Eurotransplant

Annual Report 2012

Eurotransplant International Foundation

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Edited by Axel Rahmel

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

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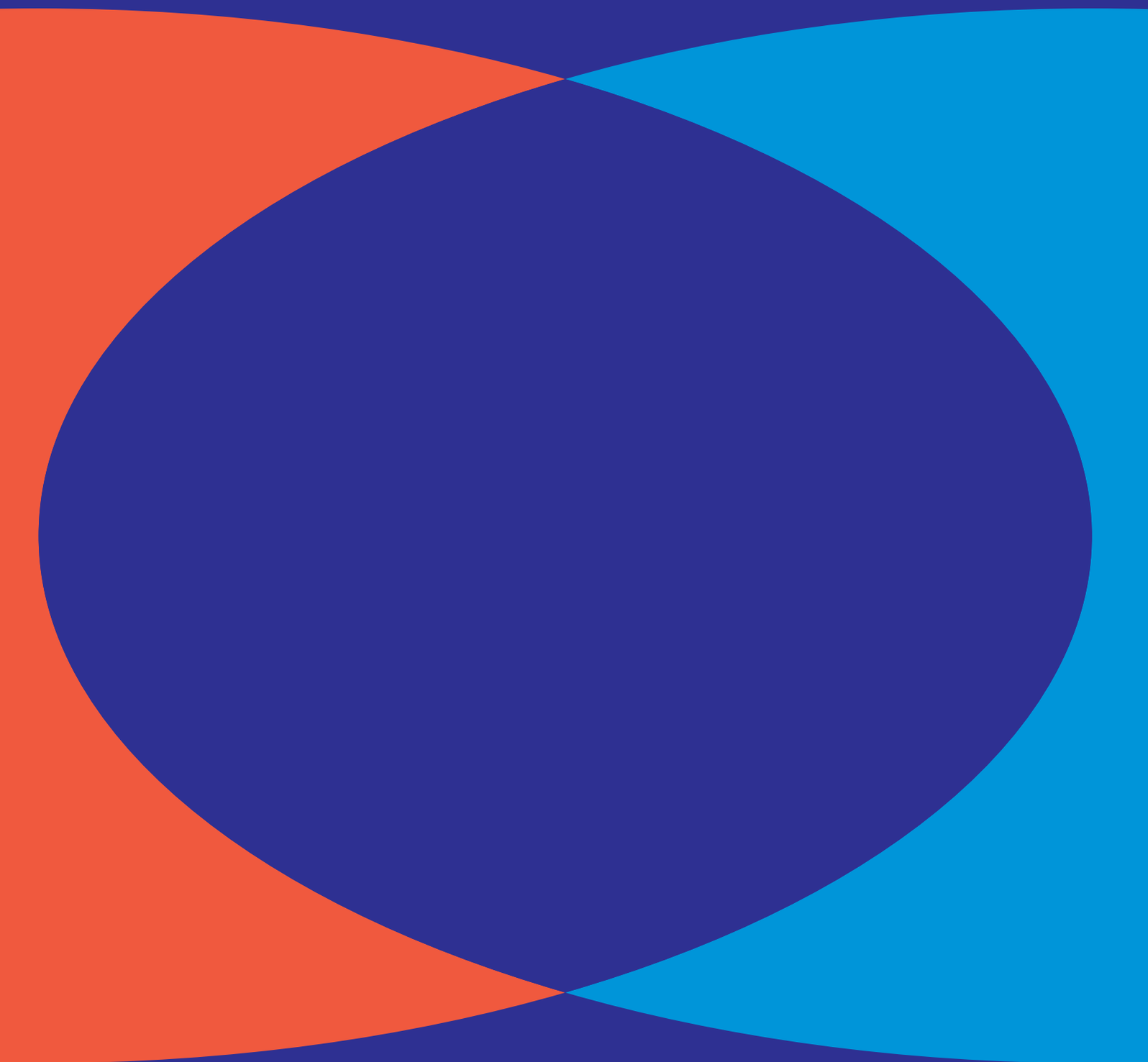
Table of contents



Foreword

Last year the Eurotransplant International Foundation could celebrate its 45th Anniversary. In 1967, Prof. Jon van Rood had the visionary idea that by international cooperation in organ donation and transplantation three major aims could be achieved:

- finding a suitable donor organ in time for all patients on the waiting list including special patient groups like children, high urgent or highly immunized patients;
- improving the results of transplantation by an optimal match between donor and recipient;
- prevention of organ loss in case no suitable recipient could be found for a specific organ in the donor country.

The cooperation between the Eurotransplant states and all transplant professionals involved was from the very first day based on mutual solidarity and trust. The preliminary membership of Hungary that started in 2012 clearly shows that the ideals of Eurotransplant with a multinational, transparent allocation system continue to be attractive for the transplant community. Data on the organ exchange between Hungary and Eurotransplant during this first year of the preliminary cooperation are included in this report. Please keep in mind when reading the figures that the number of donors and transplants shown do not reflect the total donation and transplantation activity in Hungary in 2012 but only the part that involved organ exchange with Eurotransplant. The figures on the other hand clearly indicate that even in this preliminary period the goals envisioned by Prof. Jon van Rood could be achieved: several Hungarian patients belonging to one of the above mentioned special groups received a donor organ from the Eurotransplant community. At the same time Hungary did not only balance the organs offered to them but in addition reported a substantial number of donor organs to the Eurotransplant pool, for which no suitable recipient could be found at that moment in their country. Based on this experience of mutual benefit during the preliminary period it is planned to extend the cooperation with Hungary to a full membership in 2013.

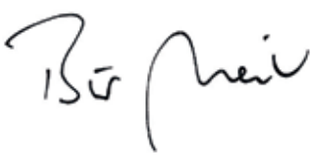
Unfortunately 2012 is also the year that unveiled one of the biggest challenges to the Eurotransplant community: it became evident that in some German transplant centers clinical data of patients registered on the liver transplant waiting list were systematically manipulated in order to influence the MELD score of these patients and thereby increase their chance of getting transplanted. Independent of the still to come legal evaluation of these serious incidents such manipulations violate the basic principal of Eurotransplant – mutual solidarity and trust – and thereby endanger the long-standing international cooperation between the Eurotransplant member states to the benefit of the patients. Not unexpectedly the reports on the manipulations did undermine public trust in organ transplantation in Germany resulting in a substantial decrease of organ donation by almost 13%. It is very unfortunate that the patients on the waiting lists for an organ transplant in this way have to pay the price for these manipulations twice: first by being skipped in allocation and then by the drop in organ donation reducing their chance for a life-saving transplant.

Loosing trust is easy, rebuilding it on the other hand is very challenging. Together with all other partners Eurotransplant has been taking all efforts to regain trust by several different initiatives:

- Eurotransplant cooperates with the national authorities that are investigating the allegations of manipulation or non-adherence to the allocation rules and supports the audit groups that are visiting all transplant programs in Germany;
- the representatives of all Eurotransplant member countries are continuously informed about relevant new findings; in several member countries these reports resulted in initiatives to further adapt the national monitoring of the transplant centers taking the German experiences into account;
- in order to further improve transparency, Eurotransplant placed the ET-Manual on the public website. In this Manual the practical implementation of the national allocation rules are described in detail;
- statistical data and analyses concerning donation, registration on the waiting list, allocation and transplantation in the Eurotransplant countries have been made easily accessible via the new website "statistics.eurotransplant.org". In the months since the launch of this new service the number of visits to the website steadily increased.

This Annual Report also represents an important element of our mission to be fully accountable for all the ongoing Eurotransplant initiatives and activities in cooperation with the different Eurotransplant member states. You will notice that the Report is displayed with a modified layout aiming at clearly structuring the information given and making the information as easily readable and accessible as possible. In addition we modernized the logo of Eurotransplant without changing our well known "trade mark" too much – which can be seen for the first time here – symbolizing both continuity and modernity of our organization!

We are looking forward to a continuous cooperation with all of you in the interest of all the patients waiting for their organ transplant!



Prof. Bruno Meiser
President

Prof. Axel Rahmel
Medical Director

* The General Director, Arie Oosterlee, MD MBA, left the Eurotransplant International Foundation in 2013.

1.
Basic principles of the Eurotransplant community

This chapter gives some general information on the ET mission, on the services we provide and on the relationship with our member states. The Eurotransplant International Foundation is responsible for the mediation and allocation of organ donation procedures in Austria, Belgium, Croatia, Germany, 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 ET region numbers well over 124,7 million inhabitants.

In the following paragraphs the following topics are covered:
1. ET's mission, aims and goals;
2. The basic services that ET provides to its member states as laid down in ET's Basic Mandate.
3. Formal support to ET by the ministries of Health of ET's member states: the so-called 'Joint Declaration'.

1.1 Eurotransplant mission statement

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. Eurotransplant is a non-profit, international organization that facilitates patient-oriented allocation and cross-border exchange of deceased donor organs at the service of its member states.

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.

The following document was agreed upon by all National Authorities of Eurotransplant. It describes basic services that every member state expects Eurotransplant to provide. The budget for Eurotransplant's basic services is guaranteed by all National Authorities. Specific wishes from member states are often laid down in country specific Service Level Agreements.

1.2 Basic Mandate of Eurotransplant

The Basic Mandate of Eurotransplant includes the following elements:
1. Assignment
2. Services
3. Support

1. Assignment

The process

ET's primary assignment is to coordinate the international exchange and allocation of donor organs. To carry out this assignment ET performs activities related to the whole process of organ donation and transplantation. The process includes the following responsibilities:

- Coordination of donor procedures and support of donor procurement;
- Maintaining a waiting list;
- Receiving donor offers;
- Providing central support and advice for the transplant centers, tissue typing laboratories and donor hospitals;
- International coordination of transportation;
- Allocating the organs;
- Following up of the transplantation;
- Evaluating the transplantation results;
- Improving the results of transplantation through scientific research.

The environment

ET interacts with various stakeholders such as patients, national regulating transplant authorities, national representatives of the transplant societies, financing authorities, donor hospitals, transplant centers, tissue typing laboratories, other allocation organizations, scientific societies and the employees of the Leiden office.
ET allocates organs based on rules set by national and international legislation. ET is in continuous interaction with the outside world to analyze and further develop the allocation policy.
ET delivers its services in a social and political framework which demands transparency. Therefore comprehensive quality and patient safety management systems will be in place and maintained.

Competences of the organization

To perform its mandate, the organization of ET has to be in a position to:

1. Perform allocation in a 24-hour service framework
2. Continuously update and improve the process of allocation
3. Establish and maintain an external network
4. Report on and account for the outcome of its services

This means the organization shall:

- Operate and sustain its services continuously;
- Manage an influx of complex information from different sources. This incoming information varies in its format, structure and content;
- Perform the activities to realize it's international and external orientation;
- Maintain close communication with regulatory and legislative authorities – nationally as well as at European Union and international level;
- Implement, comply with and support the development of (inter)national rules and regulations;
- Disseminate the knowledge of ET concerning allocation;
- Participate in international cooperation and the European framework on topics as standards/best practices, issuing of rules, shortage of organs and international harmonization;
- Coordinate international cooperation;
- Gather data in order to perform the allocation process, to report on outcome of the process, to account for the outcome and in order to further develop the process. The analyses have to be within the framework of EU and national legislation.

2. Services

To be able to perform its mandate ET sustains an efficient, effective and proportionate organization. ET follows the relevant ISO standards (ref. ISO 9001:2000). Its activities are aimed at realizing effective services with adequate quality regarding issues such as patient-safety, accuracy, speed and efficiency.

Important aspects of ET's quality system involve the ET Reference Laboratory (ETRL) and the audit system for evaluating the High Urgent status of the patients on the waiting list.

The main mandated tasks performed by ET are described below.

Allocation services

To be able to perform the services 24 hours a day, seven days a week ET maintains a staff of medical doctors, an allocation service desk and a medical administration function.
To support this primary process supportive services are required in the area of housing, facilities, information and communication.

In realizing continuity of its services ET complies with all relevant rules and regulations concerning labor conditions in the Netherlands.

The ET Reference Laboratory provides 24 hours a day, 7 days a week immunological support to the allocation office and to the transplant centers. The ETRL is responsible for the proficiency testing of all histocompatibility laboratories associated to ET and the evaluation of highly immunized patients to be included in the acceptable mismatch program.
The development of ET's allocation processes is driven by the evaluation of post transplant results. For this purpose ET sustains a transplant follow up registry.

Development of allocation process

To continuously update and improve the allocation process ET develops and maintains a network of experts. Because the allocation process differs per organ on allocation rules and specific details, the network represents these different scientific areas. The fields of experience relate to the different organs and ET Advisory Committees are formed along these lines: kidney, thoracic, liver and intestine, pancreas. Also on more general topics committees are organized: on organ procurement, tissue typing and ethical issues. To advise on supporting functions there are also Advisory Committees on finance and information services.

All of these committees meet regularly. The ET staff prepares and conducts the meetings and guides recommendations through the organization and the governance structure.

ET takes care of checking the recommendations on their compliance with the different national and international legislative and regulatory frameworks that are concerned.

ET actively joins in European projects related to organ transplantation. It is also actively involved in national and international regulatory projects. In this way ET works at the improvement of its services, at standardization of processes and methods and at setting as well as learning from, best practices of organizations outside the ET network.

External networking

ET performs activities to establish and maintain international relations that can help ET to improve the allocation process, but also get understanding of, and support for its activities.

Therefore ET organizes twice a year congresses focusing on the professional, scientific, and political communities in the field of organ transplantation within its member states. These congresses are held in autumn and winter in a way that enhances networking between the participants and the staff of ET, thus contributing to mutual trust and understanding within the organization. ET furthermore issues a Newsletter to inform its stakeholders on the recommendations made by the ET Board. ET has also developed a website to inform its stakeholders.

On behalf of its members ET actively makes itself known to, and establishes connections with, the European Community and its representatives who are acting in the field of organ transplantation and issuing rules.

In order to enable benchmarking as well as identification and dissemination of best practices, ET sustains an external network with international organ exchange organizations in the area of donation and transplantation.

Reporting and accounting

ET accounts for the results of its services in various ways and with various reports. They make standard reports on all kind of topics concerning the transplantation process. These reports are made available to the members and the outside world via the ET public website or the member site (extranet) or via alternate routes agreed upon with those concerned.

ET also disseminates the services and their results through (co)publishing and giving lectures on congresses and meetings.

Every year ET reports on the preceding year in an annual report in which account is given, both on the allocation process as well as the financial developments. In the annual report account is also given for the realization of the general policy in the field of allocation and its supportive processes.

Every year ET sees to it that the financial accounts of the preceding year are approved by an external auditor.

To coordinate all external contacts ET develops and maintains a communication policy and actively pursues this policy.

3. Support

To facilitate the process of allocation and the related processes and thereby the organization and people working in it, ET organizes several supportive processes. These processes are detailed below in the sub-sections *Clearing house, Information and quality* and *Other*.

Clearing house

To facilitate the international exchange of organs, ET supports the centers with international transport logistics. ET fulfills and sustains a clearing house function concerning the settlements of costs between the donating and receiving centers in the event of international organ exchange within the organization.

Information and quality

Allocation of organs is an information intensive process which needs substantial support of automated systems. Therefore ET develops and maintains the information systems that are required. They support the analysis of processes, of allocation rules and of other information and transform this into effective information systems. To operate the information systems an adequate infrastructure for information and communication is realized and maintained.

ET will adequately test all procedures and systems and maintains a quality system to assure this.

Other

To enable ET to operate as a service organization its supportive functions have to be sustained. Therefore ET maintains and sustains a supporting organization in fields of management (planning & control), housing, human resource management, finance, ICT and facilities.

4. Governance

ET has a governance structure[1] with an international external board representing the member states, the so-called Board of ET. The Board of ET is responsible for the management of the Foundation and supervises the Board of Directors. The Board of Directors is responsible for the day-to-day management of the organization and is composed of two directors, a general and a medical director. The Board of ET meets on a regular basis with the two directors. These meetings are prepared by the directors and staff of ET.

1 This governance structure is described in Eurotransplant's Articles of Association

5. Finances

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

The following document was signed during the conference Eurotransplant organized on the occasion of its 40th anniversary in Sint Gerlach for the ministers of Health Care of the Eurotransplant member states. The ministers affirmed the cooperation with the other member states and the perceived importance of Eurotransplant for each of them.

1.3 Joint Declaration on cooperation within the framework of Eurotransplant International Foundation

The Minister of Social Affairs and Public Health of the Kingdom of Belgium,

The Minister of Health and Social Welfare of the Republic of Croatia,

The Federal Minister of Health of the Federal Republic of Germany,

The Minister of Health and Social Security of the Grand Duchy Luxembourg,

The Minister of Health, Welfare and Sport of the Kingdom of the Netherlands,

The Federal Minister of Health, Family and Youth of the Republic of Austria
and
The Minister of Health of the Republic of Slovenija,

issue the following Joint Declaration on cooperation within the framework of Eurotransplant International Foundation:

We, Ministers of Health, wish to express our recognition of the activities performed by the Eurotransplant International Foundation (ETI) in Leiden, the Netherlands.

We are of the opinion that the subjects addressed in the Joint Declaration of November 2000 are today undiminished valid.

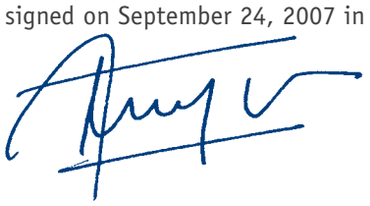
We emphasize:

- that the importance of international cooperation on organ transplantation within the Eurotransplant International Foundation framework has been demonstrated and should be continued;
- the necessity and added value of a fruitful cooperation between the professionals and the national authorities within the framework of Eurotransplant as opposed to separate agreements;
- that it is of crucial importance for the acceptance of transplantation medicine in the participating countries and in the interest of the patients that distribution of the allocated donor organs is performed as fairly as possible within a transparent and objective allocation system according to medical criteria;
- the necessity of having systems operational for quality and safety in the area of organ donation. The state of a donor organ eligible to be allocated by Eurotransplant International Foundation must comply with those safety and quality requirements that are or might be imposed in accordance with the most recent advancements in medical science.
- our involvement as Ministers of Health with Eurotransplant International Foundation, its transparent and unambiguous allocation system and the responsibility of Eurotransplant International Foundation towards the participating member states.

Given the above considerations and the need to take into account national regulatory frameworks as well as efforts directed at the implementation of appropriate measures to improve the existing opportunities for post-mortem organ donation, we, Ministers of Health

- agree that the mutual exchange of practices in the area of post-mortem organ donation between the Eurotransplant International Foundation member states is valuable and supported by us;
- agree that Eurotransplant International Foundation fulfils an important role as a platform for the exchange of knowledge and practices;
- encourage the realization of a collection system for transplant results within Eurotransplant International Foundation.

This declaration was signed on September 24, 2007 in Valkenburg aan de Geul, the Netherlands:

Dr. Dirk Cuypers 

on behalf of the Minister of Social Affairs and Public Health of the Kingdom of Belgium, President of the Board of Directors of the Federal Public Service Health, Food Chain, Safety and Environment

Prof. Dr. Neven Ljubičić 

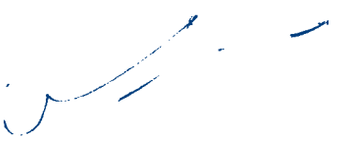
The Minister of Health and Social Welfare of the Republic of Croatia,

Mrs. Ulla Schmidt 

The Federal Minister of Health of the Federal Republic of Germany

Mr. Mars di Bartolomeo 

The Minister of Health and Social Security of the Grand Duchy of Luxembourg

Dr. Ab Klink 

The Minister of Health, Welfare and Sport of the Kingdom of the Netherlands

Dr. Andrea Kdolsky

The Federal Minister of Health, Family and Youth of the Republic of Austria

Mrs. Zofija Mazej Kukovič

The Minister of Health of the Republic of Slovenija

2.
Report of the Board and the central office

L. van Hattum, M. van Hennik, J van der Laan and A. Rahmel, Eurotransplant International Foundation, the Netherlands

The Board of Stichting Eurotransplant International Foundation met on January 25, May 14, August 28 and October 10, 2012. Three Board members A were re-elected by the Assembly, Prof.Dr. Uwe Heemann in the kidney section, Prof.Dr. Günther Laufer in the thoracic section and Prof.Dr. Caner Süsal in the tissue typing section.

Prof. Dr. Günther Laufer has been re-appointed as Chairman of the Assembly.

2.1 Report of the Eurotransplant Board

Expansion of the ET Region

The expansion of ET with Hungary was discussed during all three Board meetings, in the company of Prof. Dr. Robert Langer as representative from Hungary.

Through the year, progress was made rapidly in Hungary. The technical part of the joining of Hungary went without problems. Some minor problems regarding organ transport issues came up in this preliminary membership period but could be solved.

During the meeting of October 10, Professor F. Perner, as special delegate of the Hungarian State Minister of Health, expressed the strong wish of Hungary to become a full member of ET. For a full cooperation the Hungarian transplant legislation needed to be altered. The necessary adaptations were approved by the Hungarian parliament in December 2012. To prevent undesired time pressure with the implementation of all necessary technical and logistical steps needed for full cooperation it was decided in mutual agreement to aim for July 1, 2013, as a realistic date for the start of full membership.

The Board was informed about the efforts to further formalize and standardize the cooperation agreement between Belgium and ET. A draft contract has been developed by both parties in January 2012 and has been agreed upon by the Belgian ministry. It was expected to have the new contract signed in the near future.

European FRamework for the EvaluaTion of Organ TransplantS (EFRETOS) project

Throughout 2012, the Board received updates on the status of the ET Transplant Registry. While data of patients on the waiting list, organ donors and the allocation process are continuously collected as part of the key tasks of ET, follow-up data after transplantation especially regarding longer term outcome after transplantation are unfortunately not complete.

In order to be able to develop evidence based recommendations for the improvement of allocation rules, comprehensive follow-up data are important, because they allow implementing the expected outcome of transplantation into improved allocation algorithms. The Board of ET supported a multimodal approach to collect follow-up data in close cooperation with the responsible national authorities of the ET member countries and existing international transplant registries. There was general agreement among the representatives from all ET member countries in the Board that the data items and definitions used for the ET registry should be based on the consensus achieved in the EFRETOS project. This would lay the foundation for a future international exchange of data as foreseen in the European EFRETOS project that aims at setting up a pan-European registry of registries in the field of transplantation.

Currently it is unclear whether setting up a European Registry of Registries for transplant data will be supported by the EU and a corresponding budget will be assigned in the near future. The ET General Director met several times with a representative of the Spanish national authority for donation and transplantation (ONT) to discuss whether activities of both organizations in this area could be coordinated to lay the basis for such a future European-wide registry. It became evident that the ONT would be especially interested in the organ vigilance aspect of such an international registry in the event such a project would be initiated by the EU.

Twinning agreements

As agreed upon in the Board meeting of October 2011, an overview of current twinning agreements and the organ exchange taking place in the context of these agreements has been published in the ET Annual Report 2011 and will also be published in chapter 9 of this issue.

The Board formally agreed to the lung twinning agreement between Romania and Vienna.

Non-resident policy

Due to ongoing discussions regarding the listing and transplantation of non-resident patients and the role of ET concerning this topic, the Board decided to change the non-resident policy for all organs, moving away from the so-called 5% rule for thoracic organs and livers.

The Board concluded that travel for deceased donor transplantation should not be actively supported by ET transplant centers. Also, ET opposes transplant tourism and condemns organ trafficking. ET transplant centers shall abstain from any activity involving transplant tourism and organ trafficking. ET will no longer carry a 5% policy but instead, aims at achieving the best possible transparency regarding the transplantation activities by reporting on an annual basis per transplant center all transplants according to the different categories of residency status. These reports will be based on self-reporting by the transplant center to ET. This is in line with the self-reporting of other demographic patient data by the transplant centers. ET will continue to report on all transplants performed within the framework of a twinning agreement separately.

Living donor transplantation in non-residents will, however, not be included in the Annual Report since ET is not responsible for living donor selection. The responsibility for the complete living donor procedure lies with the transplant center.

The definition of a resident was discussed by the Board on October 10, 2012 in the context of the non-residents discussion in media and the wish to provide transparency as ET to the general public and authorities. Since the different ET member states have different regulations on who is considered as a resident, it was decided together with the national authorities, that ET will report the number of non-resident transplants in two ways:

1. “nationals”, who have been a “resident for more than 6 months” (regulations for Belgium, Croatia and Slovenia) and
2. those patients who are “residents more than 5 years” (European law).

In the event ET’s competent authorities achieve consensus on a common definition for residents, the publication in the Annual Report will be adapted accordingly.

Finance

Concerning finances, it was concluded that ET had done well in 2011. The Treasurer of the Board complimented ET with the transparent management information provided to the Financial Committee (FC).

Housing issue and disentanglement of shared services

Concerning the disentanglement of the shared services of ET, the Dutch Transplantation Foundation (NTS) and BISLIFE, the Board was informed about the progress of this project. The separation of the ENIS tissue system from the ENIS organ system was finalized mid-March 2012. ET wants to sustain a distance towards tissue related issues. For this reason the shared services with BISLIFE have been terminated. Discussions are currently taking that place on how shared services with NTS should best be continued.

The Board was also informed that the re-housing project has been finished.

Henk Schippers Young Investigator Award 2012

The Board was informed about the applications for the Henk Schippers Young Investigators (HSYI) Award 2012. The members of the HSYI Award committee unanimously declared Dr. Sebastiaan Heidt, Leiden, the Netherlands, as the winner of the 2012 HSYI Award.

Dr. Heidt will give a presentation entitled "A Novel ELISPOT Assay to Quantify HLA-Specific B cells in HLA-immunized individuals" during the ET Winter Meeting in Alpbach, Austria, January 23-25, 2013.

Miscellaneous

During the Board meeting of January 25, 2012 the Board discussed a proposal to make a clear distinction between recommendations and policies. At that moment, recommendations could be subdivided into recommendations that need formal approval by the respective authorities of all countries, which after approval are binding for all centers and can be enforced by ET, and recommendations that concern a working procedure of ET which are only sent for information to the national authorities. The main goal was to increase transparency of the working procedures of ET and its partners. The second type of recommendations will be named "policies" to make this important difference immediately transparent.

Throughout the year, the Board was informed about the progress of the ET Senior DR-compatible Program (ESDP). The ESDP study slowly developed since a new CRO took over the duties of the former organization that went bankrupt. A significant number of the kidney transplant centers have indicated to be willing to participate in the study. In October the Board was informed that the inclusion of patients had started to increase again. As soon as more centers actively participate in the study, it is expected that the inclusion of patients will speed up so that the study can be finished within a reasonable period of time.

ET's general conditions were discussed. All ET countries besides Germany have accepted the general conditions. A meeting took place with the German Bundesärztekammer in which almost all outstanding issues were resolved.

The Board agreed to include vascularized composite allograft (VCA) in ET's mission statement.

The Board agreed to negotiate a year contract with the Donor Action Foundation for hosting its database and limited technical support by ET's system development department.

In 2012, all centers have been asked to deliver LAS+ data to ET. The Dutch lung transplant centers together with the NTS are considering introducing LAS for lung allocation in the Netherlands. Until then, the NTS is not in favor of collecting the LAS data mandatorily. It was decided to ask the centers to enter the extended data set for all recipients. In the case of the Netherlands, data entry will not be made mandatory for listing. This is currently also not the case in Belgium and Austria. However, completion of LAS data is mandatory in all patients when submitting an HU request.

Finally, the Board discussed a joint action from the European Union regarding facilitating cooperation on organ donations between national authorities within the EU. Since no organization has the level of experience in the field of organ exchange as ET, the EU has asked ET to participate in this project. The Board agreed that ET should take part in this project.

Board of Eurotransplant International Foundation as per December 31, 2012

Prof.Dr. B. Meiser, Munich	president
Prof.Dr. A.P.W.P. van Montfort, Utrecht	secretary / treasurer (D)
Prof.Dr. F. Mühlbacher, 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. K-W. Jauch, 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. R. Klauser-Braun, Vienna	on behalf of the Austrian Transplant Society (B)
Prof.Dr. P. Evrard, Brussels (BLATP)	on behalf of the Belgian Transplant Society (B)
Dr. M. Bušić, Zagreb	on behalf of the Republic of Croatia (B)
Prof.Dr. W. Bechstein, Frankfurt	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. F.H.J. Claas, Leiden	on behalf of the Eurotransplant Reference Laboratory (C)
Drs. M. Bos, The Hague	ethics advisor (D)
Prof.Dr. H. Langer, Budapest	observer on behalf of the Hungarian Transplant Society

The Board of Stichting Eurotransplant International Foundation consists of:
10 members A : members representing organ / tissue typing sections
6 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 approved in 2012 is published under section 2.3 of this chapter.

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

In 2012, the various Advisory Committees met 17 times and submitted 10 recommendations and 7 policies; all of them were approved by the Board.

The composition of the various Advisory Committees as per December 31, 2012 was as follows:

KIDNEY ADVISORY COMMITTEE (ETKAC)

Name	As of	Remarks
Prof.Dr. U. Heemann, Munich	05.2009	chairman, representative Board
Prof.Dr. F. Mühlbacher, Vienna	09.1994	representative Austria
Prof.Dr. A. Rosenkranz, Graz	01.2008	representative Austria
Prof.Dr. J. Pasini, Zagreb	04.2008	representative Croatia
Dr. L. Weekers, Liège	10.2011	representative Belgium
Dr. P. Peeters, Ghent	02.2006	representative Belgium
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. P. Duhoux, Luxembourg	09.1994	representative Luxembourg
Dr. A. van Zuilen, Utrecht	01.2012	representative the Netherlands
Prof.Dr. L. Hilbrands, Nijmegen	01.2006	representative the Netherlands
Dr. M. Arnol, Ljubljana	01.2006	representative Slovenia
Dr. E. Szederkenyi, Szeged	01.2012	observer representing Hungary
Prof.Dr. F.H.J. Claas, Leiden (ETRL)	09.1994	representative TT Assembly
Dr. J. de Boer, Eurotransplant	12.2005	secretary
Ms. L. Sanders, Eurotransplant	10.2010	assistant secretary

LIVER INTESTINE ADVISORY COMMITTEE (ELIAC)

Name	As of	Remarks
Prof.Dr. R. Rogiers, Ghent	09.2007	chairman, representative Board
Prof.Dr. J. Pratschke, Innsbruck	01.2012	representative Austria
Prof.Dr. P. Michielsen, Antwerp	01.2008	representative Belgium
Dr. B. Kocman, Zagreb	04.2008	representative Croatia
Prof.Dr. H. Schmidt, Münster	01.2012	representative Germany
Prof.Dr. Ch. Strassburg, Bonn	01.2010	representative Germany
Prof.Dr. H. Metselaar, Rotterdam	01.2012	representative the Netherlands
Prof.Dr. S. Marković, Ljubljana	06.2010	representative Slovenia
Dr. L. Kobori, Budapest	01.2012	observer representing Hungary
Dr. A. Rahmel, Eurotransplant	02.2007	secretary a.i.
Dr. J. Blok, Eurotransplant	11.2011	co-secretary
Ms. L. Boogert, Eurotransplant	10.2010	assistant secretary

PANCREAS ADVISORY COMMITTEE (EPAC)

Name	As of	Remarks
Prof.Dr. W. Schareck, Rostock	12.2005	chairman, representative Board
Prof.Dr. P. Hengster, Innsbruck	11.2004	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. S. Farkas, Regensburg	01.2010	representative Germany
Dr. J. Ringers, Leiden	04.1998	representative the Netherlands
Dr. A. Tomazič, Ljubljana	01.2007	representative Slovenia
Dr. K. Kalmar Nagy, Pecs	01.2012	observer representing Hungary
Prof.Dr. F.H.J. Claas, Leiden (ETRL)	08.1994	representative TT Assembly
Dr. M. Van Rosmalen, Eurotransplant	11.2011	secretary
Ms. A. Jacobs, Eurotransplant	10.2012	assistant secretary

THORACIC ADVISORY COMMITTEE (EThAC)

Name	As of	Remarks
Prof.Dr. G. Laufer, Vienna	10.2001	chairman, representative Board
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
Prof.Dr. M. Depauw, Ghent	01.2006	representative Belgium
Prof.Dr. Z. Sutlić, Zagreb	04.2008	representative Croatia
Dr. I. Kaczmarek, Munich	08.2012	representative Germany
Dr. U. Schulz, Bad Oeynhausen	05.2006	representative Germany
Prof.Dr. H. Reichenspurner, Hamburg	02.2008	representative Germany
Dr. H. Lehmkuhl, Berlin	08.2012	representative Germany
Dr. W. van der Bij, Groningen	06.2001	representative the Netherlands
Dr. N. de Jonge, Utrecht	01.2004	representative the Netherlands
Prof.Dr. I. Knežević, Ljubljana	07.2007	representative Slovenia
Dr. Z. Szabolcs, Budapest	01.2012	observer representing Hungary
Dr. J. Smits, Eurotransplant	07.2002	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. G. Berlakovich, Vienna	11.2009	representative Austria
Ms. J. Monard, Liège	01.2012	representative Belgium
Dr. D. Mikulic, Zagreb	11.2012	representative Croatia
Dr. N. Frühauf, Hanover	01.2008	representative DSO Germany
Prof.Dr. E. Klar, Rostock	01.2008	representative Germany
Ms. J. Hagenaars, Rotterdam	04.2008	representative the Netherlands
Dr. B. Trotovšek, Ljubljana	01.2008	representative Slovenia
Dr. I. Fehervari, Budapest	01.2012	observer representing Hungary
Prof.Dr. F. Mühlbacher, Vienna	11.2009	representative ETKAC
Prof.Dr. H. Metselaar, Rotterdam	03.2012	representative ELIAC
Dr. J. Ringers, Leiden	04.2002	representative EPAC
Prof.Dr. A. Zuckermann, Vienna	04.2008	representative EThAC
Prof.Dr. I. Doxiadis, Leiden (ETRL)	02.1998	representative TTAC
Dr. I. Tieken, Eurotransplant	09.2007	secretary
Ms. A. Verweij, Eurotransplant	10.2012	assistant secretary

INFORMATION SERVICES WORKING GROUP (ISWG)

Name	As of	Remarks
Prof.Dr. F. Mühlbacher, Vienna	09.1995	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. Schenk, Tübingen	01.2008	representative Germany
Dr. S. Nurmohamed, Amsterdam	01.2012	representative the Netherlands
Dr. G. Čebulc, Ljubljana	05.2010	representative Slovenia
Mr. S. Mihaly	01.2012	observer representing Hungary
Vacancy		representative ELIAC
Dr. W. van der Bij, Groningen	05.2002	representative EThAC
Dr. S. Lems, Groningen	06.1996	representative TTAC
Drs. T. Valkering, Eurotransplant	05.2008	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
Prof.Dr. C. Süsal, Heidelberg	01.2012	representative Germany
Dr. F. Hentges, Luxembourg	09.1995	representative Luxembourg
Dr. S. Lems, Groningen	09.1995	representative the Netherlands
Dr. B. Vidan Jeras, Ljubljana	12.1999	representative Slovenia
Dr. A. Tordai, Budapest	01.2012	observer representing Hungary
Prof.Dr. I.I.N. Doxiadis, Leiden (ETRL)	09.1995	secretary

ETHICS COMMITTEE (ETEC)

Name	As of	Remarks
Drs. M. Bos, The Hague	06.2010	chairman, representative Board
Prof.Dr. W. Schaupp, Graz	04.1998	representative Austria
Prof.Dr. I. Kerremans, Ghent	03.2004	representative Belgium
Dr. J. Stoić Brezak, Zagreb	04.2008	representative Croatia
Prof.Dr. R. Viebahn, Bochum	11.2006	representative Germany
Vacancy		representative the Netherlands
Dr. D. Rigler Pleterski, Ljubljana	01.2000	representative Slovenia
Dr. L. Szönyi, Budapest	01.2012	observer representing Hungary
Dr. A. Rahmel, Eurotransplant	12.2006	secretary a.i.

FINANCIAL COMMITTEE (FC)

Name	As of	Remarks
Prof.Dr. A.P.W.P. van Montfort, Utrecht	05.2003	chairman, representative Board
Mag. O. Postl, Vienna	05.1995	representative Austria
Mr. L. Colenbie, Ghent	03.2010	representative Belgium
Dr. H. Arbogast, Munich	10.2010	representative Germany
Mr. B. Kušar, Ljubljana	05.2010	representative Slovenia
Drs. T. Valkering, Eurotransplant	05.2008	secretary

2.3 Recommendations approved

In 2012, 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-KAC01.10 (rephrased)
In addition to the option of performing a combined liver+kidney transplant, the option of a kidney-after-liver transplant should be made possible in selected cases. If a recipient is listed for a liver and kidney transplant, the center can decide to perform a simultaneous liver+kidney transplant or a kidney-after-liver transplant. In the latter case the recipient gets 500 extra points in the kidney allocation system (ETKAS) during the period of 90 to 360 days after the liver-only transplant, under the condition that the creatinine clearance is <15ml/min within this period.
In case a patient was not listed on the kidney waiting list prior to the liver transplantation, the kidney-after-liver bonus will be granted on request of the transplant center if the recipient had been on dialysis for at least 6 weeks prior to the liver transplantation. All other requests for the kidney-after-liver bonus are to be audited by the ETKAC.

R-KAC04.11
Kidneys from deceased donors are classified according to donor age, kidney function and co-morbidities; the following age categories apply:
1. Donor age 0-15 years;
2. Donor age 16-49 years;
3. Donor age 50-64 years;
4. Donor age ≥65 years.

Donors from the categories 2 and 3 who at least meet one of the following criteria will be categorized into the next higher category:
- creatinine prior to donation is >1,5 mg/dl or
- the cause of death is cerebrovascular or
- the donor suffers from diabetes mellitus or
- a severe hypertension.

These categories will be used in the calculation of the national balances to be used for the balancing factor in ETKAS. The balances should not be limited to one year, but increase over time.
In addition to these donor categories, the balances will also be divided according to the donor ABO blood group.

The effect of RKAC04.11 will be monitored during the first 2 years after implementation and adapted if necessary.

R-KAC01.12 (R-KAC01.12 replaces R-KAC03.08)
Recipients suffering from end stage renal disease after having donated one of their own kidneys are eligible for pre-emptive listing on the kidney waiting list. Upon registration on the waiting list the recipient will be granted a once-only allocation bonus of 500 points.

In exceptional cases, upon request of the transplant center, this bonus can be granted a second time. Each request for a repeated bonus should be well motivated and will be evaluated by all ETKAC members.

R-KAC02.12 (R-KAC02.12 replaces R-KAC02.09)
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.

Recipients 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 by a report of a competent radiologist or pediatric endocrinologist on an X-ray of the left hand that has to be sent to and judged by two independent auditors appointed by Eurotransplant. In case of a split decision a third auditor has to be consulted for a final decision.

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 recipient 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-KAC03.12
In case of rescue allocation for a donor ≥75 years of age, the transplant center is offered the opportunity to transplant both kidneys into one recipient. In all other cases, a single kidney transplant is preferred.

Liver Intestine Advisory Committee (ELIAC)

P-LAC01.12
In case a patient listed for liver transplantation receives continuous kidney replacement therapy and this fact is reported to ET in order to be taken into account in the calculation of the MELD, the transplant center has to provide the name of the physician responsible for the indication for continuous kidney replacement therapy for this liver transplant candidate.

R-LAC02.12
In view of the fact that the HU-status is not designed for patients with an acute or chronic decompensation, the ELIAC proposes to change the current criteria for eligibility for HU-status of patients with Budd-Chiari syndrome or Morbus Wilson from “rapidly progressive Budd-Chiari syndrome / Morbus Wilson” into:

“Acute liver failure due to rapidly progressive liver failure, caused by Budd-Chiari syndrome or Morbus Wilson”

Eurotransplant will monitor the effect of this recommendation by registration of the frequency of HU requests for these indications as well as the frequency of HU liver transplantation following these indications.

Thoracic Advisory Committee (EThAC)

R-ThAC04.11
In order to complete the registration for a lung transplant, it will be required that at time of listing for a lung transplant in Eurotransplant all LAS and LASplus waiting list and post-transplant items have to be provided to the ENIS system. A patient will not be considered for a lung offer in case these items are missing. An exception is made for pulmonary artery systolic pressure, pulmonary artery mean pressure (only for sarcoidosis) and pulmonary capillary wedge mean pressure. In case the values are missing for these three factors, a normal value will be used.

P-ThAC01.12
In order to be eligible for the e-LAS status patients registered in Austria, Belgium or the Netherlands should fulfill national HU criteria and be listed with a national HU status.

P-ThAC02.12
Upon data entry for calculating the lung allocation score (LAS), the measurements should not be older than 4 weeks in case the calculated LAS is <50 and 7 days in case the LAS is ≥50.

Organ Procurement Committee (OPC)

R-OPC01.11
If a recipient is willing to accept an organ of HIV+ donors, this must be indicated in the donor profile of the recipient.
The following points should be respected as a policy of ET on HIV+ donors:
1. Proper and extensive categorization should be performed;
2. Organs of HIV+ donors should be allocated to and accepted for HIV+ recipients;
3. Transplantation of organs from HIV+ donors should take place in the framework of a standardized protocol;
4. Procurement teams themselves should decide whether they are willing to procure the organs of HIV+ donors. If the local team is not willing to perform the procurement, the transplant coordinator must inform ET as soon as possible in order to enable ET to inform the transplant center and to make arrangements for procurement by the transplant center.

R-OPC02.11 (rephrased)
If a donor type is switched from being a non-heart-beating donor to a heart-beating donor Eurotransplant must restart the allocation process of organs that are not offered yet or become available for new offers.

P-OPC01.12
1. Each change or addition to the protocols described in chapter 9 'The Donor' of the ET Manual must evaluate the possible risks and repercussion on the procurement and quality of other organs.
2. If there is a possible repercussion, this must be discussed in the respective ET Advisory Committee(s).
3. Thereafter feedback must be given to the organ procurement teams / OPO's about the discussion in the respective ET Advisory Committee(s).

Tissue Typing Advisory Committee (TTAC)

R-TTAC03.11
All recipients of kidney, pancreas, heart and lung transplants must be screened for HLA specific antibodies at time they are put on the waiting list. Subsequently kidney recipients must be screened quarterly and pancreas, heart and lung recipients after every sensitizing event.

Financial Committee (FC)

P-FC01.12
The Financial Committee recommends the Board to approve the annual accounts 2011.

P-FC02.12
The Financial Committee recommends the Board to approve the budget proposal for 2013.

P-FC03.12
The Financial Committee recommends the Board to approve the policy that all member states, including new member states, join in the balancing of the reserves. Balancing of the reserves implies to charging or refunding the member states, depending on the state of the reserves.

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 2012. Directors and staff look back to a challenging year 2012 with, amongst others, the introduction of the new Lung Allocation Score. At the same time, ET was confronted with the 'crisis situation' in Gemany in relation to the suspected fraud with patient data. This required substantial additional efforts and flexibility from the organization. On the positive site, ET was able to bring the workforce again on full strength by filling in the vacant key positions of Team leader System Development, Manager Communication, Business Analyst and Enterprise Architect.

The ET 'Basic Mandate' comprises responsibilities in the areas of allocation services, development of allocation, external networking and supporting processes. In these areas following activities were performed and results achieved in 2012.

Allocation Services

New staffing of the allocation center was finalized in 2012 with at least one of the duty officers of the regular staff being present in day and evening shifts on every day of the week, including public holidays and weekend days. This adjustment has led to an increase of the number of regular staff and decrease in the flexible co-workers workforce. Furthermore, the department was professionalized and for every key process of the allocation process, one co-worker is functionally responsible. The result of this adaptation is an improved overview and increased control of processes.

At the ET Annual Meeting in October the third coordinators' meeting was organized with attendance of 80 transplant coordinators from all ET member countries. The aim of this meeting is to discuss issues and improvements in daily operational work. The discussions at this meeting significantly contributed to further increasing the close cooperation between the transplant coordinators within the ET community and jointly defining areas for improvement.

Development of allocation

In 2012 implementation of activities in the Registry Policy Plan was continued with improved systems for data collection and analysis of data. In order to better support transplant centers in delivering follow-up data and intensify data collection, staffing was brought to full strength. Data gathering (and hence data completeness) has improved for all organ follow-up registries by intensified telephonic reminders, ad hoc mailings and data exchange with external parties. An electronic exchange of follow-up data with the pediatric kidney registry in Germany (CERTAIN) was established.

On January 1, 2012, a new Liver Follow-Up Registry was launched. At the ET Annual Meeting 2012 a proposal to develop and build an integrated new Transplant Registry Application for all organs was presented and well received. Users are continuously and actively involved in improvement of data definition and data collection.

External Networking

ET has an important role to play in bringing transplant professionals in all ET member countries together to meet each other, discuss latest developments and define improvements in organ donation, allocation and transplantation. ET's communication department contributes to this by playing an advisory and supporting role with informative and attractive public and member websites, publication of newsletters and organizing meetings. At the Annual Meeting in 2012 a new 'social media' pilot project was presented, titled ETandI, with the aim to investigate if this tool adds value to the transplant community for online social networking (in a protected environment) as well as document sharing. In 2013, the first experiences will be analyzed.

In the area of communication, dealing with media in a transparent and reliable manner required much attention and proved to be of significant importance in the second half of 2012, related to various cases where possible manipulation with liver transplantations in Germany were uncovered. This attracted massive coverage in both 'traditional' and social media. ET received many media requests that were all handled in a controlled and systematic way. ET's media policy is based on its core values: demonstrating ET is transparent, reliable, has a broad knowledge base and is accurate in its responses. Further strengthening the press network and establishing a good communication network with relevant communicators in Eurotransplant member states, will remain a priority in 2013.

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 ET departments of Finance, Infrastructure and Information Services.

Financial management

The financial department focused in 2012 on further automation of financial processes through digitalization and introduction of a workflow application. Necessary preparations took place and the first results were achieved. Also enhancement of budgeting-, reporting- and costing-systems were carried out. Some improvements in monitoring and forecasting of the exploitation result and liquidity were realized and will be further developed in 2013. Staffing of the financial department changed due to one staff member retiring and a full time occupation of the position of head of the department.

Infrastructure

Reliability and ensuring an as much as possible interference free operation of the IT infrastructure, are key focus points of ET's infrastructure department. In 2012 a dedicated server and tape unit for back-up and recovery of IT-systems was purchased and installed. This server allows for faster recovery in case of calamities. A separate network for WiFi access was installed to facilitate visitors and staff using their own smart devices. The mail server was upgraded from Groupwise 8 to 12. Furthermore, in 2012 the Infrastructure department made all necessary adjustments in IT infrastructure to facilitate both ET and NTS (Dutch Transplantation Society) in their refurbished locations after the large renovation of housing that took place in 2011 and early 2012.

Information Services

In 2012 the LAS system (Lung Allocation Score) was introduced for patients awaiting a lung transplant. The Information Services department implemented various applications related to the introduction of the LAS score (following the December 2011 release). For allocation of donor hearts, an improved system was introduced in 2012, ensuring center allocation is made possible on the match list which reduces complexity in the allocation process. The application for intestine waiting list management was fully integrated in the ENIS application in 2012. Finally, the systems for tissue allocation of BISLIFE and NTS were separated from the ET organ allocation systems.

2.5 Quality Assurance & Safety

General

In 2012 quality management had its focus on three main topics: improvement and development of the internal audit cycle in order to gain better insight in the strengths and weaknesses of ET's processes, organization-wide implementation of the incident reporting process and refinement and implementation of the information security policy.

In regard to the incident reporting process emphasis was put on root cause analysis and the follow-up on chosen problem solutions. The newly implemented internal Central Incidents Committee meets every two months to discuss serious and cross-departmental incidents.

A next step in developing the quality management system has been taken by describing processes and creating insight and control on a more aggregated level. Better insight in possible weaknesses in the primary process will help to further reduce the risk of human errors. In 2012 much effort was put in describing process flows in order to create a better awareness on potential risks. In 2013 the focus of quality management will be to create insight in all ET's (primary and supporting) processes and execute a risk analysis.

A goal for 2012 was to revise the information security policy and to start the implementation of an information security management system. By the end of 2012 a concept of the new information security policy was ready. In 2013 this policy and the management system based on the ISO-27001 standard will be implemented.

In August 2012 an intermediate audit of the organization took place according to the ISO 9001:2008 standard. ET passed this audit without problems. Provided that the same quality of work will be maintained, a next re-certification audit will take place in December 2013.

Incidents

The implementation of a new incident reporting system in 2012 has led to a more sophisticated method to assess incidents. The number of reported incidents in 2012 is lower than the years before, due to the improved methods to register, process and follow-up reported incidents. Both the incident committees and the employees were trained to recognize more precisely whether deviations from the normal process were incidents or not. This has led to a reduced but more exact number of actual incidents that happened in 2012.

Reported near-incidents and incidents						
Year	2012	2011	2010	2009	2008	2007
Total	**362**	**482**	**478**	**611**	**542**	**580**

The majority of the incidents are related to administrative, manual procedures. The second largest theme regarding (near) incidents are communication issues. These two themes cover over 75% of all reported incidents.

Complaints

In 2012, 25 complaints were registered at ET. This number equals the numbers of the previous years. All reported complaints concerned third parties complaining about each other to ET, they were not about the services of ET itself. These complaints were passed on to national authorities, hospitals, etc. involved.

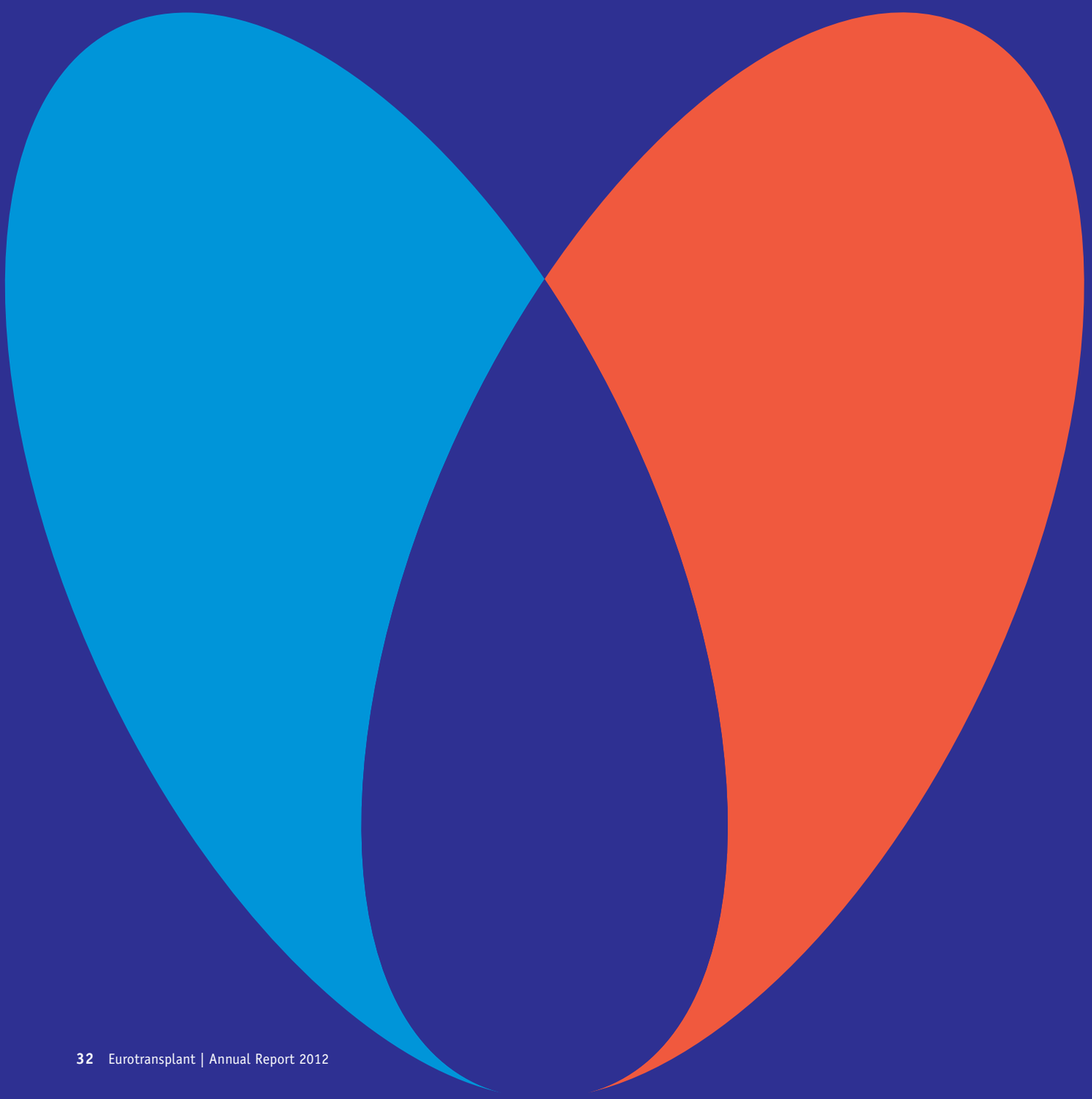
Reported complaints				
Year	2012	2011	2010	2009
Total	**25**	**27**	**25**	**13**

Audits by third parties

As part of several agreements with the ET member states audits by third parties were done to assess the service level. Both the audit of the Dutch Transplantation Foundation (NTS) and by the Prüfungskommission of the German Bundesärztekammer showed that ET is working according to the agreed upon standards. No serious deviations from the agreements were reported.

Internal audits

In 2012 three clusters of internal audits were performed by the internal audit team. They covered the majority of ET's processes. The internal auditors have been specifically trained to provide fact based audit reports, with clear relations to the ISO 9001:2008 standard. This method has provided a structured overview of the needs for improvement and developments in the different processes.



3.
Transplant programs and their delegates in 2012

Definitions
(according to Articles of Association of Stichting Eurotransplant International Foundation, version March 4, 2011)

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 center shall have the right to delegate one natural person in the Assembly for each program in which it performed transplantations during a year. On each reference date, the number of persons delegated (the "delegates") by a center in the Assembly shall be reviewed. (Article 5.1)
(If no name is indicated, then no delegate was appointed by transplant/tissue typing program or it concerns a new program in 2012).

Renal Programs		Delegate
Austria		
GA	Medizinische Universitätsklinik, Graz	S. Horn
IB	Chirurgische Universitätsklinik, Innsbruck	C. Bösmüller
OE	Krankenhaus der Elisabethinen, Linz	R. Oberbauer
OL	Allgemeines Krankenhaus, Linz	E. Pohanka
WG	Universitätsklinik für Chirurgie, Wien	F. Mühlbacher
Belgium		
AN	Universitair Ziekenhuis Antwerpen, Edegem	D. Ysebaert
BJ	Universitair Ziekenhuis Brussel, Campus Jette	J. Sennesael
BR	ULB, Hôpital Erasme, Bruxelles	D. Abramowicz
GE	Universitair Ziekenhuis, Gent	P. Peeters
LA	Cliniques Universitaires St. Luc, Bruxelles	M. Mourad
LE	Kinderdialyse Universitair Ziekenhuis Gasthuisberg, Leuven	E. Levtchenko
LG	Centre Hospitalier Universitaire, Liège	J-P. Squifflet
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	D. Kuypers
Croatia		
OS	University Hospital, Osijek	J. Galić
RI	University Clinical Hospital, Rijeka	S. Zivcic-Cosic
ZA	University Clinical Hospital, Zagreb	D. Hauptman
ZM	Clinical Hospital Zagreb Merkur, Zagreb	S. Gracin

Germany

AK	Universitätsklinikum der Rheinisch-Westfälischen TH, Aachen	A. Homburg
AU	Zentralklinikum, Augsburg	H. Weihprecht
BB	Ruhr Universität, Bochum	P. Schenker
BC	Charité-Campus Virchow Klinikum der Humboldt Universität, Berlin	A. Pascher
BE	Universitätsklinikum Benjamin Franklin, Berlin	M. van der Giet
BM	Kliniken der Freien Hansestadt, Bremen	S. Melchior
BO	Klinikum der Urologischen und Medizinischen Universität, Bonn	R. Woitas
DR	Technischen Universität, Dresden	
DU	Med. Einrichtungen der Heinrich-Heine-Universität, Düsseldorf	
ER/NB	Med. Einrichtungen der Universität Erlangen-Nürnberg, Erlangen	K. Heller
ES	Universitätsklinikum, Essen	O. Witzke
FD	Klinikum Fulda, Fulda	T. Kälble
FM	Klinikum der Johann-Wolfgang-Goethe-Universität, Frankfurt	I. Hauser
FR	Klinikum der Albert-Ludwigs-Universität, Freiburg	P. Pisarski
GI	Klinikum der Justus-Liebig-Universität, Gießen	F. Renner
HA	Klinikum der Martin-Luther-Universität, Halle	K. Weigand
HB	Klinikum der Ruprecht-Karls-Universität, Heidelberg	C. Morath
HG	Universitäts-Krankenhaus Eppendorf, Hamburg	F. Thaiss
HM	Nephrologisches Zentrum Niedersachsen, Hann. Münden	V. Kliem
HO	Klinikum der Medizinischen Hochschule, Hannover	F. Lehner
HS	Klinikum der Universität des Saarlandes, Homburg/Saar	U. Sester
JE	Klinikum der Friedrich-Schiller-Universität, Jena	C. Rüster
KI	Klinikum Christian-Albrechts-Universität, Kiel	F. Braun
KL	Klinik der Universität Köln-Lindenthal, Köln	W. Arns
KM	Kliniken der Stadt Köln gGmbH, Krankenhaus Merheim, Köln-Merheim, Köln	W. Arns
KK	Klinik und Poliklinik für Kinderheilkunde der Universität Köln-Lindenthal, Köln	W. Arns
KS	Westpfalz-Klinikum, Kaiserslautern	Th. Rath
LP	Klinikum der Universität, Leipzig	M. Bartels
LU	Klinikum der Medizinischen Universität, Lübeck	M. Nitschke
MA	Klinikum der Stadt, Mannheim	B. Krüger
MH	Klinikum Rechts der Isar der Technischen Universität, München	U. Heemann
ML	Klinikum Großhadern der Ludwig-Maximilians-Universität, München	K-W Jauch
MN	Klinikum der Westfälischen Wilhelms-Universität, Münster	H. Wolters
MR	Klinikum Lahnberge der Philipps-Universität, Marburg	J. Hoyer
MZ	Klinikum der Johannes-Gutenberg-Universität, Mainz	O. Schreiner
RB	Klinikum der Universität, Regensburg	C. Böger
RO	Klinikum der Universität, Rostock	O. Hakenberg
ST	Katharinenhospital, Stuttgart	J. Wollmeyer
TU	Klinikum der Eberhard-Karls-Universität, Tübingen	S. Nadalin
WZ	Klinikum der Julius-Maximilians-Universität, Würzburg	K. Lopau

The Netherlands

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

Slovenia

LO	University Medical Center, Ljubljana	D. Kovač

Heart Programs		Delegate
Austria		
GA	Chirurgische Universitätsklinik, Graz	A. Wasler
IB	Chirurgische Universitätsklinik, Innsbruck	D. Höfer
WG	Universitätsklinik für Chirurgie, Wien	G. Laufer
Belgium		
AN	Universitair Ziekenhuis Antwerpen, Edegem	I. Rodrigus
AS	Onze Lieve Vrouw Ziekenhuis, Aalst	B. Stockman
BR	ULB, Hôpital Erasme, Bruxelles	M. Antoine
GE	Universitair Ziekenhuis, Gent	F. Caes
LA	Cliniques Universitaires St. Luc, Bruxelles	O. Van Caenegem
LG	Centre Hospitalier Universitaire, Liège	J. Defraigne
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	J. Vanhaecke
Croatia		
ZA	University Clinical Hospital, Zagreb	
ZD	Clinical Hospital Dubrava, Zagreb	D. Unic
Germany		
AK	Universitätsklinikum der Rheinisch-Westfälischen TH, Aachen	A. Menon
BA	Herz- & Diabeteszentrum Nordrhein-Westfalen, Bad Oeynhausen	U. Schulz
BD	Deutsches Herzzentrum, Berlin	C. Knosalla
BH	Kerckhoff Klinik, Bad Nauheim	M. Richter
DR	Herzzentrum, Dresden	
DU	Med. Einrichtungen der Heinrich-Heine-Universität, Düsseldorf	U. Boeken
ER/NB	Med. Einrichtungen der Universität Erlangen-Nürnberg	R. Tandler
ES	Universitätsklinikum, Essen	M. Kamler
FR	Klinikum der Albert-Ludwigs-Universität, Freiburg	M. Berchtold-Herz
GI	Klinikum der Justus-Liebig-Universität, Gießen	J. Bauer
GO	Klinikum der Georg-August-Universität, Göttingen	A. Popov
HB	Klinikum der Ruprecht-Karls-Universität, Heidelberg	A. Ruhparwar
HG	Universitäts-Krankenhaus Eppendorf, Hamburg	F. Wagner
HO	Klinikum der Medizinischen Hochschule, Hannover	G. Warnecke
HS	Klinikum der Universität des Saarlandes, Homburg-Saar	
JE	Klinikum der Friedrich-Schiller-Universität, Jena	T. Doenst
KI	Klinikum der Christian-Albrechts-Universität, Kiel	A. Reinecke
KL	Klinik der Universität Köln-Lindenthal, Köln	P. Rahmanian
LP	Klinikum der Universität, Leipzig	
ML	Klinikum Großhadern der Ludwig-Maximilians-Universität, München	B. Meiser
MN	Klinikum der Westfälischen Wilhelms-Universität, Münster	J. Sindermann
RB	Klinikum der Universität, Regensburg	S. Hirt
WZ	Universitätsklinikum, Würzburg	J. Hoffmann
The Netherlands		
GR	Academisch Ziekenhuis, Groningen	J. Brügemann
RD	Erasmus Medisch Centrum, Rotterdam	A. Maat
UT	Universitair Medisch Centrum, Utrecht	N. de Jonge
Slovenia		
LO	University Medical Center, Ljubljana	I. Knezević

Lung Programs

		Delegate
Austria		
IB	Chirurgische Universitätsklinik, Innsbruck	
WG	Universitätsklinik für Chirurgie, Wien	G. Lang
Belgium		
AN	Universitair Ziekenhuis Antwerpen, Edegem	W. De Backer
BR	ULB, Hôpital Erasme, Bruxelles	B. Rondelet
LA	Cliniques Universitaires St. Luc, Bruxelles	P. Evrard
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	D. Van Raemdonck
Germany		
BD	Deutsches Herzzentrum, Berlin	C. Knosalla
ES	Universitätsklinikum, Essen	M. Kamler
FR	Klinikum der Albert-Ludwigs-Universität, Freiburg	D. Wagnetz
GI	Klinikum der Justus-Liebig-Universität, Gießen	K. Mayer
HG	Universitäts-Krankenhaus Eppendorf, Hamburg	F. Wagner
HO	Klinikum der Medizinischen Hochschule, Hannover	G. Warnecke
HS	Klinikum Universität des Saarlandes, Homburg/Saar	F. Langer
JE	Klinikum der Friedrich-Schiller-Universität, Jena	M. Breuer
KI	Klinikum der Christian-Albrechts-Universität, Kiel	A. Reinecke
KL	Klinik der Universität Köln-Lindenthal	P. Rahmanian
LP	Klinikum der Universität, Leizpig	
ML	Klinikum Großhadern der Ludwig-Maximilians-Universität, München	B. Meiser
MN	Klinikum der Westfälischen Wilhelms-Universität, Münster	K. Wiebe
MZ	Klinikum der Johannes-Gutenberg-Universität, Mainz	Ö. Senbaklavaci
The Netherlands		
GR	Academisch Ziekenhuis, Groningen	M. Erasmus
RD	Erasmus Medisch Centrum, Rotterdam	
UT	Universitair Medisch Centrum, Utrecht	E.A. van de Graaf

Liver Programs

		Delegate
Austria		
GA	Chirurgische Universitätsklinik, Graz	F. Iberer
IB	Chirurgische Universitätsklinik, Innsbruck	R. Öllinger
WG	Universitätsklinik für Chirurgie, Wien	R. Steininger
Belgium		
AN	Universitair Ziekenhuis Antwerpen, Edegem	D. Ysebaert
BR	ULB, Hôpital Erasme, Bruxelles	V. Donckier
GE	Universitair Ziekenhuis, Gent	X. Rogiers
LA	Cliniques Universitaires St. Luc, Bruxelles	J. Lerut
LG	Centre Hospitalier Universitaire, Liège	O. Detry
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	J. Pirenne
Croatia		
ZA	University Clinical Hospital, Zagreb	
ZM	Clinical Hospital Merkur, Zagreb	B. Kocman
ZP	University Clinical Hospital (Pediatric), Zagreb	J. Vukovic

Germany

AK	Universitätsklinikum der Rheinisch-Westfälischen TH, Aachen	C. Heidenhain
BC	Charité-Campus Virchow Klinikum der Humboldt Universität, Berlin	A. Pascher
BO	Chirurgische Universitätsklinik, Bonn	S. Manekeller
ER/NB	Chirurgische Klinik der Universität Erlangen-Nürnberg, Erlangen	V. Müller
ES	Universitätsklinikum, Essen	A. Paul
FM	Klinikum der Johann-Wolfgang-Goethe-Universität, Frankfurt	A. Schnitzbauer
GO	Klinikum der Georg-August-Universität, Göttingen	O. Kollmar
HB	Klinikum der Ruprecht-Karls-Universität, Heidelberg	P. Schemmer
HG	Universitäts-Krankenhaus Eppendorf, Hamburg	L. Fischer
HO	Klinikum der Medizinischen Hochschule, Hannover	F. Lehner
HS	Klinikum Universität des Saarlandes, Homburg/Saar	M. Glanemann
JE	Friedrich Schiller Universität, Jena	A. Bauschke
KI	Klinikum der Christian-Albrechts-Universität, Kiel	F. Braun
KL	Klinik der Universität Köln-Lindenthal	D. Stippel
LP	Klinikum der Universität, Leipzig	S. Jonas
MB	Klinikum Otto-von-Guericke Universität, Magdeburg	H. Lippert
MH	Klinikum Rechts der Isar der Technischen Universität, München	E. Matevossian
ML	Klinikum Großhadern der Ludwig-Maximilians-Universität, München	M. Guba
MN	Klinikum der Westfälischen Wilhelms-Universität, Münster	H. Wolters
MZ	Klinikum der Johannes-Gutenberg-Universität, Mainz	M. Heise
RB	Klinikum der Universität, Regensburg	M. Scherer
RO	Klinikum der Universität, Rostock	E. Klar
TU	Klinikum der Eberhard-Karls Universität, Tübingen	S. Nadalin
WZ	Universitätsklinikum, Würzburg	

The Netherlands

GR	Academisch Ziekenhuis, Groningen	R. Porte
LB	Leids Universitair Medisch Centrum, Leiden	J. Ringers
RD	Erasmus Medisch Centrum, Rotterdam	

Slovenia

LO	University Medical Centre, Ljubljana	S. Markovič

Pancreas (Islet) Programs — Delegate

Austria

IB	Chirurgische Universitätsklinik, Innsbruck	P. Hengster
WG	Universitätsklinik für Chirurgie, Wien	F. Mühlbacher

Belgium

BR	ULB, Hôpital Erasme, Bruxelles	A. Hoang
BP	Academisch Ziekenhuis der Vrije Universiteit, Brussel	D. Pipeleers
GE	Universitair Ziekenhuis, Gent	C. Randon
LA	Cliniques Universitaires St. Luc, Bruxelles	L. De Pauw
LG	Centre Hospitalier Universitaire, Liège	J-P. Squifflet
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	J. Pirenne

Croatia

ZM	Clinical Hospital Merkur, Zagreb	S. Jadrijevic

Germany

BB	Knappschaftskrankenhaus, Bochum	P. Schenker
BC	Charité-Campus Virchow Klinikum der Humboldt Universität, Berlin	A. Kahl
DR	Universitätsklinikum Carl Gustav Carus, Dresden	S. Kersting

ER/NB	Chirurgische Klinik der Universität Erlangen-Nürnberg, Erlangen	V. Müller
ES	Universitätsklinikum, Essen	A. Paul
FM	Klinikum der Johann-Wolfgang-Goethe-Universität, Frankfurt	G. Woeste
FR	Klinikum der Albert-Ludwigs-Universität, Freiburg	P. Pisarski
HB	Klinikum der Ruprecht-Karls-Universität, Heidelberg	P. Schemmer
HG	Universitäts-Krankenhaus Eppendorf, Hamburg	
HO	Klinikum der Medizinischen Hochschule, Hannover	F. Lehner
JE	Friedrich Schiller Universität, Jena	C. Malessa
KI	Klinikum der Christian-Albrechts-Universität, Kiel	F. Braun
KL	Klinik der Universität Köln-Lindenthal	D. Stippel
KM	Kliniken der Stadt Köln gGmbH, Krankenhaus Merheim, Köln-Merheim, Köln	R. Wahba
KS	Westpfalz-Klinikum, Kaiserslautern	C. Mönch
LP	Klinikum der Universität, Leipzig	C. Benckert
LU	Klinikum der Medizinischen Universität, Lübeck	M. Nitschke
MH	Klinikum Rechts der Isar der Technischen Universität, München	S. Thorban
ML	Klinikum Großhadern der Ludwig-Maximilians-Universität, München	M. Stangl
MN	Klinikum der Westfälischen Wilhelms-Universität, Münster	H. Wolters
MR	Klinikum Lahnberge der Philipps-Universität, Marburg	J. Hoyer
MZ	Klinikum der Johannes-Gutenberg-Universität, Mainz	M. Heise
RB	Klinikum der Universität, Regensburg	S. Farkas
RO	Klinikum der Universität, Rostock	W. Schareck
TU	Klinikum der Eberhard-Karls-Universität, Tübingen	S. Nadalin

The Netherlands

GR	Academisch Ziekenhuis, Groningen	C. Krikke
LB	Leids Universitair Medisch Centrum, Leiden	J. Ringers

Slovenia

LO	University Medical Centre, Ljubljana	A. Tomazic

Tissue Typing Laboratories — Delegate

Austria

GA	Universitätsklinik, Abteilung für Transfusionsmedizin und Immunohämatologie, Graz	W. Helmberg
IB	Universitätsklinik, HLA Labor, Innsbruck	A. Mühlbacher
OL	Allgemeines Krankenhaus, Blutzentrale, Linz	C. Gabriel
OW	Allgemeines Krankenhaus, HLA Labor, Wels	R. Loizenbauer
WG	Institut für Blutgruppenserologie, Wien	G. Fischer

Belgium

BJ	Universitair Ziekenhuis Brussel, Bloedtransfusiecentrum Jette	C. Demanet
BR	Hôpital Erasme, Tissue typing laboratory, Bruxelles	M. Toungouz
LA	Université de Louvain, Tissue typing laboratory, Bruxelles	D. Latinne
LG	Laboratoire des Groupes Sanguins, Liège	G. Maggipinto
ME	Rode Kruis Vlaanderen, Laboratory for Histocompatibility & Immunogenetics (HILA), Mechelen	M-P. Emonds

Croatia

RI	Clinical Hospital Center, Tissue Typing Laboratory, Rijeka	M. Fucak
ZA	University Clinical Hospital, Zagreb	R. Zunec

Germany

BC	Charité-Campus Virchow Klinikum der Humboldt Universität, Berlin	C. Schönemann
DU	Institut für Transplantationsdiagnostik und Zelltherapeutika, Düsseldorf	J. Rox
ER/NB	Institut für Klinische Immunologie, Erlangen	B. Spriewald

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	H. Neumeyer
HA	Institut für Phathologische Biochemie, Interdisziplinäres Typisierungslabor, Halle	G. Schlaf
HB	Institut für Immunologie und Serologie, Heidelberg	C. Süsal
HG	Universitäts-Krankenhaus Eppendorf, HLA Labor, Hamburg	T. Binder
HO	Klinikum der Medizinischen Hochschule, Immunohaematologie/Blutbank, Hannover	M. Hallensleben
KI	Klinikum der Christian-Albrechts-Universität, HLA Labor, Kiel	M. Marget
KM	Institut für Transfusionsmedizin, Köln-Merheim	U. Bauerfeind
KS	Institut für Rechtsmedizin, Transplantationsimmunologie, Kaiserslautern	B. Thiele
LU	Institut für Immunologie und Transfusionsmedizin, Lübeck	M. Ziemann
ML	Kinderklinik der Ludwig-Maximilians-Universität, HLA Labor, München	T. Kauke
GMN	Institut für Transfusionsmedizin, Münster	R. Kelsch
MZ	Klinikum der Johannes-Gutenberg Universität, HLA Labor, Mainz	W. Hitzler
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, Tübingen	B. Schmid-Horch

Luxembourg

LX	Centre Hospitalier, HLA Lab, Luxembourg	F. Hentges

The Netherlands

AW	Centraal Laboratorium Bloedtransfusiedienst, Nederlandse Rode Kruis, Amsterdam	N. Lardy
GR	Laboratorium voor transplantatie-immunologie, Groningen	S. Lems
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

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

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

4.

Eurotransplant: donation, waiting lists and transplants

DONATION

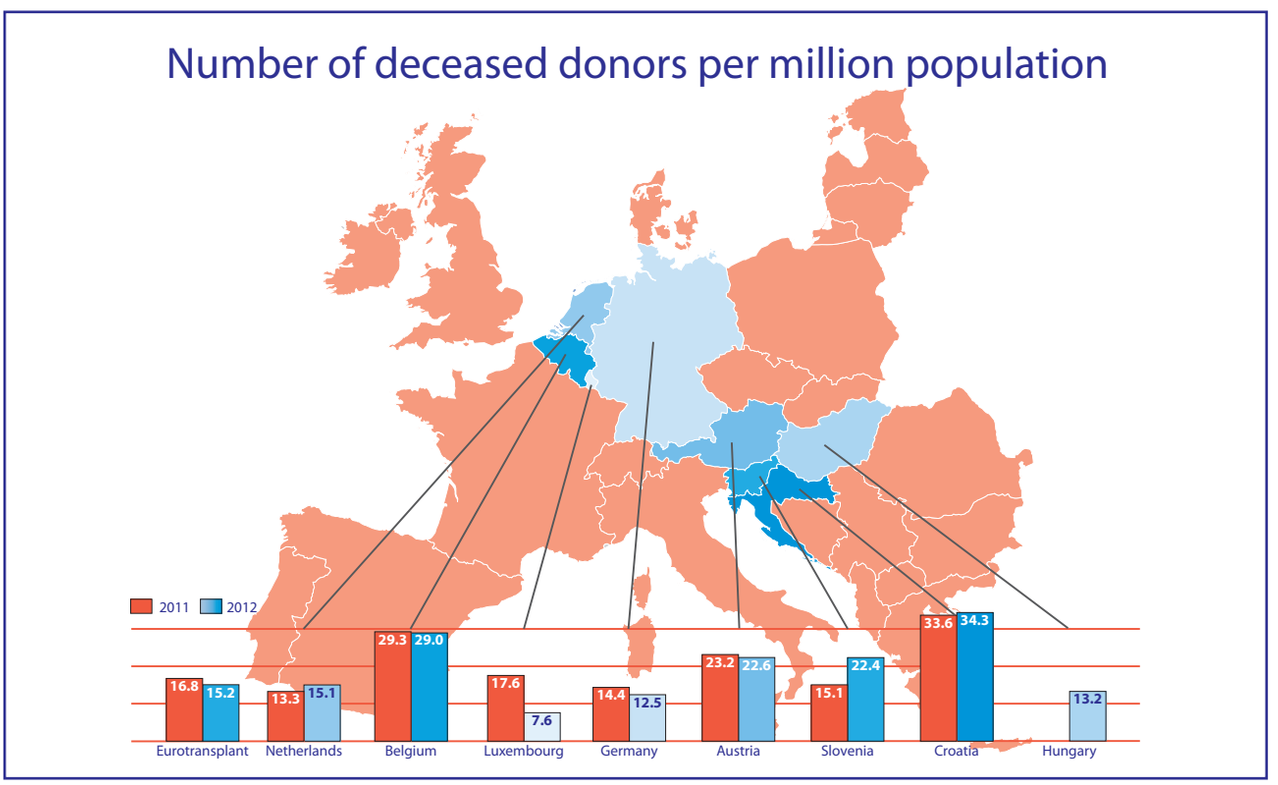


Table 4.1 **Number of deceased donors used for a transplant, by donor country, from 2008 to 2012**

Donor country		Population (millions)	2008	2009	2010	2011	2012	pmp	2011/2012
A	Austria	8.4	168	209	189	195	191	22.6	-2.1 %
B	Belgium	11.0	265	276	263	321	320	29.0	-0.3 %
HR	Croatia	4.3	79	77	127	144	147	34.3	2.1 %
D	Germany	81.8	1184	1196	1271	1176	1024	12.5	-12.9 %
H	Hungary	10.0					62 *	13.2 **	--
L	Luxembourg	0.5	9	0	3	9	4	7,6	-55.6 %
NL	Netherlands	16.7	201	215	216	221	252	15.1	14.0 %
SLO	Slovenia	2.1	36	33	40	31	46	22.4	48.4 %
	ET	135.0	1942	2006	2109	2097	2046	15.2	-2.4 %
	Non-ET		61	68	78	93	60		-35.5 %
	Total		**2003**	**2074**	**2187**	**2190**	**2106**		**-3.8 %**

* Hungary: only counting donors where organs were allocated by Eurotransplant

** Hungary: based on all utilized donors in Hungary

Figure 4.1a Number of deceased donors in Eurotransplant, used for a transplant

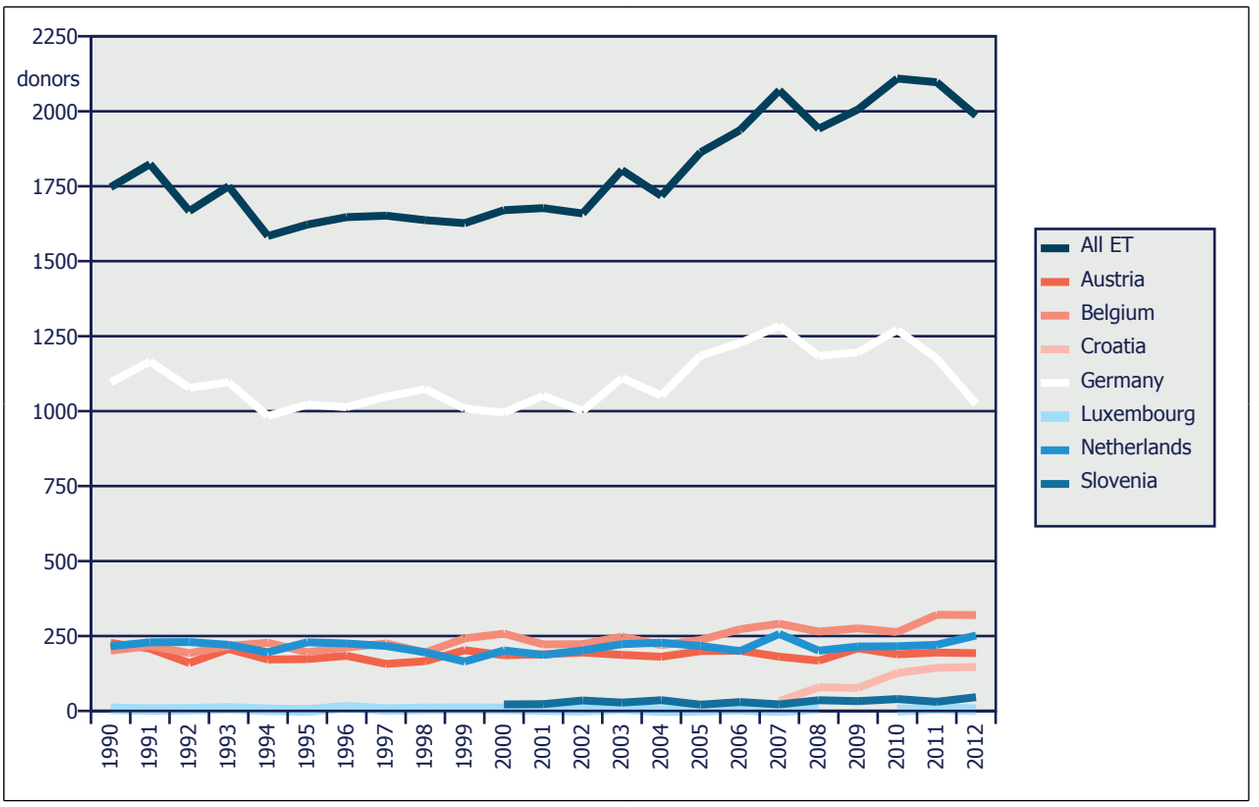


Figure 4.1b Number of deceased donors used for transplant, per million population

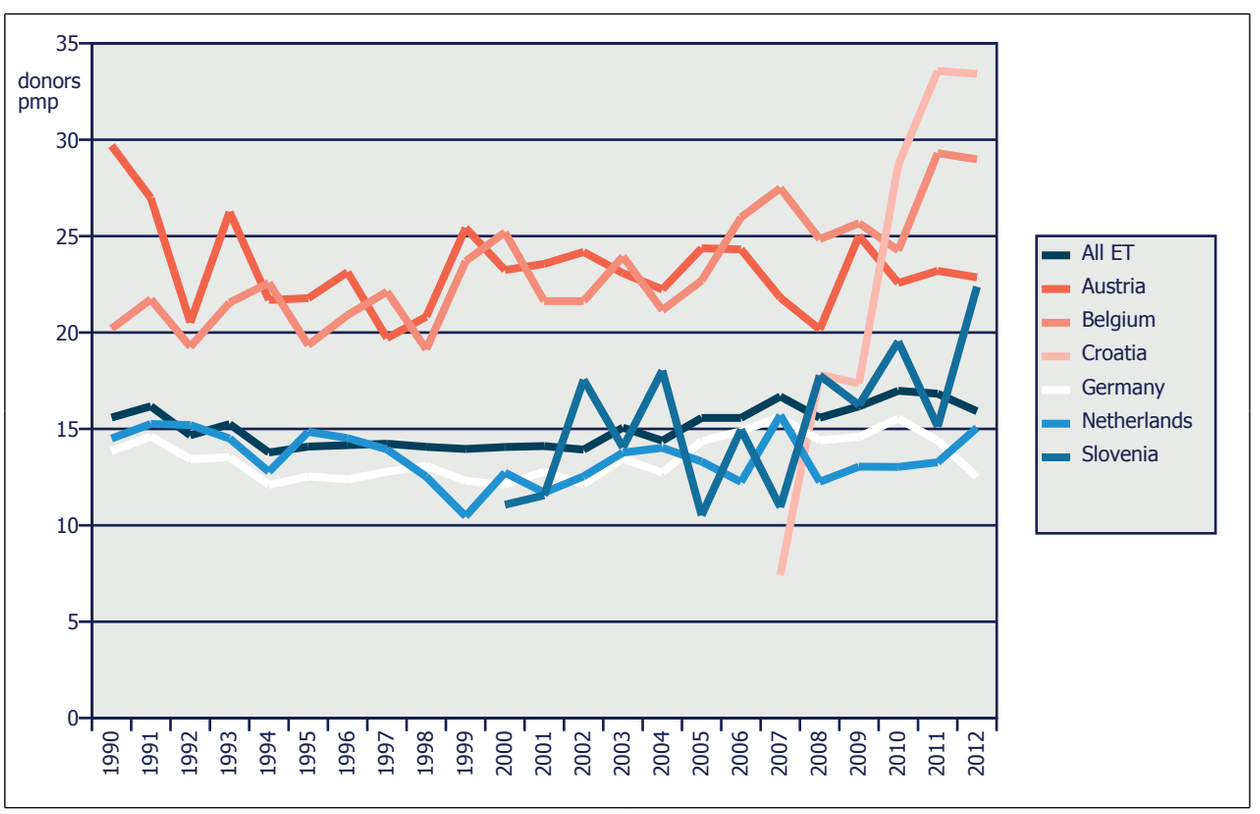


Table 4.2a(i) Number of deceased donors reported to Eurotransplant, by organ, from 2008 to 2012

Donors reported	2008	2009	2010	2011	2012	2011/2012
Total	**2233**	**2305**	**2415**	**2481**	**2421**	**-2.4 %**
Kidney	2016	2062	2151	2170	2074	-4.4 %
Heart	973	885	946	917	906	-1.2 %
Lungs	850	879	947	1032	1113	7.8 %
Liver	1872	1984	2064	2112	2000	-5.3 %
Pancreas	921	876	944	1008	958	-5.0 %

Table 4.2a(ii) Number of deceased donors reported to Eurotransplant, by organ and donor country, in 2012

Donors reported	A	B	D	H	HR	L	NL	SLO	Non-ET	Total
Total	**209**	**348**	**1075**	**82**	**157**	**4**	**312**	**50**	**184**	**2421**
Kidney	203	302	1027	15	155	4	301	46	21	2074
Heart	76	104	439	32	63	2	60	32	98	906
Lungs	72	175	483	53	33	3	170	17	107	1113
Liver	161	328	1038	11	155	4	220	50	33	2000
Pancreas	27	212	377	0	54	2	263	18	5	958

Table 4.2b(i) Number of deceased donors used for a transplant, by organ and donor country, 2012

Donors used	2008	2009	2010	2011	2012	2011/2012
Total	**2003**	**2074**	**2187**	**2190**	**2106**	**-3.8 %**
Kidney	1833	1859	1950	1891	1813	-4.1 %
Heart	583	580	631	592	607	2.5 %
Lung	508	513	572	607	670	10.4 %
Liver	1550	1631	1734	1727	1642	-4.9 %
Pancreas	257	226	273	305	277	-9.2 %

Table 4.2b(ii) Number of deceased donors used for a transplant, by organ and donor country, in 2012

Donors used	A	B	D	H	HR	L	NL	SLO	Non-ET	Total
Total	**191**	**320**	**1024**	**62**	**147**	**4**	**252**	**46**	**60**	**2106**
Kidney	181	259	939	13	131	3	245	39	3	1813
Heart	61	77	319	20	53	2	38	24	13	607
Lung	47	118	325	38	19	2	79	8	34	670
Liver	127	257	900	8	138	4	152	38	18	1642
Pancreas	16	47	142	0	21	2	45	4	0	277

Note: only counting donors from Hungary where organs were allocated by Eurotransplant

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

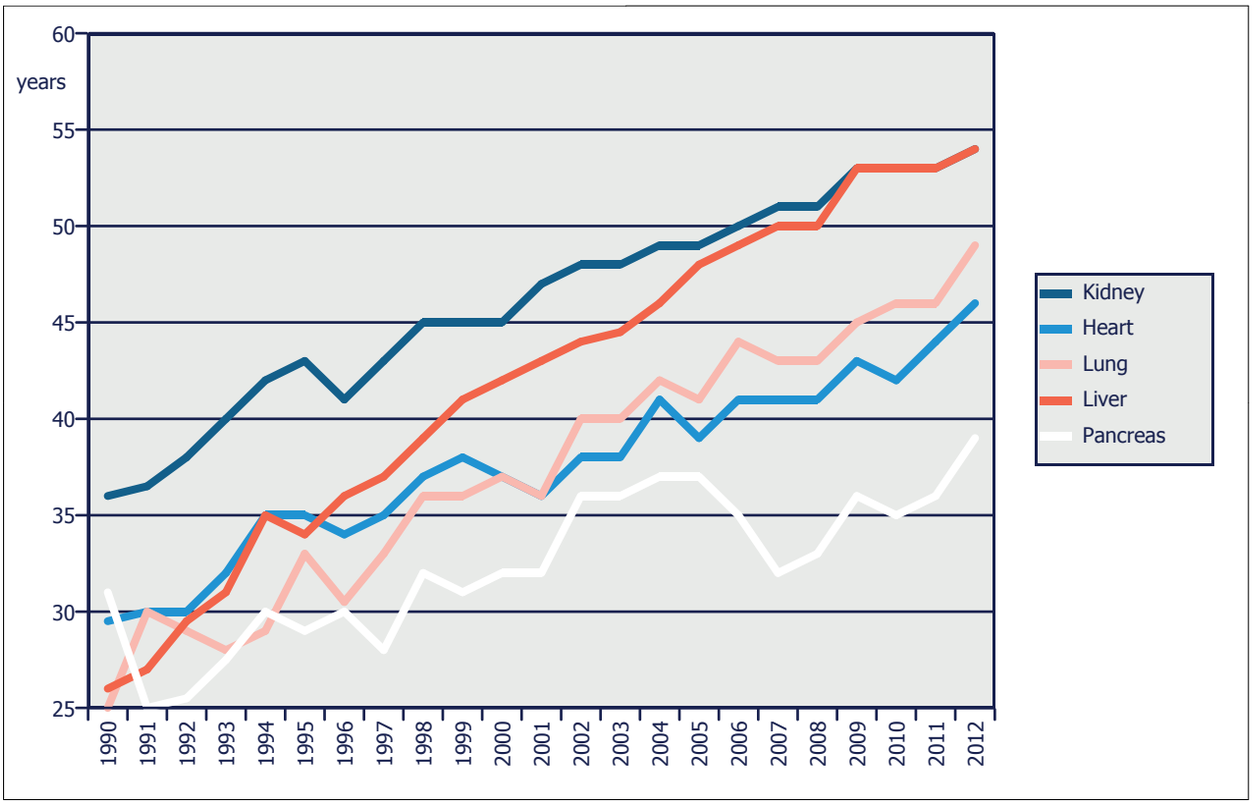


Table 4.3a(i) Demographic data on deceased donors, used for a transplant, from 2008 to 2012

Age	2008	2009	2010	2011	2012	2011/2012
0-15	73	70	81	72	65	-9.7 %
16-55	1145	1089	1139	1142	1064	-6.8 %
56-64	371	399	427	425	443	4.2 %
65+	414	516	540	551	534	-3.1 %
Total	**2003**	**2074**	**2187**	**2190**	**2106**	**-3.8 %**

Gender	2008	2009	2010	2011	2012	2011/2012
Female	903	976	1015	1001	943	-5.8 %
Male	1100	1098	1172	1189	1163	-2.2 %
Total	**2003**	**2074**	**2187**	**2190**	**2106**	**-3.8 %**

Blood group	2008	2009	2010	2011	2012	2011/2012
A	835	855	928	967	887	-8.3 %
AB	98	110	103	110	111	0.9 %
B	248	241	258	259	224	-13.5 %
0	822	868	898	854	884	3.5 %
Total	**2003**	**2074**	**2187**	**2190**	**2106**	**-3.8 %**

Table 4.3a(i) (continued)

Cause of death	2008	2009	2010	2011	2012	2011/2012
Accident	459	385	417	385	388	0.8 %
Natural	1480	1621	1704	1742	1649	-5.3 %
Suicide	47	43	46	50	53	6.0 %
Other	17	25	20	13	16	23.1 %
Total	**2003**	**2074**	**2187**	**2190**	**2106**	**-3.8 %**

Table 4.3a(ii) Demographic data on deceased donors, used for a transplant, in 2012

Age	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	%
0-15	8	7	22	2	6	0	4	0	16	65	3.1 %
16-55	97	173	485	44	70	2	129	28	36	1064	50.5 %
56-64	42	67	202	16	36	1	66	8	5	443	21.0 %
65+	44	73	315	0	35	1	53	10	3	534	25.4 %
Total	**191**	**320**	**1024**	**62**	**147**	**4**	**252**	**46**	**60**	**2106**	**100.0 %**

Gender	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	%
Female	77	147	465	26	68	0	111	20	29	943	44.8 %
Male	114	173	559	36	79	4	141	26	31	1163	55.2 %
Total	**191**	**320**	**1024**	**62**	**147**	**4**	**252**	**46**	**60**	**2106**	**100.0 %**

Blood group	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	%
A	79	142	428	31	56	2	105	18	26	887	42.1 %
AB	17	8	53	5	7	0	10	3	8	111	5.3 %
B	23	20	119	5	21	1	16	8	11	224	10.6 %
0	72	150	424	21	63	1	121	17	15	884	42.0 %
Total	**191**	**320**	**1024**	**62**	**147**	**4**	**252**	**46**	**60**	**2106**	**100.0 %**

Cause of death	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	%
Accident	47	73	151	5	23	1	55	17	16	388	18.4 %
Natural	138	220	870	55	119	3	178	26	40	1649	78.3 %
Suicide	6	25	0	1	4	0	11	3	3	53	2.5 %
Other	0	2	3	1	1	0	8	0	1	16	0.8 %
Total	**191**	**320**	**1024**	**62**	**147**	**4**	**252**	**46**	**60**	**2106**	**100.0 %**

Table 4.3b(i) Age of deceased donors used for a transplant, from 2008 to 2012

All donors	2008	2009	2010	2011	2012	2011/2012
0-15	73	70	81	72	65	-9.7 %
16-55	1145	1089	1139	1142	1064	-6.8 %
56-64	371	399	427	425	443	4.2 %
65+	414	516	540	551	534	-3.1 %
Total	**2003**	**2074**	**2187**	**2190**	**2106**	**-3.8 %**

Table 4.3b(i) (continued)

Kidney donors	2008	2009	2010	2011	2012	2011/2012
0-15	61	55	67	54	47	-13.0 %
16-55	1057	992	1029	1004	938	-6.6 %
56-64	350	367	389	391	403	3.1 %
65+	365	445	465	442	425	-3.8 %
Total	**1833**	**1859**	**1950**	**1891**	**1813**	**-4.1 %**

Heart donors	2008	2009	2010	2011	2012	2011/2012
0-15	35	40	55	34	38	11.8 %
16-55	504	486	502	471	483	2.5 %
56-64	42	52	67	77	73	-5.2 %
65+	2	2	7	10	13	30.0 %
Total	**583**	**580**	**631**	**592**	**607**	**2.5 %**

Lung donors	2008	2009	2010	2011	2012	2011/2012
0-15	20	22	29	24	21	-12.5 %
16-55	420	405	439	440	451	2.5 %
56-64	57	74	89	110	134	21.8 %
65+	11	12	15	33	64	93.9 %
Total	**508**	**513**	**572**	**607**	**670**	**10.4 %**

Liver donors	2008	2009	2010	2011	2012	2011/2012
0-15	60	53	66	59	54	-8.5 %
16-55	918	883	915	902	838	-7.1 %
56-64	261	298	316	318	320	0.6 %
65+	311	397	437	448	430	-4.0 %
Total	**1550**	**1631**	**1734**	**1727**	**1642**	**-4.9 %**

Pancreas donors	2008	2009	2010	2011	2012	2011/2012
0-15	21	18	20	18	19	5.6 %
16-55	230	197	246	253	231	-8.7 %
56-64	4	6	5	22	17	-22.7 %
65+	2	5	2	12	10	-16.7 %
Total	**257**	**226**	**273**	**305**	**277**	**-9.2 %**

Table 4.3b(ii) Age of deceased donors used for a transplant, by organ and donor country, in 2012

All donors	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	%
0-15	8	7	22	2	6	0	4	0	16	65	3.1 %
16-55	97	173	485	44	70	2	129	28	36	1064	50.5 %
56-64	42	67	202	16	36	1	66	8	5	443	21.0 %
65+	44	73	315	0	35	1	53	10	3	534	25.4 %
Total	**191**	**320**	**1024**	**62**	**147**	**4**	**252**	**46**	**60**	**2106**	**100.0 %**

Table 4.3b(ii) (continued)

Kidney donors	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	%
0-15	7	6	19	2	6	0	4	0	3	47	2.6 %
16-55	93	165	456	6	68	2	124	24	0	938	51.7 %
56-64	41	55	195	5	32	1	66	8	0	403	22.2 %
65+	40	33	269	0	25	0	51	7	0	425	23.4 %
Total	**181**	**259**	**939**	**13**	**131**	**3**	**245**	**39**	**3**	**1813**	**100.0 %**

Heart donors	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	%
0-15	8	3	11	1	6	0	2	0	7	38	6.3 %
16-55	46	69	250	18	44	2	30	19	5	483	79.6 %
56-64	6	5	48	1	3	0	6	3	1	73	12.0 %
65+	1	0	10	0	0	0	0	2	0	13	2.1 %
Total	**61**	**77**	**319**	**20**	**53**	**2**	**38**	**24**	**13**	**607**	**100.0 %**

Lung donors	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	%
0-15	3	2	6	1	3	0	2	0	4	21	3.1 %
16-55	29	80	214	30	14	2	49	7	26	451	67.3 %
56-64	12	26	68	7	2	0	17	0	2	134	20.0 %
65+	3	10	37	0	0	0	11	1	2	64	9.6 %
Total	**47**	**118**	**325**	**38**	**19**	**2**	**79**	**8**	**34**	**670**	**100.0 %**

Liver donors	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	%
0-15	8	6	20	2	6	0	4	0	8	54	3.3 %
16-55	72	138	440	3	65	2	87	24	7	838	51.0 %
56-64	24	49	169	3	34	1	34	4	2	320	19.5 %
65+	23	64	271	0	33	1	27	10	1	430	26.2 %
Total	**127**	**257**	**900**	**8**	**138**	**4**	**152**	**38**	**18**	**1642**	**100.0 %**

Pancreas donors	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	%
0-15	3	1	7	0	4	0	4	0	0	19	6.9 %
16-55	13	29	133	0	17	2	33	4	0	231	83.4 %
56-64	0	10	2	0	0	0	5	0	0	17	6.1 %
65+	0	7	0	0	0	0	3	0	0	10	3.6 %
Total	**16**	**47**	**142**	**0**	**21**	**2**	**45**	**4**	**0**	**277**	**100.0 %**

Table 4.4a(i) Number of donors, used for a transplant, by type of donor, from 2008 to 2012

Donor type	2008	2009	2010	2011	2012	2011/2012
Deceased	2003	2074	2187	2190	2106	-3.8%
Domino	7	3	6	16	6	-62.5%
Living	1165	1246	1398	1458	1499	2.7%
Total	**3175**	**3323**	**3591**	**3664**	**3611**	**-1.5%**

Table 4.4a(ii) Number of donors, used for a transplant, by type and donor country, in 2012

Donor type	A	B	D	H	HR	L	NL	SLO	Non-ET	Total
Deceased	191	320	1024	62	147	4	252	46	60	2106
%	75.2%	78.2%	54.6%	100.0%	91.9%	100.0%	34.0%	100.0%	100.0%	58.3%
Domino	0	2	3	0	0	0	1	0	0	6
%	0.0%	0.5%	0.2%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.2%
Living	63	87	847	0	13	0	489	0	0	1499
%	24.8%	21.3%	45.2%	0.0%	8.1%	0.0%	65.9%	0.0%	0.0%	41.5%
Total	**254**	**409**	**1874**	**62**	**160**	**4**	**742**	**46**	**60**	**3611**

Table 4.4b(i) Number of deceased donors, used for a transplant, by type of donor, from 2008 to 2012

Donor type	2008	2009	2010	2011	2012	2011/2012
SOD	461	487	491	531	503	-5.3%
MOD	1542	1587	1696	1659	1603	-3.4%
Total	**2003**	**2074**	**2187**	**2190**	**2106**	**-3.8%**

Table 4.4b(ii) Number of deceased donors, used for a transplant, by type and donor country, in 2012

Donor type	A	B	D	H	HR	L	NL	SLO	Non-ET	Total
SOD	50	93	157	48	19	1	75	7	53	503
%	26.2%	29.1%	15.3%	77.4%	12.9%	25.0%	29.8%	15.2%	88.3%	23.9%
MOD	141	227	867	14	128	3	177	39	7	1603
%	73.8%	70.9%	84.7%	22.6%	87.1%	75.0%	70.2%	84.8%	11.7%	76.1%
Total	**191**	**320**	**1024**	**62**	**147**	**4**	**252**	**46**	**60**	**2106**

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 2008 to 2012

NHB Category	2008	2009	2010	2011	2012	2011/2012
I - Dead on arrival	0	0	3	1	2	100.0%
II - Unsuccessful resuscitation	8	4	8	4	8	100.0%
III - Awaiting cardiac arrest	115	140	106	172	185	7.6%
IV - Cardiac arrest in brain dead donor	0	0	1	1	3	200.0%
Total	**123**	**144**	**118**	**178**	**198**	**11.2%**

Table 4.4c(ii) Non-heart beating donors, used for a transplant, by donor country, in 2012

NHB Category	A	B	NL	Total	%
I - Dead on arrival	0	0	2	2	1.0%
II - Unsuccessful resuscitation	2	1	5	8	4.0%
III - Awaiting cardiac arrest	1	67	117	185	93.4%
IV - Cardiac arrest in brain dead donor	1	2	0	3	1.5%
Total	**4**	**70**	**124**	**198**	**100.0%**

Table 4.4d(i) Transplants from NHB donors from 2008 to 2012

Type of transplant		2008	2009	2010	2011	2012	2011/2012
Kidney	Kidney	200	243	191	306	329	7.5%
	Kidney en bloc	1	3	1	1	3	200.0%
Total		**201**	**246**	**192**	**307**	**332**	**8.1%**
Liver	Whole liver	46	69	39	81	88	8.6%
	Liver + kidney	1	0	3	3	0	-100.0%
Total		**47**	**69**	**42**	**84**	**88**	**4.8%**
Lung	Single lung	4	4	1	2	8	300.0%
	Double lung	12	29	25	42	41	-2.4%
Total		**16**	**33**	**26**	**44**	**49**	**11.4%**
Pancreas	Pancreas	0	0	0	1	0	-100.0%
	Pancreas + kidney	0	0	0	4	1	-75.0%
	Pancreatic islets	7	2	0	8	12	50.0%
Total		**7**	**2**	**0**	**13**	**13**	**0.0%**
	Total	**271**	**350**	**260**	**448**	**482**	**7.6%**

Table 4.4d(ii) Transplants from NHB donors, by donor country, in 2012

Type of transplant	Transplant country	A	B	NL	Total	%
Kidney	A	7	4	9	20	6.0%
	B	0	88	4	92	27.7%
	NL	0	8	212	220	66.3%
	Total	**7**	**100**	**225**	**332**	**100.0%**
Liver	A	1	1	0	2	2.3%
	B	0	49	1	50	56.8%
	NL	0	2	34	36	40.9%
	Total	**1**	**52**	**35**	**88**	**100.0%**
Lung	A	0	0	2	2	4.1%
	B	0	16	2	18	36.7%
	NL	0	1	28	29	59.2%
	Total	**0**	**17**	**32**	**49**	**100.0%**
Pancreas + kidney	NL	0	0	1	1	100.0%
	Total	**0**	**0**	**1**	**1**	**100.0%**
Pancreatic islets	B	0	4	6	10	83.3%
	NL	0	0	2	2	16.7%
	Total	**0**	**4**	**8**	**12**	**100.0%**
	Total	**8**	**173**	**301**	**482**	**100.0%**

WAITING LIST

Table 4.5(i) Active Eurotransplant waiting list, by organ, as per December 31, from 2008 to 2012

Waiting list type	Composition	2008	2009	2010	2011	2012	2011/2012
Kidney	kidney	10687	10533	10307	10231	10151	-0.8 %
	kidney + heart	16	27	31	26	25	-3.8 %
	kidney + heart + lung	0	1	0	0	0	0.0 %
	kidney + heart + liver	0	0	1	0	0	0.0 %
	kidney + lung	5	2	2	2	1	-50.0 %
	kidney + liver	72	97	90	72	67	-6.9 %
	kidney + liver + pancreas	2	1	2	1	1	0.0 %
	kidney + pancreas	300	349	335	290	280	-3.4 %
Kidney	**Total**	**11082**	**11010**	**10768**	**10622**	**10525**	**-0.9 %**
Heart	heart	989	1121	1158	1222	1235	1.1 %
	heart + kidney	16	27	31	26	25	-3.8 %
	heart + lung	57	38	33	25	25	0.0 %
	heart + lung + kidney	0	1	0	0	0	0.0 %
	heart + lung + liver	0	0	0	1	0	-100.0 %
	heart + liver	2	4	2	3	2	-33.3 %
	heart + liver + kidney	0	0	1	0	0	0.0 %
	heart + liver + pancreas	0	0	1	0	0	0.0 %
Heart	**Total**	**1064**	**1191**	**1226**	**1277**	**1287**	**0.8 %**
Lung	lung	846	964	964	997	815	-18.3 %
	lung + kidney	5	2	2	2	1	-50.0 %
	lung + heart	57	38	33	25	25	0.0 %
	lung + heart + kidney	0	1	0	0	0	0.0 %
	lung + heart + liver	0	0	0	1	0	-100.0 %
	lung + liver	8	6	5	1	3	200.0 %
Lung	**Total**	**916**	**1011**	**1004**	**1026**	**844**	**-17.7 %**
Liver	liver	2354	2525	2588	2530	2327	-8.0 %
	liver + kidney	72	97	90	72	67	-6.9 %
	liver + heart	2	4	2	3	2	-33.3 %
	liver + heart + kidney	0	0	1	0	0	0.0 %
	liver + heart + lung	0	0	0	1	0	-100.0 %
	liver + heart + pancreas	0	0	1	0	0	0.0 %
	liver + lung	8	6	5	1	3	200.0 %
	liver + pancreas	4	8	6	6	6	0.0 %
	liver + pancreas + kidney	2	1	2	1	1	0.0 %
Liver	**Total**	**2442**	**2641**	**2695**	**2614**	**2406**	**-8.0 %**
Pancreas	pancreas	55	68	66	92	89	-3.3 %
	pancreas + kidney	300	349	335	290	280	-3.4 %
	pancreas + heart + liver	0	0	1	0	0	0.0 %
	pancreas + liver	4	8	6	6	6	0.0 %
	pancreas + liver + kidney	2	1	2	1	1	0.0 %
Pancreas	**Total**	**361**	**426**	**410**	**389**	**376**	**-3.3 %**
All	**Total patients**	**15397**	**15744**	**15591**	**15499**	**15027**	**-0.6 %**

Table 4.5(ii) Active Eurotransplant waiting list, by organ, as per December 31, 2012

Waiting list type	Composition	A	B	D	H	HR	NL	SLO	Total	%
Kidney	kidney	722	748	7645	17	125	829	65	10151	96.4 %
	kidney + heart	4	4	17	0	0	0	0	25	0.2 %
	kidney + lung	0	0	1	0	0	0	0	1	0.0 %
	kidney + liver	1	13	45	1	1	6	0	67	0.6 %
	kidney + liver + pancreas	0	0	1	0	0	0	0	1	0.0 %
	kidney + pancreas	18	26	210	0	4	20	2	280	2.7 %
Kidney	**Total**	**745**	**791**	**7919**	**18**	**130**	**855**	**67**	**10525**	**100.0 %**
Heart	heart	68	72	972	6	21	64	32	1235	96.0 %
	heart + kidney	4	4	17	0	0	0	0	25	1.9 %
	heart + lung	4	0	21	0	0	0	0	25	1.9 %
	heart + liver	0	0	2	0	0	0	0	2	0.2 %
Heart	**Total**	**76**	**76**	**1012**	**6**	**21**	**64**	**32**	**1287**	**100.0 %**
Lung	lung	82	81	459	0	0	193	0	815	96.6 %
	lung + kidney	0	0	1	0	0	0	0	1	0.1 %
	lung + heart	4	0	21	0	0	0	0	25	3.0 %
	lung + liver	0	0	2	0	0	1	0	3	0.4 %
Lung	**Total**	**86**	**81**	**483**	**0**	**0**	**194**	**0**	**844**	**100.0 %**
Liver	liver	102	166	1815	4	73	157	10	2327	96.7 %
	liver + kidney	1	13	45	1	1	6	0	67	2.8 %
	liver + heart	0	0	2	0	0	0	0	2	0.1 %
	liver + lung	0	0	2	0	0	1	0	3	0.1 %
	liver + pancreas	0	2	3	0	0	1	0	6	0.2 %
	liver + pancreas + kidney	0	0	1	0	0	0	0	1	0.0 %
Liver	**Total**	**103**	**181**	**1868**	**5**	**74**	**165**	**10**	**2406**	**100.0 %**
Pancreas	pancreas	8	26	40	0	0	15	0	89	23.7 %
	pancreas + kidney	18	26	210	0	4	20	2	280	74.5 %
	pancreas + liver	0	2	3	0	0	1	0	6	1.6 %
	pancreas + liver + kidney	0	0	1	0	0	0	0	1	0.3 %
Pancreas	**Total**	**26**	**54**	**254**	**0**	**4**	**36**	**2**	**376**	**100.0 %**
All	**Total patients**	**1009**	**1138**	**11233**	**28**	**224**	**1286**	**109**	**15027**	

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

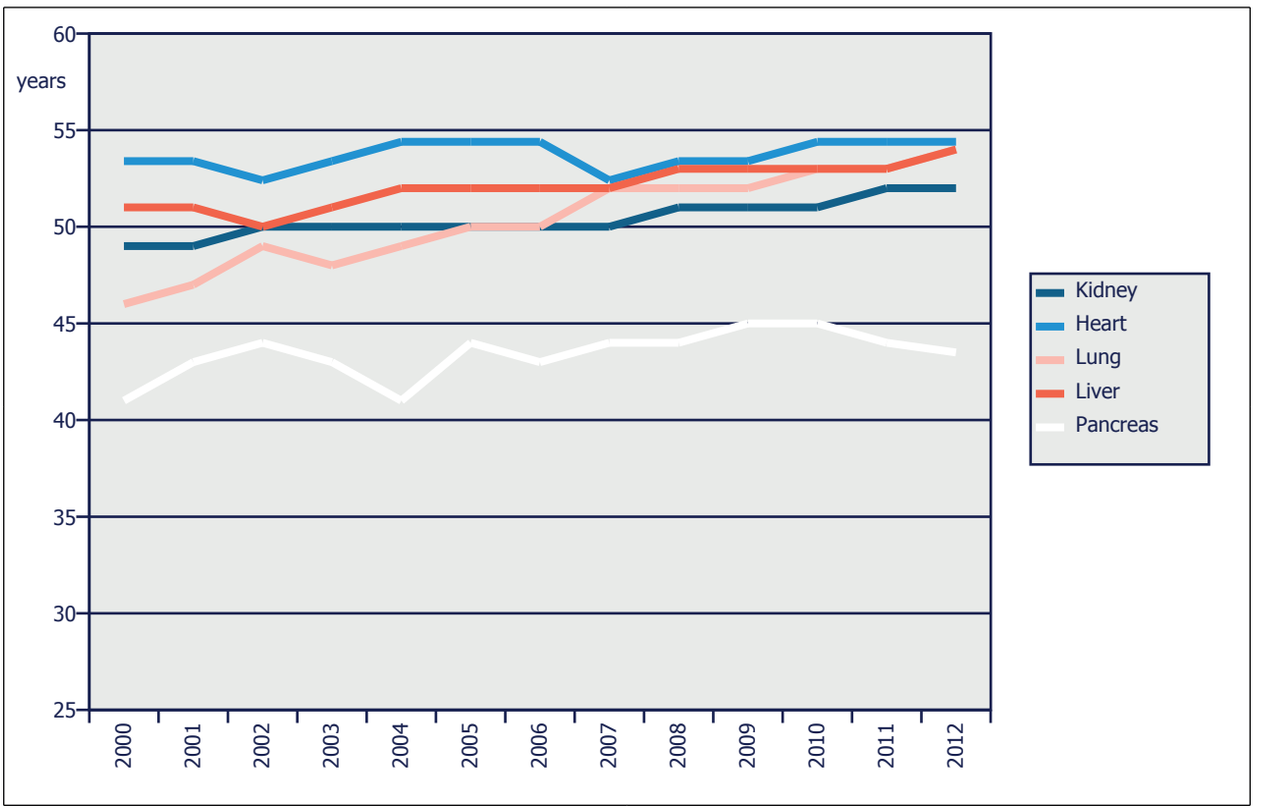
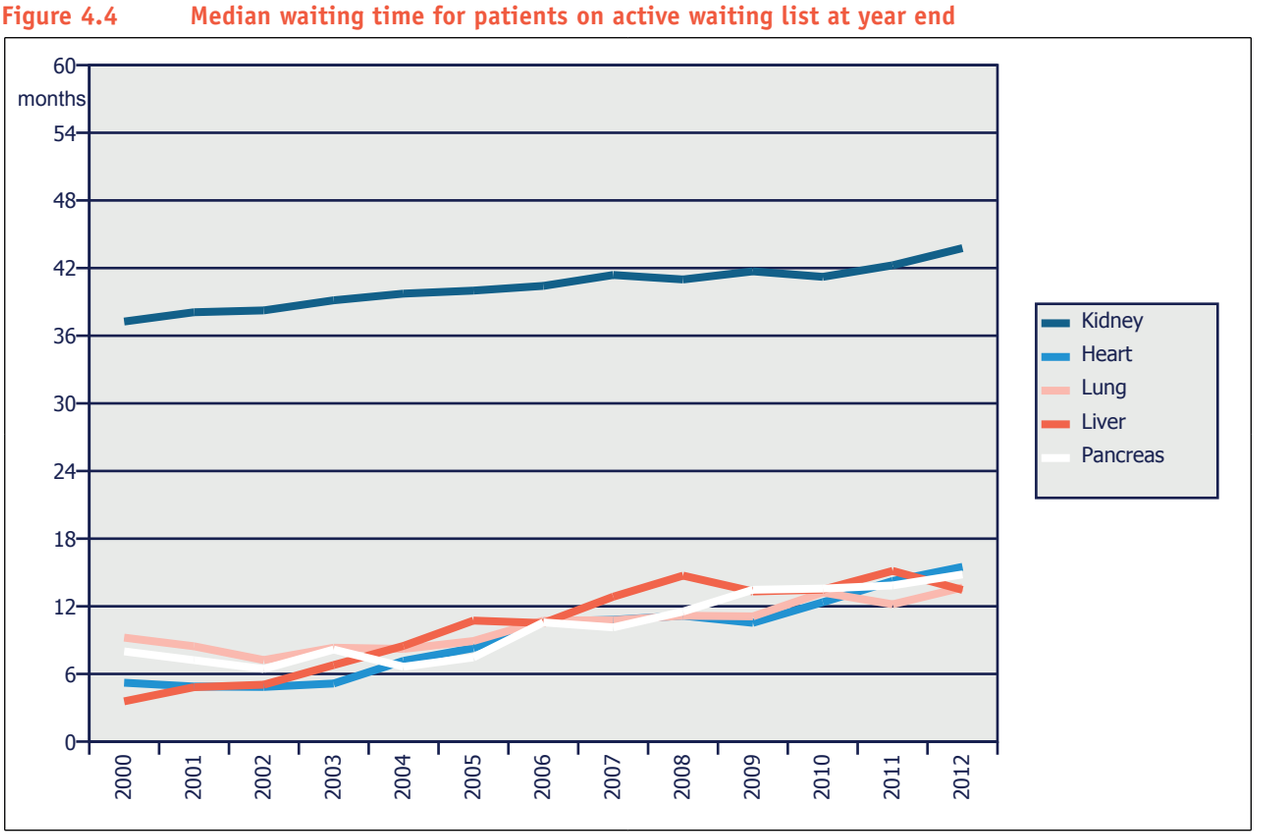


Figure 4.4 Median waiting time for patients on active waiting list at year end



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

Table 4.6(i) Registration events on the Eurotransplant waiting list, by organ, from 2008 to 2012

All registration events	2008	2009	2010	2011	2012	2011/2012
Kidney	5798	5840	6159	6224	6135	-1.4 %
Heart	1052	1123	1091	1020	1027	0.7 %
Lungs	847	844	818	883	817	-7.5 %
Liver	2688	2942	3072	2959	2926	-1.1 %
Pancreas	335	326	324	345	302	-12.5 %
Total events	**10720**	**11075**	**11464**	**11431**	**11207**	**-2.0 %**
Total patients	**10147**	**10519**	**10909**	**10862**	**10666**	**-1.8 %**

New registration events	2008	2009	2010	2011	2012	2011/2012
Kidney	4956	4932	5215	5318	5252	-1.2 %
Heart	1030	1096	1055	1005	1002	-0.3 %
Lungs	800	787	765	834	768	-7.9 %
Liver	2368	2578	2681	2619	2577	-1.6 %
Pancreas	281	292	283	275	251	-8.7 %
Total events	**9435**	**9685**	**9999**	**10051**	**9850**	**-2.0 %**
Total patients	**9042**	**9318**	**9635**	**9689**	**9470**	**-2.3 %**

Re-registration events	2008	2009	2010	2011	2012	2011/2012
Kidney	842	908	944	906	883	-2.5 %
Heart	22	27	36	15	25	66.7 %
Lungs	47	57	53	49	49	0.0 %
Liver	320	364	391	340	349	2.6 %
Pancreas	54	34	41	70	51	-27.1 %
Total events	**1285**	**1390**	**1465**	**1380**	**1357**	**-1.7 %**
Total patients	**1246**	**1355**	**1423**	**1327**	**1309**	**-1.4 %**

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 list, by organ and country, in 2012

All registration events	A	B	D	H	HR	NL	SLO	Total	%
Kidney	471	520	3521	38	189	1339	57	6135	54.7 %
Heart	101	119	627	22	60	64	34	1027	9.2 %
Lungs	151	116	459	0	0	91	0	817	7.3 %
Liver	182	363	1924	10	153	259	35	2926	26.1 %
Pancreas	25	37	180	0	14	44	2	302	2.7 %
Total events	**930**	**1155**	**6711**	**70**	**416**	**1797**	**128**	**11207**	**100.0 %**
Total patients	**892**	**1084**	**6337**	**67**	**399**	**1762**	**125**	**10666**	

Table 4.6(ii) (continued)

New registration events	A	B	D	H	HR	NL	SLO	Total	%
Kidney	357	450	3017	37	181	1156	54	5252	53.3 %
Heart	98	115	610	22	60	64	33	1002	10.2 %
Lungs	137	106	435	0	0	90	0	768	7.8 %
Liver	165	315	1688	10	146	221	32	2577	26.2 %
Pancreas	20	22	155	0	14	38	2	251	2.5 %
Total events	**777**	**1008**	**5905**	**69**	**401**	**1569**	**121**	**9850**	**100.0 %**
Total patients	**751**	**970**	**5632**	**67**	**387**	**1544**	**119**	**9470**	

Re-registration events	A	B	D	H	HR	NL	SLO	Total	%
Kidney	114	70	504	1	8	183	3	883	65.1 %
Heart	3	4	17	0	0	0	1	25	1.8 %
Lungs	14	10	24	0	0	1	0	49	3.6 %
Liver	17	48	236	0	7	38	3	349	25.7 %
Pancreas	5	15	25	0	0	6	0	51	3.8 %
Total events	**153**	**147**	**806**	**1**	**15**	**228**	**7**	**1357**	**100.0 %**
Total patients	**150**	**135**	**775**	**1**	**15**	**226**	**7**	**1309**	

Table 4.7a(i) Removals from the Eurotransplant waiting list, from 2008 to 2012

Waiting list	Removal reason	2008	2009	2010	2011	2012	2011/2012
Kidney	Deceased	564	526	576	581	529	-9.0 %
	Unfit for transplant	312	342	304	372	351	-5.6 %
	Transplanted	4579	4711	4969	4922	4811	-2.2 %
	Recovered	39	36	38	58	46	-20.7 %
	Other	311	231	175	233	287	23.2 %
Kidney	**Total**	**5805**	**5846**	**6062**	**6166**	**6024**	**-2.3 %**
Heart	Deceased	223	245	255	236	226	-4.2 %
	Unfit for transplant	23	41	41	26	31	19.2 %
	Transplanted	577	578	631	589	604	2.5 %
	Recovered	35	64	62	57	41	-28.1 %
	Other	54	50	51	44	36	-18.2 %
Heart	**Total**	**912**	**978**	**1040**	**952**	**938**	**-1.5 %**
Lungs	Deceased	182	157	154	153	104	-32.0 %
	Unfit for transplant	24	23	11	18	40	122.2 %
	Transplanted	527	539	593	636	692	9.1 %
	Recovered	6	9	11	7	10	42.9 %
	Other	32	18	16	56	42	-25.0 %
Lungs	**Total**	**771**	**746**	**785**	**870**	**888**	**2.3 %**

Table 4.7a(i) (continued)

Waiting list	Removal reason	2008	2009	2010	2011	2012	2011/2012
Liver	Deceased	513	545	616	607	660	8.7 %
	Unfit for transplant	106	95	102	130	142	9.2 %
	Transplanted	1686	1791	1930	1905	1809	-5.0 %
	Recovered	101	97	87	124	172	38.7 %
	Other	127	157	131	119	134	12.6 %
Liver	**Total**	**2533**	**2685**	**2866**	**2885**	**2917**	**1.1 %**
Pancreas	Deceased	29	29	31	30	17	-43.3 %
	Unfit for transplant	13	17	13	15	18	20.0 %
	Transplanted	236	209	257	265	251	-5.3 %
	Recovered	4	3	1	2	5	150.0 %
	Other	17	21	19	20	29	45.0 %
Pancreas	**Total**	**299**	**279**	**321**	**332**	**320**	**-3.6 %**

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 list, in 2012

Waiting list	Removal reason	A	B	D	H	HR	NL	SLO	Total	%
Kidney	Deceased	23	29	373	0	11	93	0	529	8.8 %
	Unfit for transplant	26	28	210	0	18	69	0	351	5.8 %
	Transplanted	424	537	2586	12	230	960	62	4811	79.9 %
	Recovered	5	1	30	0	1	9	0	46	0.8 %
	Other	6	7	199	4	7	64	0	287	4.8 %
Kidney	**Total**	**484**	**602**	**3398**	**16**	**267**	**1195**	**62**	**6024**	**100.0 %**
Heart	Deceased	9	16	169	5	9	10	8	226	24.1 %
	Unfit for transplant	1	2	21	0	0	1	6	31	3.3 %
	Transplanted	62	77	346	10	44	37	28	604	64.4 %
	Recovered	3	5	32	0	1	0	0	41	4.4 %
	Other	1	3	32	0	0	0	0	36	3.8 %
Heart	**Total**	**76**	**103**	**600**	**15**	**54**	**48**	**42**	**938**	**100.0 %**
Lungs	Deceased	4	10	70	0	0	20	0	104	11.7 %
	Unfit for transplant	2	4	20	0	0	14	0	40	4.5 %
	Transplanted	124	129	359	0	0	80	0	692	78.0 %
	Recovered	0	1	6	0	0	3	0	10	1.1 %
	Other	0	2	26	0	0	14	0	42	4.7 %
Lungs	**Total**	**130**	**146**	**481**	**0**	**0**	**131**	**0**	**888**	**100.0 %**

Table 4.7a(ii) (continued)

Waiting list	Removal reason	A	B	D	H	HR	NL	SLO	Total	%
Liver	Deceased	43	52	512	0	15	31	7	660	22.6 %
	Unfit for transplant	4	7	118	0	2	11	0	142	4.9 %
	Transplanted	126	282	1097	3	128	146	27	1809	62.0 %
	Recovered	5	21	136	1	4	5	0	172	5.9 %
	Other	2	8	119	0	2	3	0	134	4.6 %
Liver	**Total**	**180**	**370**	**1982**	**4**	**151**	**196**	**34**	**2917**	**100.0 %**
Pancreas	Deceased	0	0	13	0	2	2	0	17	5.3 %
	Unfit for transplant	2	3	11	0	0	2	0	18	5.6 %
	Transplanted	14	32	163	0	8	34	0	251	78.4 %
	Recovered	0	0	3	0	1	1	0	5	1.6 %
	Other	2	4	20	0	1	2	0	29	9.1 %
Pancreas	**Total**	**18**	**39**	**210**	**0**	**12**	**41**	**0**	**320**	**100.0 %**

Table 4.7b(i) Mortality on the Eurotransplant waiting list, by year of death, from 2008 to 2012

Waiting list	2008	2009	2010	2011	2012	2011/2012
Kidney	564	526	576	581	529	-9.0 %
Heart	223	245	255	236	226	-4.2 %
Lungs	182	157	154	153	104	-32.0 %
Liver	513	545	616	607	660	8.7 %
Pancreas	29	29	31	30	17	-43.3 %
Total	**1511**	**1502**	**1632**	**1607**	**1536**	**-4.4 %**
Total patients	**1445**	**1428**	**1549**	**1518**	**1465**	**-6.8 %**

Table 4.7b(ii) Mortality on the Eurotransplant waiting list in 2012, by country

Waiting list	A	B	D	H	HR	NL	SLO	Total
Kidney	23	29	373	0	11	93	0	529
Heart	9	16	169	5	9	10	8	226
Lungs	4	10	70	0	0	20	0	104
Liver	43	52	512	0	15	31	7	660
Pancreas	0	0	13	0	2	2	0	17
Total	**79**	**107**	**1137**	**5**	**37**	**156**	**15**	**1536**
Total patients	**78**	**98**	**1081**	**5**	**35**	**153**	**15**	**1465**

Table 4.7c(i) Mortality on the Eurotransplant waiting lists, by urgency and year of death, from 2008 to 2012

Waiting list	Urgency at death	2008	2009	2010	2011	2012	2011/2012
Kidney	High urgency	1	0	0	1	0	-100.0 %
	Elective	124	108	136	125	96	-23.2 %
	Non-active	439	418	440	455	433	-4.8 %
Kidney		**564**	**526**	**576**	**581**	**529**	**-9.0 %**

Table 4.7c(i) (continued)

Waiting list	Urgency at death	2008	2009	2010	2011	2012	2011/2012
Heart	High urgency	30	44	45	48	57	18.8 %
	Urgent	2	2	1	0	0	--
	Elective	106	131	123	99	83	-16.2 %
	Non-active	85	68	86	89	86	-3.4 %
Heart		**223**	**245**	**255**	**236**	**226**	**-4.2 %**
Lungs	High urgency/LAS	49	38	45	35	31	-11.4 %
	Urgent	5	8	2	2	1	-50.0 %
	Elective	77	65	65	70	43	-38.6 %
	Non-active	51	46	42	46	29	-37.0 %
Lungs		**182**	**157**	**154**	**153**	**104**	**-32.0 %**
Liver	High urgency	21	30	35	30	24	-20.0 %
	Meld 30+	144	174	247	202	234	15.8 %
	Meld 25-29	44	58	73	76	81	6.6 %
	Meld 19-24	96	102	76	101	111	9.9 %
	Meld 11-18	114	98	96	103	101	-1.9 %
	Meld 06-10	92	83	89	93	109	17.2 %
	Unknown	2	0	0	2	0	-100.0 %
Liver		**513**	**545**	**616**	**607**	**660**	**8.7 %**
Pancreas	Elective	11	5	11	4	3	-25.0 %
	Non-active	18	24	20	26	14	-46.2 %
Pancreas		**29**	**29**	**31**	**30**	**17**	**-43.3 %**

Table 4.7c(ii) Mortality on the Eurotransplant waiting lists, by urgency and country, in 2012

Waiting list	Urgency at death	A	B	D	H	HR	NL	SLO	Total	%
Kidney	Elective	4	6	78	0	0	8	0	96	18.1 %
	Non-active	19	23	295	0	11	85	0	433	81.9 %
Kidney	**Total**	**23**	**29**	**373**	**0**	**11**	**93**	**0**	**529**	**100.0 %**
Heart	High urgency	1	0	50	2	2	0	2	57	25.2 %
	Elective	5	9	61	0	1	2	5	83	36.7 %
	Non-active	3	7	58	3	6	8	1	86	38.1 %
Heart	**Total**	**9**	**16**	**169**	**5**	**9**	**10**	**8**	**226**	**100.0 %**
Lungs	High urgency/LAS	0	2	22	0	0	7	0	31	29.8 %
	Urgent	0	0	1	0	0	0	0	1	1.0 %
	Elective	3	7	22	0	0	11	0	43	41.3 %
	Non-active	1	1	25	0	0	2	0	29	27.9 %
Lungs	**Total**	**4**	**10**	**70**	**0**	**0**	**20**	**0**	**104**	**100.0 %**

Table 4.7c(ii) (continued)

Waiting list	Urgency at death	A	B	D	H	HR	NL	SLO	Total	%
Liver	High urgency	1	2	19	0	1	0	1	24	3.6 %
	Meld 30+	5	15	195	0	6	13	0	234	35.5 %
	Meld 25-29	3	12	61	0	2	3	0	81	12.3 %
	Meld 19-24	5	11	87	0	1	6	1	111	16.8 %
	Meld 11-18	9	11	72	0	2	5	2	101	15.3 %
	Meld 06-10	20	1	78	0	3	4	3	109	16.5 %
Liver	**Total**	**43**	**52**	**512**	**0**	**15**	**31**	**7**	**660**	**100.0 %**
Pancreas	Elective	0	0	3	0	0	0	0	3	17.6 %
	Non-active	0	0	10	0	2	2	0	14	82.4 %
Pancreas	**Total**	**0**	**0**	**13**	**0**	**2**	**2**	**0**	**17**	**100.0 %**

TRANSPLANTATION

Table 4.8(i) Number of transplanted organs**, by organ, by donor type, from* 2008 to 2012

Deceased donor transplants

Transplant year	2008	2009	2010	2011	2012	2011/2012
Kidney	3522	3590	3739	3633	3472	-4.4 %
Heart	581	581	632	591	607	2.7 %
Lung	972	999	1111	1181	1313	11.2 %
Liver	1606	1692	1793	1770	1689	-4.6 %
Pancreas	256	227	273	304	277	-8.9 %
Total	**6937**	**7089**	**7548**	**7479**	**7358**	**-1.6 %**

Living donor transplants

Transplant year	2008	2009	2010	2011	2012	2011/2012
Kidney	1091	1150	1266	1339	1380	3.0%
Liver (partial and domino)	82	99	138	135	121	-10.4%
Heart (domino)	0	0	0	0	1	0.0%
Lung	0	1	0	0	4	0.0%
Total	**1173**	**1250**	**1404**	**1474**	**1506**	**2.1%**

Table 4.8(ii) Number of transplanted organs**, by organ, by donor type, by country, in* 2012

Deceased donor transplants by transplant country

Transplant country	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	%
Kidney	367	484	1842	12	223	0	482	62	0	3472	47.2 %
Heart	62	77	345	10	44	0	37	28	4	607	8.2 %
Lung	245	249	675	0	0	0	144	0	0	1313	17.8 %
Liver	126	250	1017	3	124	0	141	27	1	1689	23.0 %
Pancreas	14	55	163	0	8	0	37	0	0	277	3.8 %
Total	**814**	**1115**	**4042**	**25**	**399**	**0**	**841**	**117**	**5**	**7358**	**100.0 %**

Deceased donor transplants by donor country

Donor country	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	%
Kidney	350	492	1808	21	247	5	472	73	4	3472	47.2 %
Heart	61	78	318	20	53	2	38	24	13	607	8.2 %
Lung	93	231	637	76	38	4	150	16	68	1313	17.8 %
Liver	135	269	918	8	140	4	159	38	18	1689	23.0 %
Pancreas	17	47	142	0	20	2	45	4	0	277	3.8 %
Total	**656**	**1117**	**3823**	**125**	**498**	**17**	**864**	**155**	**103**	**7358**	**100.0 %**

Living donor transplants by country

Transplant country	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	%
Heart	0	0	1	0	0	0	0	0	0	1	0.1 %
Kidney	63	57	766	0	9	0	485	0	0	1380	91.6 %
Liver (partial and domino)	0	32	80	0	4	0	5	0	0	121	8.0 %
Lung	0	0	4	0	0	0	0	0	0	4	0.3 %
Total	**63**	**89**	**851**	**0**	**13**	**0**	**490**	**0**	**0**	**1506**	**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 2008 to 2012

Deceased donors	2008	2009	2010	2011	2012	2011/2012
Kidney	3179	3302	3388	3255	3139	-3.6 %
Kidney en bloc	28	29	34	46	40	-13.0 %
Heart	544	553	602	553	569	2.9 %
Single lung	82	79	75	90	67	-25.6 %
Double lung	419	435	496	527	603	14.4 %
Liver	1405	1516	1606	1622	1553	-4.3 %
Split liver	113	121	118	88	90	2.3 %
Pancreas	20	13	24	21	24	14.3 %
Pancreas islets	17	18	14	25	27	8.0 %
Heart + double lung	23	20	16	14	19	35.7 %
Heart + double lung + liver	0	0	1	0	0	0.0 %
Heart + double lung + kidney	1	0	0	0	0	0.0 %
Heart + liver	3	0	1	3	1	-66.7 %
Heart + pancreas + kidney	0	0	1	0	0	0.0 %
Heart + single kidney	10	8	11	21	18	-14.3 %
Double lung + liver	1	3	3	2	1	-50.0 %
Single lung + kidney	0	0	0	1	0	-100.0 %
Double lung + kidney	1	2	2	2	0	-100.0 %
Liver + pancreas	5	4	6	6	4	-33.3 %
Liver + pancreas + kidney	0	2	1	2	1	-50.0 %
Liver + kidney	73	45	52	43	35	-18.6 %
Liver + kidney en bloc	2	0	0	1	0	-100.0 %
Split liver + kidney	4	1	5	3	4	33.3 %
Pancreas + kidney	194	172	211	210	195	-7.1 %
Pancreas + kidney en bloc	0	0	0	1	0	-100.0 %
Total (deceased donor) transplants	**6124**	**6323**	**6667**	**6536**	**6390**	**-2.2 %**

Living donors	2008	2009	2010	2011	2012	2011/2012
Heart (domino)	0	0	0	0	1	0.0 %
Kidney	1090	1150	1266	1339	1379	2.9 %
Kidney + liver	1	0	0	0	1	0.0 %
Liver (partial and domino)	81	99	138	135	120	-11.1 %
Lung	0	1	0	0	2	0.0 %
Total (living donor) transplants	**1172**	**1250**	**1404**	**1474**	**1503**	**1.9 %**

All donors	2008	2009	2010	2011	2012	2011/2012
Total transplants	**7296**	**7573**	**8071**	**8010**	**7893**	**-0.8 %**

Table 4.9(ii) Transplants in 2012, by transplant country

Deceased donor transplants	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	% of deceased donor transplants
Kidney	338	438	1636	11	210	0	444	62	0	3139	49.1 %
Kidney en bloc	7	4	22	0	1	0	6	0	0	40	0.6 %
Heart	57	66	324	9	44	0	37	28	4	569	8.9 %
Single lung	3	9	39	0	0	0	16	0	0	67	1.0 %
Double lung	118	118	303	0	0	0	64	0	0	603	9.4 %
Liver	122	227	920	1	120	0	135	27	1	1553	24.3 %
Split liver	3	0	79	2	1	0	5	0	0	90	1.4 %
Pancreas	2	1	18	0	0	0	3	0	0	24	0.4 %
Pancreas islets	0	19	2	0	0	0	6	0	0	27	0.4 %
Heart + double lung	3	2	14	0	0	0	0	0	0	19	0.3 %
Heart + double lung + liver	0	0	0	0	0	0	0	0	0	0	0.0 %
Heart + double lung + kidney	0	0	0	0	0	0	0	0	0	0	0.0 %
Heart + liver	0	1	0	0	0	0	0	0	0	1	0.0 %
Heart + pancreas + kidney	0	0	0	0	0	0	0	0	0	0	0.0 %
Heart + single kidney	2	8	7	1	0	0	0	0	0	18	0.3 %
Double lung + liver	0	0	1	0	0	0	0	0	0	1	0.0 %
Single lung + kidney	0	0	0	0	0	0	0	0	0	0	0.0 %
Double lung + kidney	0	0	0	0	0	0	0	0	0	0	0.0 %
Liver + pancreas	0	2	2	0	0	0	0	0	0	4	0.1 %
Liver + pancreas + kidney	0	0	1	0	0	0	0	0	0	1	0.0 %
Liver + kidney	1	20	11	0	2	0	1	0	0	35	0.5 %
Liver + kidney en bloc	0	0	0	0	0	0	0	0	0	0	0.0 %
Split liver + kidney	0	0	3	0	1	0	0	0	0	4	0.1 %
Pancreas + kidney	12	10	140	0	8	0	25	0	0	195	3.1 %
Pancreas + kidney en bloc	0	0	0	0	0	0	0	0	0	0	0.0 %
Total (deceased donor) transplants	**668**	**925**	**3522**	**24**	**387**	**0**	**742**	**117**	**5**	**6390**	**100.0 %**

Living donor transplants	A	B	D	H	HR	L	NL	SLO	Non-ET	Total	% of living donor transplants
Heart (domino)	0	0	1	0	0	0	0	0	0	1	0.1 %
Kidney	63	57	765	0	9	0	485	0	0	1379	91.7 %
Kidney + Liver	0	0	1	0	0	0	0	0	0	1	0.1 %
Liver (partial and domino)	0	32	79	0	4	0	5	0	0	120	8.0 %
Lung	0	0	2	0	0	0	0	0	0	2	0.1 %
Total (living donors) transplants	**63**	**89**	**848**	**0**	**13**	**0**	**490**	**0**	**0**	**1503**	**100.0 %**

All donors	A	B	D	H	HR	L	NL	SLO	Non-ET	Total
Total transplants	**731**	**1014**	**4370**	**24**	**400**	**0**	**1231**	**117**	**5**	**7892**

Figure 4.5 Median age of transplant recipients (deceased donor transplants)

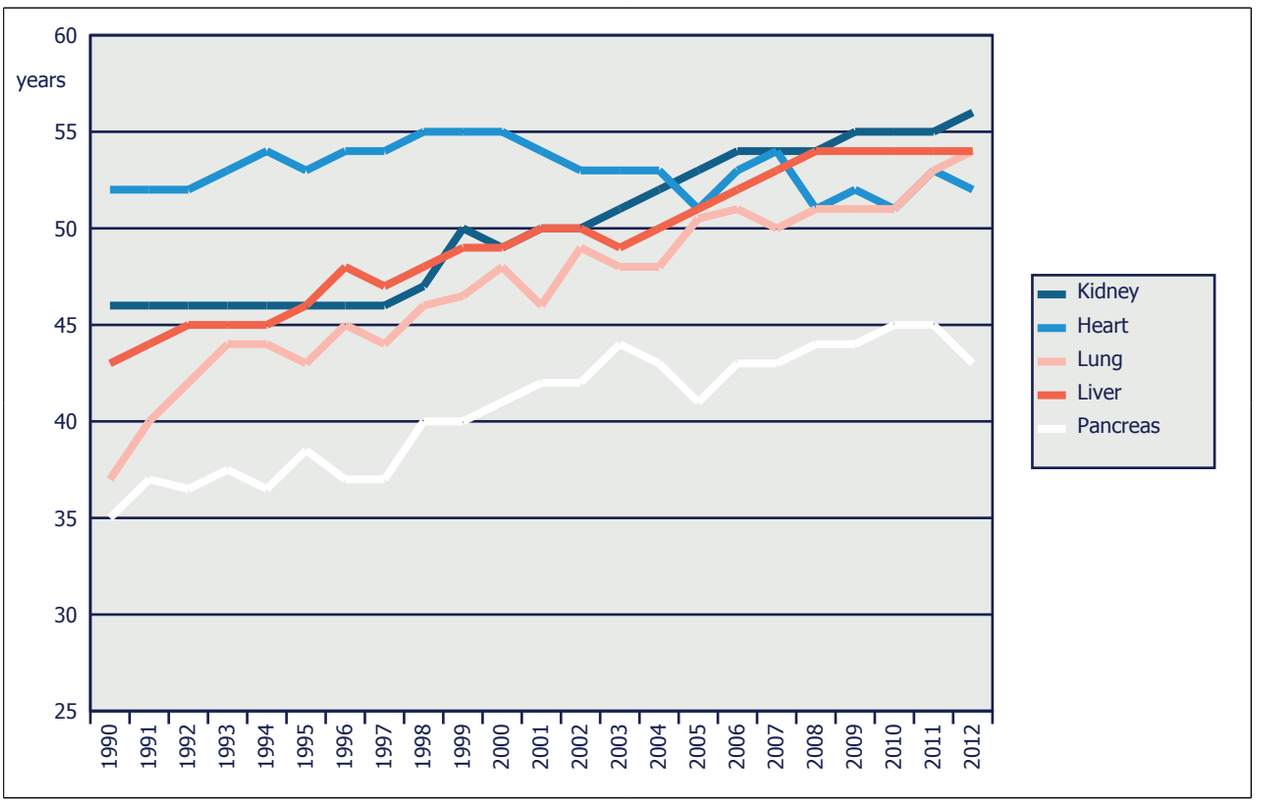
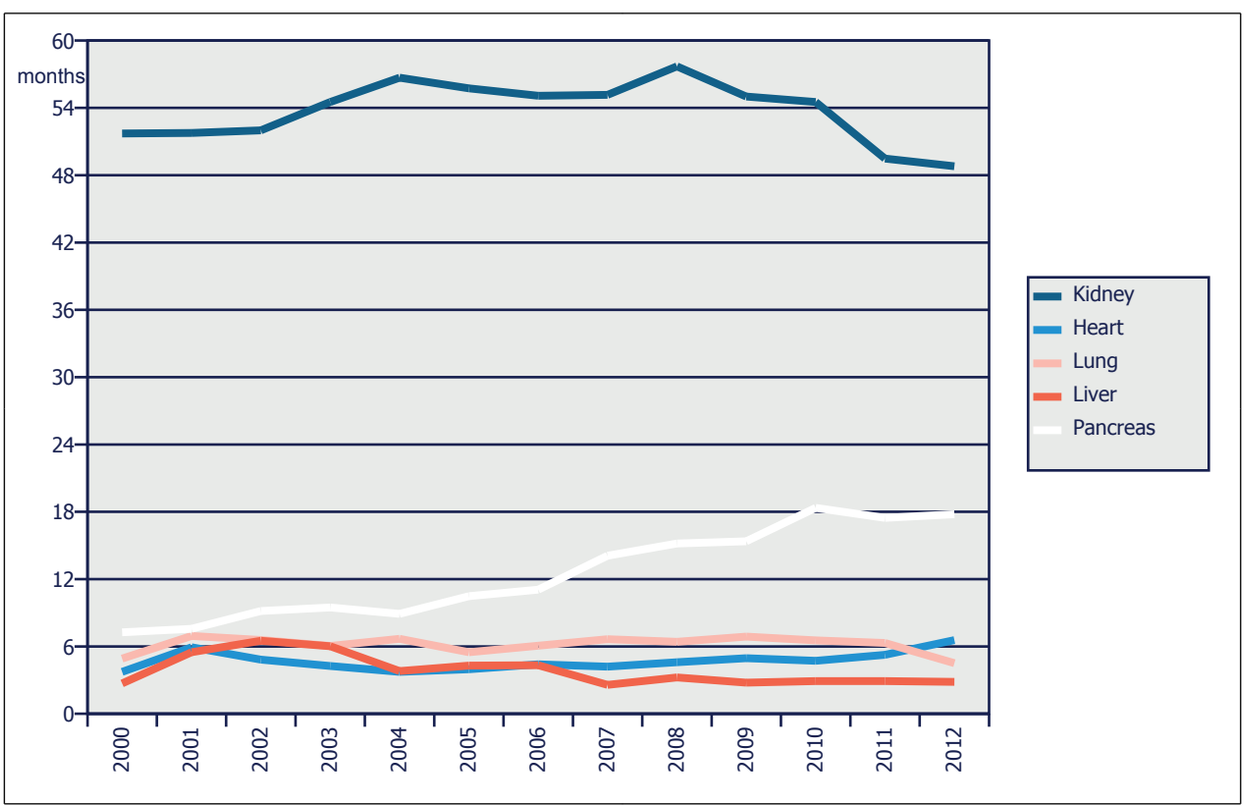


Figure 4.6 Median waiting time to transplant (deceased donor transplants)



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

5.
Kidney: donation, waiting lists and transplants

DONATION

Table 5.1(i) Deceased donors / kidneys in Eurotransplant, from 2008 to 2012

Donors	2008	2009	2010	2011	2012	2011/2012
All donors reported	2233	2305	2415	2481	2421	-2.4 %
Non-kidney donors	217	243	264	311	347	11.6 %
Kidney donors reported	2016	2062	2151	2170	2074	-4.4 %
Kidney donors not used	183	203	201	279	261	-6.5 %
One kidney used	138	131	162	149	154	3.4 %
Two kidneys used	1695	1728	1788	1742	1659	-4.8 %
Total kidney donors used	1833	1859	1950	1891	1813	-4.1 %

Kidneys	2008	2009	2010	2011	2012	2011/2012
Reported	3999	4103	4262	4320	4105	-5.0 %
Offered	3912	4026	4183	4189	3980	-5.0 %
Accepted	3711	3800	3926	3879	3694	-4.8 %
Transplanted	3528	3587	3738	3633	3472	-4.8 %

Table 5.1(ii) Deceased donors / kidneys in Eurotransplant in 2012

Donors	A	B	D	H	HR	L	NL	SLO	Total ET	Non-ET	Total	% all donors
All donors reported	209	348	1075	82	157	4	312	50	2237	184	2421	100.0 %
Non-kidney donors	6	46	48	67	2	0	11	4	184	163	347	14.3 %
Kidney donors reported	203	302	1027	15	155	4	301	46	2053	21	2074	85.7 %
Kidney donors not used	22	43	88	2	24	1	56	7	243	18	261	10.8 %
One kidney used	14	28	68	5	13	1	18	5	152	2	154	6.4 %
Two kidneys used	167	231	871	8	118	2	227	34	1658	1	1659	68.5 %
Total kidney donors used	181	259	939	13	131	3	245	39	1810	3	1813	74.9 %

Kidneys	A	B	D	H	HR	L	NL	SLO	Total ET	Non-ET	Total	% reported
Reported	403	597	2041	23	307	8	601	92	4072	33	4105	100.0 %
Offered	397	589	2024	23	304	8	514	92	3951	29	3980	97.0 %
Accepted	383	526	1910	22	271	8	486	82	3688	6	3694	90.0 %
Transplanted	348	490	1810	21	249	5	472	73	3468	4	3472	84.6 %

Note: only counting donors from Hungary where organs were allocated by Eurotransplant

WAITING LIST

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

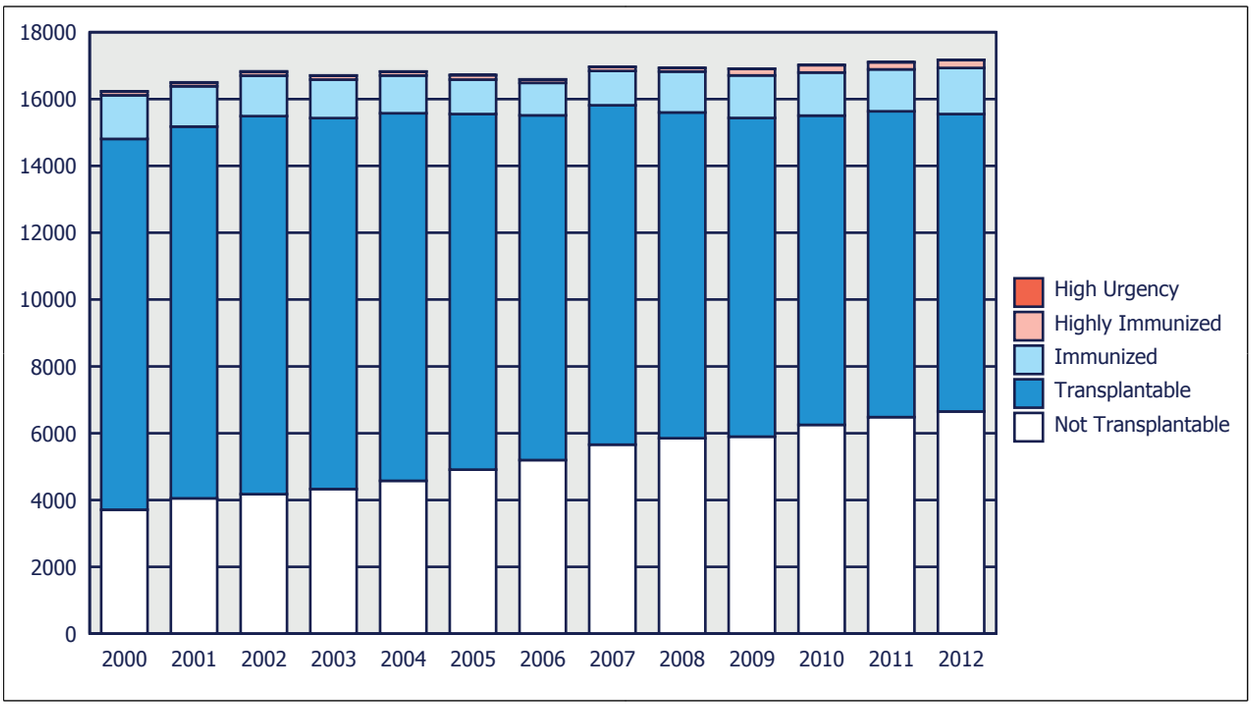


Figure 5.2 Kidney waiting list, percentage of patients at year end, by urgency

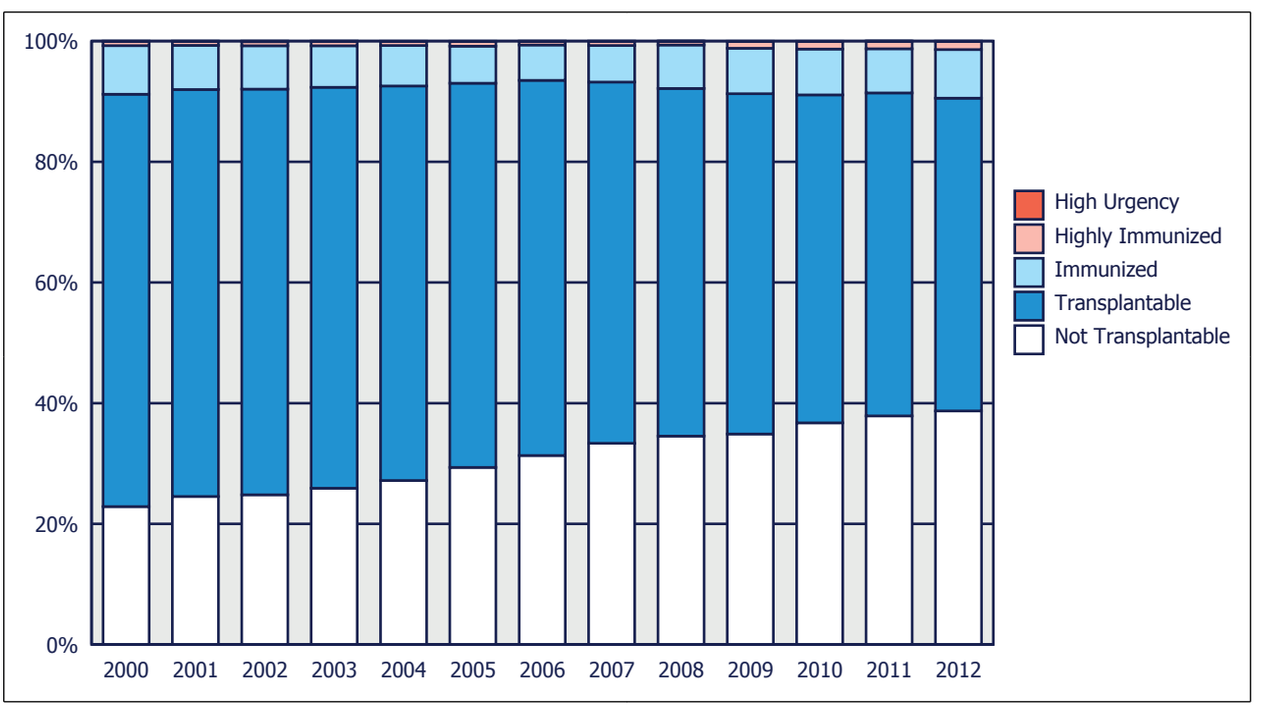


Table 5.2(i) Active kidney transplant waiting list, as per December 31, from 2008 to 2012 - characteristics

Type of transplant	2007	2008	2009	2010	2011	2012	2011/2012
Kidney	10910	10687	10533	10307	10231	10151	-0.8 %
Kidney + heart	24	16	27	31	26	25	-3.8 %
Kidney + heart + lung	0	0	1	0	0	0	--
Kidney + heart + liver	0	0	0	1	0	0	--
Kidney + lung	3	5	2	2	2	1	-50.0 %
Kidney + liver	67	72	97	90	72	67	-6.9 %
Kidney + liver + pancreas	0	2	1	2	1	1	0.0 %
Kidney + pancreas	304	300	349	335	290	280	-3.4 %
Total	**11308**	**11082**	**11010**	**10768**	**10622**	**10525**	**-0.9 %**

Table 5.2(ii) Active kidney transplant waiting list, as per December 31 , 2012 - characteristics

Type of transplant	A	B	D	H	HR	NL	SLO	Total	%
Kidney	722	748	7645	17	125	829	65	10151	96.4 %
Kidney + heart	4	4	17	0	0	0	0	25	0.2 %
Kidney + lung	0	0	1	0	0	0	0	1	0.0 %
Kidney + liver	1	13	45	1	1	6	0	67	0.6 %
Kidney + liver + pancreas	0	0	1	0	0	0	0	1	0.0 %
Kidney + pancreas	18	26	210	0	4	20	2	280	2.7 %
Total	**745**	**791**	**7919**	**18**	**130**	**855**	**67**	**10525**	**100.0 %**

Table 5.3(i) Active kidney-only transplant waiting list, as per December 31, from 2008 to 2012 - characteristics

Blood group	2008	2009	2010	2011	2012	2011/2012
A	3769	3705	3555	3471	3487	0.5 %
AB	176	190	180	227	236	4.0 %
B	1265	1258	1251	1258	1357	7.9 %
0	5477	5380	5321	5275	5071	-3.9 %
Total	**10687**	**10533**	**10307**	**10231**	**10151**	**-0.8 %**

% PRA current	2008	2009	2010	2011	2012	2011/2012
0-5 %	9347	9063	8806	8734	8500	-2.7 %
6-84 %	1182	1243	1255	1216	1346	10.7 %
85-100 %	100	188	212	208	232	11.5 %
Not reported	58	39	34	73	73	0.0 %
Total	**10687**	**10533**	**10307**	**10231**	**10151**	**-0.8 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	8943	8751	8478	8386	8233	-1.8 %
Repeat	1744	1782	1829	1845	1918	4.0 %
Total	**10687**	**10533**	**10307**	**10231**	**10151**	**-0.8 %**

Table 5.3 (i) (continued)

Waiting time (years) based on date start of dialysis	2008	2009	2010	2011	2012	2011/2012
Pre-emptive	326	329	373	399	423	6.0 %
0-1	2363	2319	2242	2181	2059	-5.6 %
2-4	5054	4799	4740	4587	4386	-4.4 %
5+	2944	3086	2952	3064	3283	7.1 %
Total	**10687**	**10533**	**10307**	**10231**	**10151**	**-0.8 %**

Waiting time (years) based on date put on WL	2008	2009	2010	2011	2012	2011/2012
0-1	5069	4861	4798	4819	4568	-5.2 %
2-4	3950	3917	3814	3684	3737	1.4 %
5+	1668	1755	1695	1728	1846	6.8 %
Total	**10687**	**10533**	**10307**	**10231**	**10151**	**-0.8 %**

Age	2008	2009	2010	2011	2012	2011/2012
0-15	104	114	99	79	90	13.9 %
16-55	6737	6614	6412	6232	6095	-2.2 %
56-64	2780	2762	2773	2843	2854	0.4 %
65+	1066	1043	1023	1077	1112	3.2 %
Total	**10687**	**10533**	**10307**	**10231**	**10151**	**-0.8 %**

Table 5.3 (ii) Active kidney-only transplant waiting list, as per December 31, 2012 - characteristics

Blood group	A	B	D	H	HR	NL	SLO	Total	%
A	241	201	2770	6	32	213	24	3487	34.4 %
AB	16	14	174	2	13	17		236	2.3 %
B	121	80	971	3	25	142	15	1357	13.4 %
0	344	453	3730	6	55	457	26	5071	50.0 %
Total	**722**	**748**	**7645**	**17**	**125**	**829**	**65**	**10151**	**100.0 %**

% PRA current	A	B	D	H	HR	NL	SLO	Total	%
0-5 %	597	550	6539	3	66	693	52	8500	83.7 %
6-84 %	89	109	980	9	30	118	11	1346	13.3 %
85-100 %	13	89	102	5	4	17	2	232	2.3 %
Not reported	23	0	24	0	25	1	0	73	0.7 %
Total	**722**	**748**	**7645**	**17**	**125**	**829**	**65**	**10151**	**100.0 %**

Sequence	A	B	D	H	HR	NL	SLO	Total	%
First	507	591	6292	17	117	648	61	8233	81.1 %
Repeat	215	157	1353	0	8	181	4	1918	18.9 %
Total	**722**	**748**	**7645**	**17**	**125**	**829**	**65**	**10151**	**100.0 %**

Table 5.3(ii) (continued)

Waiting time (years) based on date start of dialysis	A	B	D	H	HR	NL	SLO	Total	%
Pre-emptive	32	108	189	1	0	90	3	423	4.2 %
0-1	248	271	1205	1	67	252	15	2059	20.3 %
2-4	367	302	3242	6	37	397	35	4386	43.2 %
5+	75	67	3009	9	21	90	12	3283	32.3 %
Total	**722**	**748**	**7645**	**17**	**125**	**829**	**65**	**10151**	**100.0 %**

Waiting time (years) based on date put on WL	A	B	D	H	HR	NL	SLO	Total	%
0-1	440	448	3099	17	92	426	46	4568	45.0 %
2-4	231	249	2895	0	23	323	16	3737	36.8 %
5+	51	51	1651	0	10	80	3	1846	18.2 %
Total	**722**	**748**	**7645**	**17**	**125**	**829**	**65**	**10151**	**100.0 %**

Age	A	B	D	H	HR	NL	SLO	Total	%
0-15	6	8	63	3	3	7	0	90	0.9 %
16-55	447	444	4666	10	84	404	40	6095	60.0 %
56-64	193	196	2174	3	31	238	19	2854	28.1 %
65+	76	100	742	1	7	180	6	1112	11.0 %
Total	**722**	**748**	**7645**	**17**	**125**	**829**	**65**	**10151**	**100.0 %**

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

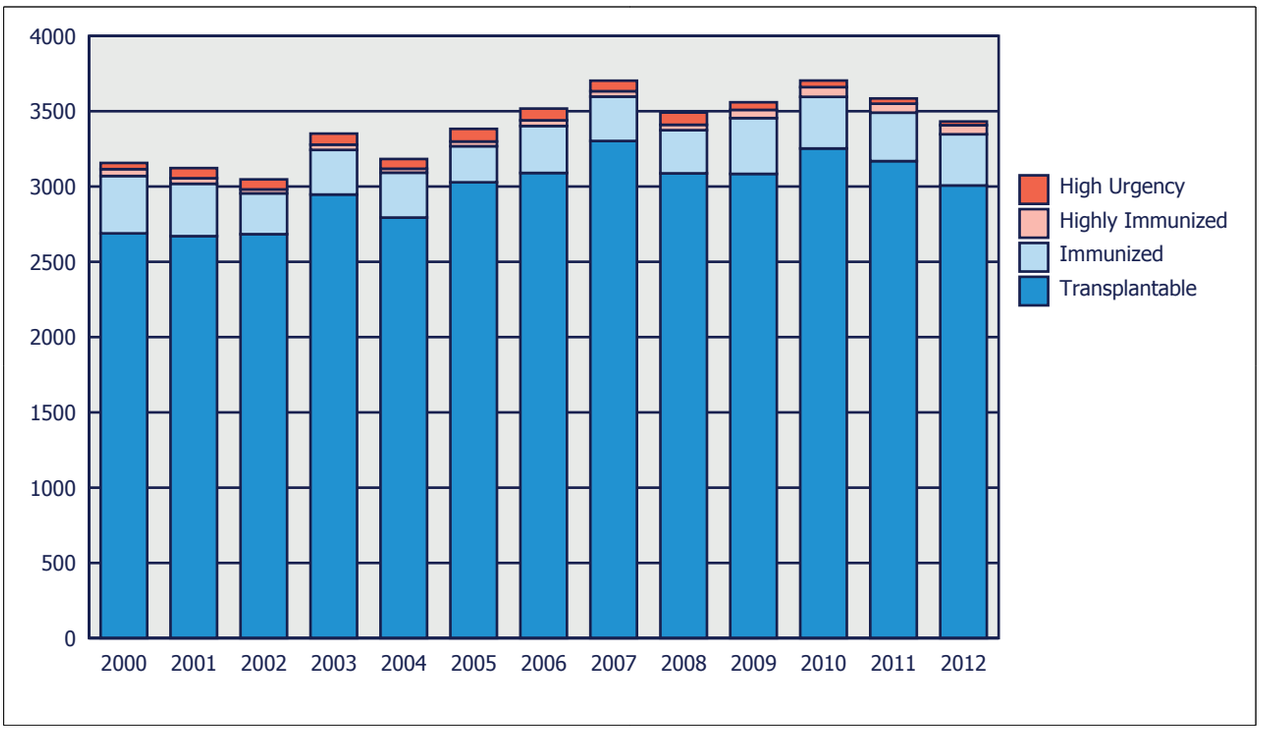


Figure 5.4 Percentage of deceased donor kidney transplants, by recipient urgency at transplant

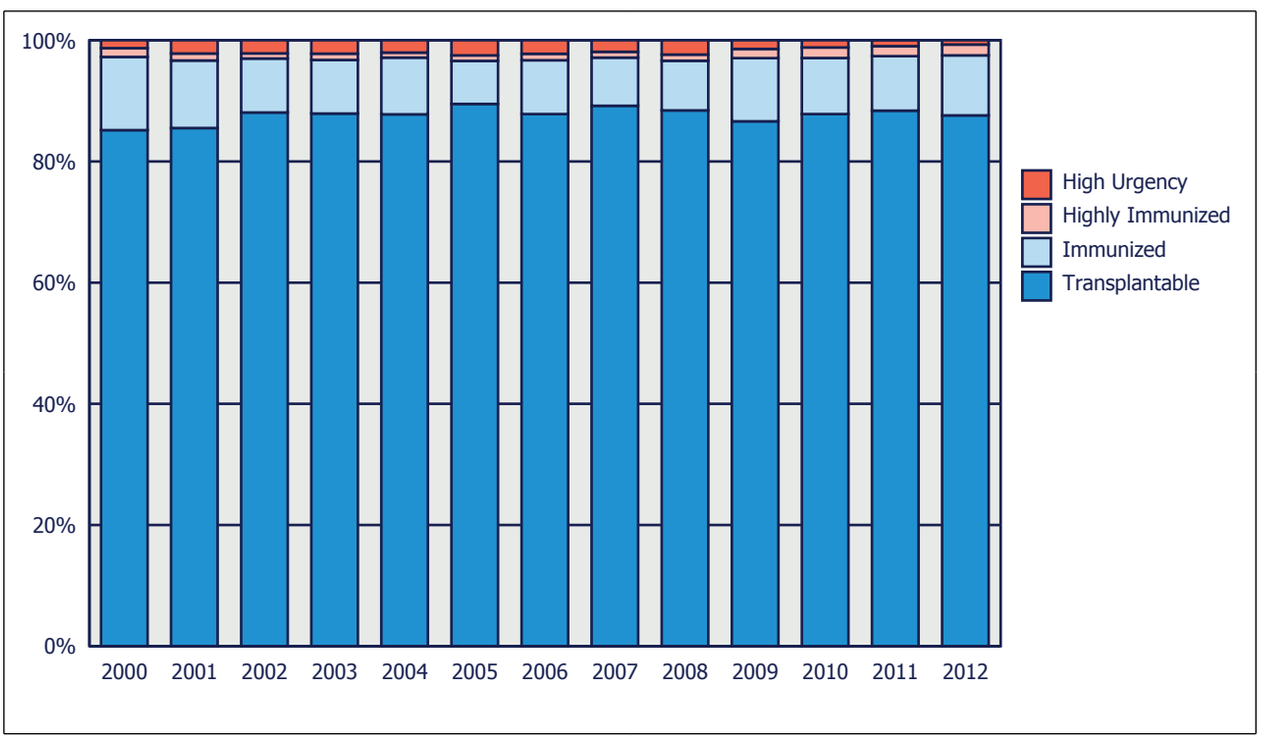


Table 5.4a(i) Kidney transplant characteristics (deceased donors) from 2008 to 2012

Type of transplant	2008	2009	2010	2011	2012	2011/2012
Kidney-only	3179	3302	3388	3255	3139	-3.6%
Kidney en bloc	28	29	34	46	40	-13.0%
Kidney + heart	10	8	11	21	18	-14.3%
Kidney + heart + double lungs	1	0	0	0	0	0.0%
Kidney + heart + pancreas	0	0	1	0	0	0.0%
Kidney + single lung	0	0	0	1	0	-100.0%
Kidney + double lungs	1	2	2	2	0	-100.0%
Kidney + split liver	4	1	5	3	4	33.3%
Kidney + whole liver	73	45	52	43	35	-18.6%
Kidney + whole liver + pancreas	0	2	1	2	1	-50.0%
Kidney en bloc + whole liver	2	0	0	1	0	-100.0%
Kidney + pancreas	194	172	211	210	195	-7.1%
Kidney en bloc + pancreas	0	0	0	1	0	-100.0%
Total	**3492**	**3561**	**3705**	**3585**	**3432**	**-4.3%**

Table 5.4a(ii) Kidney transplants characteristics - 2012

Type of transplant	A	B	D	H	HR	NL	SLO	Total	%
Kidney-only	338	438	1636	11	210	444	62	3139	91.5 %
Kidney en bloc	7	4	22	0	1	6	0	40	1.2 %
Kidney + heart	2	8	7	1	0	0	0	18	0.5 %
Kidney + split liver	0	0	3	0	1	0	0	4	0.1 %
Kidney + whole liver	1	20	11	0	2	1	0	35	1.0 %
Kidney + whole liver + pancreas	0	0	1	0	0	0	0	1	0.0 %
Kidney + pancreas	12	10	140	0	8	25	0	195	5.7 %
Total	**360**	**480**	**1820**	**12**	**222**	**476**	**62**	**3432**	**100.0 %**

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

HLA - A, B, DR mismatches	2008	2009	2010	2011	2012	2011/2012
0	451	440	431	360	340	-5.6 %
1	251	229	232	244	219	-10.2 %
2	750	731	835	746	693	-7.1 %
3	888	1011	970	1038	1040	0.2 %
4	485	498	575	564	554	-1.8 %
5	261	306	259	272	253	-7.0 %
6	99	100	108	75	77	2.7 %
not calculated	22	16	12	2	3	50.0 %
Total	**3207**	**3331**	**3422**	**3301**	**3179**	**-3.7 %**

Blood group	2008	2009	2010	2011	2012	2011/2012
A	1404	1445	1517	1498	1349	-9.9 %
AB	185	204	213	176	170	-3.4 %
B	431	424	441	390	351	-10.0 %
0	1187	1258	1251	1237	1309	5.8 %
Total	**3207**	**3331**	**3422**	**3301**	**3179**	**-3.7 %**

Table 5.4b(i) (continued)

PRA	2008	2009	2010	2011	2012	2011/2012
0-5%	2883	2909	3013	2929	2784	-5.0 %
6-84%	286	366	341	315	332	5.4 %
85-100%	35	55	64	54	61	13.0 %
Not reported	3	1	4	3	2	-33.3 %
Total	**3207**	**3331**	**3422**	**3301**	**3179**	**-3.7 %**

Waiting time (months) based on date start of dialysis	2008	2009	2010	2011	2012	2011/2012
Pre-emptive	43	38	44	78	74	-5.1 %
0-5	45	46	44	39	48	23.1 %
6-11	108	88	101	107	146	36.4 %
12-23	350	422	401	433	430	-0.7 %
24-59	1149	1282	1358	1351	1310	-3.0 %
60+	1512	1455	1474	1293	1171	-9.4 %
Total	**3207**	**3331**	**3422**	**3301**	**3179**	**-3.7 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	2731	2841	2956	2851	2743	-3.8 %
Repeat	476	490	466	450	436	-3.1 %
Total	**3207**	**3331**	**3422**	**3301**	**3179**	**-3.7 %**

Recipient age	2008	2009	2010	2011	2012	2011/2012
0-15	102	71	95	105	74	-29.5 %
16-55	1655	1597	1668	1561	1439	-7.8 %
56-64	722	766	753	780	795	1.9 %
65+	728	897	906	855	871	1.9 %
Total	**3207**	**3331**	**3422**	**3301**	**3179**	**-3.7 %**

Allocation program (all donors)	2008	2009	2010	2011	2012	2011/2012
ETKAS	2440	2391	2417	2326	2254	-3.1 %
ESP	543	680	699	674	631	-6.4 %
AM	59	95	122	94	80	-14.9 %
Rescue	165	165	184	207	214	3.4 %
Total	**3207**	**3331**	**3422**	**3301**	**3179**	**-3.7 %**

Allocation program (donors 65+)	2008	2009	2010	2011	2012	2011/2012
ETKAS	74	92	84	62	50	-19.4 %
ESP	541	680	699	674	631	-6.4 %
AM	0	1	2	2	3	50.0 %
Rescue	54	52	53	51	77	51.0 %
Total	**669**	**825**	**838**	**789**	**761**	**-3.5 %**

Table 5.4b(ii) Kidney-only transplants (including kidney en bloc) - 2012 - all allocation programs

HLA - A, B, DR mismatches	A	B	D	H	HR	NL	SLO	Total	%
0	24	38	237	0	6	32	3	340	10.7 %
1	28	36	106	2	10	36	1	219	6.9 %
2	53	115	344	2	50	119	10	693	21.8 %
3	114	177	475	4	85	151	34	1040	32.7 %
4	89	59	285	0	41	67	13	554	17.4 %
5	22	15	162	3	17	33	1	253	8.0 %
6	13	2	48	0	2	12	0	77	2.4 %
Not calculated	2	0	1	0	0	0	0	3	0.1 %
Total	**345**	**442**	**1658**	**11**	**211**	**450**	**62**	**3179**	**100.0 %**

Blood group	A	B	D	H	HR	NL	SLO	Total	%
A	156	203	691	4	95	170	30	1349	42.4 %
AB	28	16	88	2	10	26	0	170	5.3 %
B	38	26	193	2	36	44	12	351	11.0 %
0	123	197	686	3	70	210	20	1309	41.2 %
Total	**345**	**442**	**1658**	**11**	**211**	**450**	**62**	**3179**	**100.0 %**

PRA	A	B	D	H	HR	NL	SLO	Total	%
0-5%	308	356	1460	3	194	406	57	2784	87.6 %
6-84%	32	57	178	4	17	39	5	332	10.4 %
85-100%	3	29	20	4	0	5	0	61	1.9 %
Not reported	2	0	0	0	0	0	0	2	0.1 %
Total	**345**	**442**	**1658**	**11**	**211**	**450**	**62**	**3179**	**100.0 %**

Waiting time (months) based on date start of dialysis	A	B	D	H	HR	NL	SLO	Total	%
Pre-emptive	6	26	21	1	0	17	3	74	2.3 %
0-5	7	13	17	1	4	6	0	48	1.5 %
6-11	20	33	44	0	26	20	3	146	4.6 %
12-23	57	91	152	2	36	78	14	430	13.5 %
24-59	186	214	540	4	99	238	29	1310	41.2 %
60+	69	65	884	3	46	91	13	1171	36.8 %
Total	**345**	**442**	**1658**	**11**	**211**	**450**	**62**	**3179**	**100.0 %**

Sequence	A	B	D	H	HR	NL	SLO	Total	%
First	275	377	1439	10	208	374	60	2743	86.3 %
Repeat	70	65	219	1	3	76	2	436	13.7 %
Total	**345**	**442**	**1658**	**11**	**211**	**450**	**62**	**3179**	**100.0 %**

Recipient age	A	B	D	H	HR	NL	SLO	Total	%
0-15	5	7	46	5	0	10	1	74	2.3 %
16-55	166	230	706	5	114	177	41	1439	45.3 %
56-64	91	123	374	0	71	123	13	795	25.0 %
65+	83	82	532	1	26	140	7	871	27.4 %
Total	**345**	**442**	**1658**	**11**	**211**	**450**	**62**	**3179**	**100.0 %**

Table 5.4b(ii) (continued)

Allocation program (all donors)	A	B	D	H	HR	NL	SLO	Total	%
ETKAS	254	385	1040	7	200	308	60	2254	71.0 %
ESP	62	35	442	0	7	84	1	631	19.8 %
AM	5	8	44	3	0	20	0	80	2.5 %
Rescue	24	14	132	1	4	38	1	214	6.7 %
Total	**345**	**442**	**1658**	**11**	**211**	**450**	**62**	**3179**	**100.0 %**

Allocation program (donors 65+)	A	B	D	H	HR	NL	SLO	Total	%
ETKAS	23	2	12	0	8	4	1	50	6.6 %
ESP	62	35	442	0	7	84	1	631	82.9 %
AM	1	0	1	0	0	1	0	3	0.4 %
Rescue	6	2	56	0	3	10	0	77	10.1 %
Total	**92**	**39**	**511**	**0**	**18**	**99**	**2**	**761**	**100.0 %**

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

HLA - A, B, DR mismatches	2008	2009	2010	2011	2012	2011/2012
0	445	416	411	345	329	-4.6 %
1	219	189	178	202	165	-18.3 %
2	692	656	702	604	574	-5.0 %
3	753	828	770	807	807	0.0 %
4	256	245	306	305	304	-0.3 %
5	65	55	44	58	56	-3.4 %
6	7	1	6	5	17	240.0 %
not calculated	3	1	0	0	2	--
Total	**2440**	**2391**	**2417**	**2326**	**2254**	**-3.1 %**

Blood group	2008	2009	2010	2011	2012	2011/2012
A	1062	1015	1074	1066	988	-7.3 %
AB	146	173	162	122	125	2.5 %
B	315	314	314	293	240	-18.1 %
0	917	889	867	845	901	6.6 %
Total	**2440**	**2391**	**2417**	**2326**	**2254**	**-3.1 %**

PRA	2008	2009	2010	2011	2012	2011/2012
0-5%	2205	2100	2154	2082	1981	-4.9 %
6-84%	219	266	236	217	239	10.1 %
85-100%	16	25	27	27	32	18.5 %
Not reported	0	0	0	0	2	--
Total	**2440**	**2391**	**2417**	**2326**	**2254**	**-3.1 %**

Table 5.4c(i) (continued)

Waiting time (months) based on date start of dialysis	2008	2009	2010	2011	2012	2011/2012
Pre-emptive	35	31	35	61	54	-11.5 %
0-5	39	37	30	30	34	13.3 %
6-11	83	69	71	72	97	34.7 %
12-23	232	277	231	266	268	0.8 %
24-59	783	777	839	832	830	-0.2 %
60+	1268	1200	1211	1065	971	-8.8 %
Total	**2440**	**2391**	**2417**	**2326**	**2254**	**-3.1 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	2047	2035	2097	2013	1918	-4.7 %
Repeat	393	356	320	313	336	7.3 %
Total	**2440**	**2391**	**2417**	**2326**	**2254**	**-3.1 %**

Recipient age	2008	2009	2010	2011	2012	2011/2012
0-15	102	67	91	100	70	-30.0 %
16-55	1548	1460	1516	1408	1317	-6.5 %
56-64	644	699	659	687	699	1.7 %
65+	146	165	151	131	168	28.2 %
Total	**2440**	**2391**	**2417**	**2326**	**2254**	**-3.1 %**

Table 5.4c(ii) Kidney-only transplants (including kidney en bloc) - 2012 - ETKAS allocation program

HLA - A, B, DR mismatches	A	B	D	H	HR	NL	SLO	Total	%
0	24	35	231	0	6	30	3	329	14.6 %
1	22	31	73	0	10	28	1	165	7.3 %
2	46	111	264	1	48	94	10	574	25.5 %
3	91	166	318	4	83	111	34	807	35.8 %
4	57	42	120	0	37	36	12	304	13.5 %
5	9	0	23	2	15	7	0	56	2.5 %
6	3	0	11	0	1	2	0	17	0.8 %
Not calculated	2	0	0	0	0	0	0	2	0.1 %
Total	**254**	**385**	**1040**	**7**	**200**	**308**	**60**	**2254**	**100.0 %**

Blood group	A	B	D	H	HR	NL	SLO	Total	%
A	113	182	454	3	93	113	30	988	43.8 %
AB	23	12	63	1	10	16	0	125	5.5 %
B	30	23	106	1	34	34	12	240	10.6 %
0	88	168	417	2	63	145	18	901	40.0 %
Total	**254**	**385**	**1040**	**7**	**200**	**308**	**60**	**2254**	**100.0 %**

Table 5.4c(ii) (continued)

PRA	A	B	D	H	HR	NL	SLO	Total	%
0-5%	225	312	923	3	183	280	55	1981	87.9 %
6-84%	26	51	109	3	17	28	5	239	10.6 %
85-100%	1	22	8	1	0	0	0	32	1.4 %
Not reported	2	0	0	0	0	0	0	2	0.1 %
Total	**254**	**385**	**1040**	**7**	**200**	**308**	**60**	**2254**	**100.0 %**

Waiting time (months) based on date start of dialysis	A	B	D	H	HR	NL	SLO	Total	%
Pre-emptive	3	20	19	1	0	8	3	54	2.4 %
0-5	5	11	10	1	4	3	0	34	1.5 %
6-11	11	30	20	0	22	11	3	97	4.3 %
12-23	40	77	55	2	34	46	14	268	11.9 %
24-59	133	188	217	2	97	166	27	830	36.8 %
60+	62	59	719	1	43	74	13	971	43.1 %
Total	**254**	**385**	**1040**	**7**	**200**	**308**	**60**	**2254**	**100.0 %**

Sequence	A	B	D	H	HR	NL	SLO	Total	%
First	194	329	887	6	197	247	58	1918	85.1 %
Repeat	60	56	153	1	3	61	2	336	14.9 %
Total	**254**	**385**	**1040**	**7**	**200**	**308**	**60**	**2254**	**100.0 %**

Recipient age	A	B	D	H	HR	NL	SLO	Total	%
0-15	4	7	43	5	0	10	1	70	3.1 %
16-55	152	219	635	2	114	154	41	1317	58.4 %
56-64	81	117	314	0	67	107	13	699	31.0 %
65+	17	42	48	0	19	37	5	168	7.5 %
Total	**254**	**385**	**1040**	**7**	**200**	**308**	**60**	**2254**	**100.0 %**

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

HLA - A, B, DR mismatches	2008	2009	2010	2011	2012	2011/2012
0	0	1	1	2	2	0.0 %
1	3	9	16	13	19	46.2 %
2	25	27	54	82	69	-15.9 %
3	79	124	131	162	152	-6.2 %
4	173	203	211	183	183	0.0 %
5	165	215	190	175	155	-11.4 %
6	82	88	87	57	51	-10.5 %
not calculated	16	13	9	0	0	0.0 %
Total	**543**	**680**	**699**	**674**	**631**	**-6.4 %**

Table 5.4d(i) (continued)

Blood group	2008	2009	2010	2011	2012	2011/2012
A	254	322	312	303	236	-22.1 %
AB	19	17	31	30	25	-16.7 %
B	78	69	82	56	77	37.5 %
0	192	272	274	285	293	2.8 %
Total	**543**	**680**	**699**	**674**	**631**	**-6.4 %**

PRA	2008	2009	2010	2011	2012	2011/2012
0-5%	516	645	669	640	590	-7.8 %
6-84%	24	34	29	34	41	20.6 %
85-100%	3	0	1	0	0	0.0 %
Not reported	0	1	0	0	0	0.0 %
Total	**543**	**680**	**699**	**674**	**631**	**-6.4 %**

Waiting time (months) based on date start of dialysis	2008	2009	2010	2011	2012	2011/2012
Pre-emptive	1	3	3	11	12	9.1 %
0-5	2	2	6	6	12	100.0 %
6-11	17	9	25	18	31	72.2 %
12-23	81	110	122	121	121	0.0 %
24-59	273	370	388	392	344	-12.2 %
60+	169	186	155	126	111	-11.9 %
Total	**543**	**680**	**699**	**674**	**631**	**-6.4 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	509	636	654	625	601	-3.8 %
Repeat	34	44	45	49	30	-38.8 %
Total	**543**	**680**	**699**	**674**	**631**	**-6.4 %**

Table 5.4d(ii) Kidney-only transplants (including kidney en bloc) - 2012 - ESP allocation program

HLA - A, B, DR mismatches	A	B	D	HR	NL	SLO	Total	%
0	0	0	2	0	0	0	2	0.3 %
1	1	2	15	0	1	0	19	3.0 %
2	4	2	52	1	10	0	69	10.9 %
3	11	7	110	1	23	0	152	24.1 %
4	24	13	124	2	20	0	183	29.0 %
5	12	10	108	2	22	1	155	24.6 %
6	10	1	31	1	8	0	51	8.1 %
Total	**62**	**35**	**442**	**7**	**84**	**1**	**631**	**100.0 %**

Table 5.4d(ii) (continued)

Blood group	A	B	D	HR	NL	SLO	Total	%
A	26	9	166	2	33	0	236	37.4 %
AB	3	0	16	0	6	0	25	4.0 %
B	4	0	68	1	4	0	77	12.2 %
0	29	26	192	4	41	1	293	46.4 %
Total	**62**	**35**	**442**	**7**	**84**	**1**	**631**	**100.0 %**

PRA	A	B	D	HR	NL	SLO	Total	%
0-5%	59	31	408	7	84	1	590	93.5 %
6-84%	3	4	34	0	0	0	41	6.5 %
Total	**62**	**35**	**442**	**7**	**84**	**1**	**631**	**100.0 %**

Waiting time (months) based on date start of dialysis	A	B	D	HR	NL	SLO	Total	%
Pre-emptive	2	4	1	0	5	0	12	1.9 %
0-5	1	2	6	0	3	0	12	1.9 %
6-11	6	2	17	3	3	0	31	4.9 %
12-23	14	8	81	0	18	0	121	19.2 %
24-59	36	18	243	2	44	1	344	54.5 %
60+	3	1	94	2	11	0	111	17.6 %
Total	**62**	**35**	**442**	**7**	**84**	**1**	**631**	**100.0 %**

Sequence	A	B	D	HR	NL	SLO	Total	%
First	59	33	417	7	84	1	601	95.2 %
Repeat	3	2	25	0	0	0	30	4.8 %
Total	**62**	**35**	**442**	**7**	**84**	**1**	**631**	**100.0 %**

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

HLA - A, B, DR mismatches	2008	2009	2010	2011	2012	2011/2012
0	5	23	16	11	9	-18.2 %
1	23	26	31	20	23	15.0 %
2	18	26	44	40	22	-45.0 %
3	11	15	26	17	24	41.2 %
4	1	5	5	6	1	-83.3 %
5	1	0	0	0	1	0.0 %
Total	**59**	**95**	**122**	**94**	**80**	**-14.9 %**

Blood group	2008	2009	2010	2011	2012	2011/2012
A	23	43	50	36	33	-8.3 %
AB	0	3	5	9	5	-44.4 %
B	9	13	22	15	12	-20.0 %
0	27	36	45	34	30	-11.8 %
Total	**59**	**95**	**122**	**94**	**80**	**-14.9 %**

Table 5.4e(i) (continued)

PRA	2008	2009	2010	2011	2012	2011/2012
0-5%	7	9	19	14	10	-28.6 %
6-84%	36	56	68	53	43	-18.9 %
85-100%	16	30	35	27	27	0.0 %
Total	**59**	**95**	**122**	**94**	**80**	**-14.9 %**

Waiting time (months) based on date start of dialysis	2008	2009	2010	2011	2012	2011/2012
Pre-emptive	0	1	1	1	1	0.0 %
0-5	0	2	1	0	0	0.0 %
6-11	1	4	1	0	2	0.0 %
12-23	7	11	17	8	11	37.5 %
24-59	27	45	53	46	35	-23.9 %
60+	24	32	49	39	31	-20.5 %
Total	**59**	**95**	**122**	**94**	**80**	**-14.9 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	20	20	32	21	20	-4.8 %
Repeat	39	75	90	73	60	-17.8 %
Total	**59**	**95**	**122**	**94**	**80**	**-14.9 %**

Recipient age	2008	2009	2010	2011	2012	2011/2012
0-15	0	0	1	2	2	0.0 %
16-55	40	71	88	74	63	-14.9 %
56-64	14	15	23	13	9	-30.8 %
65+	5	9	10	5	6	20.0 %
Total	**59**	**95**	**122**	**94**	**80**	**-14.9 %**

Table 5.4e(ii) Kidney-only transplants (including kidney en bloc) - 2012 - AM allocation program

HLA - A, B, DR mismatches	A	B	D	H	NL	Total	%
0	0	3	4	0	2	9	11.3 %
1	2	3	11	2	5	23	28.8 %
2	1	1	11	1	8	22	27.5 %
3	2	1	16	0	5	24	30.0 %
4	0	0	1	0	0	1	1.3 %
5	0	0	1	0	0	1	1.3 %
Total	**5**	**8**	**44**	**3**	**20**	**80**	**100.0 %**

Blood group	A	B	D	H	NL	Total	%
A	3	4	17	1	8	33	41.3 %
AB	0	1	2	1	1	5	6.3 %
B	0	1	7	0	4	12	15.0 %
0	2	2	18	1	7	30	37.5 %
Total	**5**	**8**	**44**	**3**	**20**	**80**	**100.0 %**

Table 5.4e(ii) (continued)

PRA	A	B	D	H	NL	Total	%
0-5%	0	1	4	0	5	10	12.5 %
6-84%	3	0	29	1	10	43	53.8 %
85-100%	2	7	11	2	5	27	33.8 %
Total	**5**	**8**	**44**	**3**	**20**	**80**	**100.0 %**

Waiting time (months) based on date start of dialysis	A	B	D	H	NL	Total	%
Pre-emptive	1	0	0	0	0	1	1.3 %
6-11	0	0	1	0	1	2	2.5 %
12-23	1	2	3	0	5	11	13.8 %
24-59	2	1	21	2	9	35	43.8 %
60+	1	5	19	1	5	31	38.8 %
Total	**5**	**8**	**44**	**3**	**20**	**80**	**100.0 %**

Sequence	A	B	D	H	NL	Total	%
First	0	1	11	3	5	20	25.0 %
Repeat	5	7	33	0	15	60	75.0 %
Total	**5**	**8**	**44**	**3**	**20**	**80**	**100.0 %**

Recipient age	A	B	D	H	NL	Total	%
0-15	1	0	1	0	0	2	2.5 %
16-55	4	8	36	2	13	63	78.8 %
56-64	0	0	7	0	2	9	11.3 %
65+	0	0	0	1	5	6	7.5 %
Total	**5**	**8**	**44**	**3**	**20**	**80**	**100.0 %**

Table 5.5(i) Living donor kidney transplants

Kidney-only	2008	2009	2010	2011	2012	2011/2012
Related	609	613	690	687	727	5.7 %
Non-related	482	537	576	652	653	0.2 %
Total	**1091**	**1150**	**1266**	**1339**	**1380**	**3.0 %**

Related	2008	2009	2010	2011	2012	2011/2012
Brother / sister	195	194	221	216	257	19.0 %
Father	136	110	144	153	146	-5.2 %
Mother	209	225	232	231	216	-6.5 %
Son / daughter	39	32	43	40	59	47.5 %
Grandfather / -mother	6	9	4	7	5	-28.6 %
Uncle / aunt	14	17	23	18	21	16.7 %
Nephew / niece	4	15	11	14	14	0.0 %
Cousin	2	9	12	8	7	-12.5 %
Blood related: NOS*	4	2	0	0	2	0.0 %
Total	**609**	**613**	**690**	**687**	**727**	**5.7 %**

Table 5.4(i) (continued)

Non-related	2008	2009	2010	2011	2012	2011/2012
Spouse / partner	334	383	420	465	481	3.4 %
Not blood related family	33	44	27	50	60	20.0 %
Friend	41	42	48	57	45	-21.1 %
Not blood related: NOS*	74	68	81	80	67	-16.3 %
Total	**482**	**537**	**576**	**652**	**653**	**0.2 %**

* NOS - Not otherwise specified

Table 5.5(ii) Living donor kidney transplants - 2012

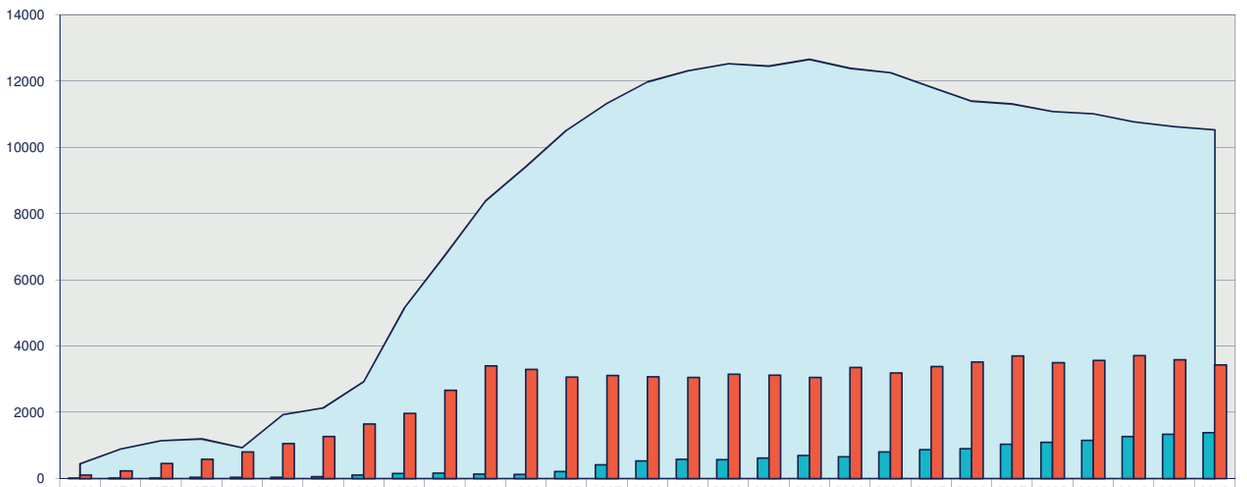
Kidney-only	A	B	D	HR	NL	Total	%
Related	39	29	409	9	241	727	52.6 %
Non-related	24	28	357	0	244	653	47.4 %
Total	**63**	**57**	**766**	**9**	**485**	**1380**	**100.0 %**

Related	A	B	D	HR	NL	Total	%
Brother / sister	12	9	129	0	107	257	35.4 %
Father	12	5	93	0	36	146	20.0 %
Mother	14	10	144	8	40	216	29.8 %
Son / daughter	0	4	14	0	41	59	8.1 %
Grandfather / - mother	0	0	4	0	1	5	0.7 %
Uncle / aunt	1	1	13	0	6	21	2.9 %
Nephew / niece	0	0	7	0	7	14	1.9 %
Cousin	0	0	5	1	1	7	1.0 %
Blood related: NOS *	0	0	0	0	2	2	0.3 %
Total	**39**	**29**	**409**	**9**	**241**	**727**	**100.0 %**

Non-related	A	B	D	HR	NL	Total	%
Spouse / partner	19	27	308	0	127	481	73.7 %
Not blood related family	5	1	25	0	29	60	9.2 %
Friend	0	0	19	0	26	45	6.9 %
Not blood related: NOS*	0	0	5	0	62	67	10.3 %
Total	**24**	**28**	**357**	**0**	**244**	**653**	**100.0 %**

* NOS - Not otherwise specified

Figure 5.5 Dynamics of the Eurotransplant kidney transplant waiting list and transplants between 1969 and 2012



	1969	1971	1973	1975	1977	1979	1981	1983	1985	1987	1991	1993	1995	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Kidney waiting list	450	892	1147	1200	934	1929	2135	2928	5150	6740	8376	9418	10510	11324	11975	12313	12524	12450	12653	12382	12251	11814	11393	11308	11082	11010	10768	10622	10525
Living donor transplants	9	5	11	33	33	33	53	108	150	161	129	127	212	411	526	579	569	617	697	655	803	867	901	1032	1091	1150	1266	1339	1380
Deceased donor transplants	102	228	454	583	800	1050	1263	1645	1965	2665	3395	3293	3064	3110	3068	3050	3145	3121	3047	3352	3183	3383	3518	3703	3492	3561	3705	3585	3432

6.

Thoracic organs: donation, waiting lists and transplants

DONATION

Table 6.1(i) Deceased donors / hearts in Eurotransplant from 2008 to 2012

Donors	2008	2009	2010	2011	2012	2011/2012
All donors reported	2233	2305	2415	2481	2421	-2.4 %
Non-heart donors	1260	1420	1469	1564	1515	-3.1 %
Heart donors reported	973	885	946	917	906	-1.2 %
Heart donors not used	390	305	315	325	299	-7.0 %
Total heart donors used	583	580	631	592	607	2.5 %
Hearts	**2008**	**2009**	**2010**	**2011**	**2012**	**2011/2012**
Reported	973	885	946	917	906	-1.2 %
Offered	894	871	938	911	901	-1.0 %
Accepted	704	691	750	715	708	-0.8 %
Transplanted	583	580	631	592	607	2.5 %

Table 6.1(ii) Deceased donors / hearts in Eurotransplant in 2012

Donors	A	B	D	H	HR	L	NL	SLO	Total ET	Non-ET	Total	% all donors
All donors reported	209	348	1075	82	157	4	312	50	2237	184	2421	100.0 %
Non-heart donors	133	244	636	50	94	2	252	18	1429	86	1515	62.6 %
Heart donors reported	76	104	439	32	63	2	60	32	808	98	906	37.4 %
Heart donors not used	15	27	120	12	10	0	22	8	214	85	299	12.4 %
Total heart donors used	61	77	319	20	53	2	38	24	594	13	607	25.1 %
Hearts	**A**	**B**	**D**	**H**	**HR**	**L**	**NL**	**SLO**	**Total ET**	**Non-ET**	**Total**	**% of reported**
Reported	76	104	439	32	63	2	60	32	808	98	906	100.0 %
Offered	76	103	439	32	63	2	59	32	806	95	901	99.4 %
Accepted	67	88	377	23	60	2	47	26	690	18	708	78.1 %
Transplanted	61	77	319	20	53	2	38	24	594	13	607	67.0 %

Note: only counting donors from Hungary where organs were allocated by Eurotransplant

Table 6.2(i) Deceased donors / lungs in Eurotransplant from 2008 to 2012

Donors	2008	2009	2010	2011	2012	2011/2012
All donors reported	2233	2305	2415	2481	2421	-2.4 %
Non-lung donors	1383	1426	1468	1449	1308	-9.7 %
Lung donors reported	850	879	947	1032	1113	7.8 %
Lung donors not used	342	366	375	425	443	4.2 %
One lung used	44	29	33	31	29	-6.5 %
Two lungs used	464	484	539	576	641	11.3 %
Total lung donors used	508	513	572	607	670	10.4 %

Lungs	2008	2009	2010	2011	2012	2011/2012
Reported	1677	1734	1873	2046	2216	8.3 %
Offered	1646	1716	1847	2022	2206	9.1 %
Accepted	1283	1342	1464	1610	1709	6.1 %
Transplanted	972	997	1111	1183	1311	10.8 %

Table 6.2(ii) Deceased donors / lungs in Eurotransplant in 2012

Donors	A	B	D	H	HR	L	NL	SLO	Total ET	Non-ET	Total	% all donors
All donors reported	209	348	1075	82	157	4	312	50	2237	184	2421	100.0 %
Non-lung donors	137	173	592	29	124	1	142	33	1231	77	1308	54.0 %
Lung donors reported	72	175	483	53	33	3	170	17	1006	107	1113	46.0 %
Lung donors not used	25	57	158	15	14	1	91	9	370	73	443	18.3 %
One lung used	3	5	13	0	0	0	8	0	29	0	29	1.2 %
Two lungs used	44	113	312	38	19	2	71	8	607	34	641	26.5 %
Total lung donors used	47	118	325	38	19	2	79	8	636	34	670	27.7 %

Lungs	A	B	D	H	HR	L	NL	SLO	Total ET	Non-ET	Total	% reported
Reported	144	348	962	106	66	6	337	34	2003	213	2216	100.0 %
Offered	144	344	960	106	64	6	337	34	1995	211	2206	99.5 %
Accepted	124	292	771	100	58	4	234	24	1607	102	1709	77.1 %
Transplanted	91	231	637	76	38	4	150	16	1243	68	1311	59.2 %

WAITING LIST

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

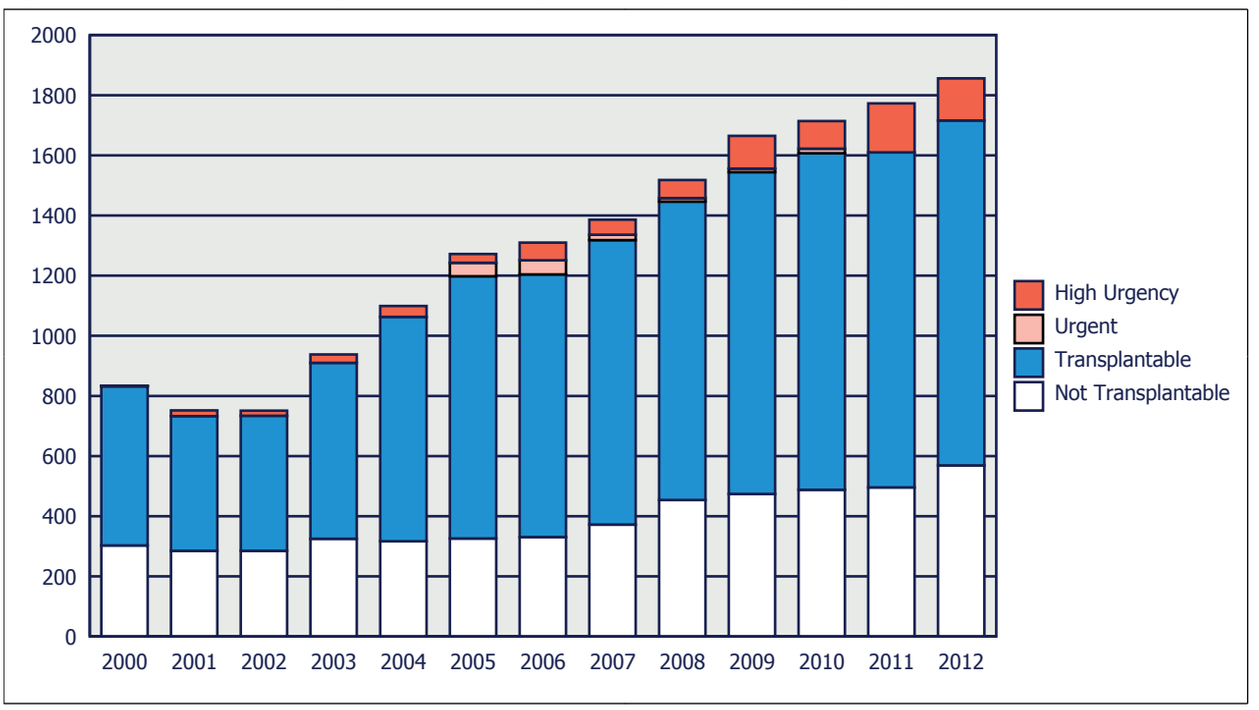


Figure 6.2 Heart waiting list, percentage of patients at year end, by urgency

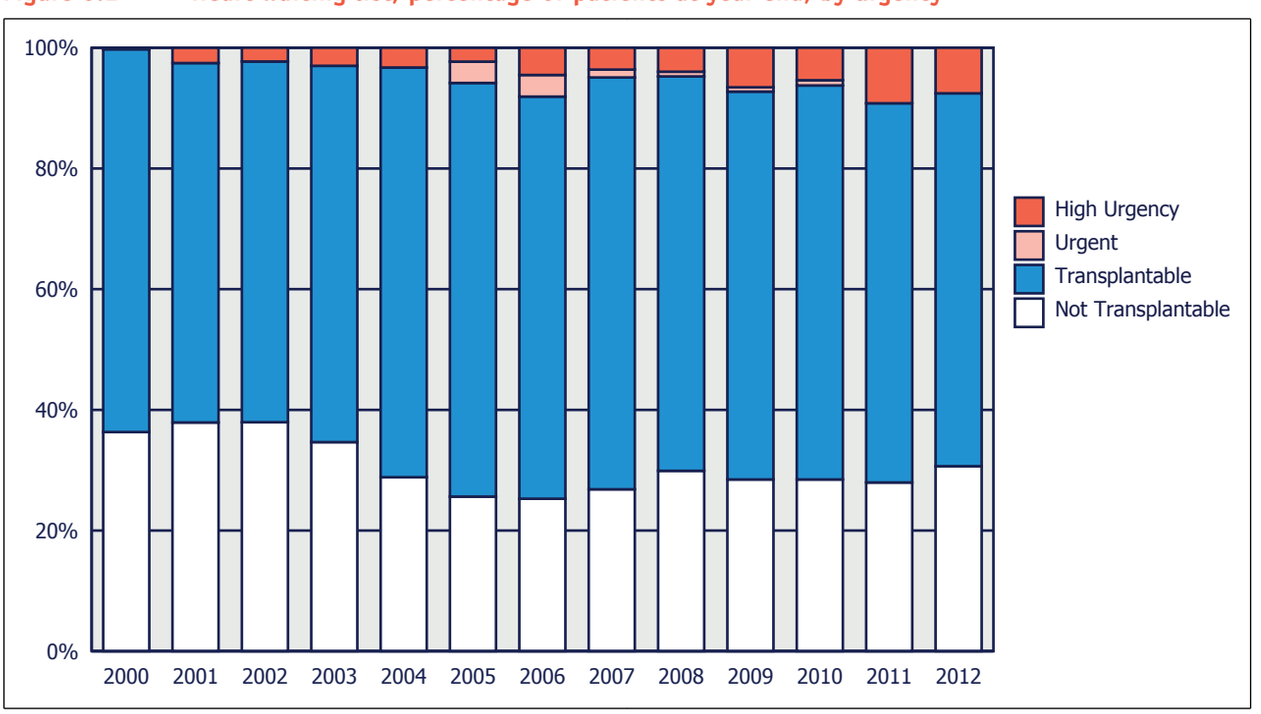


Table 6.3(i) Active heart transplant waiting list, as per December 31, from 2008 to 2012 - characteristics

	2008	2009	2010	2011	2012	2011/2012
Heart	989	1121	1158	1222	1235	1.1 %
Heart + kidney	16	27	31	26	25	-3.8 %
Heart + lung	57	38	33	25	25	0.0 %
Heart + lung + kidney	0	1	0	0	0	0.0 %
Heart + lung + liver	0	0	0	1	0	-100.0 %
Heart + liver	2	4	2	3	2	-33.3 %
Heart + liver + kidney	0	0	1	0	0	0.0 %
Heart + liver + pancreas	0	0	1	0	0	0.0 %
Total	**1064**	**1191**	**1226**	**1277**	**1287**	**0.8 %**

Table 6.3(ii) Active heart transplant waiting list as per December 31, 2012 - characteristics

	A	B	D	H	HR	NL	SLO	Total	%
Heart	68	72	972	6	21	64	32	1235	96.0 %
Heart + kidney	4	4	17	0	0	0	0	25	1.9 %
Heart + lung	4	0	21	0	0	0	0	25	1.9 %
Heart + liver	0	0	2	0	0	0	0	2	0.2 %
Total	**76**	**76**	**1012**	**6**	**21**	**64**	**32**	**1287**	**100.0 %**

Table 6.4(i) Active heart-only transplant waiting list as per December 31, from 2008 to 2012 - characteristics

Blood group	2008	2009	2010	2011	2012	2011/2012
A	469	528	531	536	547	2.1 %
AB	22	25	34	37	32	-13.5 %
B	97	121	102	104	110	5.8 %
0	401	447	491	545	546	0.2 %
Total	**989**	**1121**	**1158**	**1222**	**1235**	**1.1 %**

% PRA current	2008	2009	2010	2011	2012	2011/2012
0-5 %	613	665	654	652	720	10.4 %
6-84 %	22	16	26	26	42	61.5 %
85-100 %	0	1	1	1	3	200.0 %
Not reported	354	439	477	543	470	-13.4 %
Total	**989**	**1121**	**1158**	**1222**	**1235**	**1.1 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	979	1106	1140	1206	1215	0.7 %
Repeat	10	15	18	16	20	25.0 %
Total	**989**	**1121**	**1158**	**1222**	**1235**	**1.1 %**

Table 6.4(i) (continued)

Waiting time (months) based on date put on WL	2008	2009	2010	2011	2012	2011/2012
0-5	304	373	355	322	291	-9.6 %
6-11	208	229	208	197	224	13.7 %
12-23	217	226	278	288	253	-12.2 %
24+	260	293	317	415	467	12.5 %
Total	**989**	**1121**	**1158**	**1222**	**1235**	**1.1 %**

Age	2008	2009	2010	2011	2012	2011/2012
0-15	25	35	26	18	41	127.8 %
16-55	540	606	613	642	638	-0.6 %
56-64	315	364	410	434	429	-1.2 %
65+	109	116	109	128	127	-0.8 %
Total	**989**	**1121**	**1158**	**1222**	**1235**	**1.1 %**

Urgency	2008	2009	2010	2011	2012	2011/2012
High urgency	53	93	86	158	130	-17.7 %
Urgent	11	12	14	0	0	0.0 %
Elective	925	1016	1058	1064	1105	3.9 %
Total	**989**	**1121**	**1158**	**1222**	**1235**	**1.1 %**

Table 6.4(ii) Active heart-only transplant waiting list as per December 31, 2012 - characteristics

Blood group	A	B	D	H	HR	NL	SLO	Total	%
A	37	31	438	0	9	21	11	547	44.3 %
AB	2	4	25	1	0	0	0	32	2.6 %
B	10	8	81	0	3	3	5	110	8.9 %
0	19	29	428	5	9	40	16	546	44.2 %
Total	**68**	**72**	**972**	**6**	**21**	**64**	**32**	**1235**	**100.0 %**

% PRA current	A	B	D	H	HR	NL	SLO	Total	%
0-5 %	14	25	609	0	9	60	3	720	58.3 %
6-84 %	0	3	36	0	0	3	0	42	3.4 %
85-100 %	0	0	3	0	0	0	0	3	0.2 %
Not reported	54	44	324	6	12	1	29	470	38.1 %
Total	**68**	**72**	**972**	**6**	**21**	**64**	**32**	**1235**	**100.0 %**

Sequence	A	B	D	H	HR	NL	SLO	Total	%
First	66	72	955	6	21	64	31	1215	98.4 %
Repeat	2	0	17	0	0	0	1	20	1.6 %
Total	**68**	**72**	**972**	**6**	**21**	**64**	**32**	**1235**	**100.0 %**

Table 6.4(ii) (continued)

Waiting time (months) based on date put on WL	A	B	D	H	HR	NL	SLO	Total	%
0-5	28	29	194	6	12	16	6	291	23.6 %
6-11	15	29	148	0	6	17	9	224	18.1 %
12-23	12	12	209	0	3	15	2	253	20.5 %
24+	13	2	421	0	0	16	15	467	37.8 %
Total	**68**	**72**	**972**	**6**	**21**	**64**	**32**	**1235**	**100.0 %**

Age	A	B	D	H	HR	NL	SLO	Total	%
0-15	2	2	31	3	1	2	0	41	3.3 %
16-55	28	36	510	2	12	37	13	638	51.7 %
56-64	20	26	342	1	8	18	14	429	34.7 %
65+	18	8	89	0	0	7	5	127	10.3 %
Total	**68**	**72**	**972**	**6**	**21**	**64**	**32**	**1235**	**100.0 %**

Urgency	A	B	D	H	HR	NL	SLO	Total	%
High urgency	3	3	112	6	1	2	3	130	10.5 %
Elective	65	69	860	0	20	62	29	1105	89.5 %
Total	**68**	**72**	**972**	**6**	**21**	**64**	**32**	**1235**	**100.0 %**

Table 6.5(i) Active heart + lung transplant waiting list as per December 31, from 2008 to 2012 - characteristics

Type of transplant	2008	2009	2010	2011	2012	2011/2012
Heart + lung	57	38	33	25	25	0.0 %
Heart + lung + kidney	0	1	0	0	0	0.0 %
Heart + lung + liver	0	0	0	1	0	-100.0 %
Total	**57**	**39**	**33**	**26**	**25**	**-3.8 %**

Table 6.5(ii) Active heart + lung transplant waiting list, as per December 31 , 2012 - characteristics

Type of transplant	A	D	Total	%
Heart + lung	4	21	25	100.0 %
Total	**4**	**21**	**25**	**100.0 %**

Table 6.6(i) Active heart + lung transplant waiting list as per December 31, from 2008 to 2012 - characteristics

Blood group	2008	2009	2010	2011	2012	2011/2012
A	27	23	19	13	10	-23.1 %
AB	1	0	2	1	3	200.0 %
B	5	3	1	0	2	--
0	24	13	11	12	10	-16.7 %
Total	**57**	**39**	**33**	**26**	**25**	**-3.8 %**

% PRA current	2008	2009	2010	2011	2012	2011/2012
0-5 %	32	22	12	8	10	25.0 %
6-84 %	0	1	5	2	2	0.0 %
Not reported	25	16	16	16	13	-18.8 %
Total	**57**	**39**	**33**	**26**	**25**	**-3.8 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	57	39	33	26	25	-3.8 %
Total	**57**	**39**	**33**	**26**	**25**	**-3.8 %**

Waiting time (months) based on date put on WL	2008	2009	2010	2011	2012	2011/2012
0-5	11	9	7	6	7	16.7 %
6-11	11	2	4	6	2	-66.7 %
12-23	14	7	3	2	6	200.0 %
24+	21	21	19	12	10	-16.7 %
Total	**57**	**39**	**33**	**26**	**25**	**-3.8 %**

Age	2008	2009	2010	2011	2012	2011/2012
0-15	5	3	1	1	3	200.0 %
16-55	47	35	31	22	18	-18.2 %
56-64	5	1	1	3	4	33.3 %
Total	**57**	**39**	**33**	**26**	**25**	**-3.8 %**

Urgency	2008	2009	2010	2011	2012	2011/2012
High urgency	7	12	4	2	8	300.0 %
Urgent	1	0	0	0	0	0.0 %
Elective	49	27	29	24	17	-29.2 %
Total	**57**	**39**	**33**	**26**	**25**	**-3.8 %**

Table 6.6(ii) Active heart + lung transplant waiting list as per December 31, 2012 - characteristics

Blood group	A	D	Total	%
A	0	10	10	40.0 %
AB	0	3	3	12.0 %
B	1	1	2	8.0 %
0	3	7	10	40.0 %
Total	**4**	**21**	**25**	**100.0 %**

% PRA current	A	D	Total	%
0-5 %	0	10	10	40.0 %
6-84 %	0	2	2	8.0 %
Not reported	4	9	13	52.0 %
Total	**4**	**21**	**25**	**100.0 %**

Sequence	A	D	Total	%
First	4	21	25	100.0 %
Total	**4**	**21**	**25**	**100.0 %**

Waiting time (months) based on date put on wl	A	D	Total	%
0-5	2	5	7	28.0 %
6-11	2	0	2	8.0 %
12-23	0	6	6	24.0 %
24+	0	10	10	40.0 %
Total	**4**	**21**	**25**	**100.0 %**

Age	A	D	Total	%
0-15	2	1	3	12.0 %
16-55	1	17	18	72.0 %
56-64	1	3	4	16.0 %
Total	**4**	**21**	**25**	**100.0 %**

Urgency	A	D	Total	%
High urgency	2	6	8	32.0 %
Elective	2	15	17	68.0 %
Total	**4**	**21**	**25**	**100.0 %**

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

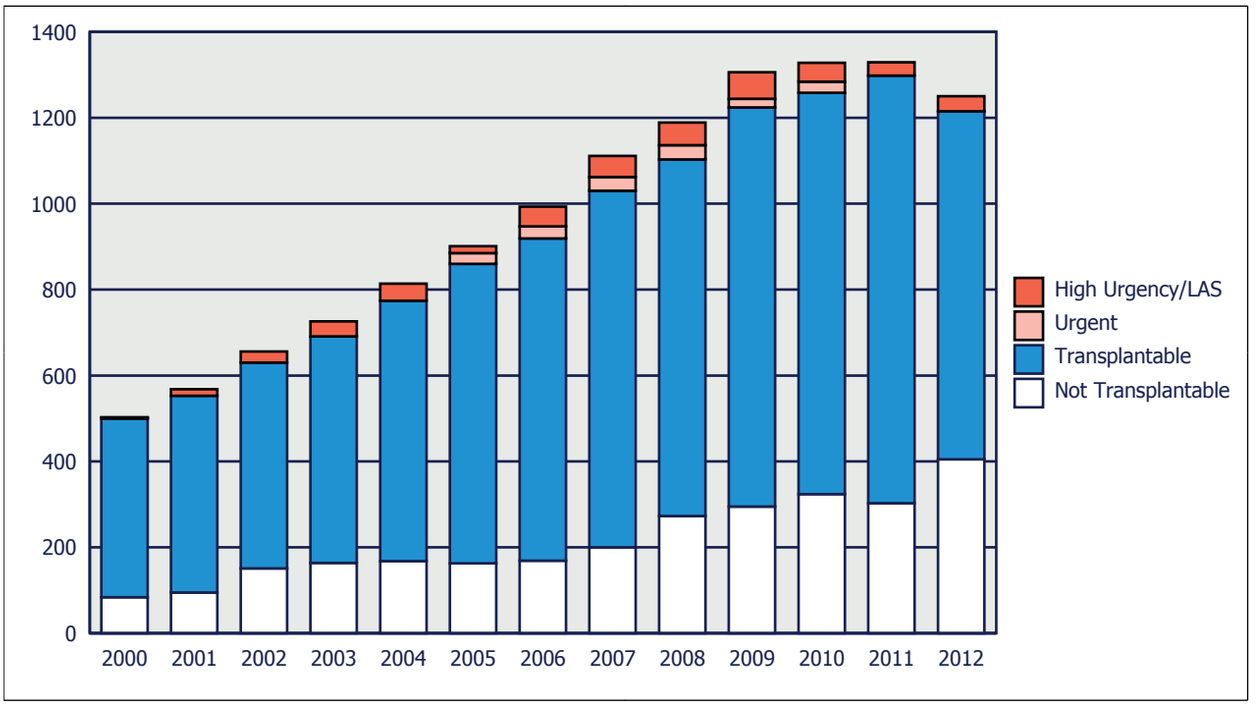


Figure 6.4 Lung waiting list, percentage of patients at year end, by urgency

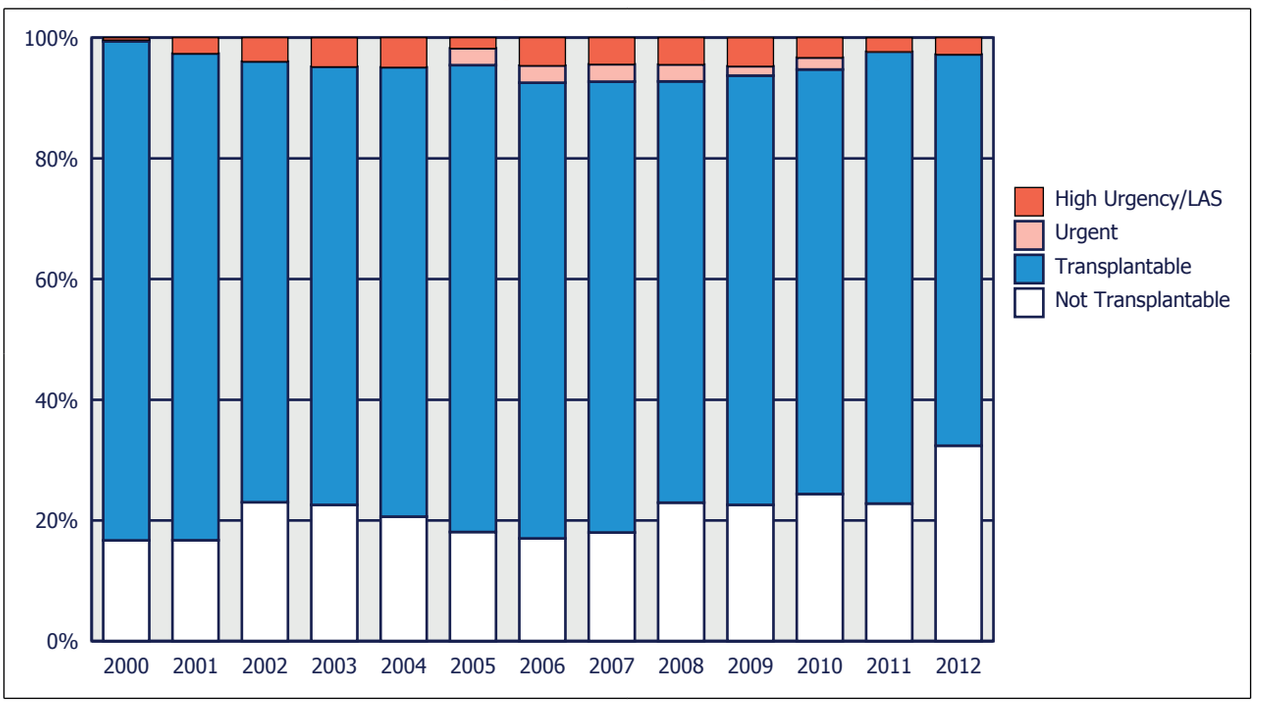


Table 6.7(i) Active lung transplant waiting list as per December 31, from 2008 to 2012 - characteristics

Type of transplant	2008	2009	2010	2011	2012	2011/2012
Lung	846	964	964	997	815	-18.3 %
Lung + kidney	5	2	2	2	1	-50.0 %
Lung + heart	57	38	33	25	25	0.0 %
Lung + heart + kidney	0	1	0	0	0	0.0 %
Lung + heart + liver	0	0	0	1	0	-100.0 %
Lung + liver	8	6	5	1	3	200.0 %
Total	**916**	**1011**	**1004**	**1026**	**844**	**-17.7 %**

Table 6.7(ii) Active lung transplant waiting list as per December 31, 2012 - characteristics

Type of transplant	A	B	D	NL	Total	%
Lung	82	81	459	193	815	96.6 %
Lung + kidney	0	0	1	0	1	0.1 %
Lung + heart	4	0	21	0	25	3.0 %
Lung + liver	0	0	2	1	3	0.4 %
Total	**86**	**81**	**483**	**194**	**844**	**100.0 %**

Table 6.8(i) Active lung-only transplant waiting list, as per December 31, from 2008 to 2012 - characteristics

Blood group	2008	2009	2010	2011	2012	2011/2012
A	333	391	402	399	328	-17.8 %
AB	10	21	11	18	19	5.6 %
B	76	74	77	83	62	-25.3 %
0	427	478	474	497	406	-18.3 %
Total	**846**	**964**	**964**	**997**	**815**	**-18.3 %**

% PRA current	2008	2009	2010	2011	2012	2011/2012
0-5 %	486	568	572	581	484	-16.7 %
6-84 %	10	12	27	26	39	50.0 %
85-100 %	0	1	2	1	2	100.0 %
Not reported	350	383	363	389	290	-25.4 %
Total	**846**	**964**	**964**	**997**	**815**	**-18.3 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	821	936	934	973	794	-18.4 %
Repeat	25	28	30	24	21	-12.5 %
Total	**846**	**964**	**964**	**997**	**815**	**-18.3 %**

Waiting time (months) based on date put on WL	2008	2009	2010	2011	2012	2011/2012
0-5	265	321	262	314	245	-22.0 %
6-11	181	181	178	173	113	-34.7 %
12-23	202	222	232	202	193	-4.5 %
24+	198	240	292	308	264	-14.3 %
Total	**846**	**964**	**964**	**997**	**815**	**-18.3 %**

Table 6.8(i) (continued)

Age	2008	2009	2010	2011	2012	2011/2012
0-15	5	11	5	9	9	0.0 %
16-55	520	582	564	580	470	-19.0 %
56-64	293	340	359	382	313	-18.1 %
65+	28	31	36	26	23	-11.5 %
Total	**846**	**964**	**964**	**997**	**815**	**-18.3 %**

Urgency	2008	2009	2010	2011	2012	2011/2012
High urgency/LAS	45	50	39	29	25	-13.8 %
Urgent	31	20	26	0	0	0.0 %
Elective	770	894	899	968	790	-18.4 %
Total	**846**	**964**	**964**	**997**	**815**	**-18.3 %**

Table 6.8(ii) Active lung-only transplant waiting list, as per December 31, 2012 - characteristics

Blood group	A	B	D	NL	Total	%
A	29	31	189	79	328	40.2 %
AB	3	0	13	3	19	2.3 %
B	15	7	29	11	62	7.6 %
0	35	43	228	100	406	49.8 %
Total	**82**	**81**	**459**	**193**	**815**	**100.0 %**

% PRA current	A	B	D	NL	Total	%
0-5 %	15	7	288	174	484	59.4 %
6-84 %	2	3	31	3	39	4.8 %
85-100 %	0	1	1	0	2	0.2 %
Not reported	65	70	139	16	290	35.6 %
Total	**82**	**81**	**459**	**193**	**815**	**100.0 %**

Sequence	A	B	D	NL	Total	%
First	79	77	445	193	794	97 %
Repeat	3	4	14	0	21	3 %
Total	**82**	**81**	**459**	**193**	**815**	**100.0 %**

Waiting time (months) based on date put on WL	A	B	D	NL	Total	%
0-5	43	41	124	37	245	30.1 %
6-11	24	12	55	22	113	13.9 %
12-23	14	24	96	59	193	23.7 %
24+	1	4	184	75	264	32.4 %
Total	**82**	**81**	**459**	**193**	**815**	**100.0 %**

Table 6.8(ii) (continued)

Age	A	B	D	NL	Total	%
0-15	1	0	6	2	9	1.1 %
16-55	44	35	280	111	470	57.7 %
56-64	34	44	157	78	313	38.4 %
65+	3	2	16	2	23	2.8 %
Total	**82**	**81**	**459**	**193**	**815**	**100.0 %**

Urgency	A	B	D	NL	Total	%
High urgency/LAS	0	1	13	11	25	3.1 %
Elective	82	80	446	182	790	96.9 %
Total	**82**	**81**	**459**	**193**	**815**	**100.0 %**

TRANSPLANTATION

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

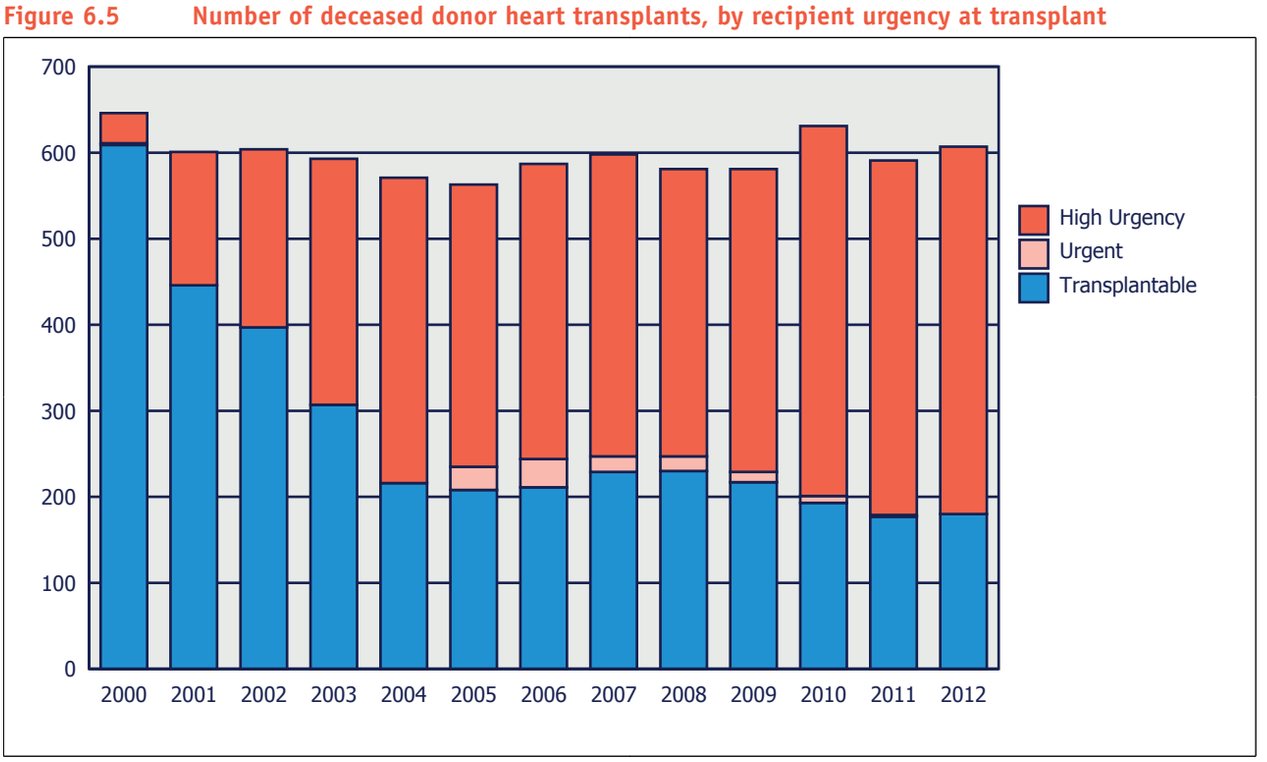


Figure 6.6 Percentage of deceased donor heart transplants, by recipient urgency at transplant

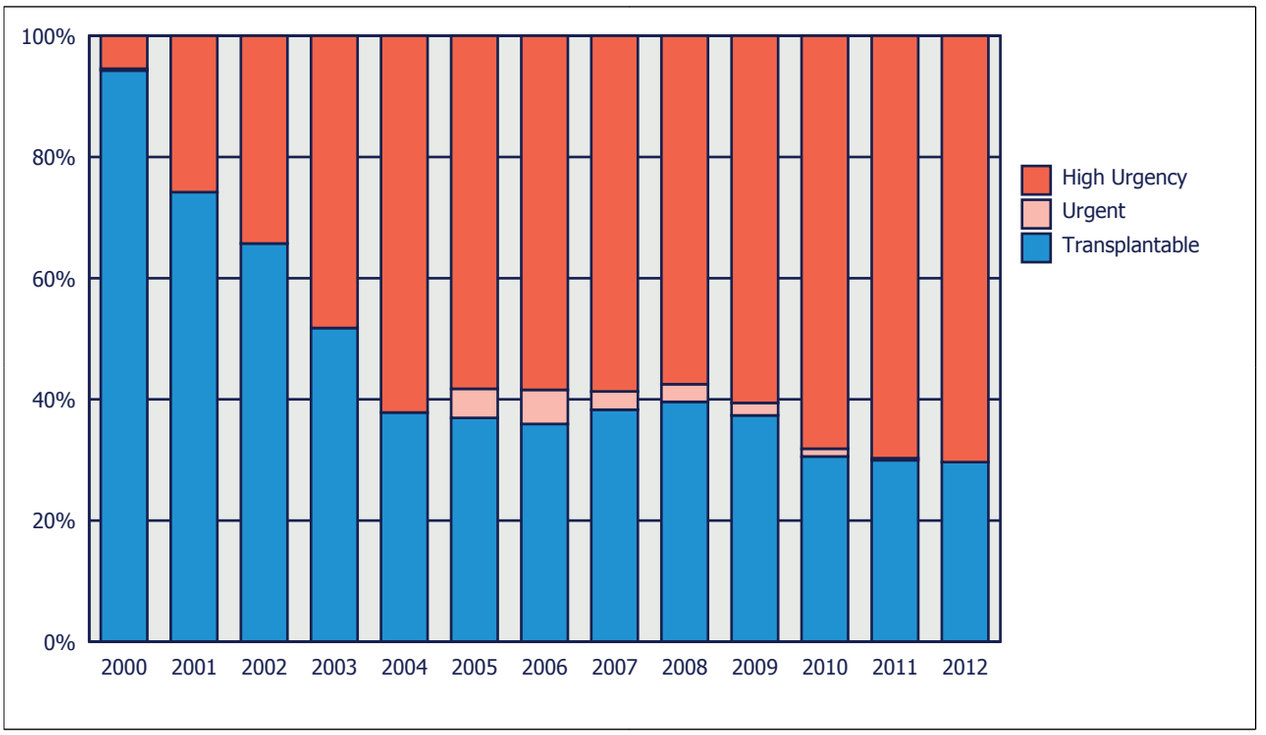


Table 6.9(i) Heart transplants from 2008 to 2012 - characteristics

Deceased donor heart transplants

Type of transplant	2008	2009	2010	2011	2012	2011/2012
Heart	544	553	602	553	569	2.9 %
Heart + kidney	10	8	11	21	18	-14.3 %
Heart + both lungs	23	20	16	14	19	35.7 %
Heart + both lungs + kidney	1	0	0	0	0	0.0 %
Heart + both lungs + liver	0	0	1	0	0	0.0 %
Heart + liver	3	0	1	3	1	-66.7 %
Heart + pancreas + kidney	0	0	1	0	0	0.0 %
Total	**581**	**581**	**632**	**591**	**607**	**2.7 %**

Heart-only transplants

Blood group	2008	2009	2010	2011	2012	2011/2012
A	219	238	280	266	263	-1.1 %
AB	37	38	45	39	51	30.8 %
B	81	83	90	72	75	4.2 %
0	207	194	187	176	180	2.3 %
Total	**544**	**553**	**602**	**553**	**569**	**2.9 %**

Table 6.9(i) (continued)

Waiting time (months) based on date put on WL	2008	2009	2010	2011	2012	2011/2012
0-5	314	304	344	294	277	-5.8 %
6-11	105	102	109	98	126	28.6 %
12-23	78	83	86	88	89	1.1 %
24-59	46	56	51	61	69	13.1 %
60+	1	8	12	12	8	-33.3 %
Total	**544**	**553**	**602**	**553**	**569**	**2.9 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	535	542	588	548	560	2.2 %
Repeat	9	11	14	5	9	80.0 %
Total	**544**	**553**	**602**	**553**	**569**	**2.9 %**

Recipient age	2008	2009	2010	2011	2012	2011/2012
0-15	32	38	47	41	40	-2.4 %
16-55	314	292	344	293	304	3.8 %
56-64	162	169	182	176	187	6.3 %
65+	36	54	29	43	38	-11.6 %
Total	**544**	**553**	**602**	**553**	**569**	**2.9 %**

Allocation type	2008	2009	2010	2011	2012	2011/2012
Standard	450	466	521	462	463	0.2 %
Rescue	94	87	81	91	106	16.5 %
Total	**544**	**553**	**602**	**553**	**569**	**2.9 %**

Urgency	2008	2009	2010	2011	2012	2011/2012
High Urgent	307	332	408	384	401	4.4 %
Urgent	17	11	8	2	0	-100.0 %
Elective	220	210	186	167	168	0.6 %
Total	**544**	**553**	**602**	**553**	**569**	**2.9 %**

Table 6.9(ii) Heart transplants 2012 - characteristics

Deceased donor heart transplants

Type of transplant	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
Heart	57	66	324	9	44	37	28	4	569	93.7 %
Heart + kidney	2	8	7	1	0	0	0	0	18	3.0 %
Heart + both lungs	3	2	14	0	0	0	0	0	19	3.1 %
Heart + liver	0	1	0	0	0	0	0	0	1	0.2 %
Total	**62**	**77**	**345**	**10**	**44**	**37**	**28**	**4**	**607**	**100.0 %**

Table 6.9(ii) (continued)

Heart-only transplants

Blood group	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
A	22	28	153	5	17	19	18	1	263	46.2 %
AB	10	2	28	1	5	2	3	0	51	9.0 %
B	11	7	39	2	9	4	2	1	75	13.2 %
0	14	29	104	1	13	12	5	2	180	31.6 %
Total	**57**	**66**	**324**	**9**	**44**	**37**	**28**	**4**	**569**	**100.0 %**

Waiting time (months) based on date put on WL	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
0-5	39	18	150	8	35	8	15	4	277	48.7 %
6-11	5	25	72	1	9	8	6	0	126	22.1 %
12-23	8	20	49	0	0	10	2	0	89	15.6 %
24-59	5	3	46	0	0	11	4	0	69	12.1 %
60+	0	0	7	0	0	0	1	0	8	1.4 %
Total	**57**	**66**	**324**	**9**	**44**	**37**	**28**	**4**	**569**	**100.0 %**

Sequence	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
First	56	65	318	9	44	37	27	4	560	98.4 %
Repeat	1	1	6	0	0	0	1	0	9	1.6 %
Total	**57**	**66**	**324**	**9**	**44**	**37**	**28**	**4**	**569**	**100.0 %**

Recipient age	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
0-15	7	2	21	2	0	3	1	4	40	7.0 %
16-55	28	36	178	7	23	24	8	0	304	53.4 %
56-64	16	23	108	0	18	9	13	0	187	32.9 %
65+	6	5	17	0	3	1	6	0	38	6.7 %
Total	**57**	**66**	**324**	**9**	**44**	**37**	**28**	**4**	**569**	**100.0 %**

Allocation type	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
Standard	57	62	233	8	43	36	24	0	463	81.4 %
Rescue	0	4	91	1	1	1	4	4	106	18.6 %
Total	**57**	**66**	**324**	**9**	**44**	**37**	**28**	**4**	**569**	**100.0 %**

Urgency	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
High Urgent	33	16	280	9	18	18	23	4	401	70.5 %
Elective	24	50	44	0	26	19	5	0	168	29.5 %
Total	**57**	**66**	**324**	**9**	**44**	**37**	**28**	**4**	**569**	**100.0 %**

Table 6.10(i) Heart + lung transplants from 2008 to 2012 - characteristics

Deceased donor heart + lung transplants

Type of transplant	2008	2009	2010	2011	2012	2011/2012
Heart + both lungs	23	20	16	14	19	35.7 %
Heart + both lungs + kidney	1	0	0	0	0	0.0 %
Heart + both lungs + whole liver	0	0	1	0	0	0.0 %
Total	**24**	**20**	**17**	**14**	**19**	**35.7 %**

Heart + lung transplants

Blood group	2008	2009	2010	2011	2012	2011/2012
A	11	7	6	10	8	-20.0 %
AB	4	1	0	0	1	--
B	1	2	3	1	3	200.0 %
0	8	10	8	3	7	133.3 %
Total	**24**	**20**	**17**	**14**	**19**	**35.7 %**

Waiting time (months) based on date put on WL	2008	2009	2010	2011	2012	2011/2012
0-5	15	9	9	7	16	128.6 %
6-11	2	4	1	2	1	-50.0 %
12-23	2	3	2	3	1	-66.7 %
24-59	5	2	3	2	1	-50.0 %
60+	0	2	2	0	0	0.0 %
Total	**24**	**20**	**17**	**14**	**19**	**35.7 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	24	20	17	14	19	35.7 %
Total	**24**	**20**	**17**	**14**	**19**	**35.7 %**

Recipient age	2008	2009	2010	2011	2012	2011/2012
0-15	1	1	2	0	0	0.0 %
16-55	22	19	14	13	18	38.5 %
56-64	1	0	1	1	1	0.0 %
Total	**24**	**20**	**17**	**14**	**19**	**35.7 %**

Urgency	2008	2009	2010	2011	2012	2011/2012
High urgency	18	14	16	11	15	36.4 %
Elective	6	6	1	3	4	33.3 %
Total	**24**	**20**	**17**	**14**	**19**	**35.7 %**

Table 6.10(ii) Heart + lung transplants 2012 - characteristics

Deceased donor heart + lung transplants

Type of transplant	A	B	D	Total	%
Heart + both lungs	3	2	14	19	100.0 %
Total	**3**	**2**	**14**	**19**	**100.0 %**

Heart + lung transplants

Blood group	A	B	D	Total	%
A	0	0	8	8	42.1 %
AB	1	0	0	1	5.3 %
B	2	0	1	3	15.8 %
0	0	2	5	7	36.8 %
Total	**3**	**2**	**14**	**19**	**100.0 %**

Waiting time (months) based on date put on WL	A	B	D	Total	%
0-5	2	1	13	16	84.2 %
6-11	0	0	1	1	5.3 %
12-23	0	1	0	1	5.3 %
24-59	1	0	0	1	5.3 %
Total	**3**	**2**	**14**	**19**	**100.0 %**

Sequence	A	B	D	Total	%
First	3	2	14	19	100.0 %
Total	**3**	**2**	**14**	**19**	**100.0 %**

Recipient age	A	B	D	Total	%
16-55	3	2	13	18	94.7 %
56-64	0	0	1	1	5.3 %
Total	**3**	**2**	**14**	**19**	**100.0 %**

Urgency	A	B	D	Total	%
High urgency	1	0	14	15	100.0 %
Elective	2	2	0	4	100.0 %
Total	**3**	**2**	**14**	**19**	**100.0 %**

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

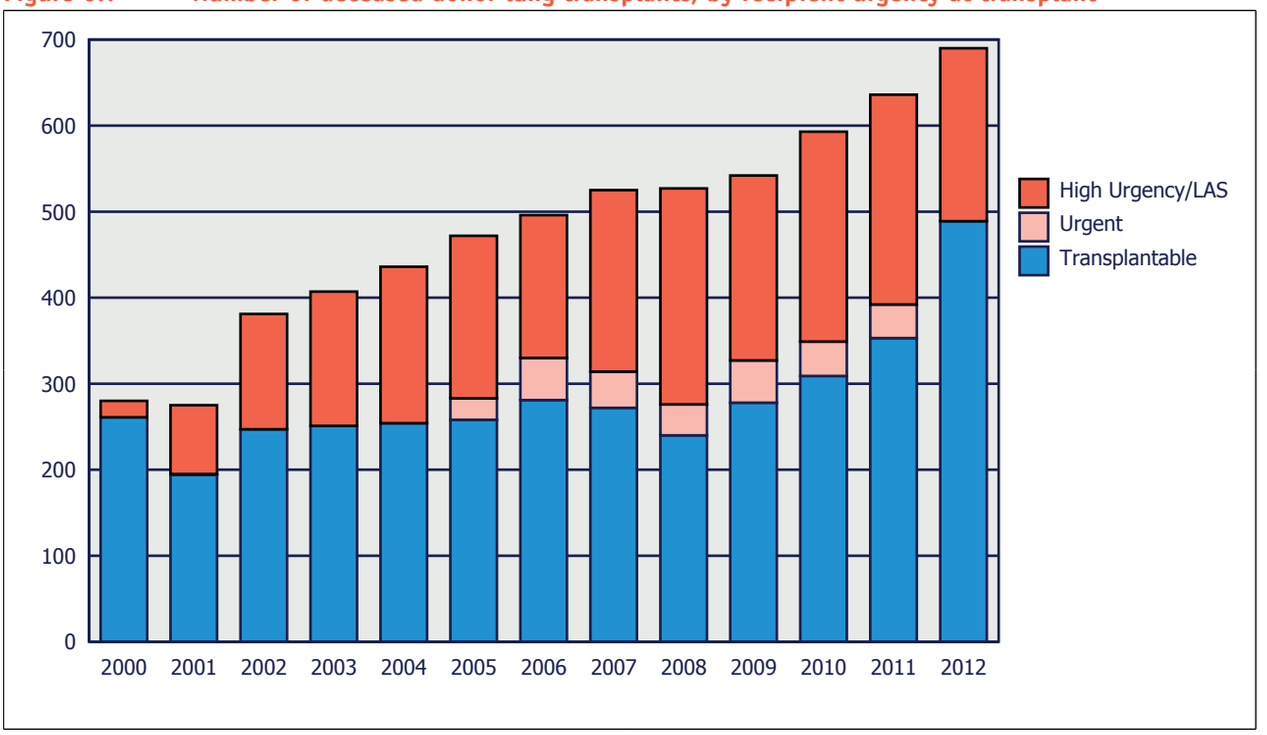


Figure 6.8 Percentage of deceased donor lung transplants, by recipient urgency at transplant

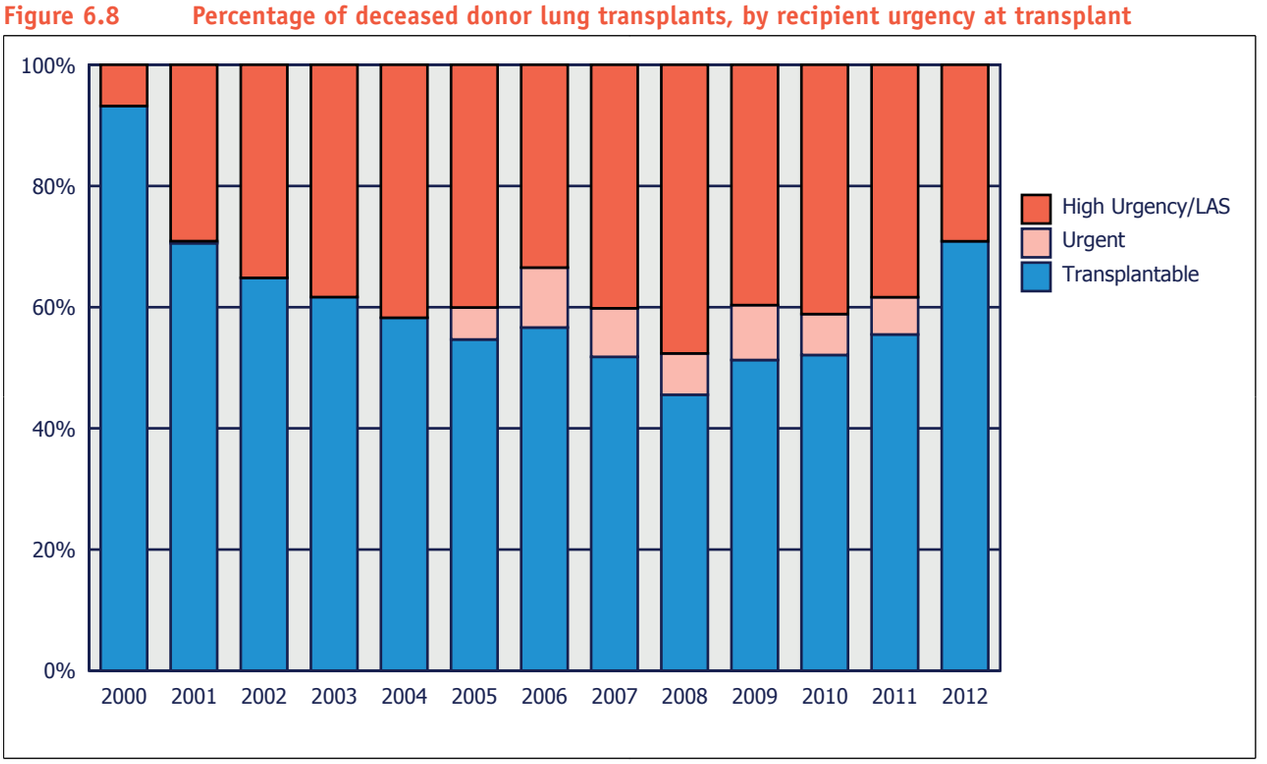


Table 6.11(i) Lung transplants from 2008 to 2012 - characteristics

Deceased donor lung transplants

Type of transplant	2008	2009	2010	2011	2012	2011/2012
Single lung	82	79	75	90	67	-25.6 %
Both lungs	419	435	496	527	603	14.4 %
Single lung + kidney	0	0	0	1	0	-100.0 %
Both lungs + kidney	1	2	2	2	0	-100.0 %
Both lungs + heart	23	20	16	14	19	35.7 %
Both lungs + heart + kidney	1	0	0	0	0	0.0 %
Both lungs + heart + liver	0	0	1	0	0	0.0 %
Both lungs + liver	1	3	3	2	1	-50.0 %
Total	**527**	**539**	**593**	**636**	**690**	**8.5 %**

Lung-only transplants (including single and both lungs)

Blood group	2008	2009	2010	2011	2012	2011/2012
A	219	220	231	288	303	5.2 %
AB	24	30	37	28	39	39.3 %
B	61	62	74	80	79	-1.3 %
0	197	202	229	221	249	12.7 %
Total	**501**	**514**	**571**	**617**	**670**	**8.6 %**

Waiting time (months) based on date put on WL	2008	2009	2010	2011	2012	2011/2012
0-5	241	236	269	303	381	25.7 %
6-11	106	115	121	119	115	-3.4 %
12-23	89	88	114	89	92	3.4 %
24-59	53	71	61	88	68	-22.7 %
60+	12	4	6	18	14	-22.2 %
Total	**501**	**514**	**571**	**617**	**670**	**8.6 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	474	482	543	579	634	9.5 %
Repeat	27	32	28	38	36	-5.3 %
Total	**501**	**514**	**571**	**617**	**670**	**8.6 %**

Recipient age	2008	2009	2010	2011	2012	2011/2012
0-15	16	8	11	14	19	35.7 %
16-55	297	316	351	346	347	0.3 %
56-64	165	175	189	228	278	21.9 %
65+	23	15	20	29	26	-10.3 %
Total	**501**	**514**	**571**	**617**	**670**	**8.6 %**

Allocation	2008	2009	2010	2011	2012	2011/2012
Standard	420	428	482	496	537	8.3 %
Rescue	81	86	89	121	133	9.9 %
Total	**501**	**514**	**571**	**617**	**670**	**8.6 %**

Table 6.11(i) (continued)

Urgency	2008	2009	2010	2011	2012	2011/2012
High Urgent/LAS	233	195	227	231	185	-19.9 %
Urgent	35	47	40	38	0	-100.0 %
Elective	233	272	304	348	485	39.4 %
Total	**501**	**514**	**571**	**617**	**670**	**8.6 %**

Table 6.11(ii) Lung transplants 2012 - characteristics

Deceased donor lung transplants

Type of transplant	A	B	D	NL	Total	%
Single lung	3	9	39	16	67	9.7 %
Both lungs	118	118	303	64	603	87.4 %
Both lungs + heart	3	2	14	0	19	2.8 %
Both lungs + liver	0	0	1	0	1	0.1 %
Total	**124**	**129**	**357**	**80**	**690**	**100.0 %**

Lung-only transplants (including single and both lungs)

Blood group	A	B	D	NL	Total	%
A	61	57	151	34	303	45.2 %
AB	11	4	20	4	39	5.8 %
B	15	13	44	7	79	11.8 %
0	34	53	127	35	249	37.2 %
Total	**121**	**127**	**342**	**80**	**670**	**100.0 %**

Waiting time (months) based on date put on WL	A	B	D	NL	Total	%
0-5	91	63	208	19	381	56.9 %
6-11	20	31	49	15	115	17.2 %
12-23	9	24	42	17	92	13.7 %
24-59	1	9	33	25	68	10.1 %
60+	0	0	10	4	14	2.1 %
Total	**121**	**127**	**342**	**80**	**670**	**100.0 %**

Sequence	A	B	D	NL	Total	%
First	111	119	327	77	634	94.6 %
Repeat	10	8	15	3	36	5.4 %
Total	**121**	**127**	**342**	**80**	**670**	**100.0 %**

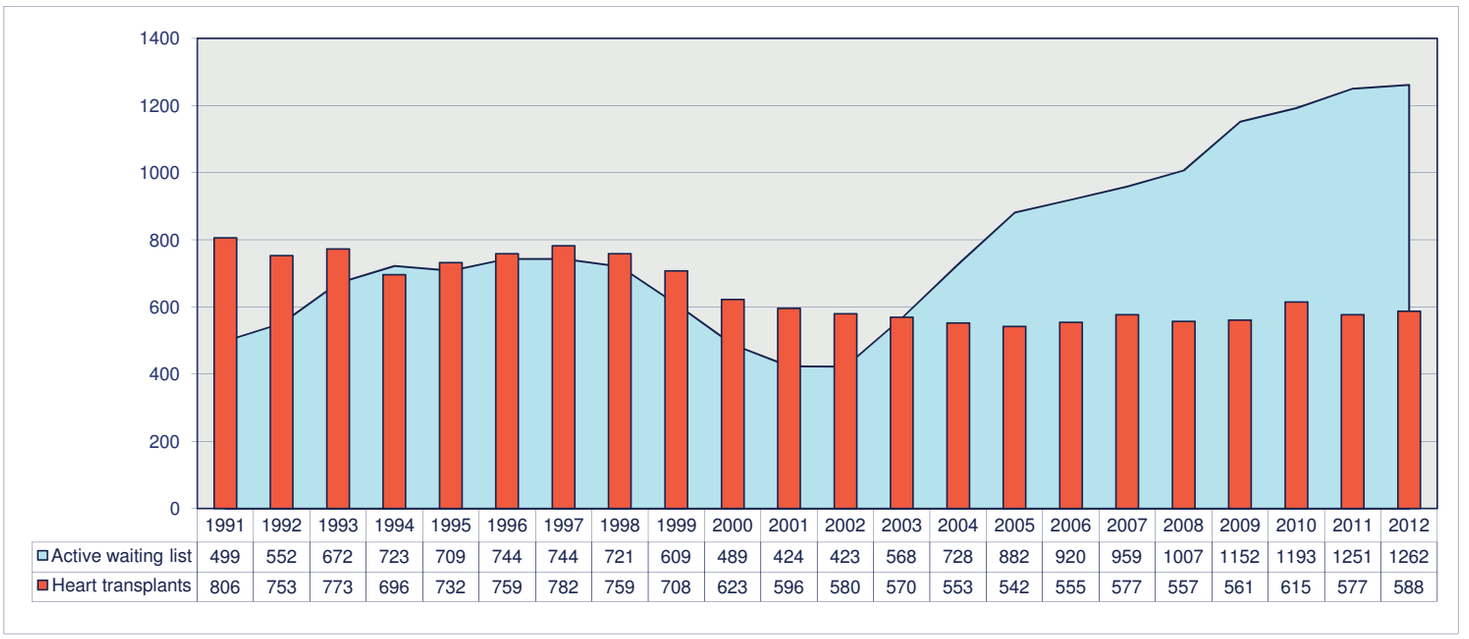
Recipient age	A	B	D	NL	Total	%
0-15	6	0	10	3	19	2.8 %
16-55	67	53	185	42	347	51.8 %
56-64	42	67	137	32	278	41.5 %
65+	6	7	10	3	26	3.9 %
Total	**121**	**127**	**342**	**80**	**670**	**100.0 %**

Table 6.11(ii) (continued)

Allocation	A	B	D	NL	Total	%
Standard	117	123	226	71	537	80.1 %
Rescue	4	4	116	9	133	19.9 %
Total	**121**	**127**	**342**	**80**	**670**	**100.0 %**

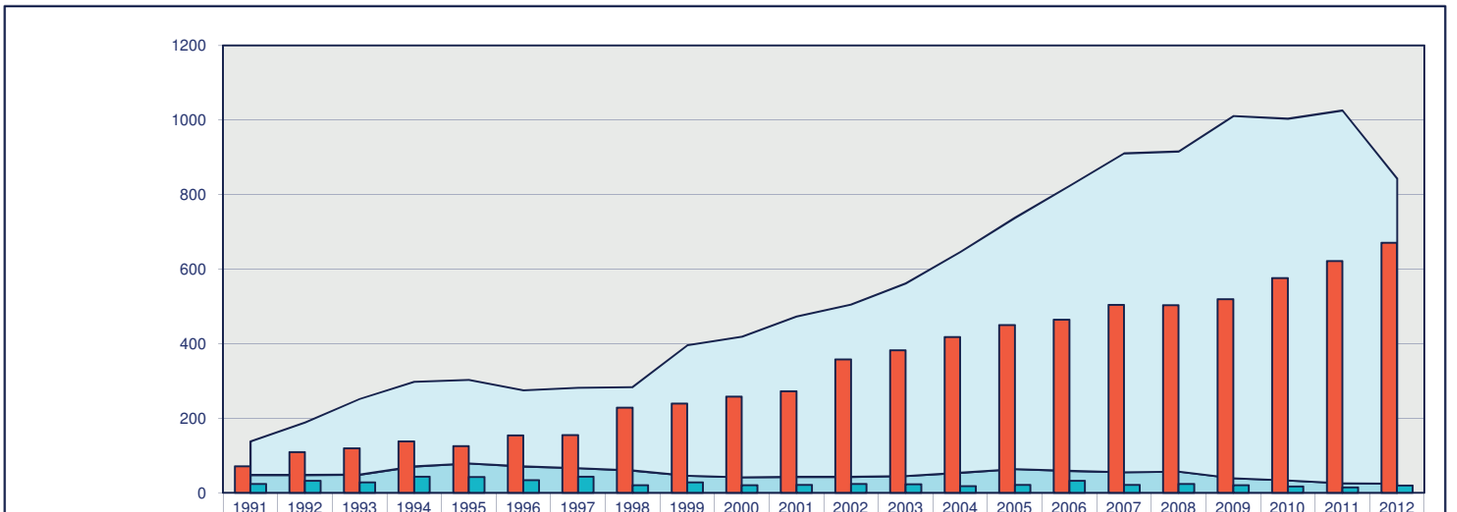
Urgency	A	B	D	NL	Total	%
High Urgent/LAS	19	24	107	35	185	27.6 %
Elective	102	103	235	45	485	72.4 %
Total	**121**	**127**	**342**	**80**	**670**	**100.0 %**

Figure 6.9 Dynamics of the Eurotransplant heart waiting list and transplants between 1991 and 2012



	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Active waiting list	499	552	672	723	709	744	744	721	609	489	424	423	568	728	882	920	959	1007	1152	1193	1251	1262
Heart transplants	806	753	773	696	732	759	782	759	708	623	596	580	570	553	542	555	577	557	561	615	577	588

Figure 6.10 Dynamics of the Eurotransplant heart + lung waiting list, heart + lung transplants, lung waiting list and lung transplants, between 1991 and 2012



	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Lung waiting list	90	141	203	227	224	204	216	224	350	377	430	462	517	592	674	765	856	859	972	971	1000	819
Heart+Lung waiting list	48	48	49	71	79	71	66	60	46	42	43	43	45	54	64	59	55	57	39	33	26	25
Lung transplants	71	109	119	138	125	154	155	228	239	258	272	358	382	418	450	464	504	503	519	576	622	671
Heart+Lung transplants	24	32	28	43	42	34	43	20	28	20	21	24	23	18	21	32	21	24	20	17	14	19

7.

Liver and Intestine: donation, waiting lists and transplants

DONATION

Table 7.1(i) Deceased donors / livers in Eurotransplant from 2008 to 2012

Donors	2008	2009	2010	2011	2012	2011/2012
All donors reported	2233	2305	2415	2481	2421	-2.4 %
Non-liver donors	361	321	351	369	421	14.1 %
Liver donors reported	1872	1984	2064	2112	2000	-5.3 %
Liver donors not used	322	353	330	385	358	-7.0 %
One split used	5	2	5	3	0	-100.0 %
Both splits used	56	60	59	44	47	6.8 %
Whole liver used	1489	1569	1670	1680	1595	-5.1 %
Total liver donors used	1550	1631	1734	1727	1642	-4.9 %

Donor procedures	2008	2009	2010	2011	2012	2011/2012
Whole liver procedure	1808	1919	1998	2064	1952	-5.4 %
Split liver procedure	64	65	66	48	48	0.0 %
Total	**1872**	**1984**	**2064**	**2112**	**2000**	**-5.3 %**

Whole livers	2008	2009	2010	2011	2012	2011/2012
Reported	1808	1919	1998	2064	1952	-5.4 %
Offered	1799	1913	1996	2056	1945	-5.4 %
Accepted	1739	1861	1955	1990	1886	-5.2 %
Transplanted	1489	1569	1670	1680	1595	-5.1 %

Split livers	2008	2009	2010	2011	2012	2011/2012
Available split livers	128	130	132	96	96	0.0 %
Split liver not used	11	8	9	5	2	-60.0 %
Split liver transplanted	117	122	123	91	94	3.3 %

Table 7.1(ii) Deceased donors / livers in Eurotransplant in 2012

Donors	A	B	D	H	HR	L	NL	SLO	Total ET	Non-ET	Total	% all donors
All donors reported	209	348	1075	82	157	4	312	50	2237	184	2421	100.0%
Non-liver donors	48	20	37	71	2	0	92	0	270	151	421	19.8%
Liver donors reported	161	328	1038	11	155	4	220	50	1967	33	2000	94.3%
Liver donors not used	34	71	138	3	17	0	68	12	343	15	358	16.9%
One split used	0	0	0	0	0	0	0	0	0	0	0	0.0%
Both splits used	7	11	19	0	3	0	7	0	47	0	47	2.2%
Whole liver used	120	246	881	8	135	4	145	38	1577	18	1595	75.2%
Total liver donors used	127	257	900	8	138	4	152	38	1624	18	1642	77.4%

Donor procedures	A	B	D	H	HR	L	NL	SLO	Total ET	Non-ET	Total	%
Whole liver procedure	154	317	1019	11	152	4	213	50	1920	32	1952	97.6%
Split liver procedure	7	11	19	0	3	0	7	0	47	1	48	2.4%
Total	**161**	**328**	**1038**	**11**	**155**	**4**	**220**	**50**	**1967**	**33**	**2000**	**100.0%**

Whole livers	A	B	D	H	HR	L	NL	SLO	Total ET	Non-ET	Total	% reported
Reported	154	317	1019	11	152	4	213	50	1920	32	1952	100.0%
Offered	153	316	1018	11	152	4	211	50	1915	30	1945	99.6%
Accepted	151	301	1009	11	150	4	184	48	1858	28	1886	96.6%
Transplanted	120	246	881	8	135	4	145	38	1577	18	1595	81.7%

Split livers	A	B	D	H	HR	L	NL	SLO	Total ET	Non-ET	Total	%
Available split livers	14	22	38	0	6	0	14	0	96	2	96	100.0%
Split liver not used	0	0	0	0	0	0	0	0	2	2	2	2.1%
Split liver transplanted	14	22	38	0	6	0	14	0	94	0	94	97.9%

Note: only counting donors from Hungary where organs were allocated by Eurotransplant

WAITING LIST

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

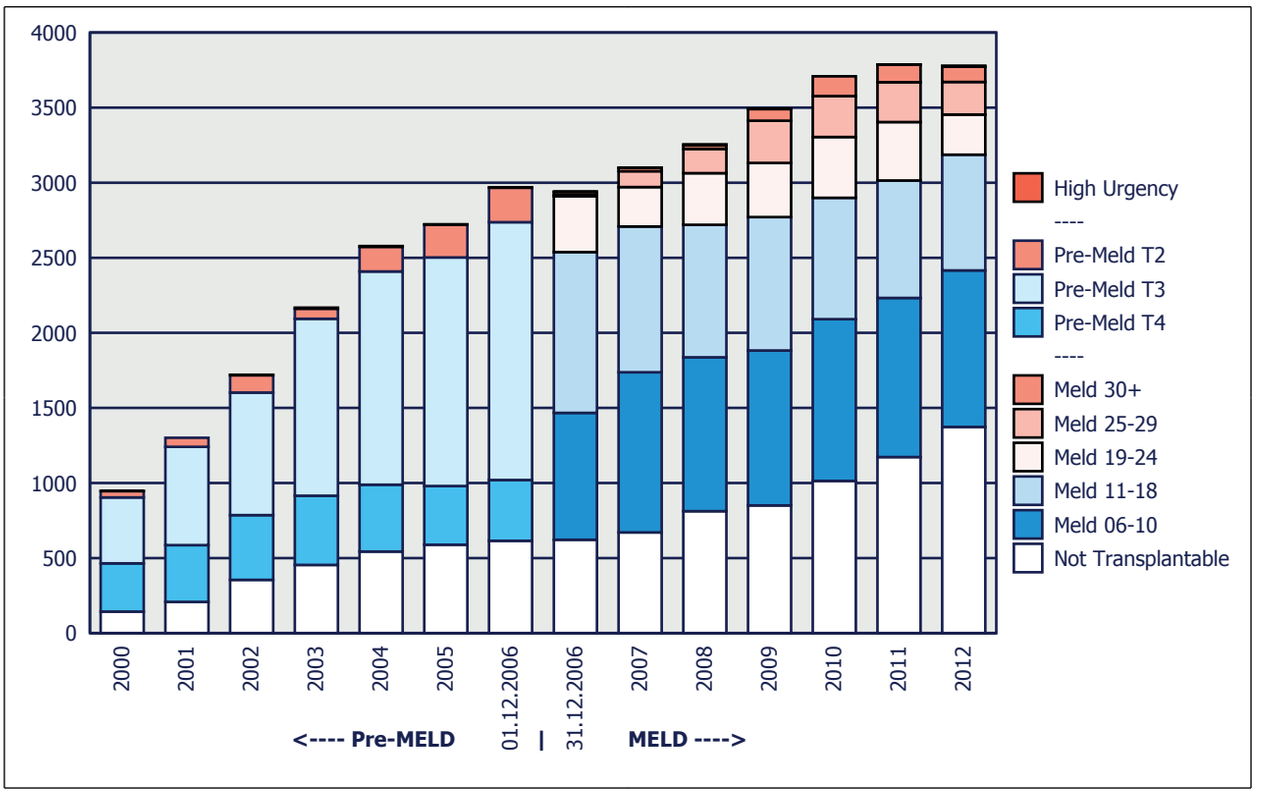


Figure 7.2 Liver waiting list, percentage of patients at year end, by urgency

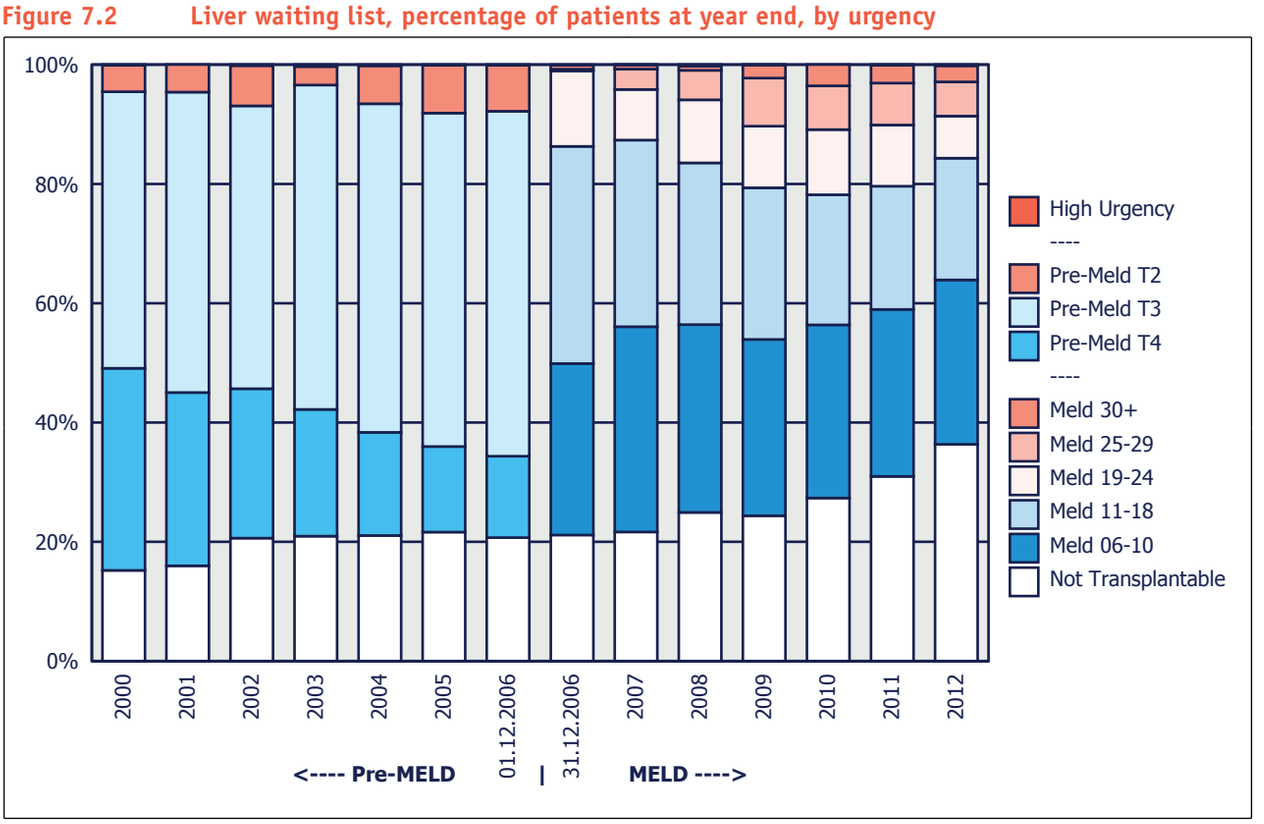


Table 7.2(i) Active liver transplant waiting list, as per December 31, from 2008 to 2012 - characteristics

Type of transplant	2008	2009	2010	2011	2012	2011/2012
Liver	2354	2525	2588	2530	2327	-8.0 %
Liver + kidney	72	97	90	72	67	-6.9 %
Liver + heart	2	4	2	3	2	-33.3 %
Liver + heart + kidney	0	0	1	0	0	0.0 %
Liver + heart + lung	0	0	0	1	0	-100.0 %
Liver + heart + pancreas	0	0	1	0	0	0.0 %
Liver + lung	8	6	5	1	3	200.0 %
Liver + pancreas	4	8	6	6	6	0.0 %
Liver + pancreas + kidney	2	1	2	1	1	0.0 %
Total	**2442**	**2641**	**2695**	**2614**	**2406**	**-8.0 %**

Table 7.2(ii) Active liver transplant waiting list, as per December 31, 2012 - characteristics

Type of transplant	A	B	D	H	HR	NL	SLO	Total	%
Liver	102	166	1815	4	73	157	10	2327	96.7 %
Liver + kidney	1	13	45	1	1	6	0	67	2.8 %
Liver + heart	0	0	2	0	0	0	0	2	0.1 %
Liver + lung	0	0	2	0	0	1	0	3	0.1 %
Liver + pancreas	0	2	3	0	0	1	0	6	0.2 %
Liver + pancreas + kidney	0	0	1	0	0	0	0	1	0.0 %
Total	**103**	**181**	**1868**	**5**	**74**	**165**	**10**	**2406**	**100.0 %**

Table 7.3(i) Active liver-only transplant waiting list as per December 31, from 2008 to 2012 - characteristics

Blood group	2008	2009	2010	2011	2012	2011/2012
A	944	1075	1085	1064	1003	-5.7 %
AB	46	54	57	63	61	-3.2 %
B	267	280	314	302	298	-1.3 %
0	1097	1116	1132	1101	965	-12.4 %
Total	**2354**	**2525**	**2588**	**2530**	**2327**	**-8.0 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	2233	2392	2456	2404	2216	-7.8 %
Repeat	121	133	132	126	111	-11.9 %
Total	**2354**	**2525**	**2588**	**2530**	**2327**	**-8.0 %**

Waiting time (months) based on date put on WL	2008	2009	2010	2011	2012	2011/2012
0-5	672	739	723	667	617	-7.5 %
6-11	357	427	451	390	420	7.7 %
12-23	462	390	475	479	357	-25.5 %
24+	863	969	939	994	933	-6.1 %
Total	**2354**	**2525**	**2588**	**2530**	**2327**	**-8.0 %**

Table 7.3 (i) (continued)

Age	2008	2009	2010	2011	2012	2011/2012
0-15	70	70	59	61	69	13.1 %
16-55	1375	1440	1459	1422	1224	-13.9 %
56-64	683	745	800	796	781	-1.9 %
65+	226	270	270	251	253	0.8 %
Total	**2354**	**2525**	**2588**	**2530**	**2327**	**-8.0 %**

MELD score	2008	2009	2010	2011	2012	2011/2012
06-10	1015	1021	1064	1053	1032	-2.0 %
11-18	863	870	790	772	759	-1.7 %
19-24	302	305	361	347	238	-31.4 %
25-29	149	260	253	252	203	-19.4 %
30+	23	68	120	106	95	-10.4 %
Unknown	2	1	0	0	0	0.0 %
Total	**2354**	**2525**	**2588**	**2530**	**2327**	**-8.0 %**

Table 7.3 (ii) Active liver-only transplant waiting list as per December 31, 2012 - characteristics

Blood group	A	B	D	H	HR	NL	SLO	Total	%
A	61	66	789	3	31	50	3	1003	43.1 %
AB	5	1	51	0	0	3	1	61	2.6 %
B	9	23	222	0	20	22	2	298	12.8 %
0	27	76	753	1	22	82	4	965	41.5 %
Total	**102**	**166**	**1815**	**4**	**73**	**157**	**10**	**2327**	**100.0%**

Sequence	A	B	D	H	HR	NL	SLO	Total	%
First	99	154	1731	4	72	146	10	2216	95.2 %
Repeat	3	12	84	0	1	11	0	111	4.8 %
Total	**102**	**166**	**1815**	**4**	**73**	**157**	**10**	**2327**	**100.0%**

Waiting time (months) based on date put on WL	A	B	D	H	HR	NL	SLO	Total	%
0-5	41	89	397	1	16	67	6	617	26.5 %
6-11	35	26	312	3	11	29	4	420	18.0 %
12-23	13	20	283	0	20	21	0	357	15.3 %
24+	13	31	823	0	26	40	0	933	40.1 %
Total	**102**	**166**	**1815**	**4**	**73**	**157**	**10**	**2327**	**100.0 %**

Age	A	B	D	H	HR	NL	SLO	Total	%
0-15	4	11	39	4	1	10	0	69	3.0 %
16-55	45	88	963	0	37	87	4	1224	52.6 %
56-64	37	38	628	0	29	45	4	781	33.6 %
65+	16	29	185	0	6	15	2	253	10.9 %
Total	**102**	**166**	**1815**	**4**	**73**	**157**	**10**	**2327**	**100.0 %**

Table 7.3(ii) (continued)

MELD score	A	B	D	H	HR	NL	SLO	Total	%
06-10	52	51	818	0	49	57	5	1032	44.3 %
11-18	42	43	597	0	20	53	4	759	32.6 %
19-24	4	40	159	0	3	31	1	238	10.2 %
25-29	0	24	169	1	0	9	0	203	8.7 %
30+	4	8	72	3	1	7	0	95	4.1 %
Total	**102**	**166**	**1815**	**4**	**73**	**157**	**10**	**2327**	**100.0 %**

TRANSPLANTATION

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

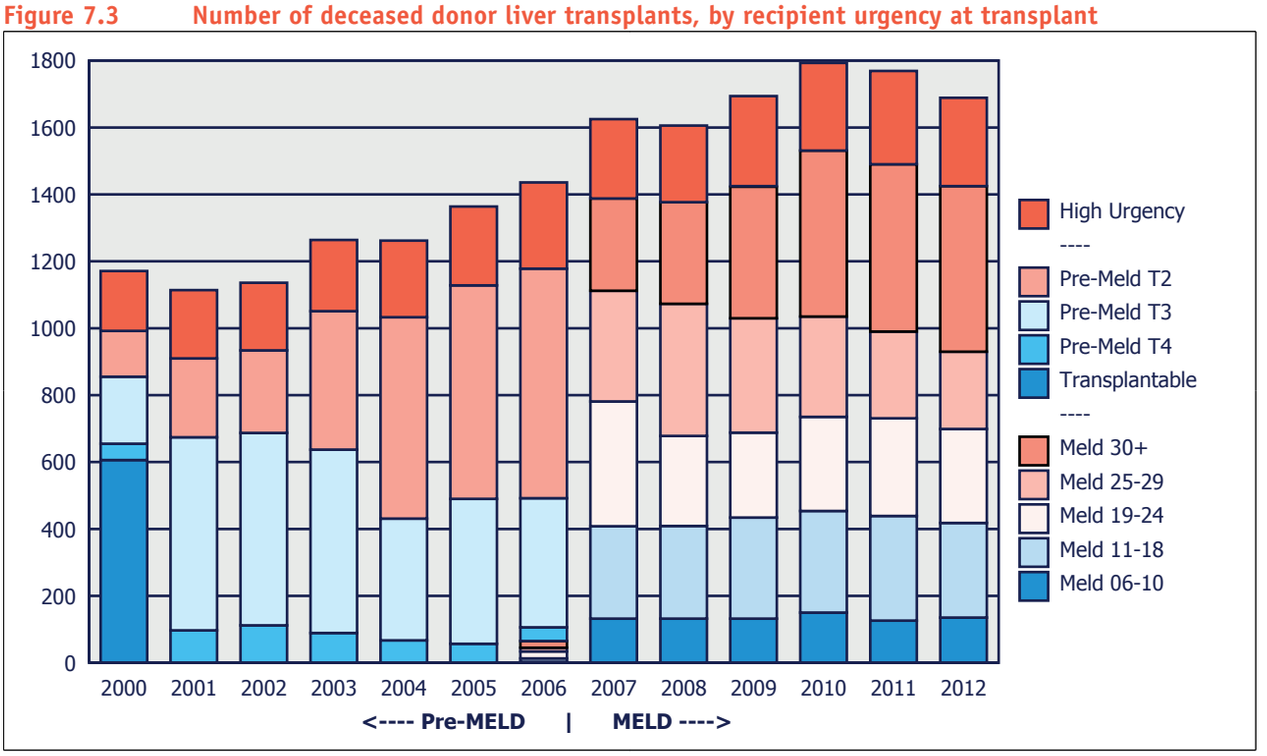


Figure 7.4 Percentage of deceased donor liver transplants, by recipient urgency at transplant

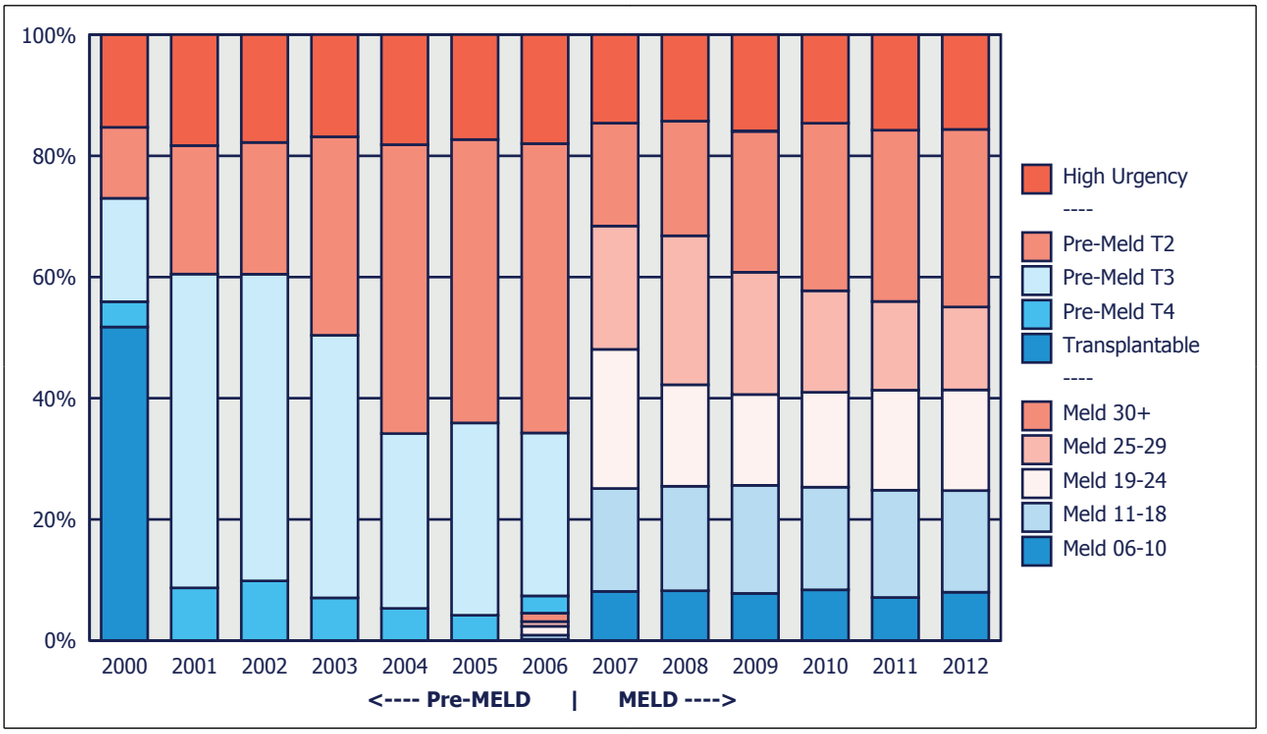


Table 7.4(i) Liver transplants from 2008 to 2012 - characteristics

Deceased donor liver transplants

Type of transplant	2008	2009	2010	2011	2012	2011/2012
Split liver	113	121	118	88	90	2.3 %
Whole liver	1405	1516	1606	1622	1553	-4.3 %
Split liver + kidney	4	1	5	3	4	33.3 %
Whole liver + kidney	73	45	52	43	35	-18.6 %
Whole liver + kidney en bloc	2	0	0	1	0	-100.0 %
Whole liver + heart	3	0	1	3	1	-66.7 %
Whole liver + heart + both lungs	0	0	1	0	0	0.0 %
Whole liver + both lungs	1	3	3	2	1	-50.0 %
Whole liver + pancreas	5	4	6	6	4	-33.3 %
Whole liver + pancreas + kidney	0	2	1	2	1	-50.0 %
Total	**1606**	**1692**	**1793**	**1770**	**1689**	**-4.6 %**

Liver-only transplants (whole and split)

Blood group	2008	2009	2010	2011	2012	2011/2012
A	655	655	739	773	694	-10.2 %
AB	103	125	124	115	109	-5.2 %
B	192	233	249	230	230	0.0 %
0	568	624	612	592	610	3.0 %
Total	**1518**	**1637**	**1724**	**1710**	**1643**	**-3.9 %**

Table 7.4(i) (continued)

Waiting time (months) based on date put on WL	2008	2009	2010	2011	2012	2011/2012
0-5	996	1098	1131	1103	1062	-3.7 %
6-11	243	289	264	271	227	-16.2 %
12-23	158	136	176	214	211	-1.4 %
24-59	107	84	131	93	118	26.9 %
60+	14	30	22	29	25	-13.8 %
Total	**1518**	**1637**	**1724**	**1710**	**1643**	**-3.9 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	1313	1404	1487	1490	1427	-4.2 %
Repeat	205	233	237	220	216	-1.8 %
Total	**1518**	**1637**	**1724**	**1710**	**1643**	**-3.9 %**

Recipient age	2008	2009	2010	2011	2012	2011/2012
0-15	107	107	118	103	110	6.8 %
16-55	767	798	835	796	779	-2.1 %
56-64	463	527	551	599	533	-11.0 %
65+	181	205	220	212	221	4.2 %
Total	**1518**	**1637**	**1724**	**1710**	**1643**	**-3.9 %**

Allocation	2008	2009	2010	2011	2012	2011/2012
Standard	1161	1256	1254	1214	1288	6.1 %
Rescue	357	381	470	496	355	-28.4 %
Total	**1518**	**1637**	**1724**	**1710**	**1643**	**-3.9 %**

Urgency/MELD score	2008	2009	2010	2011	2012	2011/2012
Unknown	10	7	7	4	5	25.0 %
06-10	119	123	138	113	128	13.3 %
11-18	271	296	299	306	278	-9.2 %
19-24	253	242	270	286	273	-4.5 %
25-29	364	326	286	254	219	-13.8 %
30+	273	374	467	473	478	1.1 %
High Urgency	228	269	257	274	262	-4.4 %
Total	**1518**	**1637**	**1724**	**1710**	**1643**	**-3.9 %**

Table 7.4(ii) Liver transplants 2012 - characteristics

Deceased donor liver transplants

Type of transplant	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
Split liver	3	0	79	2	1	5	0	0	90	5.3 %
Whole liver	122	227	920	1	120	135	27	1	1553	91.9 %
Split liver + kidney	0	0	3	0	1	0	0	0	4	0.2 %
Whole liver + kidney	1	20	11	0	2	1	0	0	35	2.1 %
Whole liver + heart	0	1	0	0	0	0	0	0	1	0.1 %
Whole liver + both lungs	0	0	1	0	0	0	0	0	1	0.1 %
Whole liver + pancreas	0	2	2	0	0	0	0	0	4	0.2 %
Whole liver + pancreas + kidney	0	0	1	0	0	0	0	0	1	0.1 %
Total	**126**	**250**	**1017**	**3**	**124**	**141**	**27**	**1**	**1689**	**100.0 %**

Liver-only transplants (whole and split)

Blood group	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
A	47	106	426	2	47	52	13	1	694	42.2 %
AB	9	7	76	0	5	10	2	0	109	6.6 %
B	19	19	157	1	21	11	2	0	230	14.0 %
0	50	95	340	0	48	67	10	0	610	37.1 %
Total	**125**	**227**	**999**	**3**	**121**	**140**	**27**	**1**	**1643**	**100.0 %**

Waiting time (months) based on date put on WL	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
0-5	82	167	591	3	100	93	25	1	1062	64.6 %
6-11	16	35	142	0	5	28	1	0	227	13.8 %
12-23	17	16	154	0	11	12	1	0	211	12.8 %
24-59	10	8	91	0	4	5	0	0	118	7.2 %
60+	0	1	21	0	1	2	0	0	25	1.5 %
Total	**125**	**227**	**999**	**3**	**121**	**140**	**27**	**1**	**1643**	**100.0 %**

Sequence	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
First	115	195	864	3	116	109	24	1	1427	86.9 %
Repeat	10	32	135	0	5	31	3	0	216	13.1 %
Total	**125**	**227**	**999**	**3**	**121**	**140**	**27**	**1**	**1643**	**100.0 %**

Recipient age	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
0-15	4	6	84	2	0	13	0	1	110	6.7 %
16-55	53	98	477	1	61	80	9	0	779	47.4 %
56-64	46	73	323	0	44	35	12	0	533	32.4 %
65+	22	50	115	0	16	12	6	0	221	13.5 %
Total	**125**	**227**	**999**	**3**	**121**	**140**	**27**	**1**	**1643**	**100.0 %**

Allocation	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
Standard	116	218	674	2	120	133	25	0	1288	78.4 %
Rescue	9	9	325	1	1	7	2	1	353	21.6 %
Total	**125**	**227**	**999**	**3**	**121**	**140**	**27**	**1**	**1643**	**100.0 %**

Table 7.4(i) (continued)

MELD score	A	B	D	H	HR	NL	SLO	Non-ET	Total	%
Unknown	1	0	1	0	2	0	0	1	5	0.3 %
06-10	35	9	71	0	1	5	7	0	128	7.8 %
11-18	55	33	115	0	52	13	10	0	278	16.9 %
19-24	16	34	109	0	50	56	8	0	273	16.6 %
25-29	1	69	116	0	12	21	0	0	219	13.3 %
30+	7	49	397	1	1	23	0	0	478	29.1 %
High Urgency	10	33	190	2	3	22	2	0	262	15.9 %
Total	**125**	**227**	**999**	**3**	**121**	**140**	**27**	**1**	**1643**	**100.0 %**

Table 7.5(i) Living donor liver transplants - 2008 to 2012

Liver-only	2008	2009	2010	2011	2012	2011/2012
Domino	7	3	6	16	5	-68.8 %
Related	66	83	114	107	104	-2.8 %
Non-related	9	13	18	12	12	0.0 %
Total	**82**	**99**	**138**	**135**	**121**	**-10.4 %**

Related	2008	2009	2010	2011	2012	2011/2012
Brother / sister	6	9	8	6	11	83.3 %
Father	21	29	30	40	26	-35.0 %
Mother	24	25	48	42	36	-14.3 %
Son / daughter	10	11	15	11	13	18.2 %
Grandfather / -mother	0	4	1	5	1	-80.0 %
Uncle / aunt	3	4	8	1	12	1100.0 %
Nephew / niece	1	1	3	2	2	0.0 %
Cousin	1	0	1	0	3	--
Total	**66**	**83**	**114**	**107**	**104**	**-2.8 %**

Non-related	2008	2009	2010	2011	2012	2011/2012
Spouse / partner	4	8	12	7	7	0.0 %
Not blood related family	3	3	3	5	5	0.0 %
Friend	1	1	2	0	0	0.0 %
Not blood related: NOS*	1	1	1	0	0	0.0 %
Total	**9**	**13**	**18**	**12**	**12**	**0.0 %**

*NOS Not otherwise specified

Table 7.5(ii) Living donor liver transplants - 2012

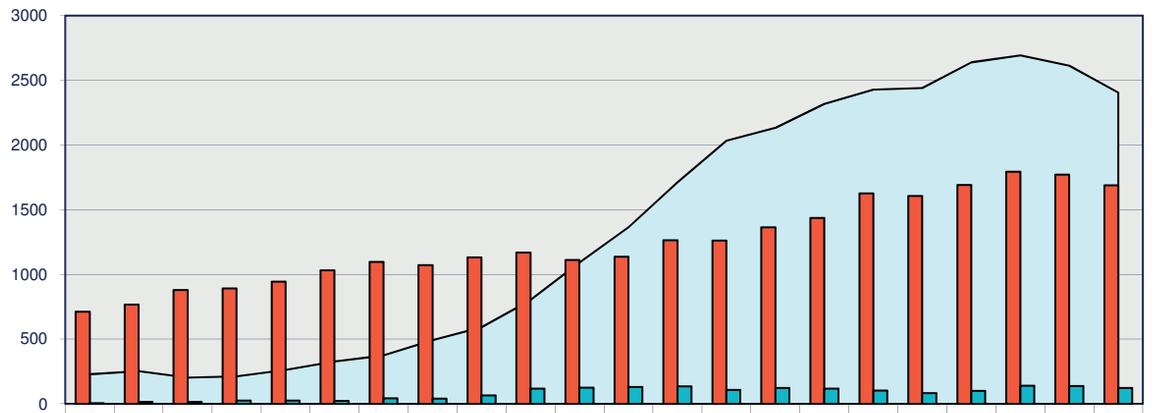
Liver-only	B	D	HR	NL	Total	%
Domino	2	2	0	1	5	4.1 %
Related	29	67	4	4	104	86.0 %
Non-related	1	11	0	0	12	9.9 %
Total	**32**	**80**	**4**	**5**	**121**	**100.0 %**

Related	B	D	HR	NL	Total	%
Brother / sister	3	8	0	0	11	10.6 %
Father	7	15	2	2	26	25.0 %
Mother	11	22	1	2	36	34.6 %
Son / daughter	2	11	0	0	13	12.5 %
Grandfather / - mother	0	1	0	0	1	1.0 %
Uncle / aunt	3	8	1	0	12	11.5 %
Nephew / niece	1	1	0	0	2	1.9 %
Cousin	2	1	0	0	3	2.9 %
Total	**29**	**67**	**4**	**4**	**104**	**100.0 %**

Non-related	B	D	HR	NL	Total	%
Spouse / partner	0	7	0	0	7	58.3 %
Not blood related family	1	4	0	0	5	41.7 %
Total	**1**	**11**	**0**	**0**	**12**	**100.0 %**

*NOS Not otherwise specified

Figure 7.5 **Dynamics of the Eurotransplant liver waiting list and liver transplants between 1991 and 2012**



	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Liver waiting list	229	253	203	212	263	327	374	492	593	803	1093	1366	1714	2035	2134	2319	2429	2442	2641	2695	2614	2406
Deceased donor transplants	710	765	878	892	944	1032	1097	1071	1132	1168	1112	1136	1264	1262	1364	1436	1625	1606	1692	1793	1770	1689
Living donor transplants*	5	15	14	24	25	22	41	38	64	116	124	129	133	106	121	116	101	82	99	138	135	121

Intestine transplants 2012

On January 1, 2012, 23 recipients were on the waiting list for an intestine transplant (16 in Germany, 4 in Belgium, 2 in Austria, 1 in the Netherlands). During the year 2012, 11 recipients were registered for either an isolated intestine transplant (N=3) or for a combined intestine transplant (N=8).

As per December 31, 2012, 20* recipients (15 in Germany, 2 in Belgium, 2 in Austria and 1 in the Netherlands) were awaiting either an isolated intestine transplant (N=13) or in combination with another organ (N=7).

* Urgency status of patients on the waiting list as per December 31, 2012:
Intestine-only: 7 patients registered T, 6 patients registered NT
Combined: 7 patients registered T, 0 patients registered NT

Table 7.7 **Number of intestinal transplants in 2012**

Country	Center	Total
Germany	GBCTP – Berlin	1
	GTUTP – Tübingen	1
	GMNTP – Münster	4
Belgium	BLGTP – Liège	1
	BANTP - Antwerpen	1
Netherlands	NGRTP – Groningen	2
Total		**10**

Five transplants concerned isolated intestine transplants and 5 concerned combined intestine transplants. In 2011, 7 isolated intestine transplants were performed and 8 combined intestine transplants.

Two recipients deceased while awaiting a transplant. Two recipients were removed from the waiting list.

8.

Pancreas and Islets: donation, waiting lists and transplants

DONATION

Table 8.1(i) **Deceased donors / pancreas in Eurotransplant from 2008 to 2012**

Donors	2008	2009	2010	2011	2012	2011/2012
All donors reported	2233	2305	2415	2481	2421	-2.4 %
Non-pancreas donors	1312	1429	1471	1473	1463	-0.7 %
Pancreas donors reported	921	876	944	1008	958	-5.0 %
Pancreas donors not used	664	650	671	703	681	-3.1 %
Pancreatic islet donors used	38	35	30	64	53	-17.2 %
Whole pancreas donors used	219	191	243	241	224	-7.1 %
Total pancreas donors used	257	226	273	305	277	-9.2 %

Pancreas	2008	2009	2010	2011	2012	2011/2012
Reported	921	876	944	1008	958	-5.0 %
Offered	880	835	920	985	935	-5.1 %
Accepted	551	503	573	613	577	-5.9 %
Transplanted	257	226	273	305	277	-9.2 %

Table 8.1(ii) **Deceased donors / pancreas in Eurotransplant in 2012**

Donors	A	B	D	H	HR	L	NL	SLO	Total ET	Non-ET	Total	% all donors
All donors reported	209	348	1075	82	157	4	312	50	2237	184	2421	100.0 %
Non-pancreas donors	182	136	698	82	103	2	49	32	1284	179	1463	60.4 %
Pancreas donors reported	27	212	377	0	54	2	263	18	953	5	958	39.6 %
Pancreas donors not used	11	165	235	0	33	0	218	14	676	5	681	28.1 %
Pancreatic islet donors used	0	33	1	0	3	0	16	0	53	0	53	2.2 %
Whole pancreas donors used	16	14	141	0	18	2	29	4	224	0	224	9.3 %
Total pancreas donors used	16	47	142	0	21	2	45	4	277	0	277	11.4 %

Pancreas	A	B	D	H	HR	L	NL	SLO	Total ET	Non-ET	Total	% reported
Reported	27	212	377	0	54	2	263	18	953	5	958	100.0 %
Offered	27	199	374	0	53	2	258	18	931	4	935	97.6 %
Accepted	23	111	247	0	27	2	159	7	576	1	577	60.2 %
Transplanted	16	47	142	0	21	2	45	4	277	0	277	28.9 %

Note: only counting donors from Hungary where organs were allocated by Eurotransplant

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

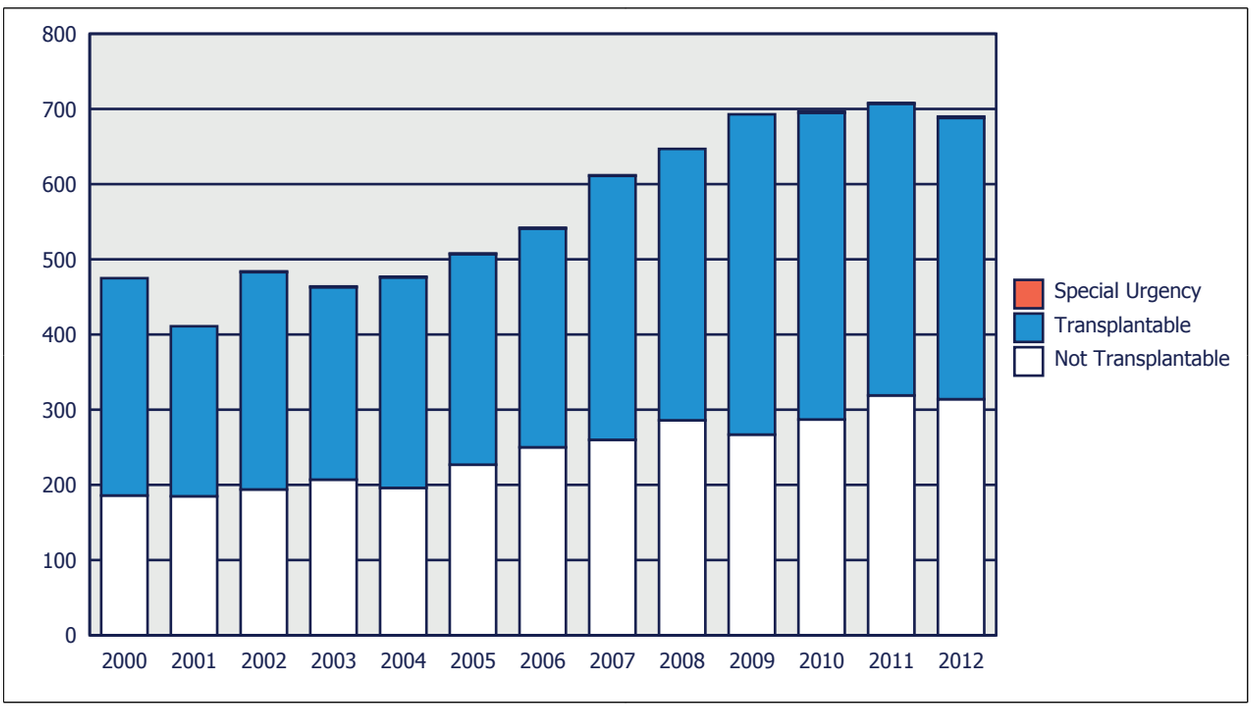


Figure 8.2 Pancreas waiting list, percentage of patients at year end, by urgency

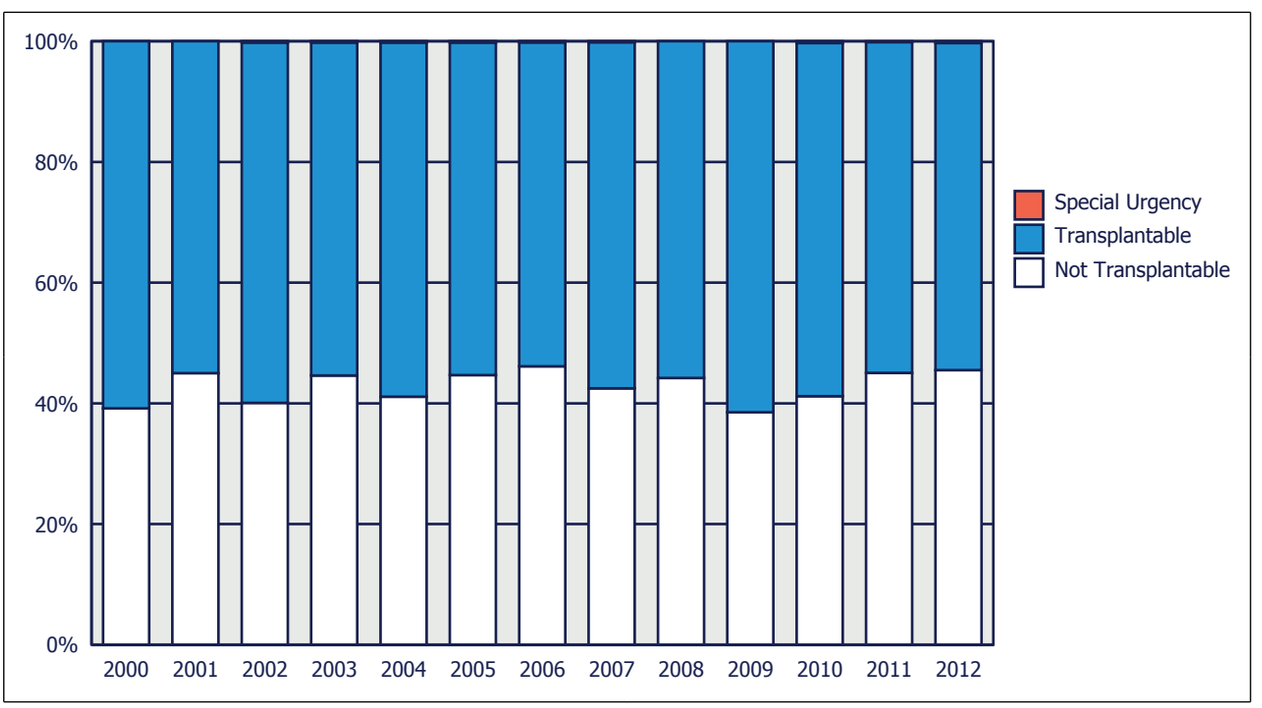


Table 8.2(i) Active pancreas transplant waiting list as per December 31, from 2008 to 2012 - characteristics

Type of transplant	2008	2009	2010	2011	2012	2011/2012
Pancreas	28	34	29	43	46	7.0 %
Pancreas islets	27	34	37	49	43	-12.2 %
Pancreas islets + kidney	3	0	0	3	1	-66.7 %
Pancreas + kidney	297	349	335	287	279	-2.8 %
Pancreas + kidney + liver	2	1	2	1	1	0.0 %
Pancreas + heart + liver	0	0	1	0	0	0.0 %
Pancreas + liver	4	8	6	6	6	0.0 %
Total	**361**	**426**	**410**	**389**	**376**	**-3.3 %**

Table 8.2(ii) Active pancreas transplant waiting list as per December 31, 2012 - characteristics

Type of transplant	A	B	D	HR	NL	SLO	Total	%
Pancreas	8	5	28	0	5	0	46	12.2 %
Pancreatic islets	0	21	12	0	10	0	43	11.4 %
Pancreatic islets + kidney	0	1	0	0	0	0	1	0.3 %
Pancreas + kidney	18	25	210	4	20	2	279	74.2 %
Pancreas + kidney + liver	0	0	1	0	0	0	1	0.3 %
Pancreas + liver	0	2	3	0	1	0	6	1.6 %
Total	**26**	**54**	**254**	**4**	**36**	**2**	**376**	**100.0 %**

Table 8.3a(i) Active pancreas-only transplant waiting list as per December 31, from 2008 to 2012 - characteristics

Blood group	2008	2009	2010	2011	2012	2011/2012
A	23	27	28	31	29	-6.5 %
AB	4	3	3	1	2	100.0 %
B	7	9	8	19	17	-10.5 %
0	21	29	27	41	41	0.0 %
Total	**55**	**68**	**66**	**92**	**89**	**-3.3 %**

% PRA current	2008	2009	2010	2011	2012	2011/2012
0-5 %	48	55	56	71	71	0.0 %
6-84 %	7	8	7	9	8	-11.1 %
85-100 %	0	1	0	1	0	-100.0 %
Not reported	0	4	3	11	10	-9.1 %
Total	**55**	**68**	**66**	**92**	**89**	**-3.3 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	26	38	38	55	53	-3.6 %
Repeat	29	30	28	37	36	-2.7 %
Total	**55**	**68**	**66**	**92**	**89**	**-3.3 %**

Table 8.3a(i) (continued)

Waiting time (months) based on date put on WL	2008	2009	2010	2011	2012	2011/2012
0-5	13	13	12	28	13	-53.6 %
6-11	11	15	10	20	16	-20.0 %
12-23	5	17	20	16	33	106.3 %
24+	26	23	24	28	27	-3.6 %
Total	**55**	**68**	**66**	**92**	**89**	**-3.3 %**

Age	2008	2009	2010	2011	2012	2011/2012
0-15	0	0	0	1	1	0.0 %
16-55	49	58	56	76	71	-6.6 %
56-64	5	8	6	11	13	18.2 %
65+	1	2	4	4	4	0.0 %
Total	**55**	**68**	**66**	**92**	**89**	**-3.3 %**

Table 8.3a(ii) Active pancreas-only transplant waiting list as per December 31, 2012 - characteristics

Blood group	A	B	D	NL	Total	%
A	2	7	13	7	29	32.6 %
AB	0	0	2	0	2	2.2 %
B	4	3	9	1	17	19.1 %
0	2	16	16	7	41	46.1 %
Total	**8**	**26**	**40**	**15**	**89**	**100.0 %**

% PRA current	A	B	D	NL	Total	%
0-5 %	8	15	33	15	71	79.8 %
6-84 %	0	1	7	0	8	9.0 %
Not reported	0	10	0	0	10	11.2 %
Total	**8**	**26**	**40**	**15**	**89**	**100.0 %**

Sequence	A	B	D	NL	Total	%
First	2	21	21	9	53	59.6 %
Repeat	6	5	19	6	36	40.4 %
Total	**8**	**26**	**40**	**15**	**89**	**100.0 %**

Waiting time (months) based on date put on WL	A	B	D	NL	Total	%
0-5	5	1	5	2	13	14.6 %
6-11	0	4	4	8	16	18.0 %
12-23	2	10	18	3	33	37.1 %
24+	1	11	13	2	27	30.3 %
Total	**8**	**26**	**40**	**15**	**89**	**100.0 %**

Table 8.3a(ii) (continued)

Age	A	B	D	NL	Total	%
0-15	0	1	0	0	1	1.1 %
16-55	8	17	34	12	71	79.8 %
56-64	0	5	5	3	13	14.6 %
65+	0	3	1	0	4	4.5 %
Total	**8**	**26**	**40**	**15**	**89**	**100.0 %**

Table 8.3b(i) Active kidney + pancreas transplant waiting list as per December 31, from 2008 to 2012 - characteristics

Blood group	2008	2009	2010	2011	2012	2011/2012
A	116	132	132	94	102	8.5 %
AB	10	8	5	8	5	-37.5 %
B	50	71	55	50	55	10.0 %
0	124	138	143	138	118	-14.5 %
Total	**300**	**349**	**335**	**290**	**280**	**-3.4 %**

% PRA current	2008	2009	2010	2011	2012	2011/2012
0-5 %	263	318	298	258	244	-5.4 %
6-84 %	29	22	30	27	25	-7.4 %
85-100 %	8	5	3	5	8	60.0 %
Not reported	0	4	4	0	3	--
Total	**300**	**349**	**335**	**290**	**280**	**-3.4 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	273	324	306	263	251	-4.6 %
Repeat	27	25	29	27	29	7.4 %
Total	**300**	**349**	**335**	**290**	**280**	**-3.4 %**

Waiting time (months) based on date put on WL	2008	2009	2010	2011	2012	2011/2012
0-5	72	78	77	58	53	-8.6 %
6-11	91	77	76	68	69	1.5 %
12-23	94	119	96	86	86	0.0 %
24+	43	75	86	78	72	-7.7 %
Total	**300**	**349**	**335**	**290**	**280**	**-3.4 %**

Age	2008	2009	2010	2011	2012	2011/2012
16-55	274	308	295	254	256	0.8 %
55-64	25	38	37	34	22	-35.3 %
65+	1	3	3	2	2	0.0 %
Total	**300**	**349**	**335**	**290**	**280**	**-3.4 %**

Table 8.3b(ii) Active kidney + pancreas transplant waiting list as per December 31, 2012 - characteristics

Blood group	A	B	D	HR	NL	SLO	Total	%
A	6	10	71	4	11	0	102	36.4 %
AB	1	1	3	0	0	0	5	1.8 %
B	4	6	40	0	5	0	55	19.6 %
0	7	9	96	0	4	2	118	42.1 %
Total	**18**	**26**	**210**	**4**	**20**	**2**	**280**	**100.0 %**

% PRA current	A	B	D	HR	NL	SLO	Total	%
0-5 %	15	23	182	3	19	2	244	87.1 %
6-84 %	1	1	22	0	1	0	25	8.9 %
85-100 %	1	2	5	0	0	0	8	2.9 %
Not reported	1	0	1	1	0	0	3	1.1 %
Total	**18**	**26**	**210**	**4**	**20**	**2**	**280**	**100.0 %**

Sequence	A	B	D	HR	NL	SLO	Total	%
First	15	24	187	4	19	2	251	89.6 %
Repeat	3	2	23	0	1	0	29	10.4 %
Total	**18**	**26**	**210**	**4**	**20**	**2**	**280**	**100.0 %**

Waiting time (months) based on date put on WL	A	B	D	HR	NL	SLO	Total	%
0-5	7	5	34	2	5	0	53	18.9 %
6-11	3	7	48	1	8	2	69	24.6 %
12-23	5	6	69	1	5	0	86	30.7 %
24+	3	8	59	0	2	0	72	25.7 %
Total	**18**	**26**	**210**	**4**	**20**	**2**	**280**	**100.0 %**

Age	A	B	D	HR	NL	SLO	Total	%
16-55	16	24	191	4	19	2	256	91.4 %
55-64	2	1	18	0	1	0	22	7.9 %
65+	0	1	1	0	0	0	2	0.7 %
Total	**18**	**26**	**210**	**4**	**20**	**2**	**280**	**100.0 %**

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

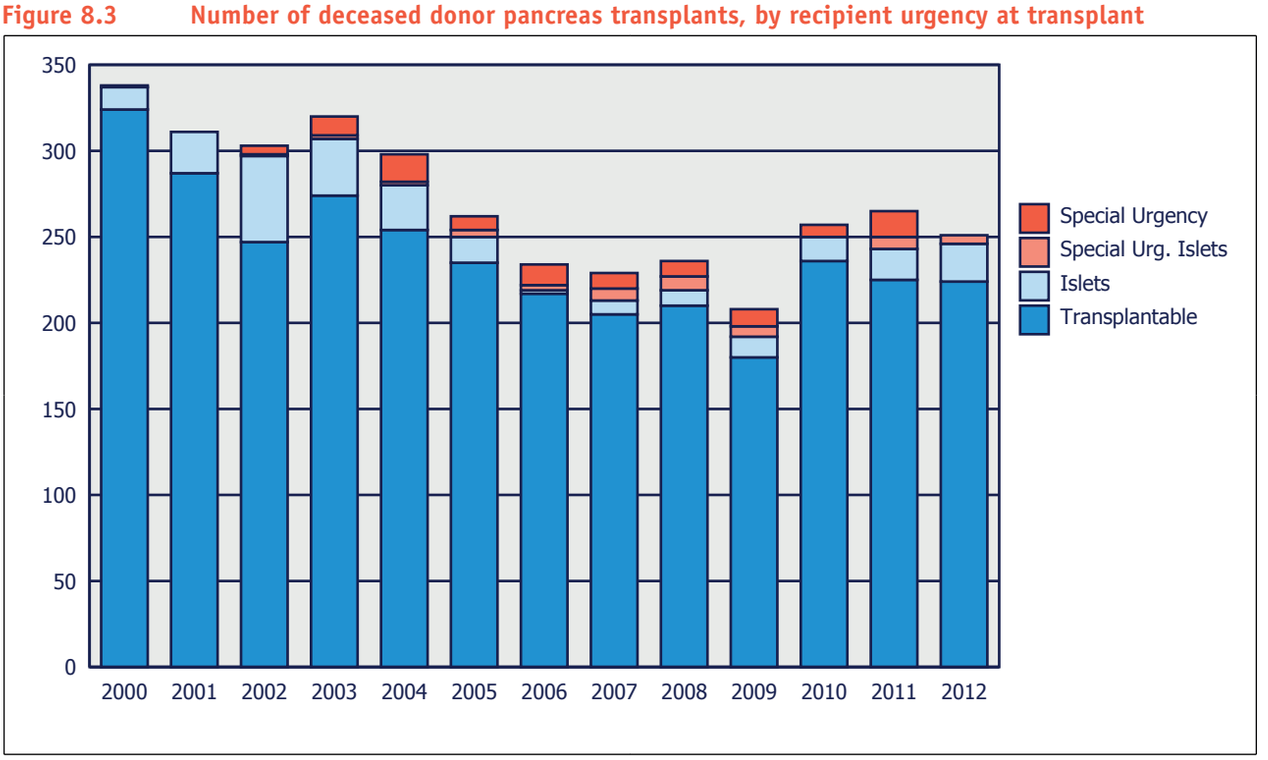


Figure 8.4 Percentage of deceased donor pancreas, by recipient urgency at transplant

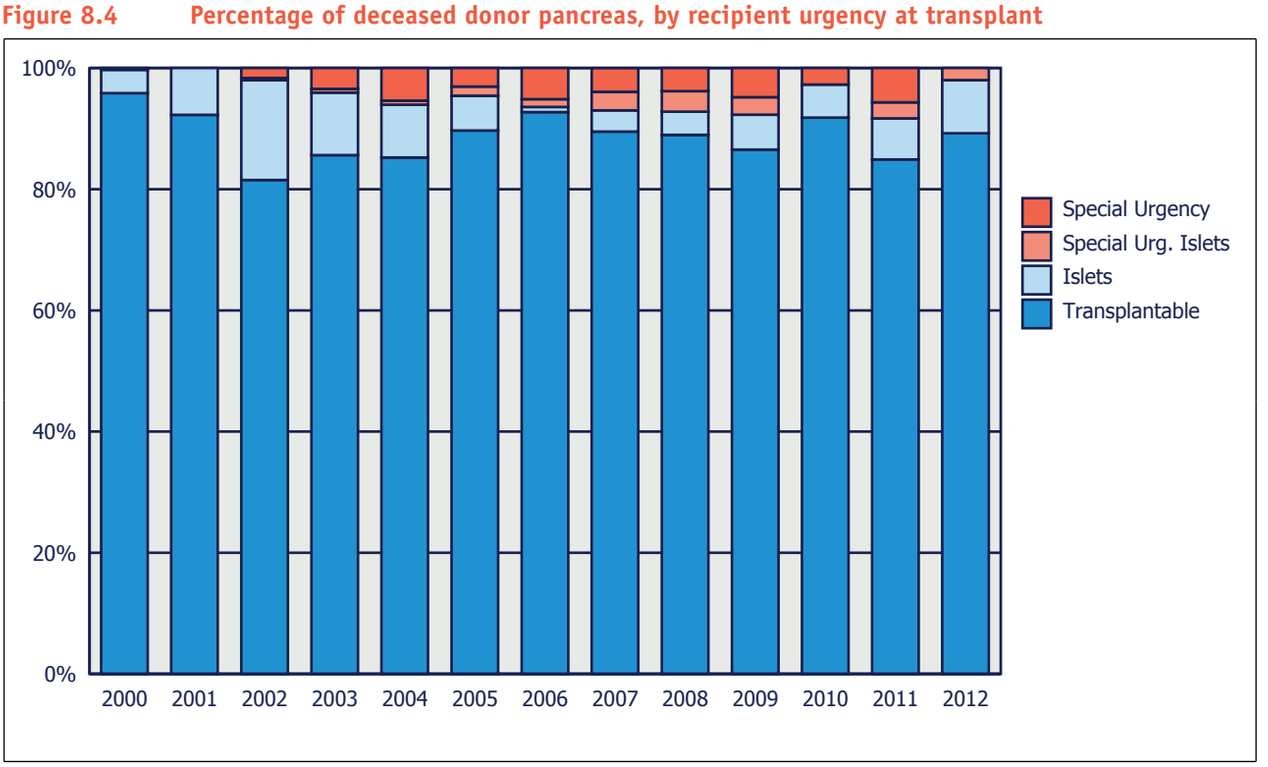


Table 8.4a(i) Pancreas transplants 2008 to 2012 - characteristics

Deceased donor pancreas transplants

Type of transplant	2008	2009	2010	2011	2012	2011/2012
Pancreas	20	13	24	21	24	14.3 %
Pancreas islets	17	18	14	25	27	8.0 %
Pancreas + kidney	194	172	211	210	195	-7.1 %
Pancreas + kidney en bloc	0	0	0	1	0	-100.0 %
Pancreas + kidney + heart	0	0	1	0	0	0.0 %
Pancreas + kidney + whole liver	0	2	1	2	1	-50.0 %
Pancreas + whole liver	5	4	6	6	4	-33.3 %
Total	**236**	**209**	**257**	**265**	**251**	**-5.3 %**

Pancreas-only transplants (whole)

Blood group	2008	2009	2010	2011	2012	2011/2012
A	11	6	6	8	10	25.0 %
AB	2	0	3	0	0	0.0 %
B	1	2	3	4	4	0.0 %
0	6	5	12	9	10	11.1 %
Total	**20**	**13**	**24**	**21**	**24**	**14.3 %**

Waiting time (months) based on date put on WL	2008	2009	2010	2011	2012	2011/2012
0-5	4	6	7	8	5	-37.5 %
6-11	4	2	4	4	4	0.0 %
12-23	8	2	7	5	8	60.0 %
24-59	4	2	6	4	6	50.0 %
60 +	0	1	0	0	1	--
Total	**20**	**13**	**24**	**21**	**24**	**14.3 %**

Sequence	2008	2009	2010	2011	2012	2011/2012
First	8	5	12	7	9	28.6 %
Repeat	12	8	12	14	15	7.1 %
Total	**20**	**13**	**24**	**21**	**24**	**14.3 %**

Recipient age	2008	2009	2010	2011	2012	2011/2012
16-55	20	13	23	18	22	22.2 %
56-64	0	0	1	3	2	-33.3 %
Total	**20**	**13**	**24**	**21**	**24**	**14.3 %**

Allocation	2008	2009	2010	2011	2012	2011/2012
Standard	18	13	22	16	15	-6.3 %
Rescue	2	0	2	5	9	80.0 %
Total	**20**	**13**	**24**	**21**	**24**	**14.3 %**

Table 8.4a(i) (continued)

Urgency	2008	2009	2010	2011	2012	2011/2012
Special urgency	4	4	4	9	0	-100.0 %
Elective	16	9	20	12	24	100.0 %
Total	**20**	**13**	**24**	**21**	**24**	**14.3 %**

Table 8.4a(ii) Pancreas transplants 2012 - characteristics

Deceased donor pancreas transplants

Type of transplant	A	B	D	HR	NL	Total	%
Pancreas	2	1	18	0	3	24	9.6 %
Pancreas islets	0	19	2	0	6	27	10.8 %
Pancreas + kidney	12	10	140	8	25	195	77.7 %
Pancreas + kidney + whole liver	0	0	1	0	0	1	0.4 %
Pancreas + whole liver	0	2	2	0	0	4	1.6 %
Total	**14**	**32**	**163**	**8**	**34**	**251**	**100.0 %**

Pancreas-only transplants (whole)

Blood group	A	B	D	HR	NL	Total	%
A	1	1	7	0	1	10	41.7 %
B	0	0	4	0	0	4	16.7 %
0	1	0	7	0	2	10	41.7 %
Total	**2**	**1**	**18**	**0**	**3**	**24**	**100.0 %**

Waiting time (months) based on date put on WL	A	B	D	HR	NL	Total	%
0-5	2	0	3	0	0	5	20.8 %
6-11	0	0	3	0	1	4	16.7 %
12-23	0	0	6	0	2	8	33.3 %
24-59	0	1	5	0	0	6	25.0 %
60 +	0	0	1	0	0	1	4.2 %
Total	**2**	**1**	**18**	**0**	**3**	**24**	**100.0 %**

Sequence	A	B	D	HR	NL	Total	%
First	0	1	6	0	2	9	37.5 %
Repeat	2	0	12	0	1	15	62.5 %
Total	**2**	**1**	**18**	**0**	**3**	**24**	**100.0 %**

Recipient age	A	B	D	HR	NL	Total	%
16-55	2	1	16	0	3	22	91.7 %
56-64	0	0	2	0	0	2	8.3 %
Total	**2**	**1**	**18**	**0**	**3**	**24**	**100.0 %**

Table 8.4a(ii) (continued)

Allocation	A	B	D	HR	NL	Total	%
Standard	2	1	9	0	3	15	62.5 %
Rescue	0	0	9	0	0	9	37.5 %
Total	**2**	**1**	**18**	**0**	**3**	**24**	**100.0 %**

Urgency	A	B	D	HR	NL	Total	%
Special urgency	0	0	0	0	0	0	0.0 %
Elective	2	1	18	0	3	24	100.0 %
Total	**2**	**1**	**18**	**0**	**3**	**24**	**100.0 %**

Table 8.4b(i) Pancreas islet transplants 2008 to 2012

Pancreas islets	2008	2009	2010	2011	2012	2011/2012
Recipients transplanted	9	11	10	16	14	-12.5 %
Number of transplants	17	18	14	25	27	8.0 %
Number of donors used	37	36	30	64	53	-17.2 %

Table 8.4b(ii) Pancreas islet transplants in 2012

Pancreas islets	B	D	NL	Total
Recipients transplanted	7	2	5	14
Number of transplants	19	2	6	27
Number of donors used	42	2	9	53

Table 8.4c(i) Pancreas transplants 2008 to 2012 - characteristics

Whole pancreas + kidney (deceased donor) transplants

Blood group	2008	2009	2010	2011	2012	2011/2012
A	90	76	97	103	75	-27.2 %
AB	12	12	9	11	9	-18.2 %
B	12	16	32	30	18	-40.0 %
0	80	68	73	67	93	38.8 %
Total	**194**	**172**	**211**	**211**	**195**	**-7.6 %**

Waiting time (months) based on date put on WL	2008	2009	2010	2011	2012	2011/2012
0-5	34	35	46	39	34	-12.8 %
6-11	38	27	26	35	30	-14.3 %
12-23	82	77	70	73	59	-19.2 %
24-59	37	28	63	57	66	15.8 %
60+	3	5	6	7	6	-14.3 %
Total	**194**	**172**	**211**	**211**	**195**	**-7.6 %**

Table 8.4c(i) (continued)

Sequence	2008	2009	2010	2011	2012	2011/2012
First	187	165	208	197	191	-3.0 %
Repeat	7	7	3	14	4	-71.4 %
Total	**194**	**172**	**211**	**211**	**195**	**-7.6 %**

Recipient age	2008	2009	2010	2011	2012	2011/2012
0-15	1	0	0	0	0	0.0 %
16-55	177	163	190	188	170	-9.6 %
56-64	15	9	21	20	23	15.0 %
65+	1	0	0	3	2	-33.3 %
Total	**194**	**172**	**211**	**211**	**195**	**-7.6 %**

Allocation	2008	2009	2010	2011	2012	2011/2012
Standard	174	157	171	129	125	-3.1 %
Rescue	20	15	40	82	70	-14.6 %
Total	**194**	**172**	**211**	**211**	**195**	**-7.6 %**

Urgency	2008	2009	2010	2011	2012	2011/2012
Special urgency	5	6	3	6	0	-100.0 %
Elective	189	166	208	205	195	-4.9 %
Total	**194**	**172**	**211**	**211**	**195**	**-7.6 %**

Table 8.4c(ii) Pancreas transplants 2012 - characteristics

Whole pancreas + kidney (deceased donor) transplants

Blood group	A	B	HR	D	NL	Total	%
A	3	4	3	56	9	75	38.5 %
AB	1	0	0	7	1	9	4.6 %
B	3	0	0	14	1	18	9.2 %
0	5	6	5	63	14	93	47.7 %
Total	**12**	**10**	**8**	**140**	**25**	**195**	**100.0 %**

Waiting time (months) based on date put on WL	A	B	HR	D	NL	Total	%
0-5	6	2	7	17	2	34	17.4 %
6-11	4	1	1	18	6	30	15.4 %
12-23	2	4	0	43	10	59	30.3 %
24-59	0	2	0	59	5	66	33.8 %
60+	0	1	0	3	2	6	3.1 %
Total	**12**	**10**	**8**	**140**	**25**	**195**	**100.0 %**

Sequence	A	B	HR	D	NL	Total	%
first	12	10	8	136	25	191	97.9 %
repeat	0	0	0	4	0	4	2.1 %
Total	**12**	**10**	**8**	**140**	**25**	**195**	**100.0 %**

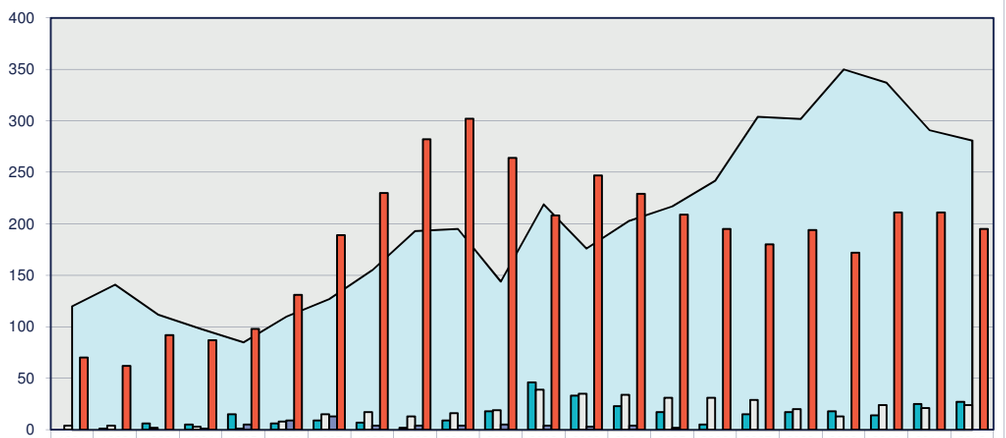
Table 8.4c(ii) (continued)

Recipient age	A	B	HR	D	NL	Total	%
0-15	0	0	0	0	0	0	0.0 %
16-55	10	6	8	123	23	170	87.2 %
56-64	2	3	0	16	2	23	11.8 %
65+	0	1	0	1	0	2	1.0 %
Total	**12**	**10**	**8**	**140**	**25**	**195**	**100.0 %**

Allocation	A	B	HR	D	NL	Total	%
Standard	12	9	8	71	25	125	64.1 %
Rescue	0	1	0	69	0	70	35.9 %
Total	**12**	**10**	**8**	**140**	**25**	**195**	**100.0 %**

Urgency	A	B	HR	D	NL	Total	%
Special urgency	0	0	0	0	0	0	0.0 %
Elective	12	10	8	140	25	195	100.0 %
Total	**12**	**10**	**8**	**140**	**25**	**195**	**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 2012



	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Islet+Kidney & Pancreas+Kidney waiting list	120	141	112	98	85	110	127	155	193	195	144	219	176	203	217	242	304	302	350	337	291	281
Islet transplants	0	1	6	5	15	6	9	7	2	9	18	46	33	23	17	5	15	17	18	14	25	27
Pancreas transplants	4	4	2	3	1	8	15	17	13	16	19	39	35	34	31	31	29	20	13	24	21	24
Islets+Kidney transplant	0	0	0	1	5	9	13	4	4	4	5	4	3	4	2	0	0	0	0	0	0	0
Pancreas+Kidney transplants	70	62	92	87	98	131	189	230	282	302	264	208	247	229	209	195	180	194	172	211	211	195

9.

Twinning agreements between transplant programs within and outside Eurotransplant

Eurotransplant (ET) currently distinguishes three types of cooperation agreements between transplant centers within ET countries and transplant centers outside the ET area. Each of these models was introduced with a different focus:

Model A – Transplantation start-up and training program

The ET transplant center (ET-TC) helps a transplant center outside the ET area (non-ET-TC) to start-up a transplant program concerning a *specific type of organ*. For this purpose the ET-TC provides training in procurement and transplantation and takes care that the procurement in the non-ET-TC is performed according to ET standards. The transplantation takes place in the ET-TC. The non-ET-TC reports the donor organs to ET and places patients on the waiting list of the ET-TC. Organs reported by the non-ET-TC are allocated according to the general ET allocation rules considering the donors from the non-ET-TC as local donors of the ET-TC.

Currently the following twinning agreements Model A exist:

Lung transplantation

ET-transplant center	Non-ET transplant center	Number of non-ET-TC recipients transplanted in 2012	Number of transplants resulting from non-ET-TC donors in 2012
Allgemeines Krankenhaus, Univ.-Klinik für Chirurgie Vienna, Austria	Tartu Universtiy Hospital Tartu, Estonia	None	7 x Both lungs
Allgemeines Krankenhaus, Univ.-Klinik für Chirurgie Vienna, Austria	Chest Clinic Nicosia General Hospital, Strovolos/Nicosia, Cyprus	2 x Both lungs	0
Allgemeines Krankenhaus, Univ.-Klinik für Chirurgie Vienna, Austria	Fakultná nemocnica s poliklinikou Bratislava Bratislava, Slovakia	9 x Both lungs	2 x Both lungs
Allgemeines Krankenhaus, Univ.-Klinik für Chirurgie Vienna, Austria	Institutul de Pneumologie ‚Marius Nasta' Bucharest, Romania	2 x Both lungs	0
Allgemeines Krankenhaus, Univ. Klinik für Chirurgie Vienna, Austria	Sismanoglio General Hospital Athens, Greece	2 x Both lungs	1 x Both lungs
Allgemeines Krankenhaus, Univ.- Klinik für Chirurgie Vienna, Austria	Semmelweis University, Department of Thoracic Transplantation, Budapest, Hungary	18 x Both lungs 1 x Heart + both lungs	28 x Both lungs

Model B – Transplantation support program

The ET transplant center (ET-TC) provides knowledge and experience to a transplant center outside the ET area (non-ET-TC) concerning a *specific type of organ* for special patients. For this purpose the ET-TC provides training in procurement and transplantation for these special patients and takes care that the procurement of organs reported to ET in the non-ET-TC is performed according to ET standards. The transplantation takes either place in the ET TC or in the non-ET-TC. The non-ET-TC is encouraged to report all organs, for which non-suitable recipients can be identified within the non-ET-country to ET. As minimum obligation after a transplantation took place, the non-ET-TC has to offer to the ET pool the organ(s) of the same type until transplantation was performed. The non-ET-TC places patients on the waiting list of the ET-TC. Organs reported by the non-ET-TC are allocated according to the general ET allocation rules considering the donors from the non-ET-TC as local donors of the ET-TC. ET monitors the exchange balance between the ET-TC and the non-ET-TC.

Currently the following twinning agreements Model B exist:

Liver transplantation*

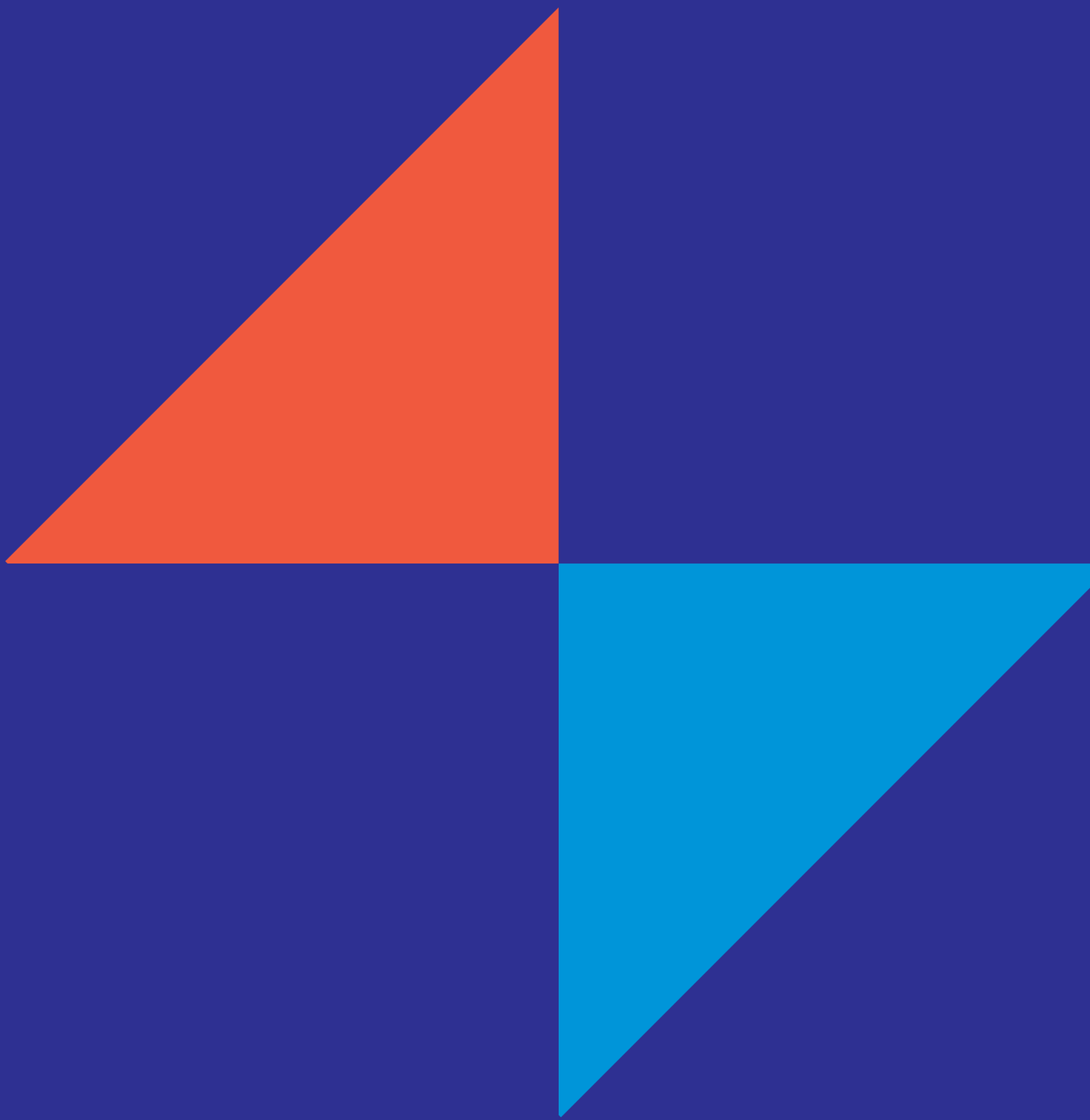
ET-transplant center	Non-ET transplant center	Number of non-ET-TC recipients transplanted in 2012	Number of transplants resulting from non-ET-TC donors in 2012
Allgemeines Krankenhaus, Univ.-Klinik für Chirurgie Vienna, Austria	University of Bratislava Univerzitná nemocnica Bratislava Bratislava, Slovakia	0	0

* The liver twinning agreement with Hungary ended on January 1, 2012 due to the preliminary ET membership of Hungary.

Model C – Delegated responsibilities for one (or several) transplant programs

The ET center executes transplantations (of one or several types of organs) for the patients of a non-ET center, region or country. The ET-TC takes care that the procurement of organs in the non-ET center, region or country is in line with ET standards. Transplantation takes place in the ET center. The non-ET center, region or country reports the donor organs to ET and places patients on the waiting list of the ET-TC. Organs reported by the non-ET-center, region or country are allocated according to the general ET allocation rules considering them as local donors of the ET-TC.

Currently no formal Model C twinning agreement exists, it is planned to formalize the long cooperation between the transplant center in Innsbruck, Austria and the region of Alto Adige in Italy according to these principles.



10. Histocompatibility Testing

I.I.N. Doxiadis, PhD and F.H.J. Claas, PhD, Eurotransplant Reference Laboratory, Department of Immunohaematology and Blood Transfusion, Leiden University Medical Center, Leiden, The Netherlands

10.1 Introduction

An ongoing task of the Eurotransplant Reference Laboratory (ETRL) is the improvement and maintenance of the high quality of HLA typing, screening for transplantation relevant antibodies and crossmatching in the Eurotransplant (ET) affiliated Tissue Typing Centers (TTC). This task is addressed by organizing schemes for External Proficiency Testing exercises (EPT). 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 reintroduction of 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 and TTC from emerging countries. For example the ETRL actively helps the TTC in Hungary to obtain the accreditation by the European Federation for Immunogenetics (www.efiweb.org; (EFI), which is essential for the participation in Eurotransplant. The ETRL is involved in the discussion on a 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 all patients within ET, including the Acceptable Mismatch program.

10.2 Eurotransplant External Proficiency Testing Schemes

The results of the EPT Exercises performed in 2012,to determine the individual performance of the TTC's are reported below:

10.2.1 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 prior to a certain deadline. For the analysis of the results the typing available at the ETRL was taken as 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 matching algorithm and screening results. For a total of 648 reported typing results 15 erroneous results were reported (2.3%). Most participants used for the MHC class I both cytotoxicity and molecular typing, and for Class II molecular typing and incidentally cytotoxicity. The results of HLA-A, -B, -C typing indicate that laboratories affiliated to ET as well as to other organ exchange organizations use the results of the serological typing as a marker for expression of antigens on the cell surface in order to evaluate the crossmatches.

10.2.2 External Proficiency Testing on crossmatching

The participants of this EPT Exercise were asked to perform crossmatches using the cells provided for the EPT on the sera of 4 different patients on the kidney waiting list from ET selected by the ETRL or sera provided by the ETRL depending on the type of laboratory they are. The TTC applied the local crossmatch techniques, CDC, using dithiothreitol (DTT) to destroy IgM antibodies to simulate the day-to-day practice. The TTC were free to use unseparated peripheral blood cells, separated T and/or B cells but they had to report a final crossmatch result as it is done for organ donor procedures (table 10.1). In total 48 sera had to be crossmatched per participating laboratory. 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 laboratories doing recipient associated transplantation immunological diagnostics are reported separately. The target cells and the respective results are presented in table 10.1.

Table 10.1 **Results of the EPT on crossmatching (DTT = dithiothreitol): the number represents the % discrepancy rate on the basis of the 75% consensus**

	Unseparated		T cells		B cells		Final results	
Method	(-) DTT	(+) DTT	(-) DTT	(+) DTT	(-) DTT	(+) DTT	(-) DTT	(+) DTT
Donor	5.4	4.4	2.0	2.1	3.7	4.3	6.0	4.4
Recipient	4.3	4.0	2.8	4.0	3.1	4.5	2.5	3.0

The results are similar to earlier periods.

10.2.3 External Proficiency Testing Exercise on screening

In 2012 the scheme of the EPT Exercise on screening for HLA specific antibodies comprised 2 shipments of 6 sera. The HLA typing of the serum donor, the immunizing partner and of one of the children is known in almost all instances, and is reported to the participants beforehand. The ETRL received results from 58 participants for the Complement Dependent Cytotoxicity (CDC) assay, 48 for the Luminex based single antigens testing and several others using Solid phase assays based on Luminex and/or ELISA. Currently, the methods for screening for HLA specific antibodies are evolving rapidly, the reason why standardized analyses are yet not possible. The basis of the analysis is the 75% consensus for positive results and the 95% consensus for negative results. If 75% or more of the participants report that a specificity is positive then this specificity is tagged positive. If 95% of the participants report a specificity as negative then this specificity is regarded as not recognized by the respective serum. At the beginning of the period the participants were informed that besides the standard result oriented analysis, where all methods are accepted, a specific CDC and a single antigen microsphere (Luminex SA) analysis would be done. This resulted in a problem because participants not having yet established a solid phase assay based on Luminex SA had to be penalized because of missing consensus specificities. The results of the EPT are presented below in table 10.2. In the future more efforts will be made to standardize the screening methodology.

Table 10.2 **Results of the EPT on screening**

		Concordant (N)	False negative (N)	False positive (N)
Method	Participants (N)	Per serum	Per serum	Per serum
CDC	58	1.3	5.8	11.6
LUM SA	46	10.4	9.6	11.9

The solid phase method (LUM SA) lead to a significant higher number of recognized HLA specificities per tested serum compared to CDC. On the other hand both false positive and false negative results are increased when the participants use the solid phase based method. Patients tested with the Luminex based single antigen method only would have a significant increase of unacceptable HLA mismatches some of those incorrectly defined.

10.3 Program for the highly sensitized patients in Eurotransplant

The Acceptable Mismatch Program (AM) program organized and controlled by the ETRL is an efficient tool to enhance transplantation of highly sensitized patients. This program is open for all patients of ET. Information for participation can be obtained directly from the ETRL, the ET Medical Administration, or from the ET website (http://etrl.eurotransplant.org/cms/index.php).

In total 96 patients were offered and transplanted with a crossmatch negative kidney. The trend observed in the past years continued. More transplants are done in Germany than the other ET countries together, which allows the conclusion that the program is now well accepted by all the ET countries (figure 10.1). The first transplants of highly sensitized patients in Hungary have been performed in this period, showing the efficacy of the program.

10.4 Other activities

The ETRL site

The site of the ETRL (http://etrl.eurotransplant.org/cms/index.php)) is open for all laboratories working in the field of organ transplantation immunology and histocompatibility. Besides important information on the duties of the ETRL, the participants of the EPT can download the respective forms for the report of the results as well as the final analysis. Further information of future meetings within ET as well as reports of these meetings is found there. Two new programs already used for several years at the ETRL were put on the public site: the virtual-PRA, which is based on the HLA typing results of organ donors procured in the ET area (N=4000) but which also allows PRA calculations on the national data bases of Austria, Belgium, Germany and the Netherlands. The second program allows the calculation of the chance a highly sensitized patient has to obtain a crossmatch negative organ, when HLA type, blood group and acceptable mismatches are defined.

Number of transplants per country

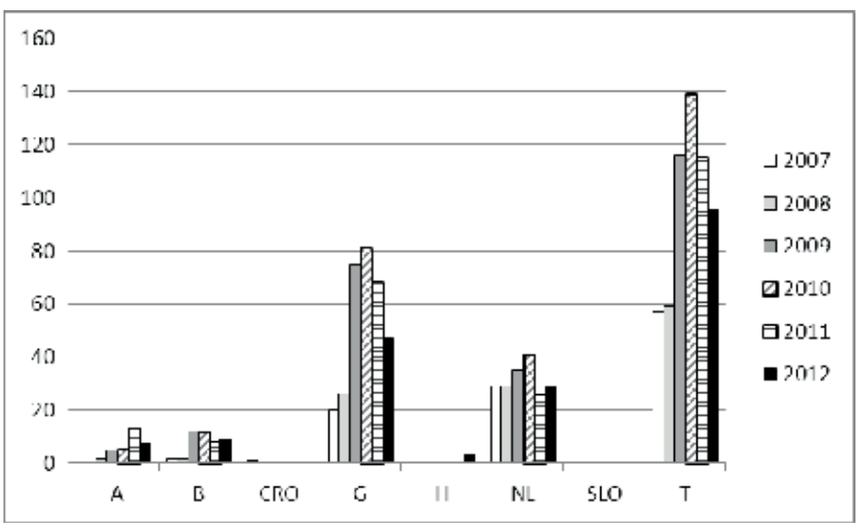


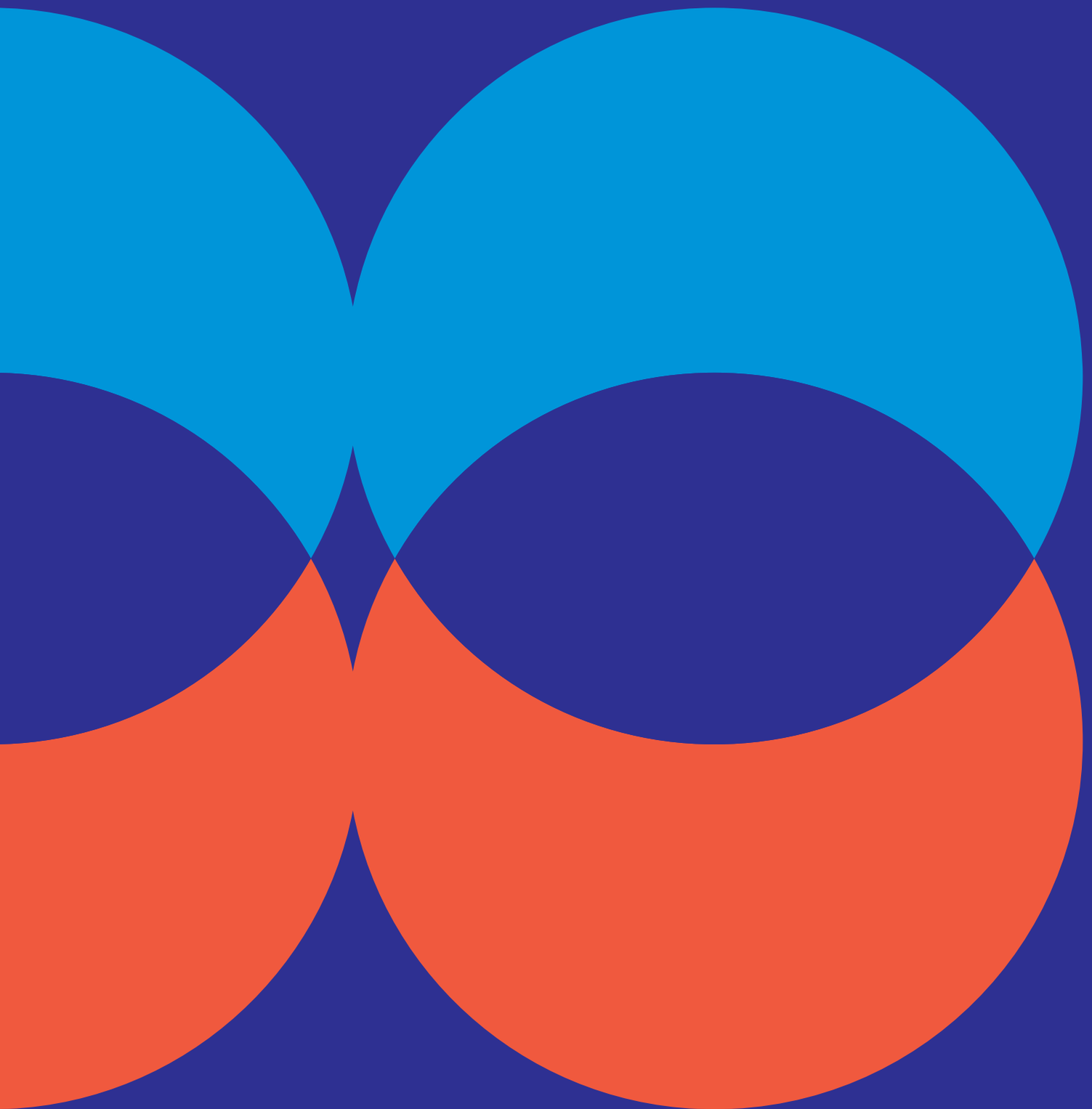
Figure 10.1 Number of patients transplanted via the AM program

Extra Mural Meeting Berlin

In 2012 an Extra Mural Meeting was organized in Berlin, Germany, for the ET tissue typers community. Main topic was the detection and clinical relevance of HLA specific antibodies, especially in kidney transplantation. At the moment it is hard to find a consensus but the community is prepared to discuss and present evidence for the decision made locally. It is evident that although no clear clinical data are available almost all TTC use the additional techniques and base their decision on these results.

Annual Tissue Typers Meeting

The Annual Tissue Typers Meeting was held in October 2012 in Leiden. Over 140 participants from the different TTC were present. The topic was risk assessment and clinical relevance of HLA specific and other antibodies in kidney transplantation. The impact of new techniques leading to a high virtual PRA value was extensively discussed. Patients with antibodies detectable in solid phase assays only, cannot be accepted in the AM Program, even if their virtual PRA value exceeds 85%. In addition the dispatch of patient sera for crossmatches in the donor center was discussed. Finally a short report on the EPT activities was delivered.



11.
Scientific Output in 2012

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

PUBLICATIONS – articles

Spaderna H, Weidner G, Koch KC, Kaczmarek I, Wagner FM, *Smits JM*
Medical and psychosocial predictors of mechanical circulatory support device implantation and competing outcomes in the waiting for a new heart study
J Heart Lung Transplant. 2012 Jan;31(1):16-26.

Smits JM, De Pauw M, *Vries de E, Rahmel AO*, Meiser B, Laufer G, Zuckermann A
Donor scoring system for heart transplantation and the impact on patient survival
J Heart Lung Transplant. 2012 Apr;31(4):387-97.

Squifflet JP, *Rahmel A*, Pirenne J, Ploeg RJ, Paul A
Machine perfusion versus cold storage for the preservation of kidneys from donors ≥65 years allocated in the Eurotransplant Senior Program
Nephrol Dial Transplant. 2012 Jul 26.

Jochmans I, Darius T, Kuypers D, Monbaliu D, Goffin E, Mourad M, Ledinh H, Weekers L, Peeters P, Randon C, Bosmans JL, Roeyen G, Abramowicz D, Hoang AD, De Pauw L, *Rahmel A*, Squifflet JP, Pirenne J
Kidney donation after circulatory death in a country with a high number of brain dead donors: 10-year experience in Belgium
Transpl Int. 2012 Aug;25(8):857-866.

Groen H, Moers C, *Smits JM*, Treckmann J, Monbaliu D, *Rahmel A*, Paul A, Pirenne J, Ploeg RJ, Buskens E
Cost-effectiveness of hypothermic machine preservation versus static cold storage in renal transplantation
Am J Transplant. 2012 Jul;12(7):1824-30.

Cendales LC, *Rahmel A*, Pruett TL
Allocation of vascularized composite allografts: what is it?
Transplantation. 2012 Jun 15;93(11):1086-7.

Stel VS, Kramar R, Leivestad T, Hoitsma AJ, Metcalfe W, *Smits JM*, Ravani P, Jager KJ
Time trend in access to the waiting list and renal transplantation: a comparison of four European countries
Nephrol Dial Transplant. 2012 Sep;27(9):3621-31.

Treckmann J, Moers C, *Smits JM*, Gallinat A, Jochmans I, Squifflet JP, Pirenne J, Ploeg RJ, Paul A
Machine perfusion in clinical trials: "machine vs. solution effects"
Transpl Int. 2012 May;25(5).

Doxiadis II
Compatibility and kidney transplantation: the way to go
Front Immunol. 2012;3:111.

Roelen DL, *Doxiadis II*, Claas FH
Detection and clinical relevance of donor specific HLA antibodies: a matter of debate
Transpl Int. 2012 Jun;25(6):604-10.

Benden C, Edwards LB, Kucheryavaya AY, Christie JD, Dipchand AI, Dobbels F, Kirk R, *Rahmel AO*, Stehlik J, Hertz MI; International Society of Heart and Lung Transplantation.
The Registry of the International Society for Heart and Lung Transplantation: 15th pediatric lung and heart-lung transplantation report 2012
J Heart Lung Transplant. 2012 Oct;31.

Christie JD, Edwards LB, Kucheryavaya AY, Benden C, Dipchand AI, Dobbels F, Kirk R, *Rahmel AO*, Stehlik J, Hertz MI; International Society of Heart and Lung Transplantation.
The Registry of the International Society for Heart and Lung Transplantation: 29th adult lung and heart-lung transplant report 2012
J Heart Lung Transplant. 2012 Oct;31.

Kirk R, Dipchand AI, Edwards LB, Kucheryavaya AY, Benden C, Christie JD, Dobbles F, *Rahmel AO*, Stehlik J, Hertz MI; International Society for Heart and Lung Transplantation.
The Registry of the International Society for Heart and Lung Transplantation: 15th pediatric heart transplantation report 2012
J Heart Lung Transplant. 2012 Oct;31.

Stehlik J, Edwards LB, Kucheryavaya AY, Benden C, Christie JD, Dipchand AI, Dobbels F, Kirk R, *Rahmel AO*, Hertz MI; International Society of Heart and Lung Transplantation.
The Registry of the International Society for Heart and Lung Transplantation: 29th official adult heart transplant report 2012
J Heart Lung Transplant. 2012 Oct;31.

Langer RM, Cohen B, *Rahmel A*
History of Eurotransplant
Transplant Proc. 2012 Sep.

Gallinat A, Moers C, Treckmann J, *Smits JM*, Leuvenink HG, Lefering R, Heurn van E, Kirste GR, Squifflet JP, *Rahmel AO*, Pirenne J, Ploeg RJ, Paul A
Machine perfusion versus cold storage for the preservation of kidneys from donors ≥65 years allocated in the Eurotransplant Senior Program
Nephrol Dial Transplant. 2012; 12:4458-63.

Tait BD, Süsal C, Gebel HM, Nickerson PW, Zachary AA, Claas FH, Reed EF, Bray RA, Campbell P, Chapman JR, Coates PT, Colvin RB, Cozzi E, *Doxiadis II*, Fuggle SV, Gill J, Glotz D, Lachmann N, Mohanakumar T, Suciu-Foca N, Sumitran-Holgersson S, Tanabe K, Taylor CJ, Tyan DB, Webster A, Zeevi A, Opelz G
Consensus guidelines on the testing and clinical management issues associated with HLA and non-HLA antibodies in transplantation
Transplantation 2012 Dec 12. [Epub ahead of print]

Blok JJ, Braat AE, Ringers J.
Reply to: asystole to cross-clamp period predicts development of biliary complications in liver transplantation using donation after cardiac death donors
Transpl Int. 2012 Nov 12 [Epub ahead of print].

Braat AE, *Blok JJ,* Putter H, Adam R, Burroughs AK, *Rahmel AO*, Porte RJ, Rogiers X, Ringers J; European Liver and Intestine Transplant Association (ELITA) and Eurotransplant Liver Intestine Advisory Committee (ELIAC).
The Eurotransplant donor risk index in liver transplantation: ET-DRI
Am J Transplant. 2012 Oct;12(10):2789-96.

Park SJ, Yoon YC,, Cho WH, Roels L, *Smits JM*, Cohen B, Kim NJ, Bok CH, Kang SW, Kim TH, Lee S, Kim YH
Preliminary results of Donor Action in Korea
J Korean Soc Transplant | 2012;26:101-111.

Roels L, *Smits JM*, Cohen B
Potential for deceased donation not optimally exploited: Donor Action data from six countries
Transplantation 2012 Oct 30. [Epub ahead of print].

Smits JM
Actual situation in Eurotransplant regarding high urgent heart transplantation
European Journal of Cardiothoracic Surgery 2012;42: 609-11.

Smits JM
Organ shortage: what Europeans do about it
ISHLT Links. December 2012 http://www.ishlt.org/ContentDocuments/2012DecLinks_Smits.html.

Smits JM, Niesing J, Breidenbach T, Collett D.
The making of a European transplant registry
Transpl Int. 2012 Dec 31. [Epub ahead of print].

D'Orsogna LJ, Heuvel van den H, Meer van der-Prins EM, Roelen DL, *Doxiadis II,* Claas FH.
Stimulation of human EBV- and CMV-specific cytolytic effector function using allogeneic HLA molecules
J Immunol. 2012 Nov 15;189(10):4825-31.

Verduin EP, Schonewille H, Brand A, Haasnoot GW, Claas FH, Lindenburg IT, Lopriore E, Oepkes D, Roelen DL, *Doxiadis II*.
High anti-HLA response in women exposed to intrauterine transfusions for severe alloimmune hemolytic disease is associated with mother-child HLA triplet mismatches, high anti-D titer, and new red blood cell antibody formation
Transfusion 2012; Aug 23.

Eikmans M, De Canck I, Pol van der P, Baan CC, Haasnoot GW, Mallat MJ, Vergunst M, Meester de E, Roodnat JI, Anholts JD, van Thielen M, *Doxiadis II,* Fijter de JW, Linden van der PJ, Beelen van E, Kooten van C, Kal-van Gestel JA, Peeters AM, Weimar W, Roelen DL, Rossau R, Claas FH.
The functional polymorphism Ala258Ser in the innate receptor gene ficolin-2 in the donor predicts improved renal transplant outcome.
Transplantation 2012 Sep 15;94(5):478-85.

Dyer PA, Claas FH, *Doxiadis II*, Glotz D, Taylor CJ
Minimising the clinical impact of the alloimmune response through effective histocompatibility testing for organ transplantation
Transpl Immunol. 2012 Oct;27(2-3):83-8.

D'Orsogna LJ, Meer van der-Prins EM, Zoet YM, Roelen DL, *Doxiadis II*, Claas FH
Detection of allo-HLA cross-reactivity by virus-specific memory T-cell clones using single HLA-transfected K562 cells
Methods Mol Biol. 2012;882:339-49.

LECTURES

Winter meeting der Deutschen Gesellschaft für Kardiologie – Thorakale Organtransplantation – January 20, 2012 – Leipzig, Germany
Wie kann der Spenderpool erweitert werden?
Rahmel AO

2nd Joint AIDPIT and EPITA Winter Symposium & 31st AIDPIT Workshop – January 29-31, 2012 – Innsbruck Austria
The P-PASS and PDRI reviewed in a large European transplantation center
Blok JJ

Belgian Week of Gastroenterology - February 9, 2012 – Oostende, Belgium
Trends in liver allocation within Belgium
Blok JJ

4th Transplant Symposium – February 10, 2012 – Freiburg, Germany
Actual situation in Eurotransplant regarding high urgent transplantation
Smits JM

19. Walter Brendel Kolleg 2012 – March 7, 2012 – Wildbad-Kreuth, Germany
Organverteilung durch ET
Rahmel AO

Bootcongres (scientific meeting of the Dutch Transplant Society [NTV]) – March 27-28, 2012 – Maastricht, the Netherlands
The P-PASS and PDRI reviewed in a large European transplantation center
Blok JJ

Report of the first 4 DCD pancreas transplants with Eurotransplant; excellent results with prolonged first warm ischemia times
Blok JJ

The Eurotransplant Donor Risk Index in liver transplantation ET-DRI (preferred method to define extended criteria donation?)
Blok JJ

11. Nationales DRG Forum – March 30, 2012 – Berlin, Germany
Neues Transplantationsrecht
Rahmel AO

Eurotransplant and pediatric liver transplantation – April 12, 2012 – Groningen, the Netherlands
MDL transplantatie op kinderleeftijd
Blok JJ

78. Jahrestagung der Deutschen Gesellschaft für Kardiologie – April 13, 2012 – Mannheim, Germany
Trends in den Leitlinien zur Herzallokation
Rahmel AO

32nd Annual meeting of the ISHLT – April 18, 2012 – Prague, Czech Republic
Can the SHFM help in predicting death in a cohort of hu and u heart transplant candidates?
Smits JM

The impact of an aging population on resources for health care and transplant
Rahmel AO

1st European Training Symposium for Junior Heart Failure Cardiologists and Junior Cardiac Surgeons – June 29, 2012 – Bern, Switzerland
Risk stratification in heart transplantation
Smits JM

Jahresempfang der TK-Landesvertretung MV – May 2, 2012 – Schwerin, Germany
Organverteilung durch Eurotransplant – Welche Rolle spielt der Organmangel?
Rahmel AO

High level conference „EU Health Programmes: results and future perspectives" – May 3, 2012 – Brussels, Belgium
EFRETOS presentation
Rahmel AO

Global Leadership Symposium – May 21, 2012 – Del Mar, California, USA
Eurotransplant allocation methods, issues and opportunities
Rahmel AO

6. Europäischer Medizinrechtstag – June 1, 2012 – Vienna, Austria
Zusammenarbeit bei Organspende und Transplantation – Ein Vorbild europäischer Solidarität
Rahmel AO

30. Tag der Organspende + Krankenhausauszeichnung der DSO-Region Ost Festvortrag – June 2, 2012 – Dresden, Germany
Rahmel AO

Terugkomdag Transplantatie voor de 3e master geneeskunde – June 19, 2012 – Leiden University Medical Center, the Netherlands
Toewijzing van organen en ethiek
Rahmel AO

23. Biotest Wilsede Workshop – June 23, 2012 – Wilsede, Germany
Same procedure as last year, James
Rahmel AO

NTS Congres 'Transplantatie in beweging' – June 29, 2012 – Hoenderloo, the Netherlands
Allocatie
Rahmel AO

24th International Congress of The Transplantation Society (TTS) – July 14-19, 2012, Berlin, Germany
Are allocation criteria really evidence based?
Rahmel AO

24th International Congress of The Transplantation Society (TTS) – July 14-19, 2012 – Berlin, Germany
Modification of the MELD system
Rahmel AO

ELITA – LICAGE Liver Meeting and 4th ELITA Split-Liver Course - September 15, 2012 – Ghent, Belgium
Allocation procedures and regulations in Europe and USA
Rahmel AO

Krankenhausehrung 2012, 7. Jahrestreffen der Transplantationsbeauftragten in Nordrheinwestfalen – October 2, 2012 – Essen, Germany
Eurotransplant – Acht Nationen, ein Ziel
Rahmel AO

2012 European Donation Congress "Science Needs a Heart", 24th ETCO-EDC – October 5, 2012 – Dubrovnik, Croatia
Allocation tailored to organ quality
Rahmel AO

Heidelberger Transplantationssymposium – October 5, 2012 – Heidelberg, Germany
The impact of donor quality on outcome after liver transplantation
Blok JJ

Austrotransplant – October 18, 2012 – Rust am See, Austria
Leber: MELD und was danach? (Modification of the MELD-system)
Blok JJ

20. Jahrestagung des Arbeitskreises Nierentransplantation – November 23, 2012 – Aachen, Germany
Eurotransplant Senior DR-compatible Program (ESDP)
Rosmalen van M

44. Herzchirurgisches Symposium – November 17, 2012 – Rottach-Egern, Germany
Eurotransplant und DSO – Gibt es neue Konzepte für HU- und LVAD-Patienten im Lichte des Organmangels
Rahmel AO

8. DSO Jahreskongress – November 23, 2012 – Berlin, Germany
Critical view on allocation models in the Eurotransplant area
Rahmel AO

12.

Eurotransplant personnel related statistics

Intake	Number of new employees	Number of employees (Dec. 31. 2012)	Intake percentage
Regular	9	79	11.4%
Flex	9	24	37.5%
Total	18	103	17.5%

Outflow	Exit number	Number of employees (Jan. 1. 2012)	Outflow percentage
Regular	7	77	9.1%
Flex	10	25	40.0%
Total	17	102	16.7%

Employees on December 31. 2012	Numbers	FTE
Flex	24	8.27
Part-timer	40	31.03
Full-timer	27	27.00
Full-timer + (>36 hours/week)	12	13.22
Total	103	79.52

Breakdown of FTE	Gross FTE	Recharged or Charged *	Nett FTE
Personnel in fte's	78.11	9.30	68.81

* The fte's based on the shared services are partially recharged to the Dutch Transplant Foundation and BISLIFE Foundation. Activitities which are done by personnel from the Dutch Transplant Foundation or BISLIFE are charged to Eurotransplant.

	Male		Female	
Divison Male/Female	Nr.	%	Nr.	%
Regular	33	41.8%	46	58.2%
Flex	15	62.5%	9	37.5%
Total	48	46.6%	55	53.4%

Absentee rates	Gross absenteeism*	Nett absenteeism**	Average absentee frequencies	Average absentee duration
Regular	6.23%	5.78%	1.23	15.4 days
Flex	0.20%	0.20%	0.08	6 days

* Gross absenteeism concerns all absenteeism caused by illness.

** 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.

13.
Abbreviated financial statements

Abbreviated financial statements of Stichting Eurotransplant International Foundation, for the year ended December 31, 2012

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	31.12.2012	31.12.2011
	x € 1.000	x € 1.000
Fixed assets	564	533
Short term receivables	2.764	2.268
Liquid assets	1.625	1.800
	4.953	4.602

Liabilities	31.12.2012	31.12.2011
	x € 1.000	x € 1.000
Capital	235	235
Reserve funds	2.309	2.100
Provisions	81	75
Short term liabilities	2.328	2.191
	4.953	4.601

Statement of income and charges

Income	**2012**	**2011**
	x € 1.000	x € 1.000
Registration fees	7.168	6.331
Procurement fees	2.920	2.598
Miscellaneous	249	228
	10.337	9.158

Charges	2012 x € 1.000	2011 x € 1.000
Salaries	5.488	5.088
Procurement charges	3.124	2.546
General expenses	949	844
Medical expenses	83	71
Transport	7	6
Housing	382	404
Depreciation	208	146
Audits	132	239
Miscellaneous	21	235
	10.391	9.578
Equalization registrations and audits	-263	273
Exploitation balance	209	-694

Appropriation of the exploitation balance

Addition General Reserve	512	-493
Addition Reserve Fund Reorganization	-21	-31
Addition Reserve Fund Housing	-179	-148
Addition Reserve Fund Clearinghouse procurememt fees	-89	-17
Addition Reserve Fund Integration new member states	-14	-6
	209	-695

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 derivatives. 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 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 Collectieve 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 anexpense 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 are stated on the basis of transaction costs.

Certain general expenses of the Nederlandse Transplantatie Stichting, Stichting BISLIFE and Stichting Eurotransplant International Foundation are made for common account. Such costs are divided between the three 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 and Board of Directors of
Stichting Eurotranspiant International Foundation

The accompanying abbreviated financial statements, which comprise the abbreviate balance sheet as at 31 December 2012, 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 31 December 2012. We expressed an unqualified audit opinion on those financial statements in our report dated 5 April 2013.

The abbreviated financial statements do not contain all the disclosures required by 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 of Stichting Eurotransplant International Foundation.

Board of Directors' responsibility

The Board of Directors is responsible for the preparation of the abbreviated financial statements in accordance with the accounting policies as applied in the 2012 annual accounts of Stichting Eurotranspiant International Foundation, which are also described in the notes to the abbreviated financial statements.

Auditor's responsibility

Our responsibility is to express an opinion on the abbreviated financial statements 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 derived from the audited annual accounts of Stichting Eurotranspiant International Foundation for the year ended 31 December 2012 are consistent, in all material respects, with those annual accounts, in accordance with the accounting policies described in the abbreviated financial statements.

The Hague, 5 April 2013

Deloitte Accountants B.V.

Already signed: drs. G.J.W. Coppus RA

Annual Report list of abbreviations

ACO	Approved Combined Organ
AM	Acceptable Mismatch
BMI	Body Mass Index
CDC	Complement Dependent Cytotoxicity
CRO	Clinical Research Organization
DPA	Donation Procedure Application
DTT	Dithiothreitol
EFRETOS	European FRamework for the EvaluaTion of Organ transplantS
ELIAC	ET Liver Intestine Advisory Committee
ENIS	ET Network Information System
EPAC	ET Pancreas Advisory Committee
EPT	External Proficiency Testing
ESDP	ET Senior DR-matching Program
ESOT	European Society for Organ Transplantation
ET	Eurotransplant
ETEC	ET Ethics Committee
EThAC	ET Thoracic Advisory Committee
ETKAC	ET Kidney Advisory Committee
ETKAS	ET Kidney Allocation System
ETRL	ET Reference Laboratory
EU	European Union
FC	Financial Committee
FTE	Full Time Equivalent
HLA	Human Leucocyte Antigen
HSYI award	Henk Schippers Young Investigators award
HU	High Urgent
ISWG	Information Services Working Group
ISHLT	International Society for Heart & Lung Transplantation
ISO	International Organization for Standardization
LAS	Lung Allocation Score
MELD	Model End stage Liver Disease
NTS	Nederlandse Transplantatie Stichting
ONT	Organización Nacional de Trasplantes (Spain)
OPC	Organ Procurement Committee
PRA	Panel Reactive Antibodies
RESCUE	Center offer in case of imminent loss of organ due to organ quality of logistical problems
SAN	Storage Area Network
SOP	Standard Operation Procedures
SPA	Solid Phase Assays
TTAC	Tissue Typing Advisory Committee
TTC	Tissue Typing Centers
UNOS	United Network for Organ Sharing
VAD	Ventricular Assist Device
VCA	Vascularized composite allograft