	4	192	0	192	8.3 %
Total pancreas donors used	25	50	101	14	8	1	54	6	259	0	259	11.2 %
Pancreas	Α	В	D	Н	HR	L	NL	SLO	Total ET	Non-ET	Total	% reported
Reported	58	219	290	44	32	3	282	24	952	9	961	100.0 %
Offered	58	214	290	43	32	3	273	23	936	9	945	98.3 %
Accepted	47	129	175	33	16	1	134	8	543	1	544	56.6 %
Transplanted	25	50	101	14	8	1	54	6	259	0	259	27.0 %

WAITING LIST

Figure 8.1 Pancreas waiting list, number of patients at year end, by urgency

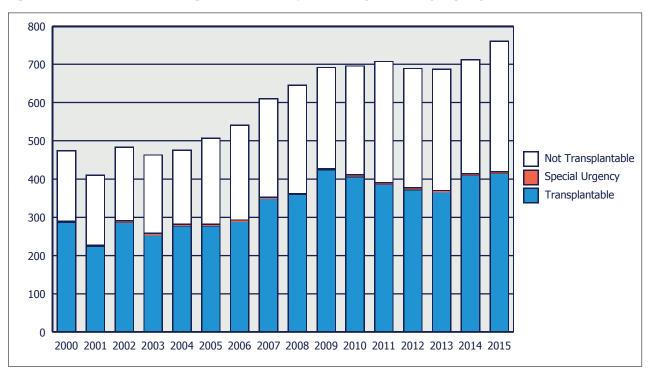
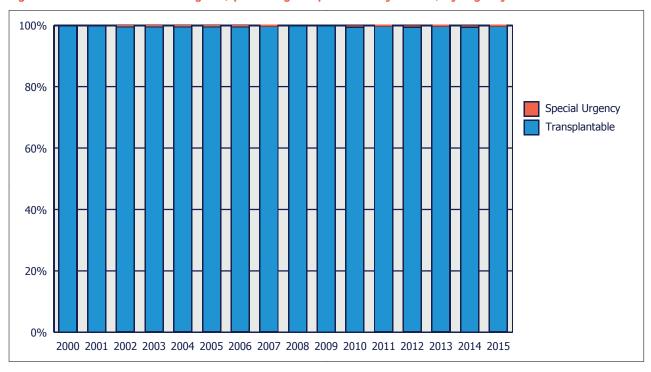


Figure 8.2 Pancreas waiting list, percentage of patients at year end, by urgency



Active pancreas transplant waiting list at year end, from 2011 to 2015 **Table 8.2(i)**

Type of transplant	2011	2012	2013	2014	2015	2014/2015
Pancreas	43	46	40	44	52	18.2 %
Pancreas islets	49	43	35	43	40	-7.0 %
Pancreas islets + kidney	3	1	2	1	0	-100.0 %
Pancreas + kidney	287	279	285	321	320	-0.3 %
Pancreas + kidney + liver	1	1	1	1	1	0.0 %
Pancreas + liver	6	6	6	3	5	66.7 %
Total	389	376	369	413	418	1.2 %

Table 8.2(ii) Active pancreas transplant waiting list at year end, in 2015

Type of transplant	Α	В	D	Н	HR	NL	SL0	Total	%
Pancreas	1	6	32	2	0	10	1	52	12.4 %
Pancreatic islets	0	24	5	0	0	11	0	40	9.6 %
Pancreas + kidney	13	37	207	11	13	31	8	320	76.6 %
Pancreas + kidney + liver	0	0	1	0	0	0	0	1	0.2 %
Pancreas + liver	0	1	3	0	1	0	0	5	1.2 %
Total	14	68	248	13	14	52	9	418	100.0 %

Table 8.3a(i) Active pancreas-only transplant waiting list at year end, from 2011 to 2015 - characteristics

Blood group	2011	2012	2013	2014	2015	2014/2015
A	31	29	19	25	30	20.0 %
AB	1	2	0	1	2	100.0 %
В	19	17	14	16	15	-6.3 %
0	41	41	42	45	45	0.0 %
Total	92	89	75	87	92	5.7 %
% PRA current	2011	2012	2013	2014	2015	2014/2015
0-5 %	71	71	58	72	75	4.2 %
6-84 %	9	8	10	7	10	42.9 %
85-100 %	1	0	1	3	1	-66.7 %
Not reported	11	10	6	5	6	20.0 %
Total	92	89	75	87	92	5.7 %
Sequence	2011	2012	2013	2014	2015	2014/2015
First	55	53	40	56	69	23.2 %
Repeat	37	36	35	31	23	-25.8 %
Total	92	89	75	87	92	5.7 %

Table 8.3a(i) (continued)

Waiting time (months) based on date put on WL	2011	2012	2013	2014	2015	2014/2015
0-5	28	13	10	19	14	-26.3 %
6-11	20	16	16	13	15	15.4 %
12-23	16	33	11	21	22	4.8 %
24+	28	27	38	34	41	20.6 %
Total	92	89	75	87	92	5.7 %
Age	2011	2012	2013	2014	2015	2014/2015
0-15	1	1	0	0	0	0.0 %
16-55	76	71	61	63	67	6.3 %
56-64	11	13	11	17	18	5.9 %
65+	4	4	3	7	7	0.0 %
Total	92	89	75	87	92	5.7 %

Table 8.3a(ii) Active pancreas-only transplant waiting list at year end, in 2015 - characteristics

Blood group	Α	В	D	Н	NL	SL0	Total	%
A	0	9	11	0	10	0	30	32.6 %
AB	0	0	0	1	0	1	2	2.2 %
В	0	5	9	0	1	0	15	16.3 %
0	1	16	17	1	10	0	45	48.9 %
Total	1	30	37	2	21	1	92	100.0 %
% PRA current	Α	В	D	Н	NL	SL0	Total	%
0-5 %	1	21	31	2	19	1	75	81.5 %
6-84 %	0	3	5	0	2	0	10	10.9 %
85-100 %	0	0	1	0	0	0	1	1.1 %
Not reported	0	6	0	0	0	0	6	6.5 %
Total	1	30	37	2	21	1	92	100.0 %
Sequence	Α	В	D	Н	NL	SL0	Total	%
First	0	22	26	1	19	1	69	75.0 %
Repeat	1	8	11	1	2	0	23	25.0 %
Total	1	30	37	2	21	1	92	100.0 %
Waiting time (months) based on date put on WL	A	В	D	Н	NL	SL0	Total	%
0-5	0	4	6	0	4	0	14	15.2 %
6-11	0	4	5	2	4	0	15	16.3 %
12-23	1	4	11	0	5	1	22	23.9 %
24+	0	18	15	0	8	0	41	44.6 %
Total	1	30	37	2	21	1	92	100.0 %

Table 8.3a(ii) (continued)

Age	Α	В	D	н	NL	SLO	Total	%
16-55	1	16	32	2	15	1	67	72.8 %
56-64	0	9	5	0	4	0	18	19.6 %
65+	0	5	0	0	2	0	7	7.6 %
Total	1	30	37	2	21	1	92	100.0 %

Table 8.3b(i) Active pancreas + kidney transplant waiting list at year end, from 2011 to 2015 - characteristics

Table 0.5b(1) Netive panereas 1	Kidiley transpta	ne watering tise t	2011 to 201.	, i i to zo i o characteriotico			
Blood group	2011	2012	2013	2014	2015	2014/2015	
A	94	102	116	126	131	4.0 %	
AB	8	5	5	6	10	66.7 %	
В	50	55	50	52	48	-7.7 %	
0	139	119	117	139	132	-5.0 %	
Total	291	281	288	323	321	-0.6 %	
% PRA current	2011	2012	2013	2014	2015	2014/2015	
0-5 %	259	245	244	278	281	1.1 %	
6-84 %	27	25	31	35	26	-25.7 %	
85-100 %	5	8	9	8	10	25.0 %	
Not reported	0	3	4	2	4	100.0 %	
Total	291	281	288	323	321	-0.6 %	
Sequence	2011	2012	2013	2014	2015	2014/2015	
First	264	252	261	294	304	3.4 %	
Repeat	27	29	27	29	17	-41.4 %	
Total	291	281	288	323	321	-0.6 %	
Waiting time (months) based on date put on WL	2011	2012	2013	2014	2015	2014/2015	
0-5	59	53	68	72	67	-6.9 %	
6-11	68	69	70	91	76	-16.5 %	
12-23	86	87	81	92	102	10.9 %	
24+	78	72	69	68	76	11.8 %	
Total	291	281	288	323	321	-0.6 %	
Age	2011	2012	2013	2014	2015	2014/2015	
0-15	1	1	1	1	1	0.0 %	
16-55	254	256	263	298	293	-1.7 %	
55-64	34	22	23	23	27	17.4 %	
65+	2	2	1	1	0	-100.0 %	
Total	291	281	288	323	321	-0.6 %	

Table 8.3b(ii) Active pancreas + kidney transplant waiting list at year end, in 2015 - characteristics

Blood group	Α	В	D	Н	HR	NL	SL0	Total	%
A	3	18	85	1	4	18	2	131	40.8 %
AB	0	1	4	0	2	2	1	10	3.1 %
В	3	4	30	8	1	2	0	48	15.0 %
0	7	14	89	2	6	9	5	132	41.1 %
Total	13	37	208	11	13	31	8	321	100.0 %
% PRA current	Α	В	D	Н	HR	NL	SL0	Total	%
0-5 %	11	33	179	10	11	29	8	281	87.5 %
6-84 %	2	4	18	0	0	2	0	26	8.1 %
85-100 %	0	0	9	1	0	0	0	10	3.1 %
Not reported	0	0	2	0	2	0	0	4	1.2 %
Total	13	37	208	11	13	31	8	321	100.0 %
Sequence	Α	В	D	Н	HR	NL	SL0	Total	%
First	12	35	195	11	13	30	8	304	94.7 %
Repeat	1	2	13	0	0	1	0	17	5.3 %
Total	13	37	208	11	13	31	8	321	100.0 %
Waiting time (months) based on date put on WL	A	В	D	Н	HR	NL	SLO	Total	%
0-5	4	3	38	4	6	10	2	67	20.9 %
6-11	2	7	47	5	3	10	2	76	23.7 %
12-23	6	14	67	1	3	8	3	102	31.8 %
24+	1	13	56	1	1	3	1	76	23.7 %
Total	13	37	208	11	13	31	8	321	100.0 %
Age	Α	В	D	Н	HR	NL	SL0	Total	%
0-15	0	0	1	0	0	0	0	1	0.3 %
16-55	12	35	186	11	12	29	8	293	91.3 %
55-64	1	2	21	0	1	2	0	27	8.4 %
Total	13	37	208	11	13	31	8	321	100.0 %

TRANSPLANTATION

Figure 8.3 Number of deceased donor pancreas transplants, by recipient urgency at transplant

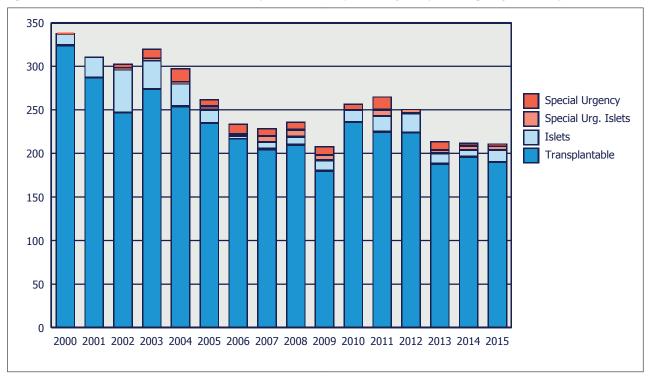


Figure 8.4 Percentage of deceased donor pancreas, by recipient urgency at transplant

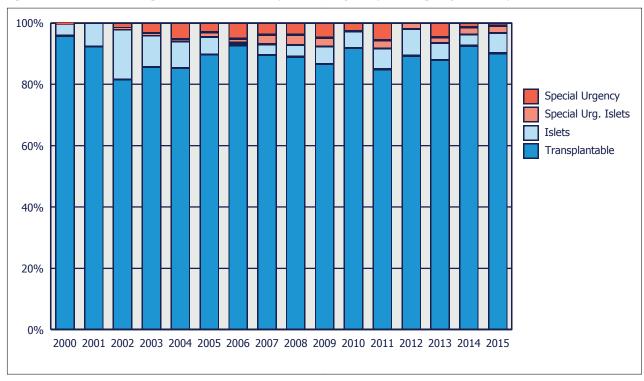


Table 8.4a(i) Pancreas transplants from 2011 to 2015 - characteristics

Deceased donor pancreas transplants

Type of transplant	2011	2012	2013	2014	2015	2014/2015
Pancreas	21	24	28	19	13	-31.6 %
Pancreas islets	25	27	16	13	19	46.2 %
Pancreas + kidney	210	195	164	175	175	0.0 %
Pancreas + kidney en bloc	1	0	1	0	0	0.0 %
Pancreas + kidney + whole liver	2	1	0	1	0	-100.0 %
Pancreas + whole liver	6	4	5	4	4	0.0 %
Total	265	251	214	212	211	-0.5 %

Pancreas-only transplants (whole)

Blood group	2011	2012	2013	2014	2015	2014/2015
A	8	10	9	5	7	40.0 %
AB	0	0	1	0	1	
В	4	4	5	4	0	-100.0 %
0	9	10	13	10	5	-50.0 %
Total	21	24	28	19	13	-31.6 %

Waiting time (months) based on date put on WL	2011	2012	2013	2014	2015	2014/2015
0-5	8	5	6	2	4	100.0 %
6-11	4	4	7	2	2	0.0 %
12-23	5	8	9	6	3	-50.0 %
24-59	4	6	6	7	4	-42.9 %
60 +	0	1	0	2	0	-100.0 %
Total	21	24	28	19	13	-31.6 %

Sequence	2011	2012	2013	2014	2015	2014/2015
First	7	9	12	4	8	100.0 %
Repeat	14	15	16	15	5	-66.7 %
Total	21	24	28	19	13	-31.6 %

Recipient age	2011	2012	2013	2014	2015	2014/2015
16-55	18	22	28	18	12	-33.3 %
56-64	3	2	0	1	1	0.0 %
Total	21	24	28	19	13	-31.6 %

Allocation	2011	2012	2013	2014	2015	2014/2015
Standard	16	15	20	11	11	0.0 %
Rescue	5	9	8	8	2	-75.0 %
Total	21	24	28	19	13	-31.6 %

Table 8.4a(i) (continued)

Urgency	2011	2012	2013	2014	2015	2014/2015
Special urgency	9	0	6	2	1	-50.0 %
Elective	12	24	22	17	12	-29.4 %
Total	21	24	28	19	13	-31.6 %

Table 8.4a(ii) Pancreas transplants 2015 - characteristics

Deceased donor pancreas transplants

Type of transplant	A	В	D	Н	HR	NL	SL0	Total	%
Pancreas	2	0	8	0	0	3	0	13	6.2 %
Pancreas islets	0	11	0	0	0	8	0	19	9.0 %
Pancreas + kidney	25	9	93	13	8	22	5	175	82.9 %
Pancreas + whole liver	0	0	4	0	0	0	0	4	1.9 %
Total	27	20	105	13	8	33	5	211	100.0 %

Pancreas-only transplants (whole)

Blood group	A	D	NL	Total	%
A	2	3	2	7	53.8 %
AB	0	1	0	1	7.7 %
0	0	4	1	5	38.5 %
Total	2	8	3	13	100.0 %
Waiting time (months) based on date put on WL	Α	D	NL	Total	%
0-5	1	3	0	4	30.8 %
6-11	0	0	2	2	15.4 %
12-23	1	1	1	3	23.1 %
24-59	0	4	0	4	30.8 %
Total	2	8	3	13	100.0 %
Sequence	A	D	NL	Total	%
First	1	5	2	8	61.5 %
Repeat	1	3	1	5	38.5 %
Total	2	8	3	13	100.0 %
Recipient age	A	D	NL	Total	%
16-55	2	8	2	12	92.3 %
56-64	0	0	1	1	7.7 %
Total	2	8	3	13	100.0 %

Table 8.4a(ii) (continued)

Allocation	A	D	NL	Total	%
Standard	2	6	3	11	84.6 %
Rescue	0	2	0	2	15.4 %
Total	2	8	3	13	100.0 %
Urgency	A	D	NL	Total	%
	A 0	D	NL 0	Total 1	% 7.7 %
Urgency Special urgency Elective		D 1 7		Total 1 12	

Table 8.4b(i) Pancreas islet transplants 2011 to 2015

Pancreas islets	2011	2012	2013	2014	2015	2014/2015
Recipients transplanted	16	14	11	10	13	30.0 %
Number of transplants	25	27	16	13	19	46.2 %
Number of donors used	64	53	31	31	67	116.1 %

Table 8.4b(ii) Pancreas islet transplants in 2015

Pancreas islets	В	NL	Total
Recipients transplanted	5	8	13
Number of transplants	11	8	19
Number of donors used	57	10	67

Table 8.4c(i) Pancreas + kidney transplants from 2011 to 2015 - characteristics

Whole pancreas + kidney (deceased donor) transplants

whole pancreas + kidney (deceased donor) transplants									
Blood group	2011	2012	2013	2014	2015	2014/2015			
A	103	75	69	85	74	-12.9 %			
AB	11	9	9	6	12	100.0 %			
В	30	18	24	22	25	13.6 %			
0	67	93	63	62	64	3.2 %			
Total	211	195	165	175	175	0.0 %			
Waiting time (months) based on date put on WL	2011	2012	2013	2014	2015	2014/2015			
0-5	39	34	28	22	29	31.8 %			
6-11	35	30	19	27	34	25.9 %			
12-23	73	59	64	63	59	-6.3 %			
24-59	57	66	52	60	48	-20.0 %			
60+	7	6	2	3	5	66.7 %			
00+									

Table 8.4c(i) (continued)

Sequence	2011	2012	2013	2014	2015	2014/2015
First	197	191	159	168	170	1.2 %
Repeat	14	4	6	7	5	-28.6 %
Total	211	195	165	175	175	0.0 %
Recipient age	2011	2012	2013	2014	2015	2014/2015
16-55	188	170	146	160	162	1.3 %
56-64	20	23	17	15	11	-26.7 %
65+	3	2	2	0	2	
Total	211	195	165	175	175	0.0 %
Allocation	2011	2012	2013	2014	2015	2014/2015
Standard	129	125	118	130	122	-6.2 %
Rescue	82	70	47	45	53	17.8 %
Total	211	195	165	175	175	0.0 %
Urgency	2011	2012	2013	2014	2015	2014/2015
Special urgency	6	0	4	1	1	0.0 %
Elective	205	195	161	174	174	0.0 %
Total	211	195	165	175	175	0.0 %

Table 8.4c(ii) Pancreas + kidney transplants in 2015 - characteristics

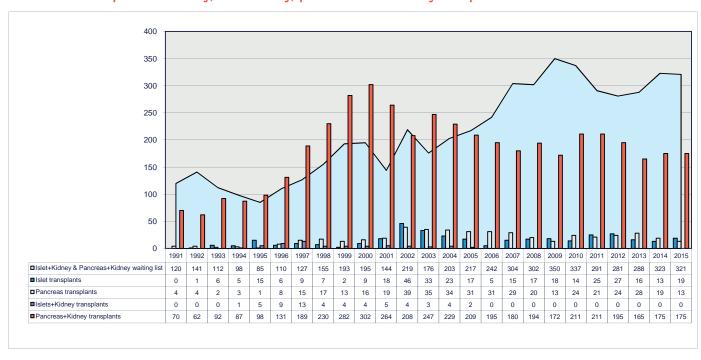
Whole pancreas + kidney (deceased donor) transplants

Whote pullereus : kidney		.u uone		Speares					
Blood group	A	В	D	Н	HR	NL	SL0	Total	%
Α	9	3	42	7	1	9	3	74	42.3 %
AB	1	0	6	1	1	2	1	12	6.9 %
В	6	1	13	2	2	1	0	25	14.3 %
0	9	5	32	3	4	10	1	64	36.6 %
Total	25	9	93	13	8	22	5	175	100.0 %
Waiting time (months) based on date put on WL	А	В	D	Н	HR	NL	SLO	Total	%
0-5	11	1	6	7	1	2	1	29	16.6 %
6-11	6	1	13	2	6	3	3	34	19.4 %
12-23	6	2	30	3	1	16	1	59	33.7 %
24-59	2	2	42	1	0	1	0	48	27.4 %
60+	0	3	2	0	0	0	0	5	2.9 %
Total	25	9	93	13	8	22	5	175	100.0 %
Sequence	A	В	D	Н	HR	NL	SLO	Total	%
first	22	9	91	13	8	22	5	170	97.1 %
repeat	3	0	2	0	0	0	0	5	2.9 %
Total	25	9	93	13	8	22	5	175	100.0 %

Table 8.4c(ii) (continued)

Recipient age	А	В	D	Н	HR	NL	SL0	Total	%
16-55	22	8	85	13	7	22	5	162	92.6 %
56-64	3	1	6	0	1	0	0	11	6.3 %
65+	0	0	2	0	0	0	0	2	1.1 %
Total	25	9	93	13	8	22	5	175	100.0 %
Allocation	A	В	D	Н	HR	NL	SL0	Total	%
Standard	23	7	45	13	8	22	4	122	69.7 %
Rescue	2	2	48	0	0	0	1	53	30.3 %
Total	25	9	93	13	8	22	5	175	100.0 %
Urgency	A	В	D	Н	HR	NL	SL0	Total	%
Special urgency	1	0	0	0	0	0	0	1	0.6 %
Elective	24	9	93	13	8	22	5	174	99.4 %
Total	25	9	93	13	8	22	5	175	100.0 %

Figure 8.5 Dynamics of the Eurotransplant pancreas+kidney and islet+kidney waiting list, pancreas+kidney, islet+kidney, pancreas and islet-only transplants between 1991 and 2015



"The collaboration of Eurotransplant with the several Member States, gives us the opportunity to save lives. Urgent allocations are based on solidarity between the countries. The main heroes are our donors who want to save another life!"





Mr. Christiaan Decoster, General Director of the Directorate General of Health Care, Belgium

Agreements between transplant programs within and outside Eurotransplant

Eurotransplant has concluded several cooperation agreements with countries outside the Eurotransplant community (twinning agreements with non-Eurotransplant centers, agreements with non-Eurotransplant countries) and also within the Eurotransplant community itself for specific transplant programs.

Twinning Model A - Transplantation start-up and training program

In this model the Eurotransplant transplant center supports a transplant center outside the Eurotransplant community with the start-up of a transplant program for a specific type of organ. It provides training in procurement and transplantation and ensures that the procurement in the non- Eurotransplant center is performed according to Eurotransplant standards.

All transplantations are performed in the Eurotransplant center. The non-Eurotransplant center reports the donor organs to Eurotransplant and lists patients on the waiting list of the Eurotransplant center. Organs reported by the non-Eurotransplant center are allocated according to the general Eurotransplant allocation rules considering the donors from the non-Eurotransplant center as local donors of the Eurotransplant transplant center.

Twinning agreements Model A have been established between:

Lung transplantation

ET-transplant center	Non-ET transplant center	Number of transplanted recipients in non-ET center in 2015	Number of transplants with donors from non-ET center in 2015
Medical University of Vienna Vienna, Austria	University of Bratislava- Ružinov Bratislava, Slovakia	6 x both lungs	4 x both lungs
Medical University of Vienna Vienna, Austria	Institutul de Pneumologie, "Marius Nasta" Bucharest, Romania	4 x both lungs	None
Medical University of Vienna Vienna, Austria	Bulgarian Executive Agency for Transplantation, Sofia, Bulgaria	1 x both lungs	3 x both lungs
Medical University of Vienna Vienna, Austria	Clinic of Thoracic Surgery, Clinical Center of Serbia, Belgrade, Serbia	2 x both lungs	None
Medical University of Vienna Vienna, Austria	Sismanoglio General Hospital, Athens, Greece	7 x both lungs	4 x both lungs

Heart transplantation

ET-transplant center	Non-ET transplant center	Number of transplanted recipients in non-ET center in 2015	Number of transplants with donors from non-ET center in 2015
Medical University of Vienna Vienna, Austria	Bulgarian Executive Agency for Transplantation, Sofia, Bulgaria	None	1 x heart

Heart+Lung transplantation

ET-transplant center	Non-ET transplant center	Number of transplanted recipients in non-ET center in 2015	Number of transplants with donors from non-ET center in 2015
Medical University of Vienna Vienna, Austria	Bulgarian Executive Agency for Transplantation, Sofia, Bulgaria	None	None

Twinning Model B - Transplantation support program

In this model the Eurotransplant transplant center provides knowledge and experience to a transplant center outside the Eurotransplant community to special patients for a specific type of organ. The Eurotransplant center provides training in procurement and transplantation for these special patients and ensures that the procurement of organs reported to Eurotransplant in the transplant center outside the Eurotransplant community is performed according to Eurotransplant standards.

The transplantations can be performed in both centers. The transplant center outside the Eurotransplant community is encouraged to report all organs for which non-suitable recipients can be identified to Eurotransplant. The non-ET-TC places patients on the waiting list of the Eurotransplant center. Organs reported by the non-ET center are allocated according to the general allocation rules of Eurotransplant considering the donors from the non-ET transplant center as local donors of the Eurotransplant center. After each transplantation, as minimum obligation, the non-ET transplant center is required to offer the same number and same type of organ(s) as transplanted, to the Eurotransplant pool. Eurotransplant monitors the exchange balance between the centers involved.

Twinning agreements Model B have been established between:

Lung transplantation

ET-transplant center	Non-ET transplant center	Number of transplanted recipients in non-ET center in 2015	Number of transplants with donors from non-ET center in 2015
Medical University of Vienna Vienna, Austria	Tartu Universty Hospital Tartu, Estonia	None	2 x both lungs
Medical University of Vienna Vienna, Austria	Nicosia General Hospital, Strovolos, Cyprus	None	None

Heart+Lung transplantation

ET-transplant center	Non-ET transplant center	Number of transplanted recipients in non-ET center in 2015	Number of transplants with donors from non-ET center in 2015
Medical University of Vienna Vienna, Austria	Nicosia General Hospital, Strovolos, Cyprus	None	None
Medical University of Vienna Vienna, Austria	Tartu Universty Hospital Tartu, Estonia	None	None

Various agreements

Eurotransplant member states also have the possibility to set-up separate agreements for cooperation in the field of organ transplantation with countries outside the Eurotransplant community.

These agreements have to be approved by the Eurotransplant Board before being valid.

Liver transplantation

ET-transplant center	Non-ET transplant center	Number of transplanted recipients in non-ET center in 2015	Number of transplants with donors from non-ET center in 2015
Ministry of Health and Social Welfare Zagreb, Republic of Croatia	Bosnia Herzegovina	2 x whole liver	None

In addition to the agreements with transplant centers outside the Eurotransplant community, the transplant center in Vienna (AWGTP) has signed agreements with the Eurotransplant members Croatia, Hungary and Slovenia to provide support with lung transplantations.

Lung transplantation (deceased donor) in 2015 - Non-Austrian Eurotransplant donors and recipients

Eurotransplant support center	Eurotransplant member state	Number of recipients transplanted in 2015	Number donors reported in 2015
Medical University of Vienna Vienna, Austria	Croatia	9	22
Medical University of Vienna Vienna, Austria	Hungary	7	6
Medical University of Vienna Vienna, Austria	Slovenia	22	36

The transplant center in Innsbruck has a longstanding cooperation with Trentino, Italy.

"The ler the country, the greater the benefit but also the return resulting from the membership in the high profile well functioning Eurotransplant tissue typing network. As a laboratory initially dedicated to allergology and immunology, we gratefully acknowledge the high quality scientific, technical, quality-prone expertise in immunogenetics developed and requested for organ exchange. The permanent knowledge flow fosters expertise in tissue typing, immunogenetics and beyond."



Dr. François Hentges, Head of the Laboratory of Immunogenetics & Allergology,

Centre Hospitalier de Luxembourg - Senior Consultant Department of Infection & Immunity - at Luxembourg Institute of Health



10.

Reporting of non-resident transplants in Eurotransplant

In 2012, the Board adapted the non-resident policy, wherein it is stated that:

Travel for deceased donor transplantation from countries outside the Eurotransplant (ET) region shall not be actively supported by ET transplant centers, for example by advertising deceased donor transplants outside ET, by cooperating with organizations doing so, or by in any other way encouraging possible recipients to travel for transplant to an ET transplant center.

ET is opposed to transplant tourism, as transplantation of non-residents within ET undermines the ET country's ability to provide transplant services for its own population. ET condemns organ trafficking. ET transplant centers shall abstain from any activity involving transplant tourism and organ trafficking.

In order to achieve the best possible transparency regarding transplantation activities, ET reports on an annual basis per transplant center all non-resident transplants according to national legislation on residency status in its Annual Report. In addition ET will continue to report separately on all transplants performed in the framework of a twinning agreement.

These reports are based on the data the centers provide to Eurotransplant when registering a patient on the waiting list. ET recognizes that relying on self-reporting by transplant centers has its limitations but given the limited legal role and responsibility of ET it is felt that this approach is appropriate. It is also in line with the self-reporting of other demographic patient data by transplant centers to ET.

Non-resident transplants (deceased donor) in 2015

Country	Center	All transplants	Non-resident transplants
Austria	AIBTP - Innsbruck	227	1
Austria	AWGTP - Vienna	345	7
Belgium	BGETP - Gent	124	1
Croatia	CZMTP - Zagreb Merkur	183	3
Germany	GESTP - Essen	211	2
Germany	GHGTP - Hamburg	138	5
Germany	GHOTP - Hannover	287	4
Germany	GJETP - Jena	91	2
Germany	GMNTP - Münster	96	1
Total			26

Disclaimer:

Non-residents are transplant recipients from countries outside the Eurotransplant region. The residency status is specified and verified by the transplant center and is not verified by ET. As laid down in the policy, ET will report separately on all transplants performed in the framework of a twinning agreement and these numbers are **not** included in this table.



"Being part in the chain of logistics in international organ exchange has made me aware that rapid organ transportation by air is of the utmost importance. I feel a strong responsibility to carry out this task with great care."

Mr. Péter Dénes, Hungarian aircraft pilot

11.

Histocompatibility Testing

Y. Zoet, M. Witvliet, S. Heidt, F.H.J. Claas, Eurotransplant Reference Laboratory, Department of Immunohaematology and Blood Transfusion, Leiden University Medical Center, Leiden, the Netherlands

Introduction 11.1

An ongoing task of the Eurotransplant Reference Laboratory (ETRL) is the maintenance and improvement of high quality HLA typing, screening for transplantation relevant antibodies and cross matching by the Eurotransplant (ET) affiliated Tissue Typing Centers (TTC). This task is performed by organizing schemes for External Proficiency Testing (EPT) exercises. Furthermore, the ETRL initiates studies and promotes discussions on possible new recommendations with the help of the Tissue Typing Advisory Committee (TTAC), the Annual Tissue Typers meeting and the extra mural meetings. In addition, for more than 25 years, the ETRL has addressed the problem of highly sensitized patients by organizing and promoting the Acceptable Mismatch (AM) program within and outside ET. The ETRL supports the affiliated TTC, as well as TTC from emerging countries. The ETRL is involved in the discussion on modification of the ET kidney allocation system (ETKAS) and finally, the ETRL provides 24 hours a day, 7 days a week duty for all transplantation related immunological aspects for patients within ET, including the AM program.

Eurotransplant External Proficiency Testing Schemes 11.2

The results of the EPT exercises performed in 2015, with the aim to determine the individual performance of the TTC, are reported below.

11.2.1 External Proficiency Testing on HLA typing

Each participating laboratory received 12 blood samples for typing and was asked to report the results of the HLA-A, -B, -C, -DR, -DQ typing. For analysis of the results the typing as performed by the ETRL was considered correct, as proposed by the External Proficiency Testing Committee of the European Federation for Immunogenetics (www.efiweb.org). The participants had to report their results on the basis of matching determinants, a translation of molecular typing results into serological equivalents, which are used in the ET matching algorithm and screening results. Most participants used both serology and molecular typing (38/63) for HLA class I, and molecular typing and incidentally serology (8/63) for HLA class II. Amongst the total of 759 typing results reported, 25 results were incorrect (3.3%).

The TTC use the results of the serological typing mainly as an indicator of expression of HLA antigens on the cell surface, in order to facilitate the evaluation of the cross matches.

11.2.2 External Proficiency Testing on crossmatching

The participants of this EPT exercise were asked to perform cross matches using cells and sera provided by the ETRL. The TTC applied the local Complement Dependent Cytotoxicity (CDC) cross match protocols to simulate day-to-day practice, using dithiothreitol (DTT) to disintegrate IgM antibodies. The TTC were free to use unseparated peripheral blood cells and/or T cells. Next to this, the TTC had the opportunity to also submit cross match data on separated B-cells.

In total, 12 sera had to be cross matched with 3 different target cells, resulting in 36 cross matches. There are two types of laboratories participating in this EPT, and therefore the results are reported separately. Donor centers are the laboratories on duty for post-mortal organ donors, while recipient centers are the laboratories doing recipient associated immunological diagnostics. The target cells and the respective results are presented in table 11.1.

Results of the EPT on crossmatching (DTT = dithiothreitol) **Table 11.1**

The number represents the % discrepancy rate on the basis of 75% consensus. The results are similar to those of earlier periods.

	Unsep	arated	T c	ells	Вс	ells	Final 1	esults
Center	(-) DTT	(+) DTT						
Donor	2.7%	3.6%	2.2%	4.2%	1.5%	3.4%	2.9%	4.4%
Recipient	1.4%	2.8%	0.4%	0.5%	2.0%	1.7%	0.8%	2.8%

11.2.3 External Proficiency Testing Exercise on screening

In 2015, the scheme of the EPT exercise on screening for HLA specific antibodies comprised one shipment of 12 sera. The HLA typing of the donor serum was reported to the participants beforehand. For screening detection of HLA antibodies, the ETRL received results from 66 participants. Discrepancy rates were 1.5% for HLA class I and 4.0% for HLA class II.

For screening identification of HLA antibodies, the ETRL received results from:

- 58 participants using the CDC assay;
- 59 using the Luminex based Solid Phase Assay Single Antigen (SPA-SA) testing;
- 6 using other Solid Phase Assays based on Luminex or ELISA. These results could not be analyzed due to the low number of participants.
- 1 using a Solid Phase Single Antigen plus technique (C3d or C1q). These results could not be analyzed due to the low number of participants.

The analysis of the results is based on 75% consensus for positive results in CDC, 95% consensus for positive results in SPA-SA and the 95% consensus (both CDC and SPA-SA) for negative results. If a minimum of 75% (CDC) or 95% (SPA-SA) of participants report that a specificity is positive then this specificity is marked positive. If 95% of the participants report a specificity as negative then this specificity is regarded as not present in the respective serum.

The analyses of this EPT exercise are presented below. The analysis was performed as follows:

Concordant %=	total number of concordant (consensus) specificities				
concordant /0-	total number of scored specificities from all centers				
False negative %=	total number of false negative specificities				
	total number of scored specificities from all centers				
False positive %=	total number of false positive specificities				
	total number of scored specificities from all centers				

Table 11.2 Results of the EPT on screening 2014

Method	Participants (N)	Concordant %	False negative %	False positive %
CDC	61	50.7	5.3	7.8
SPA-SA	58	50.1	0.5	0.6

Table 11.3 Results of the EPT on screening 2015

Method	Participants (N)	Concordant %	False negative %	False positive %
CDC	58	37.8	4.6	5.7
SPA-SA	59	64.0	0.5	0.4

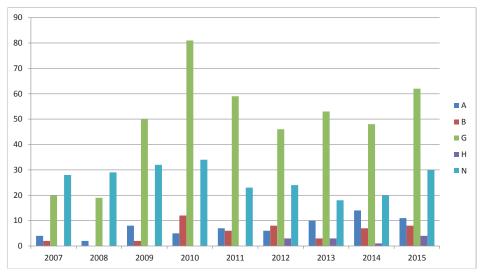
The SPA-SA resulted in a significantly higher number of recognized HLA specificities per tested serum compared to CDC. In total, 335 consensus specificities were found in SPA-SA vs. 26 consensus specificities in CDC. It is important to note that not all antibodies detected by solid phase assays only are relevant for transplantation.

11.3 The Acceptable Mismatch Program

The Acceptable Mismatch (AM) Program organized by the ETRL is an efficient tool to enhance transplantation of highly sensitized patients. The AM program is open for all patients within ET. Information on participation can be obtained directly from the ETRL etrlam@eurotransplant.org, the ET Medical Administration, or from the ETRL website (see below).

Since the start of the program in 1989, more than 2000 patients participated and more than 1000 patients were transplanted with excellent transplant survival, comparable to non-AM transplants. More details on the results of the AM program are described in a recent publication: (Heidt et al., Transplant Immunol 33: 51, 2015). In 2015, 226 applications for the AM program were received by the ETRL, of which 172 met the criteria for inclusion. In total, 102 AM patients were transplanted with a cross match negative kidney (figure 11.1).

Figure 11.1 Number of patients transplanted via the AM program (A: Austria, B: Belgium, G: Germany, H: Hungary, N: the Netherlands)



11.4 Other activities

The ETRL site

The website of the ETRL (http://etrl.eurotransplant.nl) is available for all laboratories working in the field of organ transplantation immunology and histocompatibility. Besides information on the duties of the ETRL, the participants of the EPT can find information on the EPT schemes. For the AM program, additional information and forms for application can be found on the site. Further information of future meetings within ET as well as reports of these meetings can be found.

In 2013, the development of a web-based tool for entering EPT data was initiated. Starting January 2015, all EPT data were submitted via this web-based tool, that can be found on a private part of the ETRL EPT website (http:// www.etrl.org). In addition, two programs, which have been used by the ETRL for several years already, can be found on the public part of the ETRL EPT website: the virtual PRA calculator, which is based on the HLA typing results of organ donors procured within ET (N=4000), but which also allows PRA calculations on the national data bases of Austria, Belgium, Germany and the Netherlands. The second program, the donor frequency calculator, allows the calculation of the chance of a patient to obtain a cross match negative organ, when HLA type, blood group and acceptable mismatches are defined. New versions of these programs will become available in 2016, based upon a new donor database.

The ETRL newsletter

In the summer of 2015, the ETRL published its first official newsletter. The aim of this quarterly newsletter is to update the people working in TTC within ET on important news. Furthermore, important dates and deadlines are communicated to the TTC in this way.

Extra Mural Meeting Mannheim

In 2015 an extra mural meeting was organized in Mannheim, Germany for the ET tissue typers community. Yvonne Zoet showed changes in the web based EPT data entry and ideas for improvement were discussed. Yvonne Zoet and Sebastiaan Heidt introduced some upcoming changes in the EPT schemes. The goal of these changes is to separate results in those important for EFI accreditation and those important for consistency within Eurotransplant (such as interpretation of cross matches). Next to this, a pilot on a patient based EPT scheme was introduced. This pilot was done in addition to the regular EPT schemes on typing and cross matching in June and September 2015. Frans Claas discussed the introduction of electronic communication of histocompatibility data between the laboratories, transplant centers and Eurotransplant. For this purpose it is necessary to have a uniform format of these data. Furthermore, the mandatory entry of virtual PRA (vPRA) for every patient on the waiting list was discussed. Finally, the new rule for eligibility to enter the AM program based on the chance of receiving an organ of <2% was discussed. It is the aim that this rule will be introduced in 2016.

The meeting was concluded by a scientific lecture presented by Sebastiaan Heidt on monitoring of HLA-specific memory B cells.

Annual Tissue Typers Meeting

The Annual Tissue Typers Meeting was held September 2015 in Leiden. Over 100 participants from the different TTC were present. Yvonne Zoet presented the results of this years' EPT and the adaptations to the EPT website. Sebastiaan Heidt presented an overview of the pilot for a patient based EPT. The results of this patient based EPT will be discussed with all participants during the Extra Mural Meeting beginning 2016. Frans Claas discussed the EUROSTAM project (a Europe-wide Strategy to enhance Transplantation of highly sensitized patients on basis of Acceptable HLA Mismatches).

As a last speaker Stefan Schaub (Basel, Switzerland) presented his ideas about detection and clinical relevance of donor specific antibodies.

"The electronic interface between DSO and Eurotransplant enables rapid data exchange in both directions. Thus the acute organ donation process is optimally supported and transmission mistakes are avoided.

The electronic interface has become an indispensable tool for DSO coordinators."



Mr. Peter Mehring, Head of the IT department, Deutsche Stiftung Organtransplantation (DSO), Frankfurt, Germany

12.

Scientific Output in 2015

The names of authors who work at the Eurotransplant central office or Eurotransplant Reference Laboratory are in Italic.

PUBLICATIONS – articles

Allocatie van donororganen in tijden van schaarste

Van Raemdonck D, Smits JM

Tijdschr. voor Geneeskunde 2014; 71 (3):180-186.

The combined effect of donor and recipient risk on outcome after liver transplantation: Research of the Eurotransplant database

Blok JJ, Putter H, Rogiers X, Hoek van B, Samuel U, Ringers J, Braat AE, Eurotransplant Liver Intestine Advisory Committee (ELIAC)

Liver Transpl. 2015 Aug 20. doi: 10.1002/lt.24308

Eurotransplant - Mehr als nur Organvergabe

Samuel U

Zeitschrift Lebenslinien, Lebertransplantierte Deutschland e.V., 2/2015

Integrating data from multiple sources for data completeness in a web-based registry for pediatric renal transplantation - the CERTAIN Registry

Köster L, Krupka K, Höcker B, Rahmel A, Samuel U, Zanen W, Opelz G, Süsal C, Döhler B, Plotnicki L, Kohl CD, Knaup P, Tönshoff B

Pages 1049 - 1049, DOI: 10.3233/978-1-61499-564-7-1049, Series: Studies in Health Technology and Informatics, Ebook: Volume 216: MEDINFO 2015: eHealth-enabled Health

Pancreas donor quality and donor risk indices in pancreas allocation in the Eurotransplant region

Kopp WH, Vries de E, Boer de J et al.

Submitted to Transplant International Nov 2015

LECTURES

7th Transplant Symposium Freiburg. Heart Transplant, Quo Vadis? February 6, 2015, Freiburg, Germany Cardiac allocation score- focusing transplant benefit instead of urgency Smits JM

7th Transplant Symposium Freiburg. Heart Transplant, Quo Vadis? February 6, 2015, Freiburg, Germany Can the donor pool be extended by appropriate scoring of the donor quality? Smits JM

35th Annual Meeting and Scientific sessions of the International Society for Heart and Lung Transplantation (ISHLT), April 15, 2015, Nice, France

Heart organ allocation should be done by scoring system, not time on list. Debate, PRO. Smits JM

8th "Brano" Heart Failure Forum, September 24-26, 2015, Budapest, Hungary

Eurotransplant area

Smits JM

24. Jahrestagung der Deutschen Gesellschaft für Thoraxchirurgie, September 25, 2015, Berlin, Germany

Implementing the LAS in Germany, implications for patients on the waiting list Smits JM

Curriculum Saarland, May 18, 2015, Saarbrücken, Germany

Organallokation

Samuel U

Transplantationssymposium der Astellas Pharma GmbH, May 22, 2015, Munich, Germany

Allocation - work in progress

Samuel U

Nierentransplantationssymposium der Charité, Berlin, June 6, 2015, Berlin, Germany

Eurotransplant: Status quo und Perspektiven der Allokation

Samuel U

Transplantationsmedizin im Wandel - Das Herz im Fokus, June 13, 2015, Munich, Germany

Organallokation im Eurotransplant Verbund

Samuel U

Organspende - Erfolg durch Vertrauen und Transparenz - Interdisziplinäres Symposium,

July 1, 2015, Erlangen, Germany

Organspende im ET Verbund

Samuel U

Biotest Wilsede Workshop 2015, July 2, 2015 Wilsede, Germany

ET Sicht – ist Erfolgsorientierung machbar?

Samuel U

FOEDUS, September 21, 2015, Rome, Italy

WP4: Definition of guidelines for cooperation in cross-border organ exchanges and analysis of barriers/obstacles Rosmalen van M

15ème Congrès de la Société Francophone de Transplantation, December 4, 2015, Lille, France

Effect à longe terme de la 'Heart Donor Score' sur la survie des patients

Smits JM, De Pauw M, Samuel U, Meiser B, Laufer G, Zuckermann A

17. Transplantationsworkshop, November 28, 2015, Hinterzarten, Germany

Eurotransplant: Gegenwart und Zukunft

Samuel U

15. Kongress der Deutschen Interdisziplinären Vereinigung für Intensiv- und Notfallmedizin, December 2, 2015, Leipzig, Germany

Wie kann Eurotransplant zur Qualitätssicherung beitragen? Samuel U

Curriculum für Transplantationsbeauftragte, Grundkurs, December 18, 2015, Starzach, Germany Grundlagen der Organallokation Samuel U

"International exchange of follow-up data in organ transplantation, refined data management and data quality control with its impact on scientific assessment makes Eurotransplant a platform and guarantor for valuable single- and multicentre data analyses issuing subsequent improvements in the process of organ donation, allocation and transplant outcome."



Dr. Susanne Rasoul-Rockenschaub, Data manager of the transplantation department of the University Hospital, Vienna, Austria

13.

Eurotransplant personnel related statistics

Intake	Number of new employees	Number of employees (Dec. 31, 2015)	Intake percentage
Regular	7	83	8.4%
Flex	5	29	17.2%
Total	12	112	10.7%
Outflow	Exit number	Number of employees (Jan. 1. 2015)	Outflow percentage
Regular	2	78	2.6%
Flex	4	28	14.3%
Total	6	106	5.7%
Employees on December 31, 2015	Numbers	FTE	
Flex	29	8.40	
Part-timer Part-timer	47	35.64	
Full-timer	28	28.00	
Full-timer + (>36 hours/week)	8	8.78	
Total	112	80.82	
Average FTE's	Gross FTE	Recharged*	Nett FTE
Personnel in fte's	79.78	9.36	70.42

^{*} The fte's based on the shared services will partially be recharged to the Dutch Transplant Foundation.

	M	ale	Fem	ale
Divison Male/Female	Nr.	%	Nr.	%
Regular	32	38.6%	51	61.4%
Flex	14	48.3%	15	51.7%
Total	46	41.1%	66	58.9%

Nett Absentee rates*	absenteeism	Rolling absentee frequencies	Average absentee duration
Regular & Flex	2.92%	1.16	8.8
Gross Absentee rates**	absenteeism	Rolling absentee frequencies	Average absentee duration
Regular & Flex	3.49%	1.18	10.3

^{*} Nett absenteeism concerns all absenteeism caused by illness, excluding insured absenteeism.

In case of insured absenteeism, the employer receives sickness benefits for the absenteeism. This involves absenteeism related to pregnancy or maternity, organ donation or with regard to employees who have a prior history of insured absenteeism.

^{**} Gross absenteeism concerns all absenteeism caused by illness.

"Continuous exchange of good medical and organizational practices through international cooperation in Eurotransplant is probably the best way for improvement of medical expertise and treatment results for the patient especially in small countries like Slovenia."





Dr. Valentin Sojar, Slovenian transplant surgeon

14.

Abbreviated financial statements

Abbreviated financial statements of Stichting Eurotransplant International Foundation, for the year ended December 31, 2015

For a full understanding of the Foundation's financial position and results, the abbreviated financial statements should be read in conjunction with the financial statements from which the abbreviated financial statements have been derived. These financial statements are available at the Foundation.

The purpose of these abbreviated financial statements is to give insight in equity (reserve funds), solvency, liquidity and the result for the year. The criteria and the aggregation level of the abbreviated financial statements are applied to these.

Balance sheet

Assets	31.12.2015	31.12.2014
	x €1.000	x €1.000
Fixed assets	339	512
Short term receivables	2.562	3.286
Liquid assets	2.311	1.203
	5.212	5.001
Liabilities	31.12.2015	31.12.2014
	<u>x €1.000</u>	<u>x</u> €1.000
Capital	235	235
Reserve funds	2.684	2.291
Provisions	95	86
Short term liabilities	2.198	2.388
	5.212	5.001
Statement of income and charges	2015	2014
Income	x <u>€1.000</u>	x <u>€1.000</u>
Registration fees	7.881	7.419
Procurement fees	3.605	3.522
Transport costs recharged	1.311	1.003
Donor typing fees Belgium	79	78
Miscellaneous	161	306
	13.036	12.328

	2015	2014
Charges	x €1.000	<u>x</u> €1.000
Salaries	5.359	5.012
Procurement charges	3.731	3.556
Transport costs	1.311	1.003
General expenses	1.105	1.097
Medical expenses	433	428
Transport	50	107
Housing	230	286
Depreciation	205	213
Audits	109	107
Donor typing costs Belgium	85	78
Miscellaneous	82	62
	12.699	11.948
Equalization registrations and audits	55	-120
Exploitation balance	393	260
Appropriation of the exploitation balance		
Addition General Reserve	174	346
Release Reserve Information Backbone	-98	-110
Addition Reserve Fund Clearinghouse procurement fees	-137	24
Addition Reserve-Fund Renewal ENIS	525	-
Release Reserve-Fund Renewal ENIS	-71	-
	393	260

Accounting policies

General accounting principles for the preparation of the abbreviated financial statements

The financial statements have been prepared in accordance with Guideline 640 of the Dutch Accounting Guidelines from which the abbreviated financial statements have been derived.

Valuation of assets and liabilities and determination of the result takes place under the historical cost convention. Unless presented otherwise at the relevant principle for the specific balance sheet item, assets and liabilities are presented at face value.

Income and expenses are accounted for on accrual basis. Profit is only included when realized on the balance sheet date. Losses originating before the end of the financial year are taken into account if they have become known before preparation of the abbreviated financial statements.

Financial instruments

Financial instruments be both primary financial instruments, such as receivables and payables, and financial derivates.

For the principles of primary financial instruments, reference is made to the treatment per balance sheet item.

Translation of foreign currency

Receivables, liabilities and obligations denominated in foreign currency are translated at the exchange rates prevailing at balance sheet date.

Transactions in foreign currency during the financial year are recognised in the abbreviated financial statements at the exchange rates prevailing at transaction date. The exchange differences resulting from the translation as of balance sheet date, taking into account possible hedge transactions, are recorded in the profit and loss account.

Principles of valuation of assets and liabilities

Tangible fixed assets

Tangible fixed assets are presented at cost less accumulated depreciation and, if applicable, less impairments in value. Depreciation is based on the estimated useful life and calculated as a fixed percentage of cost, taking into account any residual value. Depreciation is provided from the date an asset comes into use.

Accounts receivable

Receivables are included at face value, less any provision for doubtful accounts. These provisions are determined by individual assessment of the receivables.

Other receivables, prepaid expenses, accruals and short term liablities

These items are stated at nominal value.

Reserve Funds

Reserve Funds are formed for future expenditures which should be covered out of the available assets. The Reserve Funds can be considered as reserves as set out in Dutch Accounting Guideline 640 whereas the setting of the objective of each Reserve Fund is determined by the Board of Management.

Provisions

The provision for jubilee is based on the expected costs for a series of years. Payments for a jubilee are deducted from the provision.

Provision for employee benefits

Industry pension fund scheme:

The pension plan according to the Collective Labour Agreement for General Hospitals is financed through contributions to an industry pension fund (the pension provider). The pension obligations of this plan are valued according to the 'valuation to pension fund approach'. This approach accounts for the contribution payable to the pension provider as an expense in the statement of income and charges.

Principles for the determination of the result

Registration fees

Registration fees are taken into account as of the date of entry on the waiting list of Eurotransplant.

Operating (government) grants

Operating grants are included in the statement of income and charges in the year to which the subsidized costs are charged.

Charges

The general expenses of Stichting Eurotransplant International Foundation are stated on the basis of transaction

Certain general expenses of the Nederlandse Transplantatie Stichting and Stichting Eurotransplant International Foundation are made for common account. Such costs are divided between the two foundations on the basis of activity-levels.

Exploitation Balance

The exploitation balance is defined as the difference beween income and charges, based on the above mentioned policies.

Independent auditor's report

To the Board of Management of Stichting Eurotranspiant International Foundation

The accompanying abbreviated financial statements 2015, which comprise the abbreviated balance sheet as at December 31, 2015, the abbreviated statement of income and charges for the year then ended and related notes, are derived from the audited annual accounts of Stichting Eurotransplant International Foundation for the year ended December 31, 2015. We expressed an unqualified audit opinion on those financial statements in our report dated May 23, 2016.

The abbreviated financial statements do not contain all the disclosures required by the Guideline for annual reporting 640 "Not-for-profit organisations" of the Dutch Accounting Standards Board. Reading the abbreviated financial statements, therefore, is not a substitute for reading the audited financial statements 2015 of Stichting Eurotransplant International Foundation.

Management's responsibility

Management is responsible for the preparation of the abbreviated financial statements 2015 in accordance with the accounting policies as applied in the annual accounts of Stichting Eurotranspiant International Foundation, on the bases described in the notes to the abbreviated financial statements.

Auditor's responsibility

Our responsibility is to express an opinion on the abbreviated financial statements 2015 based on our procedures, which were conducted in accordance with Dutch Law, including the Dutch Standard on Auditing 810 "Engagements to report on summary financial statements".

Opinion

In our opinion, the abbreviated financial statements 2015 derived from the audited annual accounts of Stichting Eurotranspiant International Foundation for the year ended December 31, 2015 are consistent, in all material respects, with those annual accounts, in accordance with the accounting policies described in the abbreviated financial statements.

The Hague, May 23, 2016

Deloitte Accountants B.V.

R.A. Spijker



Annual Report list of abbreviations

ACAdvisory Committee

ACCORD Achieving Comprehensive Coordination in Organ Donation

AC0 Approved Combined Organ

AGT Alanine-glyoxylate aminotransferase

Acceptable Mismatch AMBR Business Rule

CAS Cardiac Allocation Score

CDC Complement Dependent Cytotoxicity

CERTAIN Cooperative European Pediatric Renal Transplantation Initiative

Classification of Language Donor Information COLD

Client Relation Management CRM CTS Collaborative Transplant Study DCD Donation after Cardiac Death **Donation Procedure Application** DPA

DS0 Deutsche Stiftung Organtransplantation

DTT Dithiothreitol **EAS** ET Audit System

ECMO Extra Corporal Membrane Oxygenation European Federation for Immunogenetics EFI ET Liver Intestine Advisory Committee **ELIAC ELTR** European Liver Transplant Registry **ENIS** ET Network Information System **EPAC** ET Pancreas Advisory Committee ET Pancreas Allocation System **EPAS EPT** External Proficiency Testing

European Transplant Associciation-European Dialysis and Transplant Association **ERA-EDTA**

ESDP ET Senior DR-matching Program

ΕT Eurotransplant **ETEC** ET Ethics Committee

ETHAC ET Thoracic Advisory Committee **ETIAM** ET Identity and Access Management **ETKAC** ET Kidney Advisory Committee ET Kidney Allocation System **ETKAS ETRL** ET Reference Laboratory ET-TC ET Transplant Center EU European Union FC Financial Committee

FOEDUS Facilitating exchange of organs donated in EU member states

FTE Full Time Equivalent HLA Human Leucocyte Antigen

Henk Schippers Young Investigators award **HSYI** award

HU High Urgent

IgM Immunoglobuline M ISWG Information Services Working Group

ISHLT International Society for Heart & Lung Transplantation

IS0 International Organization for Standardization

LAS Lung Allocation Score

Molecular Adsorbents Recirculation System MARS

Model End stage Liver Disease MELD

MTManagement Team NT Not Transplantable

NTS Nederlandse Transplantatie Stichting

Organ Exchange Organization 0E0 OPC Organ Procurement Committee PAH Pulmonary Artery Hypertension

Plan Do Check Act **PDCA**

Pulmonary Function Test PFT PRA Panel Reactive Antibodies

Review Board RB

SAE/R Serious Adverse Event/Reaction SPA-SA Solid Phase Assays Single Antigen TTAC Tissue Typing Advisory Committee

TTC Tissue Typing Centers