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Guido G. Persijn, Bernard Cohen

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Eurotransplant mission statement

Mission
Service organization for transplant candidates through the collaborating transplant programmes within the organization

Goals
- To achieve an optimal use of available donor organs and tissues.
- To secure a transparent and objective selection system, based upon medical criteria.
- To assess the importance of factors which have the greatest influence on transplant results.
- To support donor procurement to increase the supply of donor organs and tissue.
- To further improve the results of transplantation through scientific research.
- Promotion, support and coordination of organ transplantation in the broadest sense of terms.

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as per December 31, 1999

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TRANSPLANT CENTRES IN 1999

Renal Transplant Centres

Centre-code	Centre / City	Surgeon	Physician	Transplant coordinators / administrators
Austria				
GA	Medizinische Universitätsklinik, Graz	P. Petritsch, H. Müller	H. Holzer	M. Schweiger, V. Stadlbauer
IB	Chirurgische Universitätsklinik, Innsbruck	R. Margreiter, A. Königsrainer	C. Bösmüller, K. Lhotta	H. Fetz, P. Schobel
OE	Krankenhaus der Elisabethinen, Linz	H-J. Böhmig	H-K. Stummvoll	E. Leitner
OL	Allgemeines Krankenhaus, Linz	P. Brücke	G. Biesenbach	C. Gabriel
WD	Kinderdialyse Allgemeines Krankenhaus, Wien	F. Mühlbacher, R. Steininger	E. Balzar	M. Bodingbauer, R. Asari
WG	Universitätsklinik für Chirurgie, Wien	F. Mühlbacher, R. Steininger	W. Hörl, J. Kovarik	M. Bodingbauer, R. Asari
Belgium				
AN	Universitair Ziekenhuis Antwerpen, Edegem	D. Ysebaert, T. Chapelle	M. Debroe	G. Van Beeumen, W. Van Donink
BJ	Academisch Ziekenhuis der Vrije Universiteit, Brussel	J. Lamote	D. Verbeelen	B. Amerijckx
BR	ULB, Hôpital Erasme, Bruxelles	L. De Pauw	D. Abramowicz	E. Angenon, V. Duthie, B. Van Haelewijck
GE	Universitair Ziekenhuis, Gent	J. De Roose, U. Hesse, F. Vermassen	N. Lameire	L. Colenbie, M. Vandervennet
LA	Cliniques Universitaires St. Luc, Bruxelles	J. Squifflet, M. Mourad, J. Malaise	Y. Pirson	V. Dumont, C. Lecomte, P. Vanormelingen
LE	Kinderdialyse Universitair Ziekenhuis Gasthuisberg, Leuven	W. Coosemans, J. Pirenne	R. Lombaerts	F. Van Gelder, D. Van Hees, E. Devolder
LG	Centre Hospitalier Universitaire, Liège	M. Meurisse, O. Detry	M. Beaujean	M-H. Delbouille, M-F. Hans
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	W. Coosemans, J. Pirenne	Y. Vanrenterghem	F. Van Gelder, D. Van Hees, E. Devolder
Germany				
AK	Universitätsklinikum der Rheinisch-Westfälischen TH, Aachen	G. Jakse	J. Floege	A. Homburg
AU	Zentralklinikum, Augsburg	H. Loeprecht	G. Schlimok	C. Schulz
BB	Ruhr Universität, Bochum	M. Büsing		A. Deiss
BE	Universitätsklinikum Benjamin Franklin, Berlin	K. Miller	G. Offermann	E. Müller
BM	Kliniken der Freien Hansestadt, Bremen	K. Dreikorn	A. Lison	C. Dobis
BO	Klinikum der Urologischen und Medizinischen Universität, Bonn	S. Müller	H-U. Klehr, T. Sauerbruch	E. Backhaus, B. Salz
BS	Charité-Campus Mitte der Humbold-Universität, Berlin	A. Lindecke	J. Lippert, H. Neumayer	D. Horch
BV	Charité-Campus Virchow Klinikum der Humbold Universität, Berlin	P. Neuhaus	U. Frei	D. Horch
DR	Technischen Universität, Dresden	M. Wirth	P. Gross	N. Hildebrandt
DU	Med. Einrichtungen der Heinrich-Heine-Universität, Düsseldorf	W. Sandmann	B. Grabensee	B. Schaepers, S. Hinkel
ES	Universitätsklinikum, Essen	C.E. Broelsch	Th. Philipp	R. Abel
FD	Klinikum Fulda, Fulda	T. Kälble	W. Fassbinder	R. Werner
FM	Klinikum der Johann-Wolfgang-Goethe-Universität, Frankfurt	D. Jonas, P. Kramer	H. Geiger, E-H. Scheuermann	S. Schleede, A. Schischma
FR	Klinikum der Albert-Ludwigs-Universität, Freiburg	G. Kirste	G. Walz	M. Blümke, F. Schaub
GI	Klinikum der Justus-Liebig-Universität, Gießen	W. Padberg	S. Friemann, R. Weimer	R. Weimer
GO	Klinikum der Georg-August-Universität, Göttingen	B. Ringe	G. Müller	
HA	Klinikum der Martin-Luther-Universität, Halle	H. Heynemann	R. Eismann	C. Wachsmuth
HB	Klinikum der Ruprecht-Karls-Universität, Heidelberg	G. Staehler	O. Mehls, E. Ritz	E. Frey
HG	Universitäts-Krankenhaus Eppendorf, Hamburg	H. Huland	R. Stahl	C. Clausen
HM	Nephrologisches Zentrum Niedersachsen, Hann. Münden	K. Rohwer, W. Schott	E. Quellhorst	K. Rohwer
HO	Klinikum der Medizinischen Hochschule, Hannover	J. Klempnauer	K. Koch	H. Basse, F. Vogelsang
HS	Klinikum der Universität des Saarlandes, Homburg/Saar	M. Ziegler	H. Köhler, W. Riegel	C. Friedrichsohn
JE	Klinikum der Friedrich-Schiller-Universität, Jena	J. Schubert	H. Sperschneider	R. Börner
KI	Klinikum Christian-Albrechts-Universität, Kiel	D. Henne-Bruns	H. Kraemer-Hansen	G. Schütt

Centre-code	Centre / City	Surgeon	Physician	Transplant coordinators / administrators
KK	Kinderklinik der Universität, Köln	A. Hölscher	D. Michalk	C. Freudenhammer
KL	Klinik der Universität Köln-Lindenthal, Köln	A. Hölscher	C. Baldamus	C. Freudenhammer
KM	Städtische Krankenanstalten Köln-Merheim, Köln	A. Paul, H. Troidl	W. Arns, M. Weber	C. Freudenhammer
KS	Westpfalz-Klinikum, Kaiserslautern	W. Seybold-Epting	F. Albert, U. Albert	M. Schmid
LP	Klinikum der Universität, Leipzig	J. Hauss	H. Achenbach	T. Weiskirchen
LU	Klinikum der Medizinischen Universität, Lübeck	J. Hoyer, M. Strik	L. Fricke	L. Fricke, E. Petersen
MA	Klinikum der Stadt, Mannheim	D. Lorenz, S. Post	P. Schnülle, F. van der Woude	Ch. Krenzel
MH	Klinikum Rechts der Isar der Technischen Universität, München	C. Heidecke	F. Kopp	W. Eberhardt, C. Schulz
ML	Klinikum Großhadern der Ludwig-Maximilians-Universität, München	W. Land	B. Zanker	C. Schulz
MN	Klinikum der Westfälischen Wilhelms-Universität, Münster	K. Dietl	S. Heidenreich	S. Kley, M. Mauritz-Bröcker
MR	Klinikum Lahnberge der Philipps-Universität, Marburg	M. Rothmund	H. Lange	A. Brinke-Lang, U. Heck
MZ	Klinikum der Johannes-Gutenberg-Universität, Mainz	G. Otto	E. Wandel	C. Kreber-Walther
NB	Med. Einrichtungen der Universität Erlangen-Nürnberg, Nürnberg	K. Schrott	U. Kunzendorf	K. Burkhardt, H. Müller-Erhard
RB	Klinikum der Universität, Regensburg	K. Jauch	B. Krämer	K. Burkhardt, H. Müller-Erhard
RO	Klinikum der Universität, Rostock	H. Seiter, R. Bast	R. Schmidt	F-P. Nitschke
ST	Katharinenhospital, Stuttgart	E. Göritz, G. Jenal	C. Olbricht	M. Kalus
TU	Klinikum der Eberhard-Karls-Universität, Tübingen	R. Viebahn	T. Risler	C. Fischer-Fröhlich
UL	Klinikum der Universität, Ulm	D. Abendroth		S. Rettenberger, M. Michels
WZ	Klinikum der Julius-Maximilians-Universität, Würzburg	H. Riedmiler	C. Wanner	S. Eisenreich
Luxembourg				
LX	Centre Hospitalier de Luxembourg	S. Lamy	P. Duhoux	R . Differding
The Netherlands				
AW	Academisch Medisch Centrum, Amsterdam	C. Kox	S. Surachno	P. Batavier, J. Popma, C. Koning
GR	Academisch Ziekenhuis, Groningen	H. Mensink, R. Ploeg	A. Tegzess	W. Brokelman, R. Nauta, A-L. Stel
LB	Leiden University Medical Centre, Leiden	J. Ringers	L. Paul	R. Dam, H. Hagenaars, M. Kruyswijk
MS	Academisch Ziekenhuis, Maastricht	G. Kootstra	J. van Hooff	J. Kievit, A. Nederstigt
NY	Academisch Ziekenhuis St. Radboud, Nijmegen	J. van der Vliet	R. Koene	W. Hordijk, M. de Laat
RD	Academisch Ziekenhuis Dijkzigt, Rotterdam	J. Jeekel	W. Weimar	R. Dam, H. Hagenaars, M. Kruyswijk
RS	Sophia Kinderziekenhuis, Rotterdam	J. Bergmeijer	J. Nauta	H. Hagenaars, M. Kruyswijk
UT	Academisch Ziekenhuis, Utrecht	R. van Reedt Dortland	R. Hené	P. Batavier, J. Popma, C. Koning
UW	Wilhelmina Kinderziekenhuis, Utrecht	N. Bax	J. van Gool, M. Lilien, C. Schröder	P. Batavier, J. Popma, C. Koning

Heart Transplant Centres

Austria				
GA	Chirurgische Universitätsklinik, Graz	K-H. Tscheliessnigg, A. Wasler	W. Klein	M. Schweiger, V. Stadlbauer
IB	Chirurgische Universitätsklinik, Innsbruck	H. Antretter, R. Margreiter	O. Pachinger	H. Fetz, P. Schobel
WG	Universitätsklinik für Chirurgie, Wien	M. Grimm, G. Laufer, A. Zuckermann	R. Pacher	M. Lanzenberger, M. Riha
Belgium				
AN	Universitair Ziekenhuis Antwerpen, Edegem	A. Moulijn, I. Rodaigus	V. Conraads, A. Vorlat	G. Van Beeumen, W. Van Donink
AS	Onze Lieve Vrouw Ziekenhuis, Aalst	F. Wellens	M. Goethals	T. Gooris, W. Tack
BR	ULB, Hôpital Erasme, Bruxelles	M. Antoine, J. Leclercq	J. Vachiery	E. Angenon, V. Duthie, B. Van Haelewijck
GE	Universitair Ziekenhuis, Gent	F. Caes, G. Van Nooten	G. Van Nooten	F. De Somer
LA	Cliniques Universitaires St. Luc, Bruxelles	P. Noirhomme, J. Schoevaerdts	M. Goenen	V. Dumont, C. Lecomte, P. Vanormelingen
LG	Centre Hospitalier Universitaire, Liège	R. Limet	J-C. Demoulin	M-H. Delbouille, M-F. Hans
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	W. Daenen	J. Vanhaecke	F. Van Gelder, D. Van Hees, E. Devolder

Centre-code	Centre / City	Surgeon	Physician	Transplant coordinators / administrators
Germany				
AK	Universitätsklinikum der Rheinisch-Westfälischen TH, Aachen	B. Messmer, F. Schöndube	P. Hanrath	
BA	Herz- & Diabeteszentrum Nordrhein-Westfalen, Bad Oeynhausen	R. Körfer, K. Minami	G. Tenderich	H. Gromzik, S. Wlost
-	Bergmannsheil, Bochum	A. Laczkovics		
BD	Deutsches Herzzentrum, Berlin	R. Hetzer	M. Hummel	N. Franz, H. Kriegler
BH	Kerkhoff Klinik, Bad Nauheim	W. Kloevekorn	M. Schlepper	A. Friedl
BK	Benedikt Kreutz Rehabilitationszentrum, Bad Krozingen	W. Peck	H. Roskamm	M. Wiessner
BS	Charité-Campus Mitte der Humbold-Universität, Berlin	W. Konertz	G. Baumann	W. Lohse
DR	Universitätsklinikum 'Carl Gustav Carus', Dresden	S. Schüler		N. Hildebrandt
DU	Med. Einrichtungen der Heinrich-Heine-Universität, Düsseldorf	E. Gams	P. Feindt	B. Schaepers
ES	Universitätsklinikum, Essen	H. Jakob	J. Piotrowski	R. Abel
FD	Klinikum Fulda, Thorax-, Herz- und Gefäßchirurgie, Fulda	Th. Stegmann	T. Bonzel	R. Werner
FM	Klinikum der Johann-Wolfgang-Goethe-Universität, Frankfurt	A. Moritz, H.-G. Fieguth	C. Schacherer	S. Schleede, A. Schischma
FR	Klinikum der Albert-Ludwigs-Universität, Freiburg	F. Beyersdorf	A. van de Loo	M. Blümke, F. Schaub
GI	Klinikum der Justus-Liebig-Universität, Gießen	F.W. Herlein	J. Bauer, W. Haberbosch	J. Bauer, W. Haberbosch
GO	Klinikum der Georg-August-Universität, Göttingen	M. Baryalei	H. Figulla	
HA	Klinikum der Martin-Luther-Universität, Halle	H. Zerkowski	F. Rüter	C. Wachsmuth
HB	Klinikum der Ruprecht-Karls-Universität, Heidelberg	S. Hagl	R. Lange	M. Heinen
HG	Universitäts-Krankenhaus Eppendorf, Hamburg	N. Tsilimingas	W. Rödiger	C. Clausen
HO	Klinikum der Medizinischen Hochschule, Hannover	A. Haverich	H. Drexler	H. Basse, F. Vogelsang
HS	Klinikum der Universität des Saarlandes, Homburg-Saar	H. Schäfers	H. Schieffer	C. Friedrichsohn
JE	Klinikum der Friedrich-Schiller-Universität, Jena	Th. Wahlers		R. Börner
KG	Herz- und Diabeteszentrum, Karlsburg	L. Eckel	W. Motz	F.-P. Nitschke
KI	Klinikum der Christian-Albrechts-Universität, Kiel	J. Cremer	A. Jäckle	N. Robien, G. Schütt
KL	Klinik der Universität Köln-Lindenthal, Köln	E. de Vivie	E. Erdmann	F. Kuhn-Régnier
KR	Klinik für Herzchirurgie, Karlsruhe	H. Posival		P. Stahlhut
KS	Westpfalzklinikum, Kaiserslautern	W. Seybold-Epting	G. Glunz	M. Schmid
LP	Klinikum der Universität, Leipzig	F. Mohr	A. Rahmel	T. Weiskirchen
MD	Deutsches Herzzentrum, München	H. Meisner, M. Overbeck	B. Permanetter	C. Schulz
ML	Klinikum Großhadern der Ludwig-Maximilians-Universität, München	B. Reichart, P. Überfuhr	B. Meiser	C. Schulz
MN	Klinikum der Westfälischen Wilhelms-Universität, Münster	H. Scheld	C. Schmid	S. Kley, M. Mauritz-Bröcker
MZ	Klinikum der Johannes-Gutenberg-Universität, Mainz	W. Kasper-König	J. Meyer	C. Kreber-Walther
NB	Med. Einrichtungen der Universität Erlangen-Nürnberg	M. Weyand	R. Tandler	K. Burkhardt, H. Müller-Erhard
RB	Klinikum der Universität, Regensburg	D. Birnbaum	M. Kaiser	K. Burkhardt, H. Müller-Erhard
RO	Klinikum der Universität, Rostock	K. Emmrich		F.P. Nitschke
TU	Klinikum der Eberhard-Karls-Universität, Tübingen	G. Ziemer	V. Kühlkamp	C. Fischer-Fröhlich
WZ	Klinikum der Julius-Maximilians-Universität, Würzburg	O. Elert		S. Eisenreich
The Netherlands				
RD	Academisch Ziekenhuis Dijkzigt, Rotterdam	A. Bogers, L. Maat	M. Simoons	R. Dam, H. Hagenaars, M. Kruyswijk
UT	Academisch Ziekenhuis, Utrecht	J. Bredee, J. Lahpor	N. de Jonge	P. Batavier, J. Popma, C. Koning

Lung Transplant Centres

Austria				
IB	Chirurgische Universitätsklinik, Innsbruck	R. Margreiter, L. Müller	Ch. Prior, Ch. Geltner	H. Fetz, P. Schobel

Centre-code	Centre / City	Surgeon	Physician	Transplant coordinators / administrators
GA	Chirurgische Universitätsklinik, Graz	K-H. Tscheliessnigg, H.Müller		M. Schweiger, V. Stadlbauer
WG	Universitätsklinik für Chirurgie, Wien	W. Klepetko, W. Wisser		M. Dobrovits, P. Neuhauser
Belgium				
AN	Universitair Ziekenhuis Antwerpen, Edegem	I. Rodrigus, P. Van Schil	I. Stappaerts	G. Van Beeumen, W. Van Donink
BR	ULB, Hôpital Erasme, Bruxelles	Ph. de Franquen	M. Estenne	E. Angenon, V. Duthie, B. Van Haelewijck
LA	Cliniques Universitaires St. Luc, Bruxelles	J. Schoevaerdts	P. Evrard	V. Dumont, C. Lecomte, P. Vanormelingen
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	T. Lerut	G. Verleden	F. Van Gelder, D. Van Hees, E. Devolder
Germany				
BA	Herz- & Diabeteszentrum Nordrhein-Westfalen, Bad Oeynhausen	R. Körfer, K. Minami	G. Tenderich	H. Gromzik, S. Wlost
-	Bergmannsheil, Bochum	A. Laczkovics		
BD	Deutsches Herzzentrum, Berlin	R. Hetzer	R. Ewert, M. Hummel	N. Franz, H. Kriegler
DR	Universitätsklinikum 'Carl Gustav Carus', Dresden	S. Schüler		N. Hildebrandt
ES	Universitätsklinikum, Essen	H. Jakob	J. Piotrowski	R. Abel
FD	Klinikum Fulda, Thorax-, Herz- und Gefäßchirurgie, Fulda	Th. Stegmann	T. Bonzel	R. Werner
FM	Klinikum der Johann-Wolfgang-Goethe-Universität, Frankfurt	A. Moritz, H.-G. Fieguth	Th. Wagner, I. Otterbach	S. Schleede, A. Schischma
HB	Klinikum der Ruprecht-Karls-Universität, Heidelberg	H. Jakob		M. Heinen
HO	Klinikum der Medizinischen Hochschule, Hannover	A. Haverich	H. Fabel	H. Basse, F. Vogelsang
HS	Klinikum Universität des Saarlandes, Homburg/Saar	H. Schäfers	G. Sybrecht	C. Friedrichsohn
JE	Klinikum der Friedrich-Schiller-Universität, Jena	Th. Wahlers		R. Börner
KI	Klinikum der Christian-Albrechts-Universität, Kiel	J. Cremer	A. Jäckle	N. Robien, G. Schütt
ML	Klinikum Großhadern der Ludwig-Maximilians-Universität, München	H. Fuerst, B. Reichart	F. Kur, W. Voglmeier	C. Schulz
MN	Klinikum der Westfälischen Wilhelms-Universität, Münster	H. Scheld	M. Semik	S. Kley, M. Mauritz-Bröcker
MZ	Klinikum der Johannes-Gutenberg-Universität, Mainz	E. Mayer	J. Lill	C. Kreber-Walther
The Netherlands				
GR	Academisch Ziekenhuis, Groningen	W. de Boer, T. Ebels, J. Meuzelaar	W. van der Bij	W. Brokelman, R. Nauta, A-L. Stel

Liver Transplant Centres

Austria				
GA	Chirurgische Universitätsklinik, Graz	K-H. Tscheliessnigg, F. Iberer	J-A. Kreis	M. Schweiger, V. Stadlbauer
IB	Chirurgische Universitätsklinik, Innsbruck	R. Margreiter, A. Königsrainer B. Spechtenhauser	W. Vogel, I. Graziadei	H. Fetz, P. Schobel
WG	Universitätsklinik für Chirurgie, Wien	F. Mühlbacher, R. Steininger	A. Gangl	M. Bodingbauer, R. Asari
Belgium				
BR	ULB, Hôpital Erasme, Bruxelles	M. Gelin	M. Adler	E. Angenon, V. Duthie, B. Van Haelewijck,
GE	Universitair Ziekenhuis, Gent	B. De Hemptinne, U. Hesse, P. Pattyn	H. Van Vlierberghe	L. Colenbie, M. Vandervennet
LA	Cliniques Universitaires St. Luc, Bruxelles	J. Otte, R. Reding, J. Lerut, C. Chardot	A. Geubel, E. Sokal	M. Jansen, F. Roggen
LG	Centre Hospitalier Universitaire, Liège	P. Honoré, M. Meurisse, O. Detry	J. Beleiche	M-H. Delbouille, M-F. Hans
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	R. Aerts, W. Coosemans, J. Pirenne	J. Fevery, F. Nevens	F. Van Gelder, D. Van Hees, E. Devolder
Germany				
AK	Universitätsklinikum der Rheinisch-Westfälischen TH, Aachen	V. Schumpelick, R. Kasperk	S. Matern	A. Homburg
-	Knappschaftskrankenhaus, Bochum	M. Büsing		A. Deiss
BO	Chirurgische Universitätsklinik, Bonn	A. Hirner, M. Wolff	T. Sauerbruch, U. Spengler	E. Backhaus, B. Salz
BV	Charité-Campus Virchow Klinikum der Humbold Universität, Berlin	P. Neuhaus	U. Frei	D. Horch
DU	Med. Einrichtungen der Heinrich-Heine-Universität, Düsseldorf	P. Goretzki, W. Röher		B. Schaepers

Centre-code	Centre / City	Surgeon	Physician	Transplant coordinators / administrators
ES	Universitätsklinikum, Essen	C. Broelsch	M. Malago	R. Abel
FM	Klinikum der Johann-Wolfgang-Goethe-Universität, Frankfurt	A. Encke, E. Hanisch, B. Markus	C. Allers	S. Schleede, A. Schischma
FR	Klinikum der Albert-Ludwigs-Universität, Freiburg	G. Kirste	H. Blum	M. Blümke, F. Schaub
GO	Klinikum der Georg-August-Universität, Göttingen	B. Ringe	G. Ramadori	
HB	Klinikum der Ruprecht-Karls-Universität, Heidelberg	Ch. Herfarth, E. Klar		E. Frey
HG	Universitäts-Krankenhaus Eppendorf, Hamburg	X. Rogiers	M. Sterneck	T. Karbe, R. Kütemeier
HO	Klinikum der Medizinischen Hochschule, Hannover		M. Manns	H. Basse, F. Vogelsang
JE	Klinikum der Friedrich-Schiller-Universität, Jena	J. Scheele		R. Börner
KI	Klinikum der Christian-Albrechts-Universität, Kiel	B. Kremer	H. Kraemer-Hansen	N. Robien, G. Schütt
KL	Klinik der Universität Köln-Lindenthal, Köln	T. Beckurts	T. Goeser	C. Freudenhammer
KM	Städtische Krankenanstalten Köln-Merheim, Köln	A. Paul	W. Arns	C. Freudenhammer
LP	Klinikum der Universität, Leipzig	J. Hauss	J. Mössner	T. Weiskirchen
MB	Klinikum Otto-von-Guericke Universität, Magdeburg	H. Lippert, K. Ridwelski	J. Fahlke	J. Fahlke, C. Wachsmuth
MH	Klinikum Rechts der Isar der Technischen Universität, München	C. Heidecke	V. Schusdziarra	C. Schulz
ML	Klinikum Großhadern der Ludwig-Maximilians-Universität, München	H-G. Rau	A. Gerbes	C. Schulz
MN	Klinikum der Westfälischen Wilhelms-Universität, Münster	N. Senninger, K. Dietl		S. Kley, M. Mauritz-Bröcker
MZ	Klinikum der Johannes-Gutenberg-Universität, Mainz	G. Otto	A. Lohse	C. Kreber-Walther
NB	Chirurgische Klinik der Universität Erlangen-Nürnberg, Erlangen	W. Hohenberger, Th. Reck		K. Burkhardt, H. Müller-Erhard
RB	Klinikum der Universität, Regensburg	K. Jauch, M. Anthuber		K. Burkhardt, H. Müller-Erhard
RO	Klinikum der Universität, Rostock	U. Hopt, W. Schareck	S. Liebe, M. Löhr	F-P. Nitschke
TU	Klinikum der Eberhard-Karls Universität, Tübingen	R. Viebahn	H. Becker	C. Fischer-Fröhlich
WZ	Klinikum der Julius-Maximilians-Universität, Würzburg	W. Timmermann		S. Eisenreich
The Netherlands				
GR	Academisch Ziekenhuis, Groningen	K. de Jong, P. Peeters, M. Slooff	A. van den Berg, E. Haagsma, I. Klompmaker, L. Meerman	W. Brokelman, R. Nauta, A-L. Stel
LB	Leiden University Medical Centre, Leiden	O. Terpstra	B. van Hoek	R. Dam, H. Hagenaars, M. Kruyswijk
RD	Academisch Ziekenhuis Dijkzigt, Rotterdam	J. IJzermans, H. Tilanus	H. Metselaar	R. Dam, H. Hagenaars, M. Kruyswijk

Pancreas (*Islet) Transplant Centres

Austria				
GA	Medizinische Universitätsklinik, Graz	K-H. Tscheliessnigg, F. Iberer	H. Holzer	M. Schweiger, V. Stadlbauer
IB	Chirurgische Universitätsklinik, Innsbruck	R. Margreiter, A. Königsrainer W. Steurer	M. Lechleitner	H. Fetz, P. Schobel
WG	Universitätsklinik für Chirurgie, Wien	F. Mühlbacher, R. Steininger	A. Gangl	M.Bodingbauer, R. Asari
Belgium				
AN	Universitair Ziekenhuis Antwerpen, Edegem	D. Ysebaert	M. Debroe	G. Van Beeumen, W. Van Donink
BP*	Academisch Ziekenhuis der Vrije Universiteit, Brussel	G. Delvaux	D. Pipeleers	C. Hendrieckx
BR	ULB, Hôpital Erasme, Bruxelles	L. De Pauw	F. Fery	E. Angenon, V. Duthie, B. Van Haelewijck
GE	Universitair Ziekenhuis, Gent	U. Hesse	N. Lameire	L. Colenbie, M. Vandervennet
LA	Cliniques Universitaires St. Luc, Bruxelles	J. Squifflet	B. Vandeleene	V. Dumont, C. Lecomte, P. Vanormelingen
LG	Centre Hospitalier Universitaire, Liège	M. Meurisse, O. Detry	M. Beaujean	M-H. Delbouille, M-F. Hans
LM	Universitair Ziekenhuis Gasthuisberg, Leuven	R. Aerts, W. Coosemans, J. Pirenne	Y. Vanrenterghem	F. Van Gelder, D. Van Hees, E. Devolder

Centre-code	Centre / City	Surgeon	Physician	Transplant coordinators / administrators
Germany				
BB	Knappschaftskrankenhaus, Bochum	M. Büsing	M. Nauck	A. Deiss
BO	Chirurgische Universitätsklinik, Bonn	M. Wolff	T. Sauerbruch	E. Backhaus, B. Salz
BV	Charité-Campus Virchow Klinikum der Humbold Universität, Berlin	P. Neuhaus	U. Frei	D. Horch
ES	Universitätsklinikum, Essen	C. Broelsch	G. Testa	R. Abel
FR	Klinikum der Albert-Ludwigs-Universität, Freiburg	G. Kirste	H. Blum	M. Blümke, F. Schaub
GI*	Klinikum der Justus-Liebig-Universität, Gießen		R. Bretzel	M. Brendel
HG	Universitäts-Krankenhaus Eppendorf, Hamburg	X. Rogiers	F. Rinninger	T. Karbe, R. Kütemeier
JE	Klinikum der Friedrich-Schiller-Universität, Jena	J. Scheele	H. Sperschneider	R. Börner
KL	Klinik der Universität Köln-Lindenthal, Köln	T. Beckurts	M. Pollok	C. Freudenhammer
KM	Städtische Krankenanstalten Köln-Merheim, Köln	A. Paul	W. Arns	C. Freudenhammer
LU	Klinikum der Medizinischen Universität, Lübeck	M. Strik	L. Fricke	L. Fricke, E. Petersen
ML	Klinikum Großhadern der Ludwig-Maximilians-Universität, München	W. Land	R. Landgraf, B. Zanker	C. Schulz
MN	Klinikum der Westfälischen Wilhelms-Universität, Münster	K. Dietl	S. Heidenreich	S. Kley, M. Mauritz-Bröcker
MR	Klinikum Lahnberge der Philipps-Universität, Marburg	M. Rothmund	H. Lange	A. Brinke-Lang, U. Heck
NB	Chirurgische Klinik der Universität Erlangen-Nürnberg, Erlangen	W. Hohenberger, Th. Reck	U. Kunzendorf	K. Burkhardt, H. Müller-Erhard
RB	Klinikum der Universität, Regensburg	M. Anthuber, K. Jauch		K. Burkhardt, H. Müller-Erhard
RO	Klinikum der Universität, Rostock	U. Hopt, W. Schareck	R. Hampel	F-P. Nitschke
TU	Klinikum der Eberhard-Karls-Universität, Tübingen	R. Viebahn	T. Risler	C. Fischer-Fröhlich
UL	Klinikum der Universität, Ulm	D. Abendroth		S. Rettenberger, S. Seegmüller
WZ	Klinikum der Julius-Maximilians-Universität, Würzburg	W. Timmermann	C. Wanner	S. Eisenreich
The Netherlands				
GR	Academisch Ziekenhuis, Groningen	R. Ploeg, R. van Schilfgaarde	A. Tegzess	W. Brokelman, R. Nauta, A-L. Stel
LB	Leiden University Medical Center, Leiden	J. Ringers	J. de Fijter	R. Dam, H. Hagenaars, M. Kruyswijk
MS	Academisch Ziekenhuis, Maastricht	G. Kootstra	J. van Hooff	A. Nederstigt

Tissue Typing Laboratories

Centre-code	Centre / City	Head
ETRL	Eurotransplant Reference Laboratory, Academisch Ziekenhuis, Leiden, The Netherlands	F. Claas, I. Doxiadis, G. Schreuder
Austria		
GA	Universitätsklinik, Abteilung für Transfusionsmedizin und Immunohämatologie, Graz	G. Lanzer
IB	Universitätsklinik, HLA Labor, Innsbruck	D. Schönitzer
OL	Allgemeines Krankenhaus, Blutzentrale, Linz	B. Blauhut
OW	Allgemeines Krankenhaus, HLA Labor, Wels	C. Artman
WG	Institut für Blutgruppenserologie, Wien	W. Mayr
Belgium		
AN	Bloedtransfusiecentrum Antwerpen, Belgische Rode Kruis, Edegem	L. Muylle
BJ	Academisch Ziekenhuis der Vrije Universiteit, Bloedtransfusiecentrum Jette, Brussel	C. Demanet
BR	Hôpital Erasme, Tissue typing laboratory, Bruxelles	E. Dupont
GE	Universitair Ziekenhuis, Tissue typing laboratory, Gent	B. Vandekerckhove
LA	Université de Louvain, Tissue typing laboratory, Bruxelles	M. de Bruyère
LG	Laboratoire des Groupes Sanguins, Liège	C. Bouillenne
LM	Bloedtransfusiecentrum, Belgische Rode Kruis, Leuven	M-P. Emonds
Germany		
AK	Mikrobiologie am Universitätsklinikum der Rheinisch-Westfälischen TH, Aachen	K. Schweitzer
BA	Herz- & Diabeteszentrum Nordrhein Westfalen, Bad Oeynhausen	K. Kleesiek
BE	Universitätsklinikum Benjamin Franklin, Labor für Gewebetypisierung, Berlin	S. Bünte
BV	Charité-Campus Virchow Klinikum der Humbold Universität, Berlin	C. Schönemann
DU	Institut für Blutgerinnung und Transfusionsmedizin, Düsseldorf	B. Kuntz
ER	Institut für Klinische Immunologie, Erlangen	R. Waßmuth
ES	Universitätsklinikum, Institut für Immunologie, Essen	H. Grosse-Wilde
FM	Immunohaematologie, Blutspendedienst Hessen, Frankfurt	C. Seidl
FR	Blutspendedienst, Labor für Gewebetypisierung, Freiburg	H. Lang
GI	Institut für Klinische Immunologie und Transfusionsmedizin, Gießen	G. Bein
GO	Klinikum der Universität, HLA Labor, Göttingen	H. Neumeyer
HA	Institut für Phathologische Biochemie, Interdisziplinäres Typisierungslabor, Halle	H. Machulla
HB	Institut für Immunologie und Serologie, Heidelberg	G. Opelz
HG	Universitäts-Krankenhaus Eppendorf, HLA Labor, Hamburg	P. Kühnl
HM	Gemeinschaftspraxis, Kassel	B. Kreutzig, H. Weißhaar
HO	Klinikum der Medizinischen Hochschule, Immunohaematologie/Blutbank, Hannover	H. Robin-Winn
JE	Institut für Phathologische Biochemie, Interdisziplinäres Typisierungslabor, Halle	H. Machulla
KI	Klinikum der Christian-Albrechts-Universität, HLA Labor, Kiel	E. Westphal
KM	Institut für Transfusionsmedizin, Köln-Merheim	M. Dörner
KS	Institut für Rechtsmedizin, Transplantationsimmunologie, Kaiserslautern	B. Thiele
LP	Institut für Transfusionsmedizin, Leipzig	S. Schröder
LU	Institut für Immunologie und Transfusionsmedizin, Lübeck	M. Müller-Steinhardt
ML	Kinderklinik der Ludwig-Maximilians-Universität, HLA Labor, München	E. Albert
MR	Klinikum Lahnberge der Philipps-Universität, HLA Labor, Marburg	E. Wollmer
MZ	Klinikum der Johannes-Gutenberg Universität, HLA Labor, Mainz	W. Hitzler
RO	Klinikum der Universität, Abteilung für Transfusionsmedizin, HLA Labor, Rostock	D. Barz
TU	Klinikum der Eberhard-Karls-Universität, Abteilung für Transfusionswesen und Blutbank, Tübingen	D. Wernet
UL	DRK Blutspendezentrale, Transplantationsimmunologie, Ulm	S. Goldmann
Luxembourg		
LX	Centre Hospitalier, HLA Labor, 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, G. Schreuder
MS	Academisch Ziekenhuis, Laboratorium voor weefseltypering, Maastricht	E. van den Berg-Loonen
NY	Academisch Ziekenhuis St. Radboud, Bloedtransfusiedienst, Nijmegen	W. Allebes, I. Joosten
UT	Academisch Ziekenhuis, Bloedbank, Utrecht	H. Otten

Foreword

With great pleasure we present this Annual Report 1999 to all our colleagues involved in organ donation and transplantation within the six member countries of Eurotransplant. As in previous years, this Annual Report again provides a large amount of data on donor and transplant activities during the past year.

The year 1999 was disappointing in terms of numbers of donors procured and transplants performed. Kidney transplants decreased again with more than 0,5% and heart transplants with even 6,3%. The number of liver and lung transplants increased slightly, whereas pancreas transplants rose substantially with more than 20%. The drop in the number of donors was especially marked in Germany and the Netherlands. It remains difficult to find a good explanation for these fluctuating figures. Fortunately, the figures for the year 2000 look much better.

On January 1, 2000, Slovenia was welcomed as the sixth member country of Eurotransplant. In Belgium, Germany and the Netherlands new legislation concerning organ donation and allocation was (partially) implemented. It is of major importance that the present allocation schemes are in agreement with the different national regulations. The Board of Eurotransplant has tried and will further try to maintain the greatest uniformity in the allocation rules within the different countries. In the past, the health authorities in the different countries have not paid much attention to this aspect of harmonization. Fortunately, more recently there have been different contacts between representatives of the health authorities in an attempt to strengthen the international position of Eurotransplant as the organ allocation center. We are confident that further developments will result in more harmonization between the participating countries.

We acknowledge the special efforts of Mike Smith, Jacqueline Smits, Jan de Boer, Aline Hemke and Erwin de Vries, who have worked together with us on the writing of the Annual Report.

Finally, we would like to take this opportunity to thank all the colleagues in Eurotransplant for their continuous support of the organization. During the past years. we have tried to further improve the updating of the follow-up registry after transplantation. most of the transplant centers have put a lot of work in making their follow-up reports up to date.

Prof. Dr. Yves Vanrenterghem	*Drs. Bernard Cohen*	*Dr. Guido G. Persijn*
President	Director	Medical Director

Leiden, December 2000

1. Report of the Board of Stichting Eurotransplant International Foundation

V.C. Diepeveen-Huijsman, Eurotransplant International Foundation, Leiden, the Netherlands

The Board of Stichting Eurotransplant International Foundation met on January 20, June 7 and October 6, 7 and 8, 1999. The Board was extended with a new Board member B, Dr. J. Vončina, representing Eurotransplant's new member country, Slovenia. Prof. Y. Vanrenterghem was re-elected as a Board member A (kidney/pancreas section) and subsequently re-appointed by the Board as the chairman of Eurotransplant for another period of 3 years. Prof. J. Hauss was elected as a Board member A in the liver section and Prof. G. Opelz was re-elected as a Board member A in the tissue typing section. Prof. R. Margreiter was re-elected as chairman of the Assembly.

1.1 Policy

In 1999, the implementation of the German and Dutch transplant laws were closely followed. The agreement with the German Bundesärztekammer was agreed upon although the financial part remained an obstacle. An extra budget proposal was made to cover the costs associated with the activities resulting from the implementation of the German transplant law. The agreement between the Dutch Transplant Foundation and Eurotransplant was finalized.

Upon the initiative of the Dutch Minister of Health, a governmental statement has been drawn up on the international collaboration between the ET countries. This document has been distributed among the Ministers of Health of the ET countries. The aim of this statement of the Ministers is to focus on a more formal governmental support on the activities of Eurotransplant and harmonization between the ET countries in this respect.

Improvement of follow-up rates by the the transplant centers was discussed. Although it was expected that legislation in the various countries will lead to an improvement, it was decided to send letters to centers failing to send in follow-up.

Allocation procedures with respect to the establishment of allocation regions in Germany, organization of a paired kidney exchange program, policy with respect to non-resident patients on the waiting lists and allocation of renal organs to the 'neue Bundesländer' were also important topics of discussion.

It was reported that donation rates in Austria and Belgium were improved whereas Germany and the Netherlands showed decreasing donation rates.

Slovenia approved the conditions for full cooperation with Eurotransplant. This resulted in the entry of Slovenia as a new Eurotransplant member country.

The cooperation with the ß cell transplant program Brussels was temporarily suspended as this program did not meet the required conditions for cooperation.

1.2 Central office

In order to cope with the millennium problem, simulations were done on the ENIS back-up machine as if Eurotransplant was in the year 2000.
The Board approved a proposal to achieve an ISO-9000 certification of the allocation office. This certification deals with quality of the procedures within the organization.

In order to improve quality of organs, the organ specific Advisory Committees were asked to discuss a quality program.

1.3 Advisory Committees

In 1999 the Advisory Committees met 19 times and submitted 29 recommendations. Of these recommendations, 18 were accepted, 9 were postponed and 2 were not accepted. The composition of the Advisory Committees in 1999 was as follows:

KIDNEY ADVISORY COMMITTEE (ETKAC)

Name	As of	Remarks
Prof.Dr. U. Frei (BC)	01.1997	chairman, representative Board
Dr. R. Kramar (OW)	09.1994	representative Austria
Prof.Dr. F. Mühlbacher (WG)	09.1994	representative Austria
Dr. P. Duhoux (LX)	09.1994	representative Luxemburg
Prof.Dr. N. Lameire (GE)	09.1994	representative Belgium
Prof.Dr. J-P. Squifflet (LA)	04.1999	representative Belgium
Dr. U. Albert (KS)	12.1996	representative Germany
Prof.Dr. K. Dreikorn (BM)	12.1996	representative Germany
Prof.Dr. G. Kirste (FR)	07.1996	representative Germany
Prof.Dr. G. Offermann (BE)	09.1994	representative Germany
Dr. R. Hené (UT)	03.1998	representative the Netherlands
Dr. A. Hoitsma (NY)	09.1994	representative the Netherlands
Dr. D. Kovač (SLO)	12.1999	representative Slovenia
Prof.Dr. F.H.J. Claas (LB)	09.1994	representative TT Assembly
Prof.Dr. G. Offner (HO)	09.1994	external advisor (pediatric)
Mr. Th. Wujciak (HB)	09.1994	external advisor (allocation)
Dr. G.G. Persijn (ET)	09.1994	secretary

LIVER ADVISORY COMMITTEE (ELAC)

Name	As of	Remarks
Prof.Dr. M.J.H. Slooff (GR)	09.1994	chairman, representative Board
Prof.Dr. R. Margreiter (IB)	09.1994	representative Austria
Prof.Dr. B. de Hemptinne (GE)	09.1994	representative Belgium
Prof.Dr. J-B. Otte (LA)	09.1994	representative Belgium
Prof.Dr. J. Hauss (LP)	12.1999	representative Germany
Prof.Dr. P. Neuhaus (BC)	09.1994	representative Germany
Prof.Dr. B. Ringe (GO)	09.1994	representative Germany
Dr. H.J. Metselaar (RD)	04.1995	representative the Netherlands
Dr. D. Stanisavljević (SLO)	12.1999	representative Slovenia
Dr. G.C. Wiesenhaan-Stellingwerff (ET)	04.1998	secretary

PANCREAS ADVISORY COMMITTEE (PAC)

Name	As of	Remarks
Prof.Dr. J.P. van Hooff (MS)	06.1998	chairman, representative Board
Prof.Dr. A. Königsrainer (IB)	08.1994	representative Austria
Prof.Dr. J-P. Squifflet (LA)	08.1994	representative Belgium
Dr. W. Bechstein (BC)	12.1999	representative Germany
Prof.Dr. R.G. Bretzel (GI)	09.1996	representative Germany
Prof.Dr. W.D. Schareck (RO)	12.1999	representative Germany
Dr. J. Ringers (LB)	04.1998	representative the Netherlands
Prof.Dr. F.H.J. Claas (LB)	08.1994	representative TT Assembly
Dr. G.G. Persijn (ET)	09.1999	secretary

THORACIC ADVISORY COMMITTEE (ThAC)

Name	As of	Remarks
Prof.Dr. A. Haverich (HO)	09.1994	chairman, representative Board
Dr. G. Laufer (WG)	09.1994	representative Austria
Prof.Dr. K. Tscheliessnigg (GA)	09.1994	representative Austria
Prof.Dr. J. Schoevaerdts (LA)	09.1994	representative Belgium
Prof.Dr. J. Vanhaecke (LM)	09.1994	representative Belgium
Prof.Dr. S. Hagl (HB)	09.1994	representative Germany
Prof.Dr. B. Reichart (ML)	09.1994	representative Germany
Prof.Dr. H. Scheld (MN)	12.1996	representative Germany
Prof.Dr. Th. Wahlers (HO)	09.1995	representative Germany
Dr. A. Balk (RD)	03.1998	representative the Netherlands
Dr. W.J. de Boer (GR)	09.1994	representative the Netherlands
Dr. T. Klokočovnik (SLO)	12.1999	representative Slovenia
Dr. M. Antoine (BR)	06.1995	external advisor
Dr. T. Werle (ET)	12.1999	secretary

ORGAN PROCUREMENT COMMITTEE (OPC)

Name	As of	Remarks
Prof.Dr. J. Lerut (LA)	10.1997	chairman, representative Board
Dr. P. Wamser (WG)	03.1995	representative TC's Austria
Mr. P. Vanormelingen (LA)	04.1999	representative TC's Belgium
Ms. H. Basse (HO)	11.1998	representative TC's Germany
Dr. F-P. Nitschke (RO)	09.1995	representative TC's Germany
Mr. W. Hordijk (NY)	11.1998	representative TC's Netherlands
Prof.Dr. G. Kirste (FR)	09.1996	representative ETKAC
Prof.Dr. W. Lauchart (TU)	05.1998	representative ELAC
Prof.Dr. J-P. Squifflet (LA)	09.1995	representative PAC
Dr. M. Antoine (BR)	06.1998	representative ThAC
Dr. I. Doxiadis (LB)	02.1998	representative TTAC
Dr. J. de Boer (ET)	09.1995	secretary

COMPUTER SERVICES WORKING GROUP (CSWG)

Name	As of	Remarks
Prof.Dr. F. Mühlbacher (WG)	09.1995	chairman, representative Board
Dr. R. Kramar (OW)	09.1995	representative Austria
Prof.Dr. G. Verpooten (AN)	09.1995	representative Belgium
Dr. F.A. Zantvoort (BM)	09.1995	representative Germany
Dr. A. Hoitsma (NY)	09.1995	representative the Netherlands + ETKAC
Dr. H.J. Metselaar (RD)	06.1996	representative ELAC
Dr. S. Lems (GR)	06.1996	representative TTAC
Mr.H. Riedl (DSO)	09.1995	external advisor
Drs. W. de Buck (ET)	11.1998	secretary

TISSUE TYPING ADVISORY COMMITTEE (TTAC)

Name	As of	Remarks
Prof.Dr. F.H.J. Claas (LB)	09.1995	chairman, representative Board
Prof.Dr. W. Mayr (WG)	09.1995	representative Austria
Dr. M-P. Emonds (LM)	09.1995	representative Belgium
Dr. F. Hentges (LX)	09.1995	representative Luxembourg
Dr. J. Mytilineos (HB)	01.1997	representative Germany
Dr. G. Bein (LU)	09.1995	representative Germany
Dr. S. Lems (GR)	09.1995	representative the Netherlands
Dr. B. Vidan-Jeras (SLO)	12.1999	representative Slovenia
Dr. I.I.N. Doxiadis (ETRL)	09.1995	secretary

ETHICS COMMITTEE (EC)

Name	As of	Remarks
Prof.Dr. F. Lackner (WG)	05.1995	chairman, representative of the Board
Drs. M. Bos, Den Haag	05.1995	representative the Netherlands
Prof.Dr. P. Kinnaert (BR)	05.1995	representative Belgium
Prof.Dr.F. Eigler (ES)	12.1996	representative Germany
Dr. W. Schaupp (WG)	04.1998	representative Austria
Drs. B. Haase-Kromwijk (ET)	05.1995	secretary

FINANCIAL COMMITTEE (FC)

Name	As of	Remarks
Drs. H.M.A. Schippers, Den Haag	05.1995	chairman, representative Board
Mag. O. Postl (WG)	05.1995	representative Austria
Dr. D. Ysebaert (AN)	05.1995	representative Belgium
Dr. E. Nagel (HO)	09.1997	representative Germany
Drs. B. Cohen (ET)	05.1995	secretary

2. Eurotransplant: donation, waiting list and transplants in 1999

2.1 Donation and donor organ availability in 1999

2.1.2 Cadaveric organ donors from the Eurotransplant region

The donation statistics only deal with cadaveric donors, of whom at least one organ has been used in a transplant. Excluded are donors, reported to and/or offered by Eurotransplant, but from whom no organ transplant was realized.

The total number of cadaveric donors, used in 1999 (N=1626), was about 1% lower than the 1998 number (N=1636) [Table 2.1]. A sharp drop was noted for The Netherlands (-15.8%) and Germany (-6.0%). Austria and Belgium showed steep increases of 22.3 % and 24.2% respectively.
In 1999, livers and pancreata, from a higher number of donors than before, were actually used for clinical transplantation, N=+64 (+6.7%) and N=+55 (+21.7%) respectively [Table 2.2]. The availability of hearts, kidneys and lungs decreased slightly.

Table 2.1 **Number of cadaveric donors, from the Eurotransplant region and used for a transplant, from 1995 to 1999**

Country	population (million)*	1995	1996	1997	1998	1999	1998/1999 pmp	
Austria	8	172	184	156	166	203	25.4	22.3%
Belgium	10	196	212	225	194	241	24.1	24.2%
Germany	82	1022	1012	1045	1073	1009	12.3	-6.0%
Luxemburg	0.4	2	13	5	7	8	20.0	14.3%
Netherlands	16	228	226	216	196	165	10.3	- 15.8%
Total	116.4	1620	1647	1647	1636	1626	14.0	- 0.6%

* Please note that the nr. of inhabitants for Germany (+2x10^6) and The Netherlands (+1x10^6) has been adapted in 1999

Table 2.2 **Number of organ donors, from the Eurotransplant area and used for a transplant, by organ, from 1995 to 1999**

Year	1995	1996	1997	1998	1999
Organ donors, total	1620	1647	1647	1636	1626
Organ donors					
Kidney	1585	1607	1607	1595	1577
Heart	746	773	803	746	708
Lung	144	168	169	225	220
Liver	825	934	979	962	1026
Pancreas	119	154	220	253	308

Table 2.3 **Demographic data on cadaveric donors, from the Eurotransplant region and used for a transplant, in 1999**

Country	Total	Age (years)			Sex		AB0 Blood group				Cause of death		
		0–15	16–55	≥56	Male	Female	A	AB	B	0	Accident	Natural	Suicide
Austria	203	10	144	49	116	87	79	9	28	87	72	114	17
Belgium	241	15	180	46	153	88	99	6	23	113	89	134	18
Germany	1009	56	624	329	584	425	466	45	117	381	296	684	29
Luxemburg	8	2	6	0	4	4	6	0	0	2	4	3	1
Netherlands	165	17	112	36	77	88	70	5	11	79	55	105	5
Total	1626	100	1066	460	934	692	720	65	179	662	516	1040	70
	100%	6%	66%	28%	57%	43%	44%	4%	11%	41%	32%	64%	4%

Comparing 1998 and 1999, there was 5% increase of the usage of elderly donors (aged 56 years or more): 437 in 1998 versus 460 in 1999 [Table 2.3]. The percentages of the causes of death of the organ donors in 1999 remained the same as in 1998.

As shown in Table 2.4, the percentage of multi-organ donation amounted to 70%. Differences between the Eurotransplant countries remained: Austria (78%) and Belgium (82%) are ahead of Germany (67%) and The Netherlands (67%). However, these differences are less pronounced when the denominator 'donor population' is limited to the heart-beating cadaveric kidney donors aged from 16 to 55 years (N=818/1106): Eurotransplant, 74%; Austria, 75%; Belgium, 80%; Germany, 73%; The Netherlands, 70%.
The multi-organ donation rate from kidney donors aged 56 years or more was 47% (N=211/433).

2.1.3 Cadaveric organ donors from outside the Eurotransplant region

From outside the Eurotransplant region, organs from 336 donors were offered to the duty office of Eurotransplant. Organs from 115 donors were actually accepted and transplanted within the Eurotransplant region [Addenda: Tables 2a and 2b]. Through this international collaboration, 29 donor hearts, 61 donor livers, 31 donor kidneys and 25 donor lungs were transplanted in the Eurotransplant region.

2.1.4 Living donor transplants

In 1999, 579 living donors gave a kidney [Table 2.7]: +53 (+10%) as compared to 1998.
Sixty-seven times i.e. 76% more than in 1998 (N=38), a liver transplant was performed using a liver segment from a living donor (N=64) or using the explanted native liver of a patient who got a liver transplant ['domino'] (N=3).

Table 2.4 Type of organ donation in 1999

Country	Kidney donor				No-kidney donor	Cadaveric donor	
	Total	Kidney-only	Multi-organ	%MOD	Total	Total	%
Austria	199	44	155	78%	4	203	12.5%
Belgium	228	42	186	82%	13	241	14.8%
Germany	977	327	650	67%	32	1009	62.1%
Luxemburg	8	2	6	75%	0	8	0.5%
Netherlands	165	55	110	67%	0	165	10.1%
Total 1999	1577	470	1107	70%	49	1626	100.0%
Total 1998	1595	489	1106	69%	41	1636	
Total 1997	1607	471	1136	71%	40	1647	
Total 1996	1607	535	1072	67%	40	1647	
Total 1995	1585	585	1000	63%	35	1620	

In the Eurotransplant organization, a *kidney donor* is defined as a donor from whom at least one kidney is transplanted (not just procured). A kidney donor from whom at least one non-renal organ is also used in a transplant, is called a multi-organ donor (MOD). When only one or more non-renal organs are used, the donor is classified as a *no-kidney donor*.

2.2 Active cadaveric transplant waiting list at the end of 1999

Compared with the waiting list at the end of 1998, the waiting list for lungs at the end of 1999 increased significantly: + 121 (+54%) [Table 2.5]. Substantial increases were present for the pancreas waiting list (+21%) and the liver waiting list (+21%). The kidney waiting list increased with +2.5% (N=12273). The heart and the heart+lung waiting lists decreased respectively with -16% and -23%.

2.3 Inflow on the waiting list during 1999

Registrations concern listing for a first transplant as well as for repeat transplants [Table 2.6].
Compared with 1998, there were substantial increases of the number of registrations for a lung transplant and for a pancreatic transplant respectively N=+127 (+37%) and N=72 (+20%) in 1999; also an important increase was seen in the liver waiting list in 1999 (N=+115; +7.7%). In contrast, the number of patients for heart and heart+lung transplantation declined again, mainly due to alternative therapies. Listing for kidney transplantation in 1999 was comparable to 1998.

Table 2.5 Size of the active Eurotransplant waiting list, by organ, as per December 31, 1995 to 1999

Organ	1995	1996	1997	1998	1999	1998/1999
Kidney	10510	10988	11324	11976	12273	2.5%
Heart	709	744	744	721	609	-15.5%
Heart+Lung	79	71	66	60	46	-23.3%
Lung	224	204	216	224	345	54.0%
Liver	263	327	374	492	593	20.5%
Pancreas	138	182	194	217	262	20.7%

The data included in this table provide a snapshot of the waiting lists on the last day of each calendar year. Only the patients who are actively awaiting an organ transplant have been counted. Patients with the urgency code 'Not Transplantable' have been excluded.
Patients waiting for a simultaneous multiple-organ transplant are registered on the waiting list of each organ awaited.

Table 2.6 Registrations on the Eurotransplant waiting list, by organ, from 1995 to 1999

Organ	1995	1996	1997	1998	1999	1998/1999
Kidney	4886	4826	5045	5048	5023	-0.5%
Heart	1208	1319	1310	1250	1071	-14.3%
Heart+Lung	81	71	76	61	40	-34.4%
Lung	226	219	292	341	468	37.2%
Liver	1240	1393	1468	1500	1615	7.7%
Pancreas	157	219	300	356	428	20.2%

2.4 Outflow from the waiting list in 1999

2.4.1 Organ transplants from non-living donors

In 1999, 5451 cadaveric donor organs were used in 5139 transplant operations [Table 2.7]; the lower number of transplant operations is due to multiple organ transplants, e.g. pancreas+kidney, liver+kidney, etc. Pancreas and liver transplantations showed a remarkable increase: respectively +49 (+19%) and +63 (+6%). In addition, only 2 intestine transplants were carried out.

2.4.2 Mortality on the waiting list & De-listing

In 1999, 1176 patients died whilst awaiting a first or repeat organ transplant, irrespective of their urgency code when dying on the waiting list (1998: N=1162) [Table 2.8].

Table 2.7 Number of transplants within the Eurotransplant area, by organ, from 1995 to 1999

Year	1995	1996	1997	1998	1999
Cadaveric donors					
Transplanted organs,					
Kidney	3064	3083	3110	3068	3055
Heart	732	759	782	759	708
Heart+Lung	42	34	43	20	28
Lung	125	154	155	228	238
Liver	944	1032	1097	1071	1134
Pancreas	119	154	226	258	307
Transplant operations,					
Total	4899	5053	5177	5128	5139
Living donors					
Kidney	211	246	411	526	579
Heart ('domino')	0	1	0	0	0
Lung (lung lobe)	1	0	0	0	0
Liver (segment or 'domino')	25	22	43	38	67

Table 2.8 Mortality on the Eurotransplant waiting list, by organ, from 1995 to 1999

Organ	1995	1996	1997	1998	1999
Kidney	522	545	570	550	592
Heart	303	293	294	273	229
Heart+Lung	28	28	22	27	26
Lung	70	71	89	81	90
Liver	167	200	221	212	214
Pancreas	4	9	5	19	25

3. Kidney: donation, waiting lists, and transplants

3.1 Kidney donors

A total of 1634 potential kidney donors were reported to the central office of Eurotransplant in 1999 (Table 3.1). No kidneys were procured from 13 of the donors and, 143 kidneys were judged to be unfit for transplantation, mostly due to medical reasons (N=122). Kidneys were transplanted from 1573 donors, which is slightly below the level of 1998 (N=1595) and 1997 (N=1607).

The number of (used) kidneys per million inhabitants [kpmi] for the whole Eurotransplant area amounted to 26.3. Austria (48.6 kpmi) and Belgium (43.9 kpmi) proceeded Germany (22.8 kpmi) and The Netherlands (20 kpmi). Note that the drop in Germany (1998: 25.6 kpmi) and in The Netherlands (1998: 25.1 kpmi) is due to two factors, namely a drop in donation and transplantation rates but also to an adaptation of the number of inhabitants of the two countries (Germany + 2 x 10^6 inh. and The Netherlands +1x10^6 inh.).

Characteristics of the 1999 kidney donor pool include (Table 3.2):

- The number of donors aged over 56 years rose again (+9.4%). In 1999, 443 (28% of the total number of kidney donors) as compared to the 405 in 1998 (25.4% of the total number of kidneys donors).
- Donor ABO blood group distribution was similar to the average distribution of the last decade, ABO types A and O having the highest frequency, namely 44%.

Table 3.1 Use of cadaveric donor kidneys in the Eurotransplant region in 1999

Donor Eurotransplant country	Austria	Belgium	Germany	Luxemburg	Netherlands	1999 Total	1998 Total
Total no. of kidney donors reported	202	239	1014	8	171	1634	1722
Kidney donors from whom no kidneys were procured	1	2	9	0	1	13	50
Total no. of potentially available kidney donors	201	237	1005	8	170	1621	1672
Total no. of potentially available donor kidneys*	402	474	2010	16	340	3242	3344
No kidney available for transplant	3	16	40	0	6	65	42
– Donor with a single kidney	0	0	6	0	1	7	3
– Permission for only one kidney	0	0	0	0	0	0	6
– Kidneys en-bloc•, pediatric as well as adult donor	1	7	25	0	2	35	33
– Medical reasons	2	9	9	0	2	22	0
– Other / unknown	0	0	0	0	1	1	0
Total no. of inspected and/or procured donor kidneys	399	458	1970	16	334	3177	3302
No transplantation	10	17	103	0	14	144	240
– Medical reasons	9	12	87	0	14	122	233
– Organizational reasons	0	0	0	0	0	0	2
– (In)direct allocation to research program	1	5	8	0	0	14	0
– No suitable recipients	0	0	0	0	0	0	5
– Unknown / other	0	0	8	0	0	8	0
Transplantation	389	441	1867	16	320	3033++	3062+
Kidney donors used in 1999	199	228	976	8	165	1576	
Kidney donors used in 1998	161	187	1045	7	195		1595

* Conversion: one donor = two kidneys

• Kidneys en-bloc, used in a transplant, are counted as one kidney used and one kidney not available; the transplantation of two adult donor kidneys in the same transplant procedure is also considered one transplant.

\+ Four donor kidneys transplanted in 1999

++ Six donor kidneys transplanted in 2000

Table 3.2 **Demographics of cadaveric donors whose kidneys were transplanted in the Eurotransplant region in 1999**

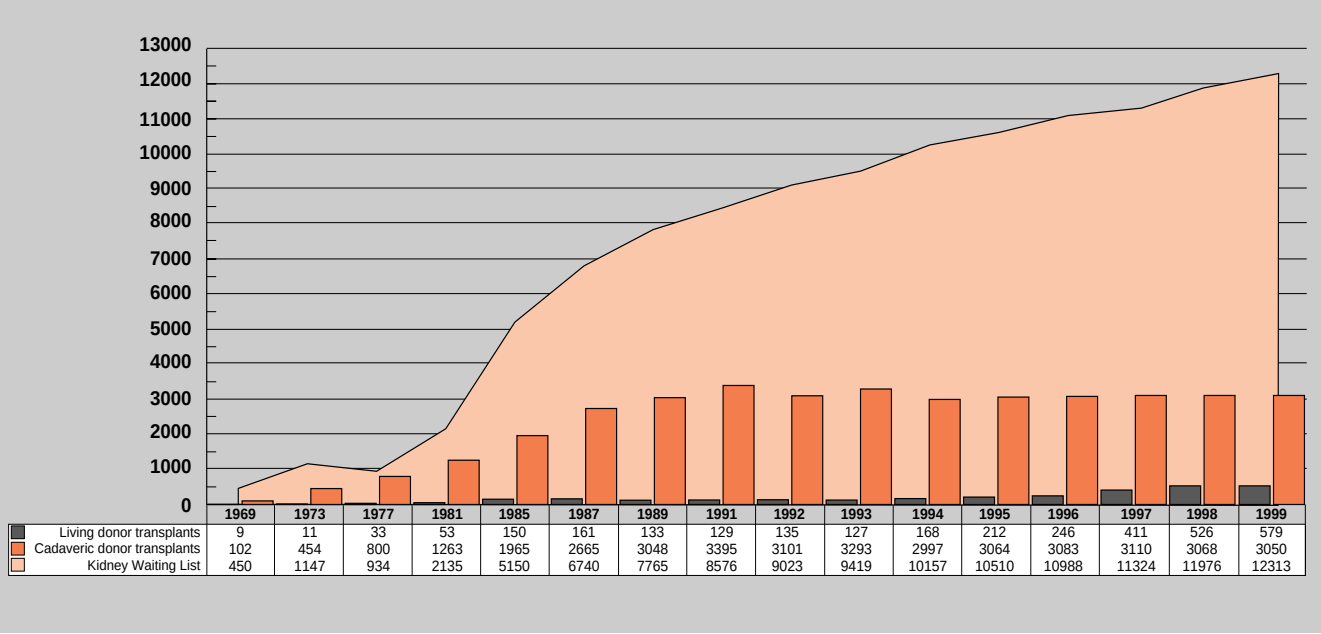
Country	Total	Age (years)			Sex		ABO Blood group				Cause of death		
		0–15	16–55	≥56	Male	Female	A	AB	B	O	Accident	Natural	Suicide
Austria	199	10	141	48	114	85	77	9	28	85	72	110	17
Belgium	228	14	173	41	144	84	92	6	23	107	86	125	17
Germany	976	46	612	318	561	415	453	44	114	365	288	660	28
Luxemburg	8	2	6	0	4	4	6	0	0	2	4	3	1
Netherlands	165	17	112	36	77	88	70	5	11	135	55	105	5
Total	1576	89	1044	443	900	676	698	64	176	694	505	1003	68
	100%	6%	66%	28%	57%	43%	44%	4%	11%	44%	32%	64%	4%

3.2 Waiting list

The total active kidney waiting list rose by 2.8% from 11 976 in 1998 to 12313 in 1999 (Table 3.3; Figure 3.1). A similar increase was seen for the total active kidney-only waiting list, albeit with major national differences: decreases for Belgium, (-13.2%) and Austria (-9.4%) and increases for Germany (+4.0%), and surprisingly a rather high increase again for The Netherlands (+11.8%). (see also Addendum Table 6a.)

Characteristics of the 1999 years' end kidney-only waiting list include (Table 3.3):

- The number of the elderly recipients (aged 56 years or more) rose nearly 4%. Renal transplant candidates aged 65 years or more represented 6.3% (N=759).
- Kidney-only transplant candidates with ABO type O represented 50% or more of the waiting list in Austria (52%), Belgium (57%) and The Netherlands (52%).
- The Netherlands had the highest percentage of patients (19.3%) sensitized against HLA antigens (6% or more panel reactive antibodies (PRA)) and of patients awaiting a repeat transplant (22.1%).
- Non-resident transplant candidates – patients who were neither living nor being treated in one of the five Eurotransplant countries – may be considered as resident for the allocation program (i.e. match-resident) when they are awaiting a kidney re-transplant at the same Eurotransplant transplant program where they got their immediate previous kidney transplant. The number of patients considered as non-residents for a match is decreasing, even in Belgium from 34% in 1998 to 27.7% in 1999. Also in Austria a decrease was apparent, namely from 5.5% in 1998 to 4.1% in 1999.
- The number of patients waiting five years or more for a kidney transplant remained below 10% of the waiting list, except for Belgium (13.9%); nevertheless, the total number of these long waiting patients slightly increased from 8.6% in 1998 to 9.1% in 1999.



	1969	1973	1977	1981	1985	1987	1989	1991	1992	1993	1994	1995	1996	1997	1998	1999
Living donor transplants	9	11	33	53	150	161	133	129	135	127	168	212	246	411	526	579
Cadaveric donor transplants	102	454	800	1263	1965	2665	3048	3395	3101	3293	2997	3064	3083	3110	3068	3050
Kidney Waiting List	450	1147	934	2135	5150	6740	7765	8576	9023	9419	10157	10510	10988	11324	11976	12313

Figure 3.1 Dynamics of the Eurotransplant kidney waiting list and transplants between 1969 and 1999

Table 3.3 Active cadaveric kidney transplant waiting list at December 31, 1999: characteristics

		Austria	Belgium	Germany	Luxemburg	Netherlands	1999 Total	%	1998 Total
Total		745	775	9474	13	1306	12313		11976
Type of transplant	Kidney-only	731	750	9294	13	1292	12080	98%	11788
	Kidney+heart	0	0	2	0	0	2	0%	6
	Kidney+liver	1	4	25	0	0	30	0%	27
	Kidney+lung	0	0	1	0	0	1	0%	0
	Kidney+liver+pancreas	0	0	1	0	0	1	0%	1
	Kidney+pancreas	11	21	147	0	14	193	2%	149
	Kidney+islet	2	0	4	0	0	6*	0%	5
Kidney-only waiting list		**731**	**750**	**9294**	**13**	**1292**	**12080**	**100%**	**11788**
Age (years)	0-15	2	10	64	0	22	98	1%	93
	16-55	470	588	6191	10	893	8152	67%	8006
	56+	259	152	3039	3	377	3830	32%	3689
ABO blood group	A	296	257	3807	2	456	4818	40%	4696
	AB	5	13	205	0	24	247	2%	246
	B	49	49	966	2	144	1210	10%	1171
	O	379	431	4316	9	666	5801	48%	5667
	Not yet reported	2	0	0	0	2	4	0%	8
% PRA current	0-5%	589	641	8315	10	1041	10596	88%	10235
	6-84%	123	99	918	2	209	1351	11%	1395
	85-100%	12	9	53	1	40	115	1%	138
	Not yet reported	7	1	8	0	2	18	0%	20
Sequence	First	594	602	7915	11	1007	10129	84%	9875
	Repeat	137	148	1379	2	285	1951	16%	1913
Time waiting (years)	0-1	500	422	4591	8	642	6163	51%	6274
	2-4	193	224	3836	3	557	4813	40%	4505
	5+	38	104	867	2	93	1104	9%	1009
Match-Residency	Yes	701	542	9277	13	1292	11825	98%	11357
	No	30	208	17	0	0	255	2%	356

* Note: The 6 kidney + islet patients are also on the kidney + pancreas list registered

Table 3.4 Cadaveric kidney transplant waiting list in 1999: inflow (registrations) and outflow

		Austria	Belgium	Germany	Luxemburg	Netherlands	1999 Total	%	1998 Total
Registrations		405	466	3341	5	806	5023		5048
Sequence	First transplant	325	391	2918	3	685	4322	86%	4311
	Repeat transplant	80	75	423	2	121	701	14%	737
Age (years)	0-15	5	18	103	0	43	169	3%	161
	16-55	269	318	2194	5	547	3333	66%	3415
	56+	131	130	1044	0	216	1521	30%	1472
ABO blood group	A	189	196	1454	1	321	2161	43%	2090
	AB	26	25	158	0	34	243	5%	250
	B	47	41	447	0	111	646	13%	621
	O	141	202	1274	4	315	1936	39%	2043
	Not yet reported	2	2	8	0	25	37	1%	44
Outflow	Transplantation (cadaveric donor)	381	426	1891	6	346	3050	100%	3068
ABO blood group	NOT REPORTED	0	1	0	0	0	1	0%	
	A	167	170	864	1	145	1347	44%	
	AB	22	19	132	0	12	185	6%	
	B	63	44	247	1	43	398	13%	
	O	129	192	648	4	146	1119	37%	
	Total	381	426	1891	6	346	3050	100%	
Age (years)	0-15	4	8	101	0	18	131	4%	
	16-55	265	287	1132	5	217	1906	62%	
	56+	112	131	658	1	111	1013	33%	
	Total	381	426	1891	6	346	3050	100%	
	Mortality on the waiting list	50	39	397	0	106	592		550
	De-listing	47	34	322	0	79	482		523

3.3 Inflow to the renal waiting list in 1999

The total number of registrations on the (cadaveric) kidney transplant waiting list in 1999 showed a slight decrease as compared to 1998 (Table 3.4). The increase in Belgium (N=+44) was counterbalanced by a decrease in the other countries. New registrations for patients who required re-transplantation accounted for 14%.
Pediatric patients comprised 3% of the total inflow, while 30% was accounted by the patients aged 56 years or more. These figures are similar to the percentages in 1998. The inflow of ABO type O patients amounted to 39% (1998: 41%), which is much lower than the current portion on the active kidney-only waiting list (48%).

3.4 Outflow from the waiting list during 1999

3.4.1 Kidney transplant activity

A total of 3050 cadaveric kidney transplants (kidney only and kidney + other organs) was performed in 1999 as compared with 3068 in 1998 (Table 3.5). A further rise of the number of multi-organ kidney transplants (from 272 in 1998 to 317 in 1999) was observed.

Table 3.5 also summarizes the 2733 kidney-only transplants carried out in 1999:

- Twenty percent of kidney-only transplants took place between donors and recipients with zero HLA-A, B, DR mismatches.
- The number of pediatric patients who received transplants in 1999 (N=130; 5%) was slightly higher than in 1998 (N = 121; 4%). Transplantation of elderly patients, aged 65 years or more, occurred in 228 cases (8.3%). (1998: 6.5%)
- Sharing ABO-O donors with ABO-nonO recipients and with patients in the special allocation programs for highly sensitized patients reduces the maximum number of ABO-O transplants with 9,1% (1998: -7,8%) Two ABO incompatible transplants occurred due to wrong entry of the recipients ABO blood group.
- (Long) Waiting time is a major driving force in the ET Kidney Allocation System. However, in 1999 18% patients who had been on the waiting list for five years or more were transplanted versus 22% in 1998. Considerable national differences were observed: Austria 6%, Belgium 2%, Germany 24% and The Netherlands 14%.
- The number of non-residents transplanted remained low (N=7), following the registration stop in Belgium and the re-definition of non-resident for the purpose of the ET Kidney Allocation System (see 3.2).
- Transplants, realized with kidneys procured from non-heart-beating donors, increased to 73 (1998: 64) thanks to the major efforts done in The Netherlands (N=62).

In addition, 69 'highly immunized' (i.e. currently and / or historically) patients received transplants (1998: 48). Of these, 44 patients received kidneys via the Highly Immunized Trial (HIT) protocol (1998:N=34), and 25 patients via the Acceptable Mismatch program (1998:N=14). In the frame of the HIT program, three kidneys were exchanged and transplanted outside Eurotransplant. One kidney for a HIT patient was received from outside ET.

Transplant activities and kidney exchange are shown in detail in the Addenda. An excellent balance between national kidney procurement and transplantation was maintained throughout the year, while permitting an average local/regional kidney-only transplant rate of 66% (1800/2733).

3.4.2 Mortality on the waiting list and de-listing

In 1999, a total of 592 patients died while on the waiting list (Table 3.4).
In addition, a further 482 patients were removed from the waiting list for various reasons, e.g. too poor condition, received living donor transplant, transplanted outside Eurotransplant, or no longer interested (Table 3.4).

3.5 Living donor kidney transplants

Living donor kidney transplantation again expanded: 579 donors in 1999 versus 526 donors in 1998; as such, it represents 16% of the total Eurotransplant kidney transplant activity (Table 3.5). Living related as well as living unrelated donor kidney transplants were responsible for the increase. "Partner" transplants (N=170) accounted for 86% of the total living unrelated donor kidney transplants. (N=198)
A survey of the living donor kidney transplant activity by country and by centre is also present in the Addenda.

Table 3.5 Kidney transplants in 1999: characteristics

		Austria	Belgium	Germany	Luxemburg	Netherlands	1999 Total	%	1998 Total
Cadaveric donor kidney transplants		381	426	1891	6	346	3050*		3068
Type of transplant	Kidney-only	352	386	1663	6	326	2733		2796
	Kidney+heart	0	1	3	0	0	4		8
	Kidney+lung	1	0	0	0	0	1		1
	Kidney+liver	1	7	16	0	1	25		27
	Kidney+liver+pancreas	0	0	0	0	0	0		2
	Kidney+pancreas	27	32	204	0	19	282		230
	Kidney+heart+liver	0	0	1	0	0	1		0
	Kidney+islet	0	0	4	0	0	4		4
Kidney-only transplants		**352**	**386**	**1663**	**6**	**326**	**2733**		**2796**
HLA-A,B,DR mismatch	0	46	49	386	0	67	548	20%	626
	1	16	33	99	1	31	180	7%	210
	2	87	106	370	2	94	659	24%	720
	3	134	152	482	3	97	868	32%	895
	4	52	45	218	0	29	344	13%	296
	5	14	1	82	0	7	104	4%	44
	6	3	0	26	0	1	30	1%	5
Age (years)	0-15	4	8	100	0	18	130	5%	121
	16-55	238	249	919	5	198	1609	59%	1838
	56+	110	129	644	1	110	994	36%	837
ABO blood group	A	159	155	767	1	137	1219	45%	1184
	AB	20	17	118	0	11	166	6%	183
	B	58	36	216	1	41	352	13%	368
	O	115	177	562	4	137	995	36%	1061
	not recorded	0	1	0	0	0	1	0%	
% PRA prior to transplant									
	0-5%	292	340	1468	6	252	2358	86%	2410
	6-84%	53	42	175	0	67	337	12%	338
	85-100%	7	4	20	0	7	38	1%	48
Time waiting (years)	0-1	164	257	565	3	124	1113	41%	1149
	2-4	167	122	690	3	157	1139	42%	1038
	5+	21	7	408	0	45	481	18%	609
Sequence	First	272	335	1374	5	257	2243	82%	2260
	Repeat	80	51	289	1	69	490	18%	536
Match-residency	Yes	349	382	1663	6	326	2726	99,7%	2782
	No	3	4	0	0	0	7	0,3%	14
Special kidney transplant groups									
	High urgency	5	1	33	0	3	42	1,5%	49
	Non-heart-beating donor	11	3	0	0	62	76	2,8%	64
	Acceptable Mismatch	0	0	4	0	21	25	0,9%	14
	Highly Immunized Trial	8	7	24	0	5	44	1,6%	34
	En bloc, pediatric donor	3	5	14	0	0	22	0,8%	21
	En bloc, adult donor	0	2	8	0	0	10	0,4%	14
	Eurotransplant Senior Program	19	5	190	0	8	222	8,1%	0
	Eurotransplant Senior Program; en bloc	0	0	6	0	0	6	0,2%	0
Origin	Local-regional	252	238	1124	5	181	1800	66%	1665
	National	19	38	350	0	35	442	16%	555
	Other ET countries	78	104	173	1	110	466	17%	552
	Outside ET region	3	6	16	0	0	25	1%	24
Living donor kidney transplants-Kidney Only									
Type of donor	total	39	26	380	0	134	579	100%	526
	Living related	24	19	243	0	95	381	66%	355
	Father	4	6	49	0	15	74	13%	73
	Mother	9	6	101	0	22	138	24%	127
	Sibling	10	5	75	0	47	137	24%	132
	Other relatives	1	2	18	0	11	32	6%	23
	Living unrelated	15	7	137	0	39	198	34%	171
	Partner	12	7	116	0	35	170	29%	151
	Other	3	0	21	0	4	28	5%	20
Age (years)	0-15	3	5	19	0	6	33	6%	23
	16-55	30	20	293	0	102	445	77%	423
	56+	6	1	68	0	26	101	17%	80
Sequence	First	32	23	351	0	122	528	91%	469
	Repeat	7	3	29	0	12	51	9%	57
Total kidney transplant activity (all)		420	452	2271	6	480	3629		3594

3.6 Kidney-only high urgency programme

Only a restricted number of grants for 'high urgency' (HU) kidney transplantation are available per ET transplant program. HU patients are mainly those whose dialysis treatment is endangered by imminent lack of access (48%), or who are in a very poor physical or psychological condition (31%).
In 1999, HU requests were made for 58 new patients, compared with 51 in 1998 (Table 3.6). A total of 41 patients received a transplant, of whom 88% within 6 weeks after listing on the HU waiting list.

Table 3.6 Dynamics of the kidney high urgency waiting list in 1999

		Austria	Belgium	Germany	Luxemburg	Netherlands	1999 Total	1998 Total
Waiting list at the beginning of the year		0	1	1	0	0	2	4
Inflow	New HU patients	5	4	46	0	3	58	51
Reasons for High Urgency								
	Dialysis access problems	4	2	21	0	1	28	16
	Dialysis morbidity	0	0	6	0	0	6	15
	Poor psychological condition	0	2	10	0	0	12	8
	Kidney failure post-kidney+pancreas transplant	0	0	6	0	1	7	5
	Other	1	0	3	0	1	5	0
Outflow	HU kidney transplants	4	2	32	0	3	41	49
	Withdrawn	1	2	10	0	0	13	2
	Died	0	0	0	0	0	0	2
Waiting list at the end of the year		0	1	5	0	0	6	2

4. Thoracic organs: donation, waiting lists, and transplants

4.1 Thoracic organ donors

4.1.1 Heart donors

Table 4.1 gives an overview of the fate of cadaveric hearts from the 1072 potential donors reported to the central office of Eurotransplant in 1999. Of the hearts accepted for transplantation, 23% (N=205) were discarded during procurement. Hearts from a total of 708 donors were transplanted, which represents a decrease of 5.4% as compared to 1998. Hearts from 26 donors were used for combined heart+lung transplants. Only 8% of heart donors (N=56) were aged over 55 years compared with 28% and 20% of kidney and liver donors, respectively (Table 4.2).

4.1.2 Lung donors

Table 4.3 summarizes the fate of lungs from the 465 potential lung donors reported to the central office of Eurotransplant in 1999 (1998: N=464). Upon inspection, 5% (N=11)of donor lungs were found to be unsuitable for transplantation (1998:17%). Lungs from 220 donors were transplanted (1998: N=225). Single lungs from 55 donors were transplanted and a total of 139 double lung transplantations were performed. In 25 cases, the 2 lungs were used for 2 single lung transplants. There were 26 patients who received a combined heart + lung. Table 4.4. shows that 7% of the lungs used for a transplant were from donors over the age of 56. (1998:5%)

Table 4.1 Use of cadaveric donor hearts in the Eurotransplant region in 1999

Donor Eurotransplant country	Austria	Belgium	Germany	Luxemburg	Netherlands	1999 Total	1998 Total
Total no. of heart donors reported	148	166	651	6	101	1072	1064
No donor hearts procured	33	18	90	2	16	159	189
– No time for selection / offer withdrawn	0	0	1	0	0	1	9
– Consent withdrawn	0	0	2	0	0	2	0
– Medical reasons	21	7	49	1	6	84	142
– No suitable recipient due to donor size	0	0	0	0	0	0	15
– No suitable recipient due to donor blood group	0	0	0	0	0	0	5
– No eligible/transplantable recipients	1	1	5	0	1	8	0
– Centre out of capacity or recipient unfit	0	0	0	0	0	0	3
– Transport problems	0	0	0	0	0	0	6
– Organizational reasons	0	1	4	0	0	5	0
– Cardiovascular instability of donor	0	0	0	0	0	0	9
– Indirect allocation to research program	2	5	7	0	4	18	0
– Direct allocation to research program	1	1	3	0	5	10	0
– Other / unknown	8	3	19	1	0	31	0
Donor heart inspection/procurement:	115	148	561	4	85	913	875
No transplantation	22	29	120	1	33	205	129
– Organ unsuitable for transplantation	4	0	25	0	0	29	127
– No back-up recipient	0	0	0	0	0	0	2
– Organizational reasons	1	0	0	0	0	1	0
– (In)direct allocation to research program	15	29	86	1	32	163	0
– Unknown / other	2	0	9	0	1	12	0
Transplantation	93	119	441	3	52	708	746
– Donor for heart+lung	1	6	17	0	2	26	20
– Donor for heart	92	113	424	3	50	682	726

Table 4.2 **Demographics of cadaveric donors whose hearts were transplanted in the Eurotransplant region in 1999**

Country	Total	Age (years)			Sex		ABO Blood group				Cause of death		
		0–15	16–55	≥56	Male	Female	A	AB	B	O	Accident	Natural	Suicide
Austria	93	4	86	3	54	39	41	3	16	33	44	40	9
Belgium	119	5	109	5	79	40	47	3	11	58	52	55	12
Germany	441	32	363	46	257	184	201	18	50	172	170	251	20
Luxemburg	3	1	2	0	2	1	3	0	0	0	2	1	0
Netherlands	52	6	44	2	24	28	17	2	4	29	19	32	1
Total	708	48	604	56	416	292	309	26	81	292	287	379	42
	100%	7%	85%	8%	59%	41%	44%	4%	11%	41%	41%	54%	6%

Table 4.3 **Use of cadaveric donor lungs in the Eurotransplant region in 1999**

Donor Eurotransplant country	Austria	Belgium	Germany	Luxemburg	Netherlands	1999 Total	1998 Total
Total no. of lung donors reported	85	70	262	2	46	465	464
No donor lung procured	38	30	143	1	22	234	192
– No time for selection / offer withdrawn	0	0	1	0	0	1	10
– Consent withdrawn	0	0	1	0	0	1	0
– Medical reasons	27	21	99	0	18	165	143
– No suitable recipient due to donor size	0	0	0	0	0	0	8
– No suitable recipient due to donor blood group	0	0	0	0	0	0	7
– No eligible/transplantable recipients	0	2	9	0	1	12	0
– Centre out of capacity or recipient unfit	0	0	0	0	0	0	18
– Transport problems	0	0	0	0	0	0	5
– Organizational reasons	3	0	12	1	2	18	0
– Cardiovascular instability of donor	0	0	0	0	0	0	1
– Other / unknown	8	7	21	0	1	37	0
Donor lung inspection/procurement: (either one or two lungs per donor)	47	40	119	1	24	231	272
No transplantation	2	2	6	0	1	11	47
– Medical reasons	1	0	0	0	0	1	0
– Organ unsuitable for transplantation	0	1	5	0	1	7	45
– No back-up recipient	0	0	0	0	0	0	2
– Organizational reasons	0	1	0	0	0	1	0
– Unknown / other	1	0	1	0	0	2	0
Transplantation	45	38	113	1	23	220	225
– Donor for heart+lung	1	6	17	0	2	26	20
– Donor for double lung	31	20	69	1	18	139	156
– Donor for single lung	3	6	18	0	3	30	34
– Donor for two single lungs	10	6	9	0	0	25	15

Table 4.4 **Demographics of cadaveric donors whose lungs were transplanted in the Eurotransplant region in 1999**

Country	Total	Age (years)			Sex		ABO Blood group				Cause of death		
		0–15	16–55	≥56	Male	Female	A	AB	B	O	Accident	Natural	Suicide
Austria	45	1	39	5	22	23	15	2	6	22	18	24	3
Belgium	38	2	34	2	16	22	14	1	2	21	11	23	4
Germany	113	7	98	8	61	52	48	6	17	42	50	59	4
Luxemburg	1	1	0	0	1	0	0	0	0	1	1	0	0
Netherlands	23	5	18	0	9	14	10	0	1	12	7	15	1
Total	220	16	189	15	109	111	87	9	26	98	87	121	12
	100%	7%	86%	7%	50%	50%	40%	4%	12%	45%	40%	55%	5%

While on the thoracic organ waiting lists, transplant candidates are assigned a medical urgency code that is used to prioritize them in the allocation procedure. These codes are:
Code HU: high urgency Patients whose heart graft fails within three days of transplantation. If a patient is on the HU list, the offer and exchange of a donor heart is mandatory. This HU code does not exist for lung transplant candidates.
Code SU: special urgency Patients in a critical medical condition but not eligible for the HU code. There is no mandatory offer but, if a donor heart, heart+lung, and/or lung is made available to the Eurotransplant pool, SU patients have priority over elective patients. There is a restricted number of SU grants per year and per programme.
Code T: transplantable Elective transplantable patients with end-stage heart and/or endstage lung disease.
Code NT: not transplantable This code is assigned whenever a patient has a temporary contraindication to transplantation. Temporary is defined as lasting a maximum of six months.

4.2 Waiting lists

The number of heart transplant candidates on the active waiting list as per December 31, 1999 (N=609) decreased by 16% as compared with the 1998 year's end waiting list (N=721)(Table 4.5; Figure 4.1).
The heart+lung waiting list dropped for the fourth year in a row (-23%)(N=46), while the lung-only waiting list increased significantly in 1999 with 54% (N=345) (Tables 4.6, 4.7; Figure 4.2).

Characteristics of the heart waiting list include:

- Differences of heart waiting list size are enormous between the ET countries, in particular when expressed per million inhabitants (pmi), e.g. the Netherlands 1.9 pmi versus Austria 7.8 pmi.
- Patients with ABO blood group type O made up 45% of the heart waiting list, an increase of 8% as compared to 1998.
- Patients aged over 56 years (N=307) made up 50% of the total heart waiting list.
- In Austria and Germany, a considerable number of patients have already accrued a waiting time of at least 1 year and sometimes even more than 2 years!

Characteristics of the heart+lung waiting list include:

- More than 60% (N=28) of the patients had been waiting for one year or more by the end of 1999 (1998: 38%).

Table 4.5 Active heart transplant waiting list at 31 December 1999: characteristics

		Austria	Belgium	Germany	Netherlands	1998 Total	%	1997 Total
Number		62	21	496	30	609	100%	721
Number per million inhabitants		7,8	2,1	6,0	1,9	5,2		6.4
Type of transplant	Heart-only	62	21	494	30	607	100%	715
	Heart+kidney	0	0	2	0	2	0%	6
Age (years)	0-5	0	0	8	0	8	1%	6
	6-15	1	1	1	0	3	0%	2
	16-55	20	12	240	19	291	48%	334
	56+	41	8	247	11	307	50%	379
ABO blood group	A	16	13	219	20	268	44%	345
	AB	1	1	10	0	12	2%	28
	B	7	0	43	2	52	9%	82
	O	38	7	224	8	277	45%	266
Sequence	First	62	21	491	30	604	99%	716
	Repeat	0	0	5	0	5	1%	5
Time waiting (months)	0-5	28	19	203	21	271	44%	332
	6-11	16	2	149	8	175	29%	203
	12-23	13	0	108	1	122	20%	150
	24+	5	0	36	0	41	7%	36

Table 4.6 Active heart+lung transplant waiting list at 31 December 1999: characteristics

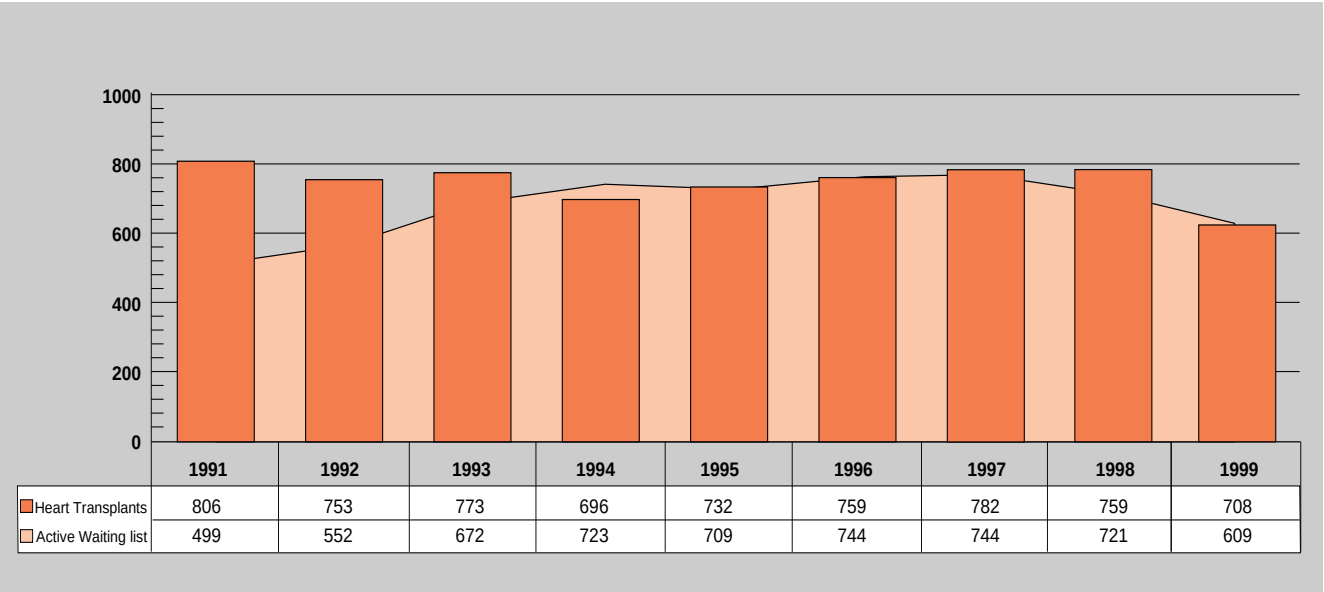
		Austria	Belgium	Germany	Netherlands	1999 Total	%	1998 Total
Number		5	3	38	0	46	100%	60
Number per million inhabitants -		0,6	0,3	0,5	0,0	0,4		0.6
Type of transplant	Heart+lung	5	3	38	0	46	100%	59
	Heart+lung+liver	0	0	0	0	0	0%	1
Age (years)	6-15	0	0	3	0	3	7%	8
	16-55	5	3	33	0	41	89%	51
	56+	0	0	2	0	2	4%	1
ABO blood group	A	4	1	14	0	19	41%	25
	AB	0	1	1	0	2	4%	2
	B	0	1	1	0	2	4%	8
	O	1	0	22	0	23	50%	25
Sequence	First	5	3	37	0	45	98%	60
	Repeat	0	0	1	0	1	2%	0
Time waiting (months)	0-11	3	1	14	0	18	39%	37
	12-23	1	1	11	0	13	28%	8
	24+	1	1	13	0	15	33%	15

Characteristics of the lung waiting list include:

- The Netherlands had the highest number of patients on the lung transplant waiting list: 3.6 patients per million inhabitants.
- Most patients on the lung waiting list (N=250; 72%) were awaiting double lung transplantation as in 1998 (79%).
- Twenty-six percent (N=87) of the patients had been on the waiting list for one year or more at the end of 1999, especially in Germany (N=61) and in The Netherlands (N=22).

Table 4.7 Active lung transplant waiting list at 31 December 1999: characteristics

		Austria	Belgium	Germany	Netherlands	1999 Total	%	1998 Total
Number		22	24	246	58	350	100%	224
Number per million inhabitants		2,8	2,4	3,0	3,6	3,0		2.0
Type of transplant								
	Lung-only	22	23	242	58	345	99%	223
	Double	11	20	182	37	250	71%	177
	Double or single	8	0	3	9	20	6%	5
	Single left	2	0	11	1	14	4%	11
	Single right	1	1	28	11	41	12%	22
	Either single	0	2	18	0	20	6%	8
	Lung+liver	0	1	3	0	4	1%	1
	Lung+kidney	0	0	1	0	1	<1%	0
Lung Only Waiting List								
Age (years)	0-5	0	0	0	0	0	0%	1
	6-15	2	1	6	2	11	3%	2
	16-55	10	22	184	49	265	77%	186
	56+	10	0	52	7	69	20%	35
ABO blood group	A	7	5	119	22	153	44%	96
	AB	0	3	5	3	11	3%	4
	B	0	3	15	3	21	6%	12
	O	15	12	103	30	160	46%	112
Sequence	First	21	21	230	58	330	96%	213
	Repeat	1	2	12	0	15	4%	11
Time waiting (months)	0-5	16	15	114	21	166	48%	99
	6-11	3	7	67	15	92	27%	60
	12-23	3	1	38	15	57	17%	45
	24+	0	0	23	7	30	9%	20



	1991	1992	1993	1994	1995	1996	1997	1998	1999
Heart Transplants	806	753	773	696	732	759	782	759	708
Active Waiting list	499	552	672	723	709	744	744	721	609

Figure 4.1 Dynamics of the Eurotransplant heart waiting list and heart transplants between 1991 and 1999

4.3 Inflow to the thoracic waiting list in 1999

The number of new registrations for a heart transplantation dropped in 1999 with 14% (N=179) to 1071 patients. (1998:1250). All ET countries, except The Netherlands, registered fewer patients for a heart transplantation in 1999 (Table 4.8). Especially Germany and Austria showed substantial drops. This is probably due to the introduction of new therapies. Pediatric patients comprised 6% (N=68) of the total inflow, while 44% was accounted for by the patients aged 56 years or more. Only neonates and small infants were registered in Germany (N=47). The ABO type A had a higher influx (44%) than the ABO type O (40%).
The annual number of registrations for a heart+lung transplant is only 40 (-34%) (Table 4.9).
The 37% increase of registrations for a lung transplant is due to higher registrations in all ET counties (Table 4.10). Interestingly to note that the number of children increased to 21 in 1999 (1998:N=8).

Table 4.8 Heart transplant waiting list in 1999: inflow (registrations) and outflow

		Austria	Belgium	Germany	Netherlands	1999 Total	%	1998 Total
Registrations	Total	108	101	794	68	1071		1250
	Per million inhabitants	13,5	10,1	9,7	4,3	9,2		11.0
Sequence	First transplant	108	97	775	68	1048	98%	1218
	Repeat transplant	0	4	19	0	23	2%	32
Medical urgency	High Urgency	0	2	8	0	10		9
	Special Urgency	10	13	85	8	116		103
Age (years)	0-5	0	0	47	0	47	4%	50
	6-15	2	2	13	4	21	2%	22
	16-55	43	57	386	44	530	49%	617
	56	63	42	348	20	473	44%	561
ABO blood group	A	41	47	352	34	474	44%	589
	AB	8	3	39	2	52	5%	71
	B	12	6	89	7	114	11%	153
	O	47	45	314	25	431	40%	437
Outflow	Transplantation	93	91	481	43	708	100%	759
ABO blood group	A	37	41	229	17	324	46%	363
	AB	11	3	32	1	47	7%	40
	B	16	9	67	5	97	14%	100
	O	29	38	153	20	240	34%	256
Age (years)	0-5	0	0	21	0	21	3%	30
	6-15	1	1	10	5	17	2%	17
	16-55	40	51	209	23	323	46%	361
	56 +	52	39	241	15	347	49%	351
Mortality on the waiting list		15	10	192	12	229	100%	273
ABO blood group	A	3	5	88	5	101	44%	
	AB	0	0	11	1	12	5%	
	B	2	1	23	1	27	12%	
	O	10	4	70	5	89	39%	
Age (years)	0-5	0	0	0	0	17	7%	
	6-15	0	0	0	0	3	1%	
	16-55	6	5	70	8	89	39%	
	56 +	9	5	102	4	120	52%	
De-listing		11	4	145	7	167		217

Table 4.9 Heart+lung transplant waiting list in 1999: inflow (registrations) and outflow

		Austria	Belgium	Germany	Netherlands	1999 Total	%	1998 Total
Registrations	Total	5	5	28	2	40		61
Outflow	Transplantation	1	5	20	2	28	100%	20
ABO blood group	A	1	2	10	1	14	50%	
	AB	0	0	0	0	0	0%	
	B	0	0	4	0	4	14%	
	O	0	3	6	1	10	36%	
Age (years)	0-5	0	0	1	0	1	4%	
	6-15	0	0	5	0	5	18%	
	16-55	0	5	14	2	21	75%	
	56 +	1	0	0	0	1	4%	
Mortality on the waiting list		2	2	20	2	26	100%	27
ABO blood group	A	1	2	9	0	12	46%	
	AB	0	0	1	0	1	4%	
	B	0	0	3	0	3	12%	
	O	1	0	7	2	10	38%	
Age (years)	6-15	1	1	1	0	3	12%	
	16-55	0	1	16	2	19	73%	
	56 +	1	0	3	0	4	15%	
De-listing		1	2	7	0	10		21

Table 4.10 Lung transplant waiting list in 1999: inflow (registrations) and outflow

		Austria	Belgium	Germany	Netherlands	1999 Total	%	1998 Total
Registrations	Total	79	47	299	43	468		341
	Per million inhabitants	9,9	4,7	3,6	2,7	4		3
Sequence	First transplant	68	43	285	43	439	94%	320
	Repeat transplant	11	4	14	0	29	6%	21
Medical urgency	Special Urgency	11	4	28	3	46		44
Age (years)	0-5	0	0	0	0	0	0%	2
	6-15	9	1	9	2	21	4%	6
	16-55	46	36	220	38	340	73%	272
	56 +	24	10	70	3	107	23%	61
ABO blood group	A	34	14	142	15	205	44%	148
	AB	5	3	17	2	27	6%	24
	B	8	10	29	1	48	10%	31
	O	32	20	111	25	188	40%	138
Outflow								
	Transplantation	68	28	126	17	239	100%	228
Age (years)	0-5	0	0	0	0	0	0%	1
	6-15	4	0	1	1	6	3%	7
	16-55	43	18	95	14	170	70%	172
	56 +	21	10	30	2	63	27%	48
ABO blood group	A	30	14	57	10	111	46%	100
	AB	5	0	13	0	18	7%	22
	B	9	5	16	1	31	14%	26
	O	24	9	40	6	79	33%	80
Mortality on the waiting list		5	9	61	15	90	100%	81
Age (years)	0-5	0	0	0	0	0	0%	
	6-15	1	0	1	2	4	4%	
	16-55	2	9	47	12	70	78%	
	56 +	2	0	13	1	16	18%	
ABO blood group	A	1	2	20	4	27	30%	
	AB	0	0	2	0	2	2%	
	B	0	1	3	1	5	6%	
	O	4	6	36	10	56	62%	
De-listing		1	0	7	1	9		18

4.4 Outflow from the waiting list in 1999

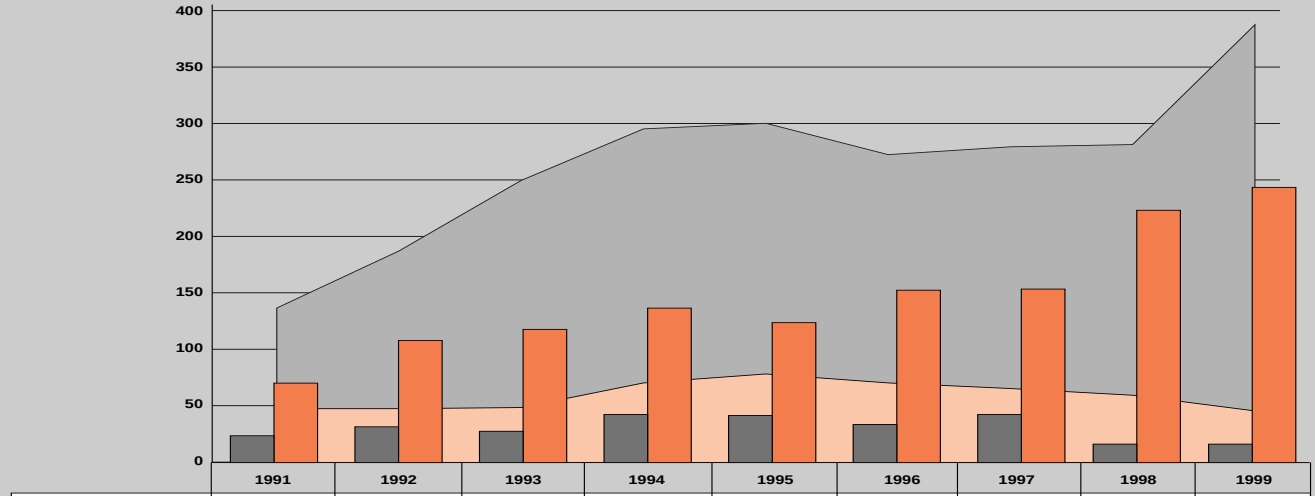
4.4.1 Thoracic organ transplant activities

Heart transplants decreased by nearly 7% (N=708) compared with 1998 (N=759)(Table 4.11); the number of heart retransplants remained the same in 1999 namely 2% (N=17).

Seven more heart+lung transplants were performed in 1999 (N=27) as compared with 1998 (Table 4.12). One patient received a combined heart, lung and liver transplant.

Table 4.11 Heart transplants in 1999: characteristics

		Austria	Belgium	Germany	Netherlands	1999 Total	%	1998 Total
Cadaveric heart transplants		93	91	481	43	708	100%	759
Type of transplant	Heart-only	93	90	476	43	702	99%	751
	Heart+kidney	0	1	3	0	4	1%	8
	Heart+kidney+liver	0	0	1	0	1	0%	0
	Heart+liver	0	0	1	0	1	0%	0
Urgency code	HU	0	2	8	0	10	1%	6
	SU	7	8	65	6	86	12%	74
	Transplantable	86	81	408	37	612	86%	679
Age (years)	0-5	0	0	21	0	21	3%	30
	6-15	1	1	10	5	17	2%	17
	16-55	40	51	209	23	323	46%	361
	56+	52	39	241	15	347	49%	351
ABO blood group	A	37	41	229	17	324	46%	363
	AB	11	3	32	1	47	7%	40
	B	16	9	67	5	97	14%	100
	O	29	38	153	20	240	34%	256
Sequence	First	93	87	468	43	691	98%	745
	Repeat	0	4	13	0	17	2%	14
Time waiting (months)	0-5	50	65	246	23	384	54%	462
	6-11	21	22	102	15	160	23%	163
	12-23	15	4	91	5	115	16%	107
	24+	7	0	42	0	49	7%	37



	1991	1992	1993	1994	1995	1996	1997	1998	1999
Heart+Lung Waiting List	48	48	49	71	79	71	66	60	46
Lung Waiting List	90	141	203	227	224	204	216	224	345
Heart+Lung Transplants	24	32	28	43	42	34	43	20	28
Lung Transplants	71	109	119	138	125	154	155	228	242

Figure 4.2 Dynamics of the Eurotransplant active heart+lung waiting list and heart+lung transplants and Eurotransplant active lung waiting list and cadaveric lung transplants between 1991 and 1999

Table 4.12 Heart+lung transplants in 1999: characteristics

		Austria	Belgium	Germany	Netherlands	1999 Total	%	1998 Total
Heart+lung transplants		1	5	20	2	28	100%	20
Type of transplant	Heart+lung	1	5	19	2	27	96%	20
	Heart+lung+liver	0	0	1	0	1	4%	0
Urgency code	HU	0	0	0	0	0	0%	0
	SU	0	0	1	1	2	7%	3
	Transplantable	1	5	19	1	26	93%	17
Age (years)	6-15	0	0	6	0	6	21%	2
	16-55	0	5	14	2	21	75%	14
	56+	1	0	0	0	1	4%	4
ABO blood group	A	1	2	10	1	14	50%	9
	AB	0	0	0	0	0	0%	0
	B	0	0	4	0	4	14%	1
	O	0	3	6	1	10	36%	10
Sequence	First	1	5	20	2	28	100%	20
	Repeat	0	0	0	0	0	0%	0
Time waiting (months)	0-11	1	3	8	1	13	46%	15
	12-23	0	1	10	0	11	39%	2
	24+	0	1	2	1	4	14%	3

Table 4.13 Lung transplants in 1999: characteristics

		Austria	Belgium	Germany	Netherlands	1999 Total	%	1998 Total
Lung transplants		68	28	126	17	239	100%	228
Type of transplant	Lung-only	67	28	123	16	234	98%	226
	Lung+liver	0	0	3	1	4	2%	1
	Lung+kidney	1	0	0	0	1	0%	1
Type of transplant	Double	42	15	85	14	156	65%	164
	Single left	16	5	16	2	39	16%	31
	Single right	10	8	25	1	44	19%	33
Urgency code	SU	9	3	18	2	32	13%	28
	Transplantable	59	25	108	15	207	87%	200
Age (years)	0-5	0	0	0	0	0	0%	1
	6-15	4	0	1	1	6	3%	7
	16-55	43	18	95	15	171	71%	172
	56+	21	10	30	1	62	26%	48
ABO blood group	A	30	14	57	10	111	46%	100
	AB	5	0	13	0	18	7%	22
	B	9	5	16	1	31	14%	26
	O	24	9	40	6	79	33%	80
Sequence	First	59	27	120	15	221	92%	213
	Repeat	9	1	6	2	18	8%	15
Time waiting (months)	0-5	56	19	79	2	156	66%	135
	6-11	9	4	23	2	38	16%	41
	12-23	3	4	18	7	32	13%	30
	24+	0	1	6	6	13	5%	22

All ET countries except Belgium carried out more lung transplants: an overall rise of 5% (N= 239) in 1999 versus (N=228) in 1998 (Table 4.13).
In 1999, less heart transplants were carried out in neonates and small infants (N=21), (1998: N=30) a procedure mainly performed in Germany.

Six pediatric patients underwent a heart + lung transplant in 1999 (1998 N=2) while the number of children receiving a lung transplant was 6. (1998 n=8).

Fifty-four percent of recipients (N=384) underwent heart transplantation within six months of joining the waiting list.

More than half of the heart+lung transplants waited longer than a year for their heart+lung transplants (N=15; 53%) (Table 4.12).
With the exception of patients in the Netherlands, about 81% (Germany) or more (Austria and Belgium) of the patients underwent lung transplantation within one year (N=197; 82%) (Table 4.13).

Transplant activities and exchange of thoracic donor organs are shown in detail in the Addenda.

4.4.2 Mortality on the waiting list and de-listing

The 1999 mortality of patients on the heart transplant waiting list (N=229) was 16% less than in 1998 (N=273) (Table 4.8). Seventeen neonates and small infants died before receiving a transplant. The majority (52%) of patients dying while awaiting a cardiac transplant was ≥ 56 years of age (N=120).
De-listing from the heart waiting list occurred in 167 cases (1998: 217).

Table 4.9 shows that 26 patients, three of whom children, died in 1999 (1998 N=27) while awaiting a heart+lung transplant.

Ninety patients of which 4 children died while awaiting lung transplantation in 1999 (Table 4.10) (1998: N=81).

4.5 Thoracic high urgency programme

Ten High Urgency (HU) heart transplants were requested in 1999 (Table 4.14). All of them received a transplant. Only 1 HU request was made for a heart + lung transplant; however, this patient died before transplant.

Table 4.14 Dynamics of the high urgency thoracic organ waiting lists, from 1992 to 1999

		Requests	Transplants	Deaths on HU waiting list	Withdrawals from HU waiting list
Heart	1992	25	18	2	5
	1993	15	7	2	6
	1994	8	5	2	1
	1995	16	11	2	3
	1996	20	12	6	2
	1997	9	6	0	3
	1998	9	6	2	1
	1999	10	9	0	1
Heart+lung	1992	3	0	2	1
	1993	1	0	1	0
	1994	1	0	0	1
	1995	1	0	1	0
	1996	0	0	0	0
	1997	0	0	0	0
	1998	0	0	0	0
	1999	1	0	1	0
Lung	1992	8	5	1	2
	1993	6	4	1	1
	1994	0	0	0	0
	1995	3	3	0	0
	1996	5	5	0	0
	1997	Since 01.01.1997 no HU urgency code for Lung			

4.6 Thoracic special urgency programme

Transplants were carried out in 75%, 20%, and 70% of Special Urgency (SU) heart, heart+lung, and lung patients, respectively (Table 4.15).

Unfortunately 10 heart, 4 heart-lung, and 6 lung SU patients died while awaiting a transplant.

Table 4.15 Dynamics of the special urgency thoracic organ waiting lists, from 1992 to 1999

		On waiting list on January 1	Requests	Transplants	Deaths on SU waiting list	Withdrawals from SU waiting list	On waiting list on December 31
Heart	1992	0	103	76	17	8	2
	1993	2	125	104	12	10	1
	1994	1	119	97	10	10	3
	1995	3	144	107	15	14	11
	1996	11	145	116	12	26	2
	1997	2	112	88	8	15	3
	1998	3	103	74	8	23	1
	1999	1	116	87	10	16	4
Heart+lung	1992	0	6	3	3	0	0
	1993	0	7	4	1	1	1
	1994	1	6	4	2	1	0
	1995	0	14	8	3	2	1
	1996	1	11	4	2	2	4
	1997	4	4	6	1	1	0
	1998	0	11	3	4	4	0
	1999	0	10	2	4	3	1
Lung	1992	0	13	9	2	1	1
	1993	1	24	17	4	3	1
	1994	1	18	14	1	3	1
	1995	1	28	19	6	3	1
	1996	1	34	18	8	6	3
	1997	3	33	18	10	6	2
	1998	2	44	28	6	10	2
	1999	2	46	32	6	8	0

5. Liver: donation, waiting lists, and transplants

5.1 Liver donors

Table 5.1 shows the fate of livers from the 1360 (1998: N=1336) potential liver donors reported to the central office of Eurotransplant in 1999: 82% of donor livers were accepted (1998: 90%). Most of the donor livers which were not procured (N=241) were rejected for medical reasons. Ninety-three procured livers were discarded in 1999 (8%) while this was 20% in 1998 (N=236/ 1198). The total number of donors whose livers were transplanted increased: +6% (N=1026) as compared with 1998 (N=962). Fifty-three livers were divided ('splitted') and transplanted into two recipients. (1998: N=40)
In 1999, 47% more livers were transplanted from donors ≥ 56 years (N= 210) (1998:N=143). Also a slight increase (+15%) was seen in reporting and transplanting pediatric donor livers, namely 79 versus 69 in 1998. (Table 5.2)

Table 5.1 Use of cadaveric donor livers in the Eurotransplant region in 1999

Donor Eurotransplant country	Austria	Belgium	Germany	Luxemburg	Netherlands	1999 Total	1998 Total
Total no. of liver donors reported	172	230	829	8	121	1360	1336
No donor liver procured:	19	32	175	2	13	241	138
– No time for selection or offer withdrawn	0	0	0	0	0	0	12
– Consent withdrawn	0	0	1	0	0	1	0
– Medical reasons	14	25	132	1	11	183	113
– No suitable recipient due to donor size	0	0	0	0	0	0	3
– No suitable recipient due to donor blood group	0	0	0	0	0	0	2
– No eligible/transplantable recipients	0	1	1	0	0	2	0
– Centre out of capacity or recipient unfit	0	0	0	0	0	0	4
– Transport problems or other organizational reasons	0	0	0	0	0	0	2
– Cardiovascular instability of donor	0	0	0	0	0	0	2
– Other / unknown	5	6	41	1	2	55	0
Donor liver inspection/procurement:	153	198	654	6	108	1119	1198
No transplantation	10	15	63	0	5	93	236
– Organ unsuitable for transplantation	3	5	24	0	1	33	235
– No back-up recipient	0	0	1	0	0	1	1
– Organizational reasons	0	0	1	0	0	1	0
– Unknown / other	7	10	37	0	4	58	0
Transplantation	143	183	591	6	103	1026	962
– Split-liver donors	5	9	35	0	4	53	40
– Liver donors	138	174	556	6	99	973	922

Table 5.2 Demographics of cadaveric donors whose livers were transplanted in the Eurotransplant region in 1999

Country	Total	Age (years)			Sex		ABO Blood group				Cause of death		
		0–15	16–55	≥56	Male	Female	A	AB	B	O	Accident	Natural	Suicide
Austria	143	9	106	28	76	67	56	6	21	60	53	78	12
Belgium	183	13	139	31	113	70	70	3	18	92	67	101	15
Germany	591	40	416	135	333	258	262	26	64	239	187	383	21
Luxemburg	6	2	4	0	3	3	5	0	0	1	3	2	1
Netherlands	103	15	72	16	42	61	40	3	7	53	39	61	3
Total	1026	79	737	210	567	459	433	38	110	445	349	625	52
	100%	8%	72%	20%	55%	45%	42%	4%	11%	43%	34%	61%	5%

5.2 Waiting list

The number of patients on the active waiting list on December 31, 1999 increased with 21% (N=593) as compared with 1998 (N=492) (Table 5.3; Figure 5.1).

The waiting list showed the following (Table 5.3):

- All ET countries except The Netherlands (2.9 pmi) have more than 5 liver patients per million inhabitants on the waiting list.
- The pediatric liver transplant waiting list size remained nearly unchanged: N=23 in 1999 versus N=26 in 1998.
- ABO blood group type O patients decreased to 41% of the total active waiting list (1998: 49%) but in absolute numbers it remained exactly the same, namely N=241.
- Fourty % of patients were waiting for six months or more (1998: 33%).

Table 5.3 Active cadaveric liver transplant waiting list at 31 December 1999: characteristics

		Austria	Belgium	Germany	Netherlands	1999 Total	%	1998 Total
Number		56	65	425	47	593	100%	492
Number per million inhabitants		7,0	6,5	5,2	2,9	5,1		4,3
Type of transplant	Liver-only	55	60	396	47	558	94%	462
	Liver+kidney	1	4	24	0	29	5%	27
	Liver+lung	0	1	3	0	4	1%	1
	Liver+pancreas	0	0	1	0	1	0%	0
	Liver+pancreas+kidney	0	0	1	0	1	0%	1
	Liver+heart+lung	0	0	0	0	0	0%	1
Age (years)	0-5	0	4	7	1	12	2%	14
	6-15	0	2	7	2	11	2%	12
	16-55	31	35	289	30	385	65%	320
	56+	25	24	122	14	185	31%	146
ABO blood group	A	25	26	182	5	238	40%	185
	AB	0	5	13	2	20	3%	11
	B	9	11	62	12	94	16%	55
	O	22	23	168	28	241	41%	241
Sequence	First	53	64	405	41	563	95%	471
	Repeat	3	1	20	6	30	5%	21
Time waiting (months)	0-2	32	29	157	20	238	40%	223
	3-5	13	19	74	13	119	20%	107
	6-11	10	10	99	10	129	22%	100
	12+	1	7	95	4	107	18%	62

While on the waiting list, liver transplant candidates are assigned medical urgency codes that are used to prioritize them in the liver allocation procedure. The codes are:

Code HU: high urgency Patients with *de novo* hepatic failure ranging from acute to fulminant onset, including rapidly progressive Wilson's disease and Budd-Chiari disease, patients in need of a repeat transplant due to an irreversible life-threatening graft failure (within 14 days of the previous transplant), patients with severe hepatic trauma, and anhepatic patients. Patients with liver tumours are not eligible for an HU request.
If a patient is on the HU waiting list, the offer and exchange of a donor liver is mandatory.

Code T: transplantable Elective transplantable patients with end-stage liver disease.

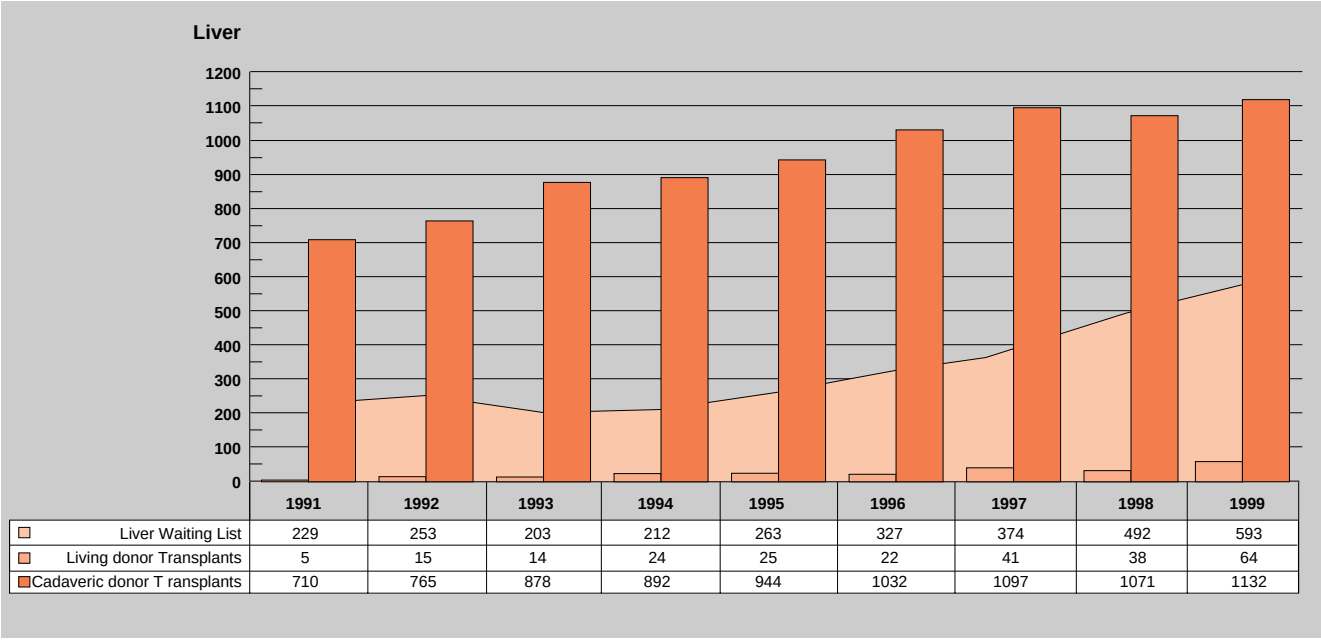
Code NT: not transplantable This code is assigned to patients with a temporary contraindication to liver transplant.

5.3 Inflow to the liver waiting list in 1999

Eight percent increase in registrations for a liver transplantation was noted in 1999 (N=1615). (Table 5.4).The number of patients requiring a repeat liver transplant increased in 1999 with N=36 (+22%) as compared to 1998 (N=167).
Pediatric patients comprised 8% of the total inflow similar to 1998 (N=133), while 31% was accounted by the patients aged 56 years or more (N=508).
The inflow of ABO type O patients amounted to 36%, which is lower than the current portion on the active liver waiting list (41%).
Nearly half of the registrations for a repeat liver transplant were HU requests (N=97/203; 48%)

Table 5.4 Liver transplant waiting list in 1999: inflow (registrations) and outflow

		Austria	Belgium	Germany	Netherlands	1999 Total	%	1998 Total
Registrations	Total	192	229	1061	133	1615	100%	1500
	Per million inhabitants	24.0	22.9	12.9	8.3	13.9		13.2
Type of transplant	Liver-only	191	221	1031	132	1575	98%	1470
	Liver+kidney	0	5	21	1	27	2%	26
	Liver+lung	0	3	2	0	5		1
	Liver+pancreas	1	0	2	0	3		1
	Liver+pancreas+kidney	0	0	4	0	4		2
	Liver+heart+lung	0	0	1	0	1		0
Sequence	First transplant	164	191	947	110	1412	87%	1333
	Repeat transplant	28	38	114	23	203	13%	167
Medical urgency	HU-first	11	16	97	8	132	8%	135
	HU-repeat	8	15	66	8	97	6%	86
Age (years)	0-5	4	14	52	12	82	5%	80
	6-15	3	11	30	7	51	3%	42
	16-55	104	121	665	84	974	60%	922
	56+	81	83	314	30	508	31%	456
ABO blood group	A	90	96	470	50	706	44%	634
	AB	7	13	66	7	93	6%	93
	B	30	24	155	19	228	14%	191
	0	65	96	370	57	588	36%	582
Outflow	Transplantation (cadaveric donor)	143	176	718	95	1132	100%	1071
Age(years)	0-5	1	9	42	13	65	6%	
	6-15	3	7	25	7	42	4%	
	16-55	67	93	432	61	653	58%	
	56+	72	67	219	14	372	33%	
ABO blood group	A	66	72	322	40	500	44%	
	AB	9	7	42	7	65	6%	
	B	23	16	95	11	145	13%	
	O	45	81	259	37	422	37%	
Mortality on the waiting list		21	30	151	12	214	100%	212
Age(years)	0-5	2	3	4	0	9	4%	
	6-15	0	1	1	0	2	1%	
	16-55	16	18	95	8	137	64%	
	56+	3	8	51	4	66	31%	
ABO blood group	A	12	11	59	3	85	40%	
	AB	1	2	13	0	16	7%	
	B	1	3	13	4	21	10%	
	O	7	14	66	5	92	43%	
De-listing		13	11	79	8	111		91



	1991	1992	1993	1994	1995	1996	1997	1998	1999
Liver Waiting List	229	253	203	212	263	327	374	492	593
Living donor Transplants	5	15	14	24	25	22	41	38	64
Cadaveric donor T ransplants	710	765	878	892	944	1032	1097	1071	1132

Figure 5.1 Dynamics of the Eurotransplant liver waiting list and liver transplants between 1991 and 1999

5.4 Outflow from the liver waiting list in 1999

5.4.1 Liver transplant activities

In 1999, 1132 cadaveric liver transplants were carried out being + 6% than in 1998 (N=1071) (Table 5.5).

Other points to note are:

- Split-liver transplants increased from 7% in 1998 (N=81) to 9% in 1999 (N=107) of the total liver transplant activity.
- Sixty-one percent of the pediatric liver recipients transplanted were younger than six years of age (N=65).
- An increase of transplanted patients older than 56 years was noted, namely 372 in 1999 versus 312 in 1998 (+19%)
- Repeat liver transplants constituted 11% of the total number of transplants in 1999 (N=129) (1998:10%)
- In 1999, 25% of recipients (N=277) had to wait longer than 6 months as compared to 20% in 1998 (N=210).Transplant activities and liver exchange by country and by centre are shown in detail in the Addenda.

5.4.2 Mortality on the waiting list and de-listing

The number of liver transplant candidates who were removed from the waiting list because they died prior to transplantation amounted to 214 in 1999 (Table 5.4). Eleven children, of whom 9 small infants died awaiting a liver transplant. Furthermore, 43% (92 / 214) of the patients who died before receiving a liver transplant had blood group O.

In 1999, 111 patients were removed from the waiting list for a variety of reasons. They were either too poor transplant candidates, or they recovered. (1998: N=91)

5.5 Living donor liver transplants

The number of living donor liver transplants performed in 1999 rose with 68% to N=64 (1998: N=38). The vast majority (92%) were between genetically related individuals (59 /64). Essen and Brussels (LA) further expanded their programmes of living-related liver transplantation. Three domino liver transplants were performed using the native liver of a patient who underwent a liver transplant due to familial amyloid neuropathy. Two living unrelated liver transplants were carried out in 1999 (1998: N=1).

Mothers as well as fathers donated equally (15 vs 15) liver segments to their children (Table 5.5). In 1998, the majority of patients who received a living donor transplant was younger than fifteen years of age (N=27). This picture changed in 1999 (N= 29) as also 18 patients between 16-55 years and 17 patients > 56 years of age received a living liver transplant (1998: resp. 7 and 4).

Table 5.5 Liver transplants in 1999: characteristics

		Austria	Belgium	Germany	Netherlands	1999 Total	%	1998 Total
Cadaveric liver transplants		143	176	718	95	1132*	100%	1071
Type of transplant	Liver whole	137	161	601	90	989	87,4%	957
	Liver split	5	8	90	3	106	9,4%	78
	Liver split+kidney	0	0	1	0	1	0,1%	3
	Liver+kidney	1	7	15	1	24	2,1%	24
	Liver+pancreas	0	0	5	0	5	0,4%	4
	Liver+pancreas+intestines	0	0	0	0	0	0,0%	2
	Liver+pancreas+kidney	0	0	0	0	0	0,0%	2
	Liver+lung	0	0	3	1	4	0,4%	1
	Liver+kidney+heart	0	0	1	0	1	0,1%	0
	Liver+lungs+heart	0	0	1	0	1	0,1%	0
	Liver+heart	0	0	1	0	1	0,1%	0
Urgency code	HU-first	6	15	74	6	101	9%	105
	HU-repeat	5	10	48	8	71	6%	64
	Transplantable	132	151	596	81	960	85%	902
Age (years)	0-5	1	9	42	13	65	6%	70
	6-15	3	7	25	7	42	4%	38
	16-55	67	93	432	61	653	58%	651
	56+	72	67	219	14	372	33%	312
ABO blood group	A	66	72	322	40	500	44%	466
	AB	9	7	42	7	65	6%	69
	B	23	16	95	11	145	13%	146
	O	45	81	259	37	422	37%	390
Sequence	First	133	152	640	78	1003	89%	964
	Repeat	10	24	78	17	129	11%	107
	Patients	135	164	671	87	1057		1007
Time waiting (months)	0-2	92	94	374	47	607	54%	660
	3-5	23	46	157	22	248	22%	201
	6-11	25	20	123	19	187	17%	157
	12+	3	16	64	7	90	8%	53
Living donor liver transplants		7	16	41	0	64	100%	38
Relationship	Father	2	5	8	0	15	23%	11
	Mother	2	7	6	0	15	23%	18
	Other relatives	3	4	22	0	29	45%	4
	Unrelated	0	0	2	0	2	3%	1
	Domino/Unrelated	0	0	3	0	3	5%	4
Age (years)	0-5	2	12	11	0	25	39%	22
	6-15	1	1	2	0	4	6%	5
	16-55	3	2	13	0	18	28%	7
	56+	1	1	15	0	17	27%	4
ABO blood group	A	4	6	16	0	26	41%	16
	AB	0	0	1	0	1	2%	2
	B	0	0	7	0	7	11%	6
	O	3	10	17	0	30	47%	14
Sequence	First	7	16	40	0	63	98%	37
	Repeat	0	0	1	0	1	2%	1
Total liver transplant activity		150	192	759	95	1196		1109

* excluding 2 transplants done in 2000 from donors in 1999.

5.6 Liver high urgency programme

Similar to 1998, High Urgency (HU) liver requests in 1999 constituted approximately 15% of the total number of entries on the waiting list (N=229/1615) (Tables 5.4, 5.6). Following the adaptation of the eligibility criteria for a HU repeat transplantation which now required a graft failure within 14 days after the previous transplant, an increase in the number of HU repeat transplants occurred in 1999 (N=97 vs. 86).

The chance to receive a transplant, while on the HU waiting list, was approximately 75%, and again 81% of the HU transplants took place within 48 hours. The mortality rate on the HU waiting list was approximately 8%.

Table 5.6 Dynamics of the high urgency liver waiting list, from 1992 to 1999

Year	HU requests	Transplants	Deaths on HU waiting list	Withdrawals from HU waiting list
1992	190	136	13	41
1993	235	203	15	17
1994	221	165	31	25
1995	198	164*	23	11
1996	257	201*	25	31
1997	218	165*	26	27
1998	221	170*	17	34
1999	229	172*	19	38
Reason for HU liver transplant				
Subacute-fulminant hepatic failure (first transplant)				
1992	108	72	9	27
1993	124	105	11	8
1994	121	94	12	15
1995	116	91*	18	7
1996	146	118*	14	14
1997	109	82	15	12
1998	135	105	8	22
1999	132	101*	10	21
Irreversible graft failure (repeat transplant)				
1992	82	64	4	14
1993	111	98	4	9
1994	100	71	19	10
1995	82	73	5	4
1996	111	83	11	17
1997	109	83*	11	15
1998	86	65*	9	12
1999	97	71	9	17

* One HU liver transplant was performed in the next calendar year.

6. Pancreas: donation, waiting lists, and transplants

6.1 Pancreas donors

In 1999, 795 pancreas donors were reported to the central office of Eurotransplant (Table 6.1). Just over 31% (247/795) of the reported pancreata were not procured, primarily (88%) due to medical reaons. Of the remaining 548 pancreata, 308 were used for whole pancreas transplantation (N=302) or islet transplantation (N=6). Table 6.2 presents demographic data of donors of which the pancreas was used for a whole pancreas transplantation.

Table 6.1 **Use of donor pancreases in the Eurotransplant region in 1999**

Donor country	Austria	Belgium	Germany	Luxemburg	Netherlands	1999 Total	1998 Total
Total no. of pancreas donors reported	85	161	461	4	84*	795*	763
No pancreas donor procurement:	35	25	157	1	29	247	121
– No time for selection or offer withdrawn	0	0	2	0	0	2	10
– Consent withdrawn	1	0	1	0	0	2	0
– Medical reasons	27	24	142	1	25	219	93
– No suitable recipient: size or blood group	0	0	0	0	0	0	1
– No eligible transplantable recipients	0	0	4	0	1	5	0
– Centre/bank out of capacity or recipient unfit	0	0	0	0	0	0	15
– Transport problems	0	0	0	0	0	0	1
– Organizational reasons	7	1	7	0	3	18	0
– Donor cardiovascular instability	0	0	1	0	0	1	1
Pancreas donor inspection/procurement:	50	136	304	3	55	548	642
No transplantation/research	18	79	111	1	31	240	193
– Organ unsuitable for transplantation / assigned to research program	9	67	64	1	25	166	135
– Unknown	2	2	2	0	1	7	0
– Not suitable for research	7	10	45	0	5	67	55
– Not back-up recipient (positive cross-match)	0	0	0	0	0	0	3
Total no. of pancreases used	32	57	193	2	24	308	247
Whole pancreas transplantation in 1999	32	56	188	2	23	301	247
Whole pancreas transplantation in 2000*	0	0	0	0	1	1	0
– Islet transplants	0	1	5	0	0	6	0

* 1 pancreas procured in 1999 and transplanted in 2000.

Table 6.2 **Demographics of cadaveric donors whose pancreasses were transplanted as a whole pancreas transplant in the Eurotransplant region in 1999**

Country	Total	Age (years)			Sex		ABO Blood group				Cause of death		
		0–15	16–55	≥56	Male	Female	A	AB	B	O	Accident	Natural	Suicide
Austria	32	2	30	0	22	10	13	1	3	15	21	9	2
Belgium	56	3	53	0	39	17	25	3	5	23	26	23	7
Germany	188	10	176	2	100	88	80	7	19	82	78	104	6
Luxemburg	2	1	1	0	1	1	1	0	0	1	1	14	1
Netherlands	23	7	16	0	9	14	6	1	2	14	8	0	1
Total	301	23	276	2	171	130	125	12	29	135	134	150	17
	100%	8%	92%	1%	57%	43%	42%	4%	10%	45%	45%	50%	6%

6.2 Waiting list

The overall number of patients on the active waiting list for a pancreas transplant increased by 21% (N=262) compared with 1998 (N=217); the pancreas (/kidney) waiting list increased with 37 patients (total N=186) as well as the number of patients (+7) awaiting a pancreas-only transplant (total N=32) (Table 6.3). Interesting to note is the relative high number of 36 patients awaiting islets or ß-cell transplants only.

The characteristics of the total pancreas+kidney waiting list on December 31, 1999 (N=193) are shown in Table 6.3:

- A high number of ABO blood group type O patients was present (N=104; 54%) as well as blood group B patients. (N=38; 20%).
- Eleven patients had a current panel reactive antibody (PRA) level of 6% or more.
- Waiting times of one year or more were noted for 27% of all ET patients (52 /193).

Table 6.3 Active pancreas transplant waiting list at December 31, 1999: characteristics

		Austria	Belgium	Germany	Netherlands	1999 Total	%	1998 Total
Number		23	27	196	16	262	100%	217
Type of transplant	Pancreas+kidney	9	21	142	14	186		149
	Islet or ß cell+kidney	2	0	4	0	6		5
	Pancreas+liver+kidney	0	0	1	0	1		1
	Pancreas+liver	0	0	1	0	1		0
	Pancreas-only	7	2	21	2	32		25
	Islet or ß cell-only	5	4	27	0	36		37
Pancreas+kidney waiting list		**11**	**21**	**147**	**14**	**193**	**100%**	**149**
Age (years)	11-15	0	0	1	0	1	0%	1
	16-40	7	13	65	5	90	47%	70
	41+	4	8	81	9	102	53%	78
ABO blood group	A	4	4	35	5	48	25%	49
	AB	0	2	1	0	3	1%	6
	B	2	2	33	1	38	20%	27
	O	5	13	78	8	104	54%	67
% PRA current	0-5%	9	20	138	14	181	94%	135
	6-84%	1	1	9	0	11	6%	12
	85-100%	0	0	0	0	0	0%	1
	Not yet reported	1	0	0	0	1	0%	1
Time waiting as pancreas+kidney (months)	0-5	7	10	67	1	85	44%	90
	6-11	2	6	45	3	56	29%	37
	12-23	0	2	16	8	26	14%	16
	24+	2	3	19	2	26	14%	6

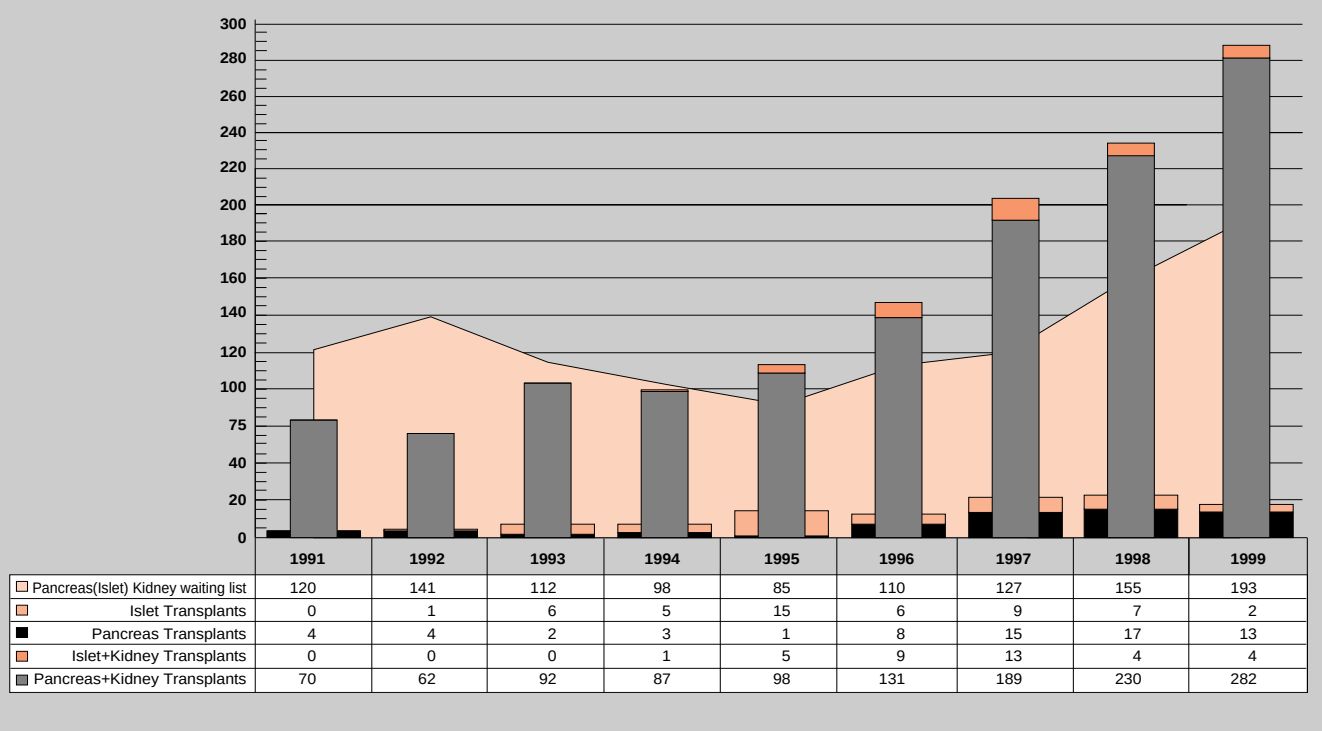
6.3 Inflow to the pancreas waiting list during 1999

The number of registrations for a pancreas transplant in 1999 was 20% higher (N=428) than in 1998 (N=356) (Table 6.4).

The vast majority of registrations remained for pancreas+kidney transplants namely N=355) (83%). Interesting to note is the registration of 50 patients for a pancreas-only transplant in 1999 (1998: N=24), the majority in Germany, namely 38 patients. Five percent of the pancreas patients (N=18) were registered for a re-transplant.

Table 6.4 Pancreas transplant waiting list in 1999: inflow (registrations) and outflow

		Austria	Belgium	Germany	Netherlands	1999 Total	%	1998 Total
Registrations	Total	35	36	321	36	428		356
Type of transplant	Pancreas+kidney	24	30	267	34	355	83%	313
	Islet+kidney	2	0	7	0	9	2%	2
	Pancreas+liver+kidney	0	0	2	0	2	0.5%	2
	Pancreas+liver	0	1	2	0	3	0.7%	8
	Pancreas-only	7	3	38	2	50	12%	24
	Islet-only	2	2	3	0	7	1.6%	7
	Pancreas+liver+kidney+intestines	0	0	2	0	2	0.5%	0
	Pancreas+kidney	**24**	**30**	**267**	**34**	**355**	**100%**	**313**
Sequence	First pancreas transplant	22	29	253	33	337	95%	300
	Repeat pancreas transplant	2	1	14	1	18	5%	13
Age (years)	0-15	0	0	2	0	2	1%	0
	16-40	15	21	137	18	191	54%	170
	41+	9	9	128	16	162	46%	143
ABO blood group	unknown	0	0	1	1	2	1%	0
	A	10	8	96	12	126	35%	125
	AB	1	1	12	1	15	4%	20
	B	3	4	44	2	53	15%	46
	0	10	17	114	18	159	45%	122
Outflow	Transplantation	30	36	221	19	306	100%	258
	Mortality on the waiting list	1	2	21	1	25	100%	19
Age (years)	16-40	0	2	9	1	12	48%	
	41+	1	0	12	0	13	52%	
ABO blood group	A	0	0	9	1	10	40%	
	AB	0	0	1	0	1	4%	
	B	0	1	1	0	2	8%	
	O	1	1	10	0	12	48%	
De-listing		4	3	18	6	31		17



	1991	1992	1993	1994	1995	1996	1997	1998	1999
Pancreas(Islet) Kidney waiting list	120	141	112	98	85	110	127	155	193
Islet Transplants	0	1	6	5	15	6	9	7	2
Pancreas Transplants	4	4	2	3	1	8	15	17	13
Islet+Kidney Transplants	0	0	0	1	5	9	13	4	4
Pancreas+Kidney Transplants	70	62	92	87	98	131	189	230	282

Figure 6.1 Dynamics of the Eurotransplant pancreas+kidney and islet+kidney waiting list, pancreas+kidney, islet+kidney, pancreas and islet-only transplants between 1991 and 1999

6.4 Outflow from the pancreas waiting list in 1999

6.4.1 Pancreas transplant activities

For the fourth year in a row, pancreas+kidney transplant activity significantly increased from 98 transplants in 1995 to 282 in 1999 (Table 6.5, figure 6.1). Pancreas-only, pancreas+liver, islet-only, and islet+kidney transplants constituted approximately 8% of the total pancreas transplant activity. In 1999, also one liver + pancreas + intestinal transplantation was performed (1998:N=2)

Table 6.5 shows the characteristics of the pancreas+kidney transplants carried out in 1999 (N=282), and the following points can be noted:

- Seven percent (N=20) of the transplanted patients belong to the category of immunized patients (PRA> 6%).
- Twenty-one percent had accrued a waiting time of 1 year or more (N=59).
- Good HLA-A,B, DR matches happened only occasionally. Only 6 combinations with 1 HLA-A, B, DR mismatch.

6.4.2 Mortality on the waiting list and de-listing

Twenty-five patients died on the pancreas waiting list in 1999 (1998:N=19) (Table 6.4), practically all dying within the first year after registration.
Thirty-one patients were removed from the list when they failed to meet the pancreas(+kidney) transplant criteria or they were no longer eligible for a pancreas transplant but were still eligible for a kidney transplant.

Table 6.5 Pancreas transplants in 1999: characteristics

		Austria	Belgium	Germany	Netherlands	1999 Total		1998 Total
Number		30	36	221	19	306		258
Type of transplant								
	Kidney + Pancreas	27	32	204	19	282		230
	Liver + Pancreas	0	0	4	0	4		4
	Pancreas only	3	2	8	0	13		2
	islet only	0	2	0	0	2		4
	Kidnes + islet	0	0	4	0	4		2
	Liver + Pancreas + intestines	0	0	1	0	1		2
Pancreas+kidney transplants		**27**	**32**	**204**	**19**	**282**	**100%**	**230**
HLA-A, B, DR mismatch	0	0	0	0	0	0	0,0%	1
	1	0	2	4	0	6	2,1%	4
	2	2	3	12	0	17	6,0%	24
	3	5	9	35	6	55	19,5%	46
	4	8	13	65	5	91	32,3%	64
	5	9	4	59	5	77	27,3%	61
	6	3	1	29	3	36	12,8%	30
Age (years)	16-40	14	13	116	7	150	53,2%	125
	41+	13	19	88	12	132	46,8%	105
ABO blood group	A	8	14	83	8	113	40,1%	98
	AB	1	2	13	1	17	6,0%	14
	B	5	6	29	2	42	14,9%	26
	O	13	10	79	8	110	39,0%	92
% PRA prior to transplant	0-5%	23	30	189	19	261	92,6%	219
	6-84%	4	2	13	0	19	6,7%	10
	85-100%	0	0	1	0	1	0,4%	1
	No data available	0	0	1	0	1	0,4%	0
Time waiting as pancreas+kidney (months)	0-5	9	12	77	6	104	36,9%	112
	6-11	11	6	93	9	119	42,2%	93
	12-23	6	5	31	3	45	16,0%	15
	24+	1	9	3	1	14	5,0%	8

7. Histocompatibility Testing

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7.1 Introduction

The ongoing task of the Eurotransplant Reference Laboratory (ETRL) is the improvement and maintenance of the quality of HLA typing, screening for transplantation relevant antibodies, and crossmatching within Eurotransplant. This task is addressed by organising proficiency testing programmes (Quality Control Exercises) for the Tissue Typing Centers (TTC) affiliated to Eurotransplant. Furthermore, the ETRL initiates studies, as the use of flow cytometry crossmatches, and promotes discussions for possible new recommendations within the Tissue Typing Advisory Committee (TTAC). In addition, in the past 15 years the ETRL has addressed the problem of highly sensitised patients, by organising both the Acceptable Mismatch (AM) and the Highly Immunised Tray (HIT) programs. Also organisation of wet bench workshops and visits to the affiliated TTC belongs to its duties. A 24 hours a day, 7 days a week duty for all transplantation relevant immunological aspects rounds up the tasks of the ETRL.

7.2 Eurotransplant Proficiency Testing

The quality control schemes applied in 1999 to determine the individual performance of the TTCs are reported below:

7.2.1 Quality control exercises on HLA typing

In 1999, 16 cell suspensions were sent out to the TTCs. Each participant received eight samples for analysis and was asked to report the results before a certain deadline.

For the analysis of the results a 75 % consensus rule was used. This rule has been introduced by the European Federation of Immunogenetics (EFI) and facilitated the acceptance for possible discrepancies. A consensus was obtained for all HLA-A, B and DR “broad” antigens. The results are summarised in Table 7.1.

Table 7.1 Quality control exercise on HLA typing

Locus	Total N Typings	N Discrepant	% Discrepancy
HLA-A	379	5	1.3
HLA-B	379	6	1.6
HLA-DR	380	1	0.3

The results for HLA-A, B typing are similar to those obtained in 1999. HLA-DR typing is by far more reliable than typing for HLA-A, B presumably because of the introduction of molecular typing in the participating TTCs. It should be noted that all TTC reported the typing results on the “split” level.

7.2.2 Quality control exercise on HLA typing by DNA

For the proficiency testing on DNA typing two Exercises (DNA#13 and DNA#14) with 10 samples each were sent to 50 TTC. The DNA was isolated from either spleen of organ donors, peripheral blood from healthy blood donors, or cell lines. Rare alleles and haplotypes were included. All TTC performed DNA typing for the MHC class II specificities (= HLA-DR and HLA-DQ), while a continuously increasing number of TTC report also HLA-A, B typing results on DNA. The number of discrepancies on the level of HLA-DR “broad’ specificities is so low that the calculation of discrepancy rates does not seem worthwhile. It should be noted that the discrepancies are due to clerical errors. The number of discrepancies for HLA-A and HLA-B is still significant although the majority of these discrepancies can be attributed to a wrong usage of the nomenclature rather to a wrong typing.
The results of the DNA QC show that these molecular typing methods are very powerful. It is clear that the input of the molecular HLA-A, B typing results in the Eurotransplant Network Information System (ENIS) is a “conditio sine qua non”.

7.2.3 Quality control on Crossmatching

As in the past, TTC participating in this Quality Control Exercise were asked to perform crossmatches using

the cells provided for the QC on serological typing and four different Eurotransplant patient sera selected by the ETRL. The TTC used the local crossmatch techniques to simulate the day-to-day practice. In total 24 sera had to be crossmatched per TTC (Table 7.2).

Table 7.2 Quality control exercise on crossmatching

Number of crossmatches without DTT*	991
Number of crossmatches with DTT	946

	DTT			+ DTT		
	1999	1998	1997	1999	1998	1997
All TTCs agreed	20	24	20	23	30	21
One TTC disagreed	14	8	18	14	10	11
Two TTCs disagreed	9	5	9	8	4	8
>2 TTCs disagreed	23	20	27	21	14	34

* DTT (dithio-threitol) destroys antibodies of the IgM type

The results of the Exercise for the period 1998-1999 can be summarised as follows:

– HLA specific antibodies of the IgG class resulted in a complete consensus result.
– Non donor specific HLA antibodies did not cause problems in the crossmatch.
– Allo- or autoantibodies of the IgM type still cause problems, as well as weak HLA specific antibodies.
– Dithiothreitol (DTT) was used by almost all laboratories, with adequate results.

7.2.4 Quality control exercise on Screening

For the quality control exercise on screening the participating laboratories received in regular intervals serum samples from the Eurotransplant Reference Laboratory (ETRL) and were asked to test them in their usual screening procedures. In total 16 sera were screened per TTC. The panel size used by the participants ranged between 30 and 100 HLA typed cells. New ELISA based techniques are widely used by the different TTC. It should be noted that until now the relevance of such techniques in organ transplantation has not been shown. TTC using these ELISA techniques must validate them locally in comparison with CDC . Nevertheless, using such methods an improvement of the results was seen. The results are similar to the ones reported above for the crossmatch QC. High concordance was observed in case of IgG HLA class I specific antibodies, while HLA antibodies of the IgM type were several times defined as being negative (probably loss of activity during shipment, or use of IgG based ELISA tests). The correct definition of the transplantation relevant HLA-A, B, C specific antibodies and their input in the field of unacceptable HLA mismatches will reduce the number of positive second crossmatches at the recipient center, and thus useless dispatches of organs. This will result in a better allocation with shorter cold ischemia times.

7.2.5 Proficiency testing on donor retyping

Since September 1996 only a selected number of organ donors have been retyped in the ETRL. Peripheral blood is sent to the ETRL where DNA is isolated. HLA typing was carried out using DNA typing techniques. The overall discrepancy rate in this very selected number of donors was below 3% for HLA-A, B, DR, which is comparable to that of the past years.

7.3 Programs for the highly immunized patients in Eurotransplant

Two programs are currently available for highly immunized patients: the Acceptable Mismatch Program (AM) and the Highly Immunized Trial (HIT). Both programs are organised and controlled by the ETRL. They are open for all patients of Eurotransplant. Information for participation can be obtained from the ETRL or the Eurotransplant Administration. At present, the cumulative chance to receive a transplant for the highly sensitised patients in the standard Eurotransplant allocation system (ETKAS) is 15%, for the HIT 31% and for the AM program 58%. In the year 1999, a study on transplantation of highly sensitised patients was initiated in co-operation with the Eurotransplant Office. The results will be presented in one of the forthcoming ET-Newsletters.

7.4 Eurotransplant Serum Sets

Serum sets for HLA-A, B, C and HLA-DR, DQ are regularly compiled by the ETRL. This effort is achieved through the co-operation of many HLA laboratories within and outside Eurotransplant. The aim of the distribution of the sets remains the same as formulated before to realise uniform HLA-A, B, C and HLA-DR, DQ typing of organ donors and potential organ recipients and their family members.

7.5 Other activities

7.5.1 Tissue Typers meeting

The Annual Tissue Typers meeting 1999 was held in Leiden on October 7, 1999. The aim of the tissue typers meeting is to stimulate interactive discussions on hot topics and their influence on the daily work. The scientific part included presentations on the current programs for highly immunized patients and immunological management of such patients. Tissue typing using peripheral blood seems a good possibility to reduce cold ischemia time and therefore this point was discussed in extenso. As stated above many TTC remain to have problems in the correct use of the HLA nomenclature. Therefore, this point was also discussed. Finally, the results of the flow cytometry study were presented.

7.5.2 Sixth extramural meeting

The sixth extramural meeting was held on February 26, 1999, in Luxemburg. Many members of Eurotransplant affiliated laboratories participated. Main topic of this day was the discussion of transplantation relevant procedures for living (un)related transplantation. This meeting is intended to act as a forum for ideas and problems occurring in the daily work leaving sufficient time for further discussions and short comments.

7.5.3 Tissue Typing Advisory Committee

The fruitful interaction between the ETRL and the TTAC continued also through 1999. It should be noted that the TTAC makes both the agenda and a summary of the minutes available to all TTC. All centers have therefore the opportunity to react on the different discussion points. In the period 1998-1999 the TTAC discussed amongst others the introduction of DNA typing results for HLA-A, B, C in ENIS, the link of screening results to the unacceptable antigens, and the relevance of matching for HLA-DR splits for retransplants and sensitised patients. Two recommendations were accepted by the Board and will be implemented. Furthermore, the TTAC promoted the introduction of an EFI accreditation for all TTC within Eurotransplant.

8. Publications

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

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Addenda

Due to adjustments in computerized data recording and analysis methods in the year 1999, some minor discrepancies between various reporting categories have occurred.
These differences, when present, are less then 0.15%

Table 1 **Number of patients active on the waiting list at December 31, 1999, stratified by organ, per country and per center**

Country	Center	Kidney	Kidney+ Pancreas	Pancreas	Heart	Heart+ Lung	Lung	Liver
Austria	GA	94	0	0	16	3	0	7
	IB	244	10	12	15	0	5	25
	OE	83	0	0	0	0	0	0
	OL	40	0	0	0	0	0	0
	OW	0	0	0	0	0	0	0
	WD	2	0	0	0	0	0	0
	WG	268	1	0	31	2	17	24
	TOTAL	731	11	12	62	5	22	56
Belgium	AN	29	2	0	1	0	0	0
	AS	0	0	0	2	0	0	0
	BJ	12	0	0	0	0	0	0
	BP	0	0	4	0	0	0	0
	BR	219	8	1	4	2	10	10
	GE	100	2	1	4	0	0	9
	LA	139	1	0	6	0	5	27
	LE	4	0	0	0	0	0	0
	LG	46	0	0	2	0	0	1
	LM	201	8	0	2	1	8	18
	TOTAL	750	21	6	21	3	23	65
Germany	AK	87	0	0	3	0	0	0
	AU	38	0	0	0	0	0	0
	BA	0	0	0	106	7	6	0
	BB	263	24	6	0	0	0	0
	BC	667	14	0	0	0	0	73
	BD	0	0	0	61	2	16	0
	BE	331	0	0	0	0	0	0
	BH	0	0	0	6	0	0	0
	BM	192	0	0	0	0	0	0
	BO	113	0	0	0	0	0	2
	BS	0	0	0	0	0	0	0
	BV	0	0	0	0	0	0	0
	DR	87	0	0	22	2	15	0
	DU	350	0	0	2	0	0	0
	ES	313	1	0	3	0	4	24
	FD	0	0	0	9	0	0	0
	FM	296	0	0	15	0	7	10
	FR	286	6	2	3	0	0	3
	GI	149	5	30	5	0	0	0
	GO	118	0	0	10	0	0	25
	HA	122	0	0	8	0	0	0
	HB	280	0	0	27	2	2	11
	HG	261	0	0	3	0	0	43
	HM	306	0	0	0	0	0	0
	HO	775	11	0	28	10	102	90
	HS	131	0	0	3	0	25	0
	JE	143	3	0	5	0	3	18
	KG	0	0	0	4	0	0	0
	KI	104	0	0	72	3	23	3
	KK	1	0	0	0	0	0	0
	KL	131	4	2	8	1	0	2
	KM	307	5	0	0	0	0	3
	KR	0	0	0	3	0	0	0
	KS	152	0	0	2	0	0	0
	LP	88	2	0	13	1	1	15
	LU	340	0	0	0	0	0	0
	MA	156	0	0	0	0	0	0
	MB	0	0	0	0	0	0	3
	MD	0	0	0	10	0	0	0
	MH	220	0	0	0	0	0	7
	ML	433	33	5	36	5	23	14
	MN	310	2	0	20	5	3	5
	MR	126	1	0	0	0	0	0
	MZ	119	4	0	1	0	12	18
	NB	355	3	0	7	0	0	9
	RB	159	0	0	1	0	0	5
	RO	136	22	2	0	0	0	9
	ST	271	0	0	0	0	0	0
	TU	133	4	1	0	0	0	31
	UL	240	2	1	0	0	0	0
	WZ	205	1	0	0	0	0	2
	TOTAL	9294	147	49	496	38	242	425
Luxemburg	LX	13	0	0	0	0	0	0
Netherlands	AW	208	0	0	0	0	0	0
	GR	312	1	2	0	0	58	19
	LB	163	11	0	0	0	0	15
	MS	139	2	0	0	0	0	0
	NY	161	0	0	0	0	0	0
	RD	179	0	0	20	0	0	13
	RS	9	0	0	10	0	0	0
	UT	115	0	0	0	0	0	0
	UW	6	0	0	0	0	0	0
	TOTAL	1292	14	2	30	0	58	47
Eurotransplant	**TOTAL**	**12080**	**193**	**69**	**609**	**46**	**345**	**593**
			12273					

Table 2a **Cadaveric donor activities in 1999, stratified by type of donation, per country and per center**

Donor country	Donor center	Total number of donors reported						
		Total	*No transplant*	*Transplant*				
				TOTAL	**KIDNEY DONOR**			**NO-KIDNEY DONOR**
					KI only	MOD	% MOD	
Austria	GA	27	2	25	5	20	80%	0
	IB	48	0	48	6	40	87%	2
	OE	7	0	7	2	5	71%	0
	OL	14	0	14	3	11	79%	0
	OW	4	0	4	1	3	75%	0
	WG	107	2	105	27	76	74%	2
	TOTAL	207	4	203	44	155	78%	4
Belgium	AN	18	1	17	1	15	94%	1
	AS	9	0	9	4	4	50%	1
	BJ	11	1	10	0	10	100%	0
	BR	47	3	44	9	32	78%	3
	GE	43	3	40	2	33	94%	5
	LA	41	2	39	9	29	76%	1
	LG	30	1	29	3	26	90%	0
	LM	59	6	53	14	37	73%	2
	TOTAL	258	17	241	42	186	82%	13
Germany	AK	6	0	6	1	5	83%	0
	BB	17	1	16	7	9	56%	0
	BM	25	1	24	8	14	64%	2
	BO	27	3	24	5	19	79%	0
	BV	1	1	0	0	0	0%	0
	DR	16	1	15	6	8	57%	1
	DU	39	5	34	13	19	59%	2
	ES	39	1	38	9	27	75%	2
	FD	11	0	11	2	8	80%	1
	FM	16	0	16	3	12	80%	1
	FR	33	1	32	13	18	58%	1
	GI	16	0	16	4	12	75%	0
	GO	7	0	7	1	6	86%	0
	HA	24	2	22	5	16	76%	1
	HB	18	1	17	6	10	63%	1
	HG	32	4	28	4	24	86%	0
	HO	89	1	88	29	58	67%	1
	HS	18	1	17	6	11	65%	0
	JE	33	0	33	5	27	84%	1
	KI	28	1	27	2	24	92%	1
	KL	18	0	18	9	8	47%	1
	KM	21	1	20	12	8	40%	0
	KS	14	0	14	4	10	71%	0
	LP	43	6	37	20	15	43%	2
	LU	30	1	29	15	14	48%	0
	MA	15	0	15	6	8	57%	1
	ML	86	3	83	30	52	63%	1
	MN	54	4	50	20	30	60%	0
	MR	18	1	17	8	9	53%	0
	MZ	16	0	16	5	9	64%	2
	NB	25	0	25	7	16	70%	2
	RB	14	0	14	5	9	64%	0
	RO	50	4	46	12	31	72%	3
	ST	5	0	5	1	4	80%	0
	TU	29	2	27	10	17	63%	0
	UL	21	1	20	8	11	58%	1
	VB	85	4	81	21	57	73%	3
	WB	3	0	3	2	1	33%	0
	WZ	18	0	18	3	14	82%	1
	TOTAL	1060	51	1009	327	650	67%	32
Luxemburg	LX	8	0	8	2	6	75%	0
The Netherlands	AW	24	0	24	10	14	58%	0
	GR	29	2	27	1	26	96%	0
	LB	14	0	14	4	10	71%	0
	MS	23	2	21	13	8	38%	0
	NY	38	2	36	15	21	58%	0
	RD	17	0	17	1	16	94%	0
	UT	25	1	24	11	13	54%	0
	UW	2	0	2	0	2	100%	0
	TOTAL	172	7	165	55	110	67%	0
Eurotransplant, Total		**1705**	**79**	**1626**	**470**	**1107**	**70%**	**49**
Czech Republic		15	5	10	0	0		10
Denmark		2	1	1	0	0		1
Finland		67	67	0	0	0		0
France		26	23	3	1	0		2
Greece		6	5	1	0	0		1
Hungary		1	0	1	0	0		1
Israel		3	1	2	0	0		2
Italy		17	11	6	0	0		6
Latvia		5	3	2	0	0		2
Norway		8	4	4	1	0		3
Poland		26	6	20	0	0		20
Romania		4	0	4	0	0		4
Slovenia		18	3	15	1	3		11
Slovak Republic		9	0	9	2	0		7
Spain		51	36	15	8	0		7
Sweden		24	18	6	0	0		6
Switzerland		35	26	9	3	1		5
United Kingdom/Ireland		19	12	7	0	0		7
From outside Eurotransplant, Total		336	221	115	16	4		95

Table 2b **Cadaveric donor activities in 1999, stratified by organ used in a transplant, per country and per center**

Donor Country	Donor Center	Kidney *Donor*	*Kidneys*	Heart *Donor*	Lung *Donor*	Liver *Donor*	Pancreas *Donor*
Austria	GA	25	49	16	2	20	5
	IB	46	90	24	5	39	9
	OE	7	14	3	2	5	3
	OL	14	27	5	2	11	1
	OW	4	8	2	0	3	2
	WG	103	201	43	34	65	12
	TOTAL	199	389	93	45	143	32
Belgium	AN	16	29	10	1	16	6
	AS	8	16	5	1	5	1
	BJ	10	18	7	3	9	4
	BR	41	78	16	10	31	6
	GE	35	67	19	5	37	18
	LA	38	74	19	7	28	8
	LG	29	58	21	2	22	7
	LM	51	102	22	9	35	7
	TOTAL	228	442	119	38	183	57
Germany	AK	6	11	4	0	4	1
	BB	16	31	5	1	8	1
	BM	22	41	8	2	12	1
	BO	24	48	11	2	18	7
	DR	14	26	4	0	7	2
	DU	32	59	9	2	18	5
	ES	36	70	9	2	28	5
	FD	10	19	7	1	8	3
	FM	15	30	8	4	13	4
	FR	31	59	14	1	17	3
	GI	16	32	10	5	9	3
	GO	7	13	1	0	6	0
	HA	21	40	12	4	15	4
	HB	16	29	9	2	9	6
	HG	28	54	15	0	21	9
	HO	87	165	39	18	48	7
	HS	17	32	6	2	10	2
	JE	32	62	20	2	27	12
	KI	26	51	20	4	21	9
	KL	17	36	6	0	9	4
	KM	20	39	2	1	7	3
	KS	14	28	7	3	10	7
	LP	35	67	8	1	15	6
	LU	29	57	10	1	13	5
	MA	14	28	5	0	8	2
	ML	82	158	42	13	38	9
	MN	50	91	21	2	30	12
	MR	17	33	7	2	6	0
	MZ	14	21	4	3	10	1
	NB	23	42	9	2	17	4
	RB	14	28	6	1	9	7
	RO	43	84	26	6	25	11
	ST	5	10	3	1	3	0
	TU	27	51	12	1	14	4
	UL	19	36	9	1	11	6
	VB	78	150	42	18	52	20
	WB	3	6	0	0	1	0
	WZ	17	32	11	5	14	8
	TOTAL	977	1869	441	113	591	193
Luxemburg	LX	8	16	3	1	6	2
The Netherlands	AW	24	46	7	5	13	5
	GR	27	53	12	7	24	5
	LB	14	27	4	2	9	0
	MS	21	40	5	1	8	3
	NY	36	71	10	2	20	5
	RD	17	33	7	3	15	2
	UT	24	45	6	3	12	3
	UW	2	3	1	0	2	1
	TOTAL	165	318	52	23	103	24
Eurotransplant, Total		**1577**	**3034**	**708**	**220**	**1026**	**308**
Czech Republic		0	0	0	2	8	0
Denmark		0	0	1	1	0	0
France		1	2	1	1	0	0
Greece		0	0	1	1	0	0
Hungary		0	0	0	0	1	0
Israel		0	0	0	0	2	0
Italy		0	0	1	3	2	0
Lithuania		0	0	0	0	2	0
Norway		1	1	2	0	3	0
Poland		0	0	1	0	19	0
Romania		0	0	3	0	2	0
Spain		8	10	5	2	1	0
Slovak Republic		2	3	1	1	6	0
Slovenia		4	8	8	8	7	0
Sweden		0	0	0	1	5	0
Switzerland		4	7	2	4	0	0
United Kingdom		0	0	3	1	3	0
From outside Eurotransplant, Total		20	31	29	25	61	0

Table 3a **Transplant activities [cadaveric donor] in 1999, stratified by organ, per country and per center**

Country	Center	Kidney	Kidney+ Pancreas	Pancreas	Heart	Heart+ Lung	Lung	Liver
Austria	GA	47	0	0	15	0	0	10
	IB	78	26	3	20	0	10	55
	OE	31	0	0	0	0	0	0
	OL	22	0	0	0	0	0	0
	WD	1	0	0	0	0	0	0
	WG	175	1	0	59	1	57	79
	TOTAL	354	27	3	94	1	67	144
Belgium	AN	34	2	0	3	0	2	0
	AS	0	0	0	15	0	0	0
	BJ	12	0	0	0	0	0	0
	BP	0	0	2	0	0	0	0
	BR	61	6	0	15	5	9	31
	GE	46	11	1	8	0	0	43
	LA	87	5	1	17	0	5	46
	LG	21	3	0	16	0	0	21
	LM	134	6	0	17	0	12	36
	TOTAL	395	33	4	91	5	28	177
Germany	AK	13	0	0	7	0	0	0
	AU	4	0	0	0	0	0	0
	BA	0	0	0	70	1	2	0
	BB	28	22	0	0	0	0	0
	BC	94	29	1	0	0	0	88
	BD	0	0	0	59	5	19	0
	BE	60	0	0	0	0	0	0
	BH	0	0	0	4	0	0	0
	BM	39	0	0	0	0	0	0
	BO	14	8	0	0	0	0	19
	BV	2	7	0	0	0	0	1
	DR	31	0	0	17	1	3	0
	DU	50	0	0	4	0	0	0
	ES	87	2	0	5	0	3	74
	FD	0	0	0	7	0	1	0
	FM	45	0	0	9	0	7	17
	FR	53	13	0	21	0	0	25
	GI	32	3	0	12	0	1	0
	GO	14	0	0	7	0	0	14
	HA	42	0	0	3	0	0	0
	HB	48	0	0	24	0	1	29
	HG	55	5	0	13	0	0	77
	HM	51	0	0	0	0	0	0
	HO	146	10	0	31	4	50	87
	HS	23	0	0	4	0	10	0
	JE	59	6	4	1	0	0	36
	KG	0	0	0	10	0	0	0
	KI	16	0	0	34	1	9	16
	KK	1	0	0	0	0	0	0
	KL	34	2	0	11	0	0	13
	KM	48	9	0	0	0	0	9
	KR	0	0	0	3	0	0	0
	KS	16	0	0	3	0	0	0
	LP	29	5	0	23	0	0	28
	LU	42	0	0	0	0	0	0
	MA	22	1	0	0	0	0	0
	MB	1	0	0	0	0	0	11
	MD	0	0	0	14	0	0	0
	MH	43	0	0	0	0	0	10
	ML	100	22	2	37	8	14	35
	MN	72	5	1	23	0	1	21
	MR	29	5	0	0	0	0	0
	MZ	19	3	0	7	0	5	30
	NB	41	12	0	1	0	0	19
	RB	22	6	0	12	0	0	12
	RO	58	19	4	1	0	0	14
	ST	40	0	0	0	0	0	0
	TU	22	9	1	3	0	0	23
	UL	26	4	0	0	0	0	0
	WZ	16	1	0	0	0	0	10
	TOTAL	1687	208	13	480	20	126	718
Luxemburg	LX	6	0	0	0	0	0	0
	TOTAL	6	0	0	0	0	0	0
Netherlands	AW	41	0	0	0	0	0	0
	GR	59	5	0	0	2	17	55
	LB	40	13	0	0	0	0	10
	MS	31	1	0	0	0	0	0
	NY	56	0	0	0	0	0	0
	RD	47	0	0	23	0	0	30
	RS	2	0	0	0	0	0	0
	UT	48	0	0	20	0	0	0
	UW	3	0	0	0	0	0	0
	TOTAL	327	19	0	43	2	17	95
Eurotransplant, Total		**2769**	**287**	**20**	**708**	**28**	**238**	**1134**
			3056					

Table 3b **Transplant activities [living donor] in 1999, stratified by organ, per country and per center**

Country	Center	Kidney			Liver			
		Living Related	Living Unrelated	Total	Living Related	Living Unrelated	Domino	Total
Austria	IB	8	2	10	6	1	0	7
	OE	1	1	2	0	0	0	0
	OL	1	1	2	0	0	0	0
	WD	2	0	2	0	0	0	0
	WG	12	11	23	0	0	0	0
	TOTAL	24	15	39	6	1	0	7
Belgium	AN	2	0	2	0	0	0	0
	BR	6	1	7	0	0	0	0
	GE	3	2	5	3	0	0	3
	LA	5	3	8	12	1	0	13
	LE	1	0	1	0	0	0	0
	LM	2	1	3	0	0	0	0
	TOTAL	19	7	26	15	1	0	16
Germany	AK	4	2	6	0	0	0	0
	BB	1	0	1	0	0	0	0
	BC	18	10	28	3	0	0	3
	BE	0	6	6	0	0	0	0
	BM	6	6	12	0	0	0	0
	BO	1	1	2	0	0	0	0
	DR	2	0	2	0	0	0	0
	DU	8	4	12	0	0	0	0
	ES	5	2	7	18	5	0	23
	FM	7	1	8	0	0	0	0
	FR	21	12	33	0	0	0	0
	GI	9	2	11	0	0	0	0
	GO	7	3	10	0	0	0	0
	HA	1	0	1	0	0	0	0
	HB	12	1	13	0	1	1	2
	HG	3	3	6	4	0	0	4
	HM	5	3	8	0	0	0	0
	HO	21	7	28	6	1	0	7
	HS	4	2	6	0	0	0	0
	JE	2	3	5	0	1	0	1
	KL	3	4	7	0	0	0	0
	KM	6	4	10	0	0	0	0
	KS	2	1	3	0	0	0	0
	LP	2	1	3	0	0	0	0
	LU	3	7	10	0	0	0	0
	MA	3	6	9	0	0	0	0
	MH	3	0	3	0	0	0	0
	ML	20	17	37	0	0	0	0
	MN	13	3	16	0	0	0	0
	MR	2	0	2	0	0	2	2
	MZ	4	2	6	0	2	0	2
	NB	10	3	13	0	0	0	0
	RB	4	4	8	0	0	0	0
	RO	0	1	1	0	0	0	0
	ST	18	8	26	0	0	0	0
	TU	2	0	2	0	0	0	0
	UL	5	7	12	0	0	0	0
	WZ	6	1	7	0	0	0	0
	TOTAL	243	137	380	31	10	3	44
Luxemburg	LX	0	0	0	0	0	0	0
Netherlands	AW	9	4	13	0	0	0	0
	GR	6	7	13	0	0	0	0
	LB	15	5	20	0	0	0	0
	MS	7	3	10	0	0	0	0
	NY	26	8	34	0	0	0	0
	RD	23	8	31	0	0	0	0
	RS	2	0	2	0	0	0	0
	UT	7	4	11	0	0	0	0
	TOTAL	95	39	134	0	0	0	0
Eurotransplant	**TOTAL**	**381**	**198**	**579**	**52**	**12**	**3**	**67**

Table 4 **Organ exchange of the Eurotransplant countries, based upon the cadaveric donor transplant activities in 1999**

Table 4a **Survey of donor kidney exchange in 1999**

Transplant country / Donor country	Austria	Belgium	Germany	Luxemburg	Netherlands	ET	Others[a]	Total available	Difference
Austria	297	21	57	0	14		0	389	–8
Belgium	17	306	84	6	26		3	442	–16
Germany	55	69	1671	0	71		3	1869	26
Luxemburg	1	12	1	0	2		0	16	–10
Netherlands	9	10	64	0	230		5	318	28
Total Eurotransplant	379	418	1877	6	343	3023	11	3034	20
Others [b]	2	8	18	0	3	31	0	31	-20
Total transplanted	**381**	**426**	**1895**	**6**	**346**	**3054**	**11**	**3065**	

a. Transplant country: Czech Republic(1), Pakistan(4), Slovak Republic(4), Switzerland(2)
b. Donor country: France(1), Norway(1), Slovenia(8), Slovak Republic(3), Spain(13), Switzerland(5)

Table 4b **Survey of donor heart exchange in 1999**

Transplant country / Donor country	Austria	Belgium	Germany	Netherlands	ET	Others[a]	Total available	Difference
Austria	81	0	11	0		0	92	1
Belgium	1	88	21	2		1	113	–22
Germany	2	3	418	1		1	425	56
Luxemburg	0	0	3	0		0	3	–3
Netherlands	1	0	9	40		0	50	–7
Total Eurotransplant	85	91	462	43	681	2	683	25
Others [b]	8	0	19	0	27	0	27	–25
Total transplanted	**93**	**91**	**481**	**43**	**708**	**2**	**710**	

a. Transplant country: Denmark(1), Switzerland(1)
b. Donor country:France(1), Denmark(1), Italy(1), Norway(2), Poland(1), Romania(3), Slovenia(8), Spain(5), Switzerland(2), United Kingdom(3)

Table 4c **Survey of donor heart+lung exchange in 1999**

Transplant country / Donor country	Austria	Belgium	Germany	Netherlands	Total available	Difference
Austria	0	0	1	0	1	0
Belgium	0	5	0	1	6	-1
Germany	0	0	17	0	17	3
Netherlands	0	0	1	1	2	0
Total Eurotransplant	0	5	19	2	26	-2
Others [b]	1	0	1	0	2	2
Total transplanted	**1**	**5**	**20**	**2**	**28**	

b. Donor country: Greece(1), Slovak Republic(1)

Table 4d **Survey of donor double lungs exchange in 1999**

Transplant country / Donor country	Austria	Belgium	Germany	Netherlands	ET	Others[a]	Total available	Difference
Austria	22	0	9	0		0	31	10
Belgium	1	11	6	2		0	20	–5
Germany	7	3	55	3		1	69	16
Luxemburg	1	0	0	0		0	1	–1
Netherlands	1	1	6	10		0	18	–3
Total Eurotransplant	32	15	76	15	138	1	139	17
Others [b]	9	0	9	0	18	0	18	–17
Total transplanted	**41**	**15**	**85**	**15**	**156**	**1**	**157**	

a. Transplant country:United Kingdom(1)
b. Donor country: Czech Republic(2), Denmark(1), France(1), Italy(2), Slovenia(7), Spain(1), Sweden(1), Switzerland(2), United Kingdom(1)

Table 4e Survey of donor single lung exchange in 1999

Transplant country / Donor country	Austria	Belgium	Germany	Netherlands	ET	Others[a]	Total available	Difference
Austria	16	3	4	0		0	23	4
Belgium	4	8	5	1		0	18	-5
Germany	6	0	27	1		2	36	5
Netherlands	0	2	1	0		0	3	-1
Total Eurotransplant	26	13	37	2	78	2	80	3
Others [b]	1	0	4	0	5	0	5	-3
Total transplanted	**27**	**13**	**41**	**2**	**83**	2	85	

a. Transplant country:Denmark(1), United Kingdom(1)
b. Donor country: Italy(1), Slovenia(1), Spain(1), Switzerland(2)

Table 4f Survey of donor liver exchange in 1999

Transplant country / Donor country	Austria	Belgium	Germany	Netherlands	ET	Others[a]	Total available	Difference
Austria	112	3	20	2		2	139	0
Belgium	5	137	28	3		1	174	–5
Germany	9	19	512	12		4	556	71
Luxemburg	0	5	1	0		0	6	–6
Netherlands	4	2	22	71		0	99	–7
Total Eurotransplant	130	166	583	88	967	7	974	53
Others[b]	9	3	44	4	60	0	60	–53
Total transplanted	**139**	**169**	**627**	**92**	**1027**	7	1034	

a. Transplant country: Italy(2), Norway (1), Slovenia (1), Spain(1), Sweden(1),United Kingdom(1)
b. Donor country: Czech Republic(8), Hungary(1), Italy(1), Israel(2), Lithuania(2), Norway(3), Poland(19), Romania(2), Slovak Republic(6), Slovenia(8), Spain(1), Sweden(5), United Kingdom(2)

Table 4g Survey of donor split liver exchange in 1999

Transplant country / Donor country	Austria	Belgium	Germany	Netherlands	ET	Others[a]	Total available	Difference
Austria	5	0	5	0		0	10	–5
Belgium	0	7	10	1		0	18	–10
Germany	0	1	68	0		0	69	22
Netherlands	0	0	6	2		0	8	–5
Total Eurotransplant	5	8	89	3	105	0	105	2
Others[b]	0	0	2	0	2	0	2	–2
Total transplanted	**5**	**8**	**91**	**3**	**107**	0	107	

b. Donor country: Italy (1), United Kingdom (1)

Table 4h Survey of donor pancreas+kidney and islet+kidney exchange in 1999

Transplant country / Donor country	Austria	Belgium	Germany	Netherlands			Total available	Difference
Austria	25	0	3	0			28	–1
Belgium	1	31	17	4			53	–21
Germany	1	0	178	1			180	28
Luxemburg	0	1	0	1			2	–2
Netherlands	0	0	10	13			23	–4
Total Eurotransplant	**27**	**32**	**208**	**19**			**286**	

Table 5 Organ exchange in cadaveric donor transplantation, in 1999, between the Eurotransplant transplant programs

* How to read the Tables 5a-h

1. Country

2a. Transplant region or center, at which the organ-specific transplants were performed
2b. Donors centers and/or transplant centers within the transplant region (center codes, see page 8-14)

3. Donors
3a. *Reported*, total number of organ-specific donors reported to Eurotransplant, of whom organs were transplanted in 1999
3b. *Not used*, number of organ-specific donors not used
3c. *Single organ*, number of organ-specific donors of whom only one kidney or one lung was used
3d. *Two single organs*, number of donors from whom the 2 lungs have been used in 2 different recipients

4. Organs used Total, total number of organs which have been used in a transplant which took place in 1999

5. Destination of organs
5a. *Outside country*, number of organs shipped outside the donor country
5b. *Same country*, number of organs shipped to another center outside the region but in the same country
5c. *Same region*, number of organs shipped to another center in the region
5d. *Local center*, number of organs used at the local center

6. Origin of transplanted organs
6a. *Local center*, number of organs transplanted at the local center
6b. *Same region*, number of organs, received from another center from the same region
6c. *Same country*, number of organs, received from another center outside the region but from the same country
6d. *Outside country*, number of organs, received from outside the donor country

7. Transplants Total, total number of organ transplants performed during 1999

8. Exchange balance, difference between Organs used Total and Transplants Total,
i.e. net import:export balance
'+' means, more import than export
'-' means, more export than import

Abbreviations used in the different tables

Bel-1.:	collaborating centers in Belgium-1 cluster.
Bel-2.:	collaborating centers in Belgium-2 cluster.
Uni-Neue BL.:	collaborating centers in Eastern part of Germany, the so-called neue Bündeslander (neue BL)
Uni-NBav.:	collaborating centers in the Northern part of Bavaria (NBAV)
Uni-SBav.:	collaborating centers in the Southern part of Bavaria (SBAV)
Uni-NRW.:	collaborating centers in Nordrhein Westfalen
Uni-RLP.:	collaborating centers in Rheinland-Pfalz.
Uni-DM.:	collaborating centers in Mid Germany (Deutschland Mittle)
Uni-SW.:	collaborating centers in South-West Germany
Uni-TSA.:	collaborating centers in Thüringen, Sachsen and Sachsen-Anhalt.
Uni-TVN.:	collaborating centers in the Northern part of Germany, the so-called Transplantations Verbund Nord.

Table 5a Survey of donor kidney exchange in 1999

1	2a	2b	4	5a	5b	5c	5d/6a	6b	6c	6d	7	8
Country	Region	Center code	Kidneys used	Destination / Origin							Kidney trans–plants	Exchange balance
			Total	Outside country	Same country	Same region	Local center	Same region	Same country	Outside country	Total	
Austria	**Graz**	**GA**	**49**	15	5	0	29	0	7	11	47	-2
	Innsbruck	**IB**	**90**	19	6	0	65	0	19	21	105	15
	Upper Austria	**OE**	**14**	5	4	2	3	8	4	16	31	17
		OL	**27**	11	0	5	11	2	2	6	21	-6
		OW	**8**	2	3	3	0	0	0	0	0	-8
	Vienna	**WD**	**0**	0	0	0	0	2	0	2	4	4
		WG	**201**	40	18	2	141	0	4	28	173	-28
	TOTAL		**389**	92	36	12	249	12	36	84	381	-8
Belgium/ Luxemburg	**BBR**	**BR**	**79**	31	8	0	40	0	15	12	67	-12
	Bel_1	**AN**	**29**	7	6	6	10	16	6	4	36	7
		BJ	**18**	8	5	2	3	9	0	0	12	-6
		LG	**58**	16	10	23	9	8	3	3	23	-35
		LX	**16**	9	0	7	0	5	0	1	6	-10
	Bel_2	**AS**	**16**	4	1	11	0	0	0	0	0	-16
		GE	**67**	18	7	12	30	7	3	17	57	-10
		LE	**0**	0	0	0	0	0	0	0	0	0
		LM	**102**	24	8	6	64	22	14	40	140	38
	BLA	**LA**	**74**	23	9	0	42	0	13	37	92	18
	TOTAL		**459**	140	54	67	198	67	54	114	433	-26
Germany	**Berlin**	**BC**	**0**	0	0	0	0	76	39	17	132	132
		BD	**0**	0	0	0	0	0	0	0	0	0
		BE	**0**	0	0	0	0	37	14	9	60	60
		VB	**150**	9	28	113	0	0	0	0	0	-150
	GFR	**FR**	**59**	9	16	0	34	0	21	11	66	7
	GGO	**GO**	**13**	3	2	0	8	0	3	3	14	1
	GHB	**HB**	**29**	4	11	0	14	0	24	10	48	19
	GHO/GHM	**HM**	**0**	0	0	0	0	31	17	3	51	51
		HO	**165**	10	37	31	87	0	50	17	154	-11
	GMA	**MA**	**28**	6	10	0	12	0	5	6	23	-5
	GST/GTU	**ST**	**10**	2	3	2	3	20	8	9	40	30
		TU	**51**	6	9	20	16	2	11	2	31	-20
	GUL	**UL**	**36**	6	13	0	17	0	8	5	30	-6
	Uni_NBAV	**NB**	**42**	4	10	5	23	7	16	7	53	11
		RB	**28**	3	8	1	16	5	4	3	28	0
		WZ	**32**	6	11	7	8	1	6	2	17	-15
	Uni_Neue BL	**DR**	**26**	2	5	5	14	10	2	5	31	5
		HA	**40**	6	6	9	19	14	3	3	39	-1
		JE	**62**	8	13	7	34	25	3	6	68	6
		LP	**67**	4	15	27	21	6	2	5	34	-33
		MB	**0**	0	0	0	0	1	0	0	1	1
		RO	**84**	7	19	14	44	6	17	10	77	-7
	Uni_NRW	**AK**	**11**	1	4	2	4	3	3	3	13	2
		BB	**31**	1	8	3	19	10	21	1	51	20
		DU	**59**	4	11	13	31	2	11	6	50	-9
		ES	**70**	5	14	10	41	13	27	7	88	18
		KK	**0**	0	0	0	0	1	0	0	1	1
		KL	**36**	3	7	16	10	14	6	6	36	0
		KM	**39**	4	3	15	17	24	9	7	57	18
		MN	**91**	18	12	12	49	4	17	7	77	-14
	Uni_RLP-DM	**BO**	**48**	10	9	18	11	5	3	3	22	-26
		FD	**19**	3	4	12	0	0	0	0	0	-19
		FM	**30**	2	12	2	14	26	4	2	46	16
		GI	**32**	2	7	6	17	12	5	1	35	3
		HS	**32**	5	12	5	10	5	4	4	23	-9
		KS	**28**	2	7	11	8	4	3	1	16	-12
		MR	**33**	4	3	11	15	13	5	1	34	1
		MZ	**21**	3	4	3	11	6	2	3	22	1
		WB	**6**	0	3	3	0	0	0	0	0	-6
	Uni_SBAV	**AU**	**0**	0	0	0	0	4	0	0	4	4
		MH	**0**	0	0	0	0	33	4	6	43	43
		ML	**158**	14	21	37	86	0	23	13	122	-36
	Uni_TVN	**BM**	**41**	7	7	7	20	8	9	3	40	-1
		HG	**54**	5	22	2	25	15	10	10	60	6
		KI	**51**	6	23	14	8	2	4	2	16	-35
		LU	**57**	4	25	9	19	7	11	5	42	-15
	TOTAL		**1869**	198	434	452	785	452	434	224	1895	26
Netherlands	**NAW**	**AW**	**46**	14	9	0	23	0	7	15	45	-1
	NGR	**GR**	**53**	19	6	0	28	0	9	27	64	11
	NLB	**LB**	**27**	7	7	0	13	0	15	24	52	25
	NMS	**MS**	**40**	11	9	0	20	0	4	8	32	-8
	NNY	**NY**	**71**	19	11	0	41	0	2	14	57	-14
	NRD/NRS	**RD**	**33**	8	1	0	24	0	5	17	46	13
		RS	**0**	0	0	0	0	0	0	2	2	2
	NUT/NUW	**UT**	**45**	7	4	1	33	0	4	8	45	0
		UW	**3**	3	0	0	0	1	1	1	3	0
	TOTAL		**318**	88	47	1	182	1	47	116	**346**	**28**
Eurotransplant	**TOTAL**		**3035**	**518**	**571**	**532**	**1414**	**532**	**571**	**538**	**3055***	**20**
From/To outside ET TOTAL			**33**	31	0	0	2	0	0	11	13	**-20**
TOTAL			**3068**	**549**	**571**	**532**	**1416**	**532**	**571**	**549**	**3068**	**0**

* includes 5 transplants in 1999 from donors of 1998

Table 5b **Survey of donor heart exchange in 1999**

1	2a	2b	3a	3b	4	5a	5b	5c	5d/6a	6b	6c	6d	7	8
Country	Region	Centre code	Donors Report Total	Donors Not Used	Hearts Used Total	Destination / Origin							Heart trans-plants Total	National Exchange Balance
						Outside country	Same country	Same region	Local centre	Same region	Same country	Outside country		
Austria	**AGA**	**GA**	**19**	**3**	**16**	3	1	0	12	0	2	1	15	-1
	AIB	**IB**	**29**	**5**	**24**	3	4	0	17	0	2	1	20	-4
	Vienna	**OE**	5	2	3	0	0	3	0	0	0	0	0	-3
		OL	9	5	4	0	0	4	0	0	0	0	0	-4
		OW	2	0	2	0	0	2	0	0	0	0	0	-2
		WG	71	28	43	5	2	0	36	9	3	10	58	15
	TOTAL		**135**	**43**	**92**	11	7	9	65	9	7	12	93	1
Belgium/ Luxemburg	**BBR**	**BR**	**20**	**9**	**11**	2	3	0	6	0	9	0	15	4
	Bel_1	**AN**	**13**	**3**	**10**	1	5	3	1	2	0	0	3	-7
		BJ	9	2	7	2	2	3	0	0	0	0	0	-7
		LG	21	1	20	4	8	1	7	5	3	1	16	-4
		LX	6	3	3	3	0	0	0	0	0	0	0	-3
	Bel_2	**AS**	**6**	**1**	**5**	2	0	2	1	12	2	0	15	10
		GE	27	8	19	4	1	12	2	3	2	1	8	-11
		LM	33	11	22	7	4	8	3	7	6	1	17	-5
	BLA	**LA**	**28**	**9**	**19**	3	4	0	12	0	5	0	17	-2
	TOTAL		**163**	**47**	**116**	28	27	29	32	29	27	3	91	-25
Germany	**GBA/GHO**	**BA**	**0**	**0**	**0**	0	0	0	0	6	45	19	70	70
		BB	8	3	5	1	1	3	0	0	0	0	0	-5
		BM	16	8	8	0	5	3	0	0	0	0	0	-8
		HO	49	10	39	0	24	0	15	0	7	9	31	-8
	GBD	**BC**	**0**	**0**	**0**	0	0	0	0	2	0	0	2	2
		BD	0	0	0	0	0	0	0	25	25	7	57	57
		VB	50	12	38	0	11	27	0	0	0	0	0	-38
	GKR	**KR**	**0**	**0**	**0**	0	0	0	0	0	1	2	3	3
	GMR	**MR**	**11**	**5**	**6**	1	5	0	0	0	0	0	0	-6
	Uni_DM	**BH**	**0**	**0**	**0**	0	0	0	0	3	1	0	4	4
		FD	7	0	7	0	2	5	0	4	2	1	7	0
		FM	10	2	8	0	2	5	1	4	4	0	9	1
		GI	13	3	10	2	2	6	0	4	5	3	12	2
		GO	4	3	1	0	1	0	0	1	3	3	7	6
	Uni_NBAV	**NB**	**12**	**4**	**8**	0	3	5	0	1	0	0	1	-7
		RB	6	0	6	0	1	0	5	6	0	1	12	6
		WZ	10	0	10	0	8	2	0	0	0	0	0	-10
	Uni_NRW	**AK**	**5**	**1**	**4**	0	2	0	2	0	5	0	7	3
		BO	14	3	11	0	10	1	0	0	0	0	0	-11
		DU	15	7	8	0	5	0	3	0	1	0	4	-4
		ES	18	9	9	0	7	0	2	0	3	0	5	-4
		KL	7	1	6	0	1	0	5	1	5	0	11	5
		KM	5	4	1	0	0	1	0	0	0	0	0	-1
		MN	32	11	21	0	7	0	14	0	7	2	23	2
	Uni_RLP	**HS**	**10**	**4**	**6**	0	3	3	0	3	1	0	4	-2
		KS	8	1	7	0	2	5	0	2	1	0	3	-4
		MZ	7	3	4	1	2	1	0	5	1	1	7	3
	Uni_SBAV	**MD**	**0**	**0**	**0**	0	0	0	0	7	4	3	14	14
		ML	52	12	40	1	8	7	24	0	10	3	37	-3
	Uni_SW	**FR**	**16**	**3**	**13**	0	3	0	10	0	10	1	21	8
		HB	14	5	9	0	2	0	7	3	11	3	24	15
		MA	11	6	5	0	2	3	0	0	0	0	0	-5
		ST	3	1	2	0	2	0	0	0	0	0	0	-2
		TU	16	4	12	0	10	0	2	0	1	0	3	-9
		UL	10	2	8	0	8	0	0	0	0	0	0	-8
	Uni_TSA	**DR**	**5**	**1**	**4**	0	1	2	1	13	3	1	18	14
		HA	15	5	10	0	2	8	0	3	0	0	3	-7
		JE	27	6	21	0	1	19	1	0	0	0	1	-20
		LP	15	8	7	0	1	2	4	15	3	1	23	16
	Uni_TVN	**HG**	**24**	**9**	**15**	0	6	4	5	7	0	1	13	-2
		KG	0	0	0	0	0	0	0	10	0	0	10	10
		KI	23	3	20	0	6	1	13	16	3	2	34	14
		LU	14	4	10	0	3	7	0	0	0	0	0	-10
		RO	35	9	26	1	3	22	0	1	0	0	1	-25
	TOTAL		**597**	**172**	**425**	7	162	142	114	142	162	63	481	56
Netherlands	**NRD/NUT**	**AW**	**13**	**6**	**7**	2	0	5	0	0	0	0	0	-7
		GR	19	9	10	3	1	6	0	0	0	0	0	-10
		LB	8	4	4	0	2	2	0	0	0	0	0	-4
		MS	11	6	5	0	2	3	0	0	0	0	0	-5
		NY	16	6	10	1	3	6	0	0	0	0	0	-10
		RD	12	5	7	1	1	0	5	10	6	2	23	16
		UT	12	6	6	2	2	0	2	12	5	1	20	14
		UW	2	1	1	1	0	0	0	0	0	0	0	-1
	TOTAL		**93**	**43**	**50**	10	11	22	7	22	11	3	43	-7
Eurotransplant TOTAL			**988**	**305**	**683**	**56**	**207**	**202**	**218**	**202**	**207**	**81**	**708**	**25**
From/To outside ET TOTAL			97	69	28	27	0	0	1	0	0	2	3	-25
TOTAL			**1085**	**374**	**711**	**83**	**207**	**202**	**219**	**202**	**207**	**83**	**711**	**0**

Table 5c Survey of donor heart+lung exchange in 1999

1	2a	2b	3a	3b	4	5a	5b	5c	5d/6a	6b	6c	6d	7	8
Country	Region	Centre code	Donors Report Total	Donors Not Used	Heart/ Lung Used Total	Destination / Origin							He/Lu trans– plants Total	National Exchange Balance
						Outside country	Same country	Same region	Local centre	Same region	Same country	Outside country		
Austria	**AGA**	**GA**	**1**	**1**	**0**	0	0	0	0	0	0	0	0	0
	AIB	**IB**	**4**	**4**	**0**	0	0	0	0	0	0	0	0	0
	AWG	**OL**	**3**	**2**	**1**	1	0	0	0	0	0	0	0	-1
		OW	1	1	0	0	0	0	0	0	0	0	0	0
		WG	5	5	0	0	0	0	0	0	0	1	1	1
	TOTAL		**14**	**13**	**1**	1	0	0	0	0	0	1	1	0
Belgium/ Luxemburg	**BBR**	**BR**	**6**	**1**	**5**	0	0	0	5	0	0	0	5	0
	Bel_1	**AN**	**1**	**1**	**0**	0	0	0	0	0	0	0	0	0
		BJ	1	1	0	0	0	0	0	0	0	0	0	0
		LG	1	0	1	1	0	0	0	0	0	0	0	-1
	Bel_2	**GE**	**1**	**1**	**0**	0	0	0	0	0	0	0	0	0
		LM	3	3	0	0	0	0	0	0	0	0	0	0
	BLA	**LA**	**2**	**2**	**0**	0	0	0	0	0	0	0	0	0
	TOTAL		**15**	**9**	**6**	1	0	0	5	0	0	0	5	-1
Germany	**GBA/GHO**	**BA**	**0**	**0**	**0**	0	0	0	0	0	1	0	1	1
		BB	1	1	0	0	0	0	0	0	0	0	0	0
		HO	2	2	0	0	0	0	0	0	3	1	4	4
	GBD	**BD**	**0**	**0**	**0**	0	0	0	0	3	2	0	5	5
		VB	12	8	4	0	1	3	0	0	0	0	0	-4
	GMR	**MR**	**1**	**0**	**1**	0	1	0	0	0	0	0	0	-1
	Uni_DM	**FD**	**1**	**1**	**0**	0	0	0	0	0	0	0	0	0
		GO	1	1	0	0	0	0	0	0	0	0	0	0
		WB	1	1	0	0	0	0	0	0	0	0	0	0
	Uni_NBAV	**NB**	**2**	**1**	**1**	0	1	0	0	0	0	0	0	-1
		WZ	1	0	1	0	1	0	0	0	0	0	0	-1
	Uni_NRW	**DU**	**3**	**2**	**1**	0	1	0	0	0	0	0	0	-1
		ES	3	3	0	0	0	0	0	0	0	0	0	0
		KL	1	1	0	0	0	0	0	0	0	0	0	0
		KM	3	2	1	0	1	0	0	0	0	0	0	-1
		MN	3	3	0	0	0	0	0	0	0	0	0	0
	Uni_RLP	**HS**	**1**	**1**	**0**	0	0	0	0	0	0	0	0	0
		MZ	1	1	0	0	0	0	0	0	0	0	0	0
	Uni_SBAV	**ML**	**7**	**5**	**2**	0	0	0	2	0	4	2	8	6
	Uni_SW	**FR**	**2**	**1**	**1**	0	1	0	0	0	0	0	0	-1
		HB	1	1	0	0	0	0	0	0	0	0	0	0
		MA	1	1	0	0	0	0	0	0	0	0	0	0
		ST	1	0	1	0	1	0	0	0	0	0	0	-1
		UL	3	2	1	0	1	0	0	0	0	0	0	-1
	Uni_TSA	**DR**	**2**	**2**	**0**	0	0	0	0	1	0	0	1	1
		HA	3	1	2	0	1	1	0	0	0	0	0	-2
		LP	2	1	1	0	1	0	0	0	0	0	0	-1
	Uni_TVN	**HG**	**2**	**2**	**0**	0	0	0	0	0	0	0	0	0
		KI	1	1	0	0	0	0	0	0	1	0	1	1
		LU	1	1	0	0	0	0	0	0	0	0	0	0
		RO	2	2	0	0	0	0	0	0	0	0	0	0
	TOTAL		**65**	**48**	**17**	0	11	4	2	4	11	3	20	3
Netherlands	**NGR**	**AW**	**1**	**1**	**0**	0	0	0	0	0	0	0	0	0
		GR	2	0	2	1	0	0	1	0	0	1	2	0
		LB	1	1	0	0	0	0	0	0	0	0	0	0
		MS	1	1	0	0	0	0	0	0	0	0	0	0
		NY	1	1	0	0	0	0	0	0	0	0	0	0
		RD	2	2	0	0	0	0	0	0	0	0	0	0
		UT	1	1	0	0	0	0	0	0	0	0	0	0
	TOTAL		**9**	**7**	**2**	1	0	0	1	0	0	1	2	0
EurotransplantTOTAL			**103**	**77**	**26**	**3**	**11**	**4**	**8**	**4**	**11**	**5**	**28**	**2**
From/To outside ET TOTAL			**16**	**14**	**2**	2	0	0	0	0	0	0	0	-2
TOTAL			**119**	**91**	**28**	**5**	**11**	**4**	**8**	**4**	**11**	**5**	**28**	**0**

Table 5d **Survey of donor double lungs exchange in 1999**

1	2a	2b	3a	3b	4	5a	5b	5c	5d/6a	6b	6c	6d	7	8
Country	Region	Centre code	Donors Report Total	Donors Not Used	Lungs Used Total	Destination / Origin							Lung trans–plants Total	National Exchange Balance
						Outside country	Same country	Same region	Local centre	Same region	Same country	Outside country		
Austria	**AGA**	**GA**	**8**	**7**	**1**	1	0	0	0	0	0	0	0	-1
	AIB	**IB**	**10**	**6**	**4**	1	0	0	3	0	0	3	6	2
	AWG	**OL**	**3**	**2**	**1**	0	0	1	0	0	0	0	0	-1
		OW	2	0	2	0	0	2	0	0	0	0	0	-2
		WG	34	10	24	7	0	0	17	3	0	16	36	12
	TOTAL		**57**	**25**	**32**	9	0	3	20	3	0	19	42	10
Belgium/ Luxemburg	**BBR**	**BR**	**4**	**1**	**3**	0	0	0	3	0	1	3	7	4
	Bel_1	**AN**	**5**	**4**	**1**	0	1	0	0	0	0	1	1	0
		BJ	5	2	3	3	0	0	0	0	0	0	0	-3
		LG	3	3	0	0	0	0	0	0	0	0	0	0
		LX	2	1	1	1	0	0	0	0	0	0	0	-1
	BGE	**GE**	**4**	**3**	**1**	0	1	0	0	0	0	0	0	-1
	BLA	**LA**	**10**	**5**	**5**	2	2	0	1	0	2	0	3	-2
	BLM	**AS**	**2**	**1**	**1**	1	0	0	0	0	0	0	0	-1
		LM	9	3	6	3	1	0	2	0	2	0	4	-2
	TOTAL		**44**	**23**	**21**	10	5	0	6	0	5	4	15	-6
Germany	**GBA/GHO**	**BA**	**0**	**0**	**0**	0	0	0	0	0	0	1	1	1
		BB	1	0	1	0	1	0	0	0	0	0	0	-1
		BM	2	1	1	0	1	0	0	0	0	0	0	-1
		HO	21	8	13	3	4	0	6	0	16	18	40	27
	GBD	**BD**	**0**	**0**	**0**	0	0	0	0	7	4	4	15	15
		VB	19	9	10	1	2	7	0	0	0	0	0	-10
	GMR	**MR**	**2**	**1**	**1**	0	1	0	0	0	0	0	0	-1
	Uni_DM	**FD**	**3**	**3**	**0**	0	0	0	0	1	0	0	1	1
		FM	3	2	1	0	0	1	0	1	1	0	2	1
		GI	3	0	3	1	1	1	0	0	0	0	0	-3
	Uni_NBAV	**NB**	**1**	**1**	**0**	0	0	0	0	0	0	0	0	0
		WZ	7	4	3	0	3	0	0	0	0	0	0	-3
	Uni_NRW	**AK**	**1**	**1**	**0**	0	0	0	0	0	0	0	0	0
		BO	6	4	2	0	2	0	0	0	0	0	0	-2
		DU	4	3	1	0	1	0	0	0	0	0	0	-1
		ES	5	3	2	0	0	0	2	0	0	1	3	1
		KL	3	3	0	0	0	0	0	0	0	0	0	0
		MN	7	5	2	1	1	0	0	0	0	0	0	-2
	Uni_RLP	**HS**	**3**	**2**	**1**	0	0	0	1	0	2	3	6	5
		KS	5	3	2	1	1	0	0	0	0	0	0	-2
		MZ	4	1	3	1	1	0	1	0	0	0	1	-2
	Uni_SBAV	**ML**	**22**	**13**	**9**	3	3	0	3	0	3	1	7	-2
	Uni_SW	**FR**	**2**	**2**	**0**	0	0	0	0	0	0	0	0	0
		HB	0	0	0	0	0	0	0	0	0	1	1	1
		ST	2	2	0	0	0	0	0	0	0	0	0	0
		TU	2	1	1	0	1	0	0	0	0	0	0	-1
		UL	3	3	0	0	0	0	0	0	0	0	0	0
	Uni_TSA	**DR**	**2**	**2**	**0**	0	0	0	0	0	1	0	1	1
		HA	5	3	2	1	1	0	0	0	0	0	0	-2
		JE	6	4	2	0	2	0	0	0	0	0	0	-2
		LP	1	1	0	0	0	0	0	0	0	0	0	0
	Uni_TVN	**HG**	**5**	**4**	**1**	1	0	0	0	0	0	0	0	-1
		KI	8	5	3	0	0	0	3	1	2	1	7	4
		LU	4	4	0	0	0	0	0	0	0	0	0	0
		RO	11	6	5	1	3	1	0	0	0	0	0	-5
	TOTAL		**173**	**104**	**69**	14	29	10	16	10	29	30	85	16
Netherlands	**NGR**	**AW**	**7**	**2**	**5**	2	0	3	0	0	0	0	0	-5
		GR	6	2	4	2	0	0	2	8	0	5	15	11
		LB	3	1	2	1	0	1	0	0	0	0	0	-2
		MS	1	0	1	0	0	1	0	0	0	0	0	-1
		NY	5	4	1	1	0	0	0	0	0	0	0	-1
		RD	5	2	3	1	0	2	0	0	0	0	0	-3
		UT	2	0	2	1	0	1	0	0	0	0	0	-2
		UW	1	1	0	0	0	0	0	0	0	0	0	0
	TOTAL		**30**	**12**	**18**	8	0	8	2	8	0	5	15	-3
EurotransplantTOTAL			**304**	**164**	**140**	**41**	**34**	**21**	**44**	**21**	**34**	**58**	**157**	**17**
From/To outside ET TOTAL			**43**	**25**	**18**	18	0	0	0	0	0	1	1	-17
TOTAL			**347**	**189**	**158**	**59**	**34**	**21**	**44**	**21**	**34**	**59**	**158**	**0**

Table 5e Survey of donor single lung exchange in 1999

1	2a	2b	3a	3c	3d	4	5a	5b	5c	5d/6a	6b	6c	6d	7	8
Country	Region	Centre code	Donors Report Total	1 Single Lung Donor	2 Single Lung Donor	Lungs Used Total	Destination / Origin							Lung trans-plants Total	National Exchange Balance
							Outside country	Same country	Same region	Local centre	Same region	Same country	Outside country		
Austria	**AGA**	**GA**	**1**	**0**	**1**	2	1	1	0	0	0	0	0	0	-2
	AIB	**IB**	**2**	**0**	**1**	2	2	0	0	0	0	1	3	4	2
	AWG	**WG**	**12**	**2**	**8**	18	4	0	0	14	0	0	8	22	4
	TOTAL		**15**	**2**	**10**	22	7	1	0	14	0	1	11	26	4
Belgium/ Luxemburg	**BBR**	**BR**	**2**	**1**	**1**	3	2	1	0	0	0	1	1	2	-1
	Bel_1	**AN**	**1**	**0**	**0**	0	0	0	0	0	0	0	1	1	1
		BJ	1	0	0	0	0	0	0	0	0	0	0	0	0
		LG	1	0	1	2	2	0	0	0	0	0	0	0	-2
	BGE	**GE**	**6**	**3**	**1**	5	3	1	1	0	0	0	0	0	-5
	BLA	**LA**	**2**	**1**	**1**	3	2	0	0	1	0	0	1	2	-1
	BLM	**LM**	**3**	**1**	**2**	5	1	0	0	4	1	1	2	8	3
	TOTAL		**16**	**6**	**6**	18	10	2	1	5	1	2	5	13	-5
Germany	**GBA/GHO**	**BA**	**0**	**0**	**0**	0	0	0	0	0	0	1	0	1	1
		BM	1	1	0	1	1	0	0	0	0	0	0	0	-1
		HO	5	3	2	7	3	2	0	2	0	4	4	10	3
	GBD	**BD**	**0**	**0**	**0**	0	0	0	0	0	1	3	0	4	4
		VB	5	3	1	5	2	2	1	0	0	0	0	0	-5
	Uni_DM	**FD**	**1**	**1**	**0**	1	0	0	1	0	0	0	0	0	-1
		FM	3	1	2	5	0	3	0	2	3	0	0	5	0
		GI	2	1	1	3	1	0	2	0	0	0	1	1	-2
	Uni_NBAV	**NB**	**1**	**1**	**0**	1	0	1	0	0	0	0	0	0	-1
		RB	1	1	0	1	1	0	0	0	0	0	0	0	-1
		WZ	1	0	1	2	0	2	0	0	0	0	0	0	-2
	Uni_NRW	**ES**	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0
		MN	0	0	0	0	0	0	0	0	0	0	1	1	1
	Uni_RLP	**HS**	**1**	**1**	**0**	1	0	1	0	0	0	2	2	4	3
		KS	1	1	0	1	0	0	1	0	0	0	0	0	-1
		MZ	0	0	0	0	0	0	0	0	1	0	3	4	4
	Uni_SBAV	**ML**	**2**	**1**	**1**	3	0	1	0	2	0	4	1	7	4
	Uni_SW	**HB**	**0**	**0**	**0**	0	0	0	0	0	0	0	0	0	0
	Uni_TSA	**DR**	**0**	**0**	**0**	0	0	0	0	0	0	0	2	2	2
		JE	0	0	0	0	0	0	0	0	0	0	0	0	0
		LP	0	0	0	0	0	0	0	0	0	0	0	0	0
	Uni_TVN	**HG**	**1**	**1**	**0**	1	0	1	0	0	0	0	0	0	-1
		KI	2	0	1	2	1	0	0	1	1	0	0	2	0
		LU	1	1	0	1	0	0	1	0	0	0	0	0	-1
		RO	1	1	0	1	0	1	0	0	0	0	0	0	-1
	TOTAL		**29**	**18**	**9**	36	9	14	6	7	6	14	14	41	5
Netherlands	**NGR**	**GR**	**3**	**1**	**0**	1	1	0	0	0	0	0	2	2	1
		MS	1	0	0	0	0	0	0	0	0	0	0	0	0
		NY	1	1	0	1	1	0	0	0	0	0	0	0	-1
		UT	2	1	0	1	1	0	0	0	0	0	0	0	-1
	TOTAL		**7**	**3**	**0**	3	3	0	0	0	0	0	2	2	-1
Eurotransplant TOTAL			**67**	**29**	**25**	**79**	**29**	**17**	**7**	**26**	**7**	**17**	**32**	**82**	**3**
From/To outside ET TOTAL			**9**	**5**	**0**	**5**	5	0	0	0	0	0	2	2	-3
	TOTAL		**76**	**34**	**25**	**84**	**34**	**17**	**7**	**26**	**7**	**17**	**34**	**84**	**0**

Table 5f **Survey of donor whole liver exchange in 1999**

1	2a	2b	3a	3b	4	5a	5b	5c	5d/6a	6b	6c	6d	7	8
Country	Region	Centre code	Donors Report Total	Donors Not Used	Livers Used Total	Destination / Origin							Liver trans-plants Total	National Exchange Balance
						Outside country	Same country	Same region	Local centre	Same region	Same country	Outside country		
Austria	**AGA**	**GA**	**19**	**0**	**19**	5	6	0	8	0	1	1	10	-9
	AIB	**IB**	**43**	**5**	**38**	6	32	0	0	0	39	13	52	14
	AOE	**OE**	**5**	**0**	**5**	3	2	0	0	0	0	0	0	-5
	AOL	**OL**	**11**	**1**	**10**	5	5	0	0	0	0	0	0	-10
	AOW	**OW**	**3**	**0**	**3**	1	2	0	0	0	0	0	0	-3
	AWG	**WG**	**82**	**18**	**64**	7	57	0	0	0	64	13	77	13
	TOTAL		**163**	**24**	**139**	27	104	0	8	0	104	27	139	0
Belgium/ Luxemburg	**BBR**	**BR**	**37**	**7**	**30**	7	6	0	17	0	11	3	31	1
	BGE	**GE**	**40**	**4**	**36**	6	9	0	21	0	9	9	39	3
	BLA	**LA**	**33**	**7**	**26**	7	6	0	13	0	19	10	42	16
	BLG	**AN**	**17**	**1**	**16**	3	11	2	0	0	0	0	0	-16
		BJ	10	2	8	0	7	1	0	0	0	0	0	-8
		LG	26	5	21	8	6	0	7	4	5	5	21	0
		LX	8	2	6	5	0	1	0	0	0	0	0	-6
	BLM	**AS**	**6**	**2**	**4**	0	3	1	0	0	0	0	0	-4
		LM	54	21	33	6	5	0	22	1	9	4	36	3
	TOTAL		231	51	180	42	53	5	80	5	53	31	169	-11
Germany	**Berlin**	**BC**	**1**	**1**	**0**	0	0	0	0	37	19	19	75	75
		VB	75	27	48	4	7	37	0	0	0	0	0	-48
	GAK	**AK**	**5**	**1**	**4**	0	4	0	0	0	0	0	0	-4
	GBO	**BO**	**22**	**4**	**18**	2	10	0	6	7	4	2	19	1
		KS	9	0	9	1	1	7	0	0	0	0	0	-9
		MR	8	2	6	2	4	0	0	0	0	0	0	-6
	GDU	**DU**	**26**	**10**	**16**	1	15	0	0	0	0	0	0	-16
	GES	**BB**	**8**	**0**	**8**	1	2	5	0	0	0	0	0	-8
		ES	30	3	27	3	4	0	20	5	27	9	61	34
	GFD	**FD**	**11**	**3**	**8**	0	6	2	0	0	0	0	0	-8
		FM	14	1	13	1	8	0	4	2	6	5	17	4
		WB	2	1	1	0	1	0	0	0	0	0	0	-1
	GFR	**FR**	**19**	**3**	**16**	1	8	0	7	0	5	13	25	9
	GGI	**GI**	**11**	**2**	**9**	2	7	0	0	0	0	0	0	-9
	GGO	**GO**	**6**	**1**	**5**	0	3	0	2	0	8	3	13	8
	GHB	**HB**	**16**	**7**	**9**	1	2	0	6	4	14	5	29	20
		MA	8	1	7	0	3	4	0	0	0	0	0	-7
	GHG	**HG**	**20**	**8**	**12**	0	3	0	9	7	16	10	42	30
		LU	14	5	9	2	0	7	0	0	0	0	0	-9
	GHO	**BM**	**17**	**5**	**12**	1	1	10	0	0	0	0	0	-12
		HO	72	28	44	1	10	0	33	10	18	12	73	29
	GJE	**JE**	**28**	**1**	**27**	0	1	0	26	0	4	2	32	5
	GKI	**KI**	**25**	**5**	**20**	3	8	0	9	0	3	4	16	-4
	GLP	**DR**	**10**	**3**	**7**	0	0	7	0	0	0	0	0	-7
		LP	32	17	15	3	3	0	9	7	5	5	26	11
	GMB	**HA**	**20**	**5**	**15**	0	7	8	0	0	0	0	0	-15
		MB	0	0	0	0	0	0	0	8	2	1	11	11
	GMN	**MN**	**39**	**10**	**29**	5	14	0	10	0	6	4	20	-9
	GMZ	**HS**	**16**	**6**	**10**	1	5	4	0	0	0	0	0	-10
		MZ	11	2	9	0	3	0	6	4	12	7	29	20
	GNB	**NB**	**20**	**3**	**17**	1	5	0	11	0	8	0	19	2
	GRB	**RB**	**10**	**2**	**8**	0	3	0	5	0	4	3	12	4
	GRO	**RO**	**36**	**11**	**25**	2	13	0	10	0	1	3	14	-11
	GTU	ST	5	2	3	0	0	3	0	0	0	0	0	-3
		TU	19	5	14	1	1	0	12	3	6	1	22	8
	GUL	**UL**	**12**	**2**	**10**	2	8	0	0	0	0	0	0	-10
	GWZ	**WZ**	**15**	**2**	**13**	0	5	0	8	0	2	0	10	-3
	Köln	**KL**	**13**	**4**	**9**	0	2	3	4	1	8	0	13	4
		KM	14	7	7	0	2	1	4	3	2	0	9	2
	München	**MH**	**0**	**0**	**0**	0	0	0	0	8	0	2	10	10
		ML	58	20	38	3	8	8	19	0	7	7	33	-5
	TOTAL		**777**	**220**	**557**	44	187	106	220	106	187	117	630	73
Netherlands	**NAW**	**AW**	**15**	**3**	**12**	0	12	0	0	0	0	0	0	-12
	NGR	**GR**	**27**	**4**	**23**	5	18	0	0	0	37	15	52	29
	NLB	**LB**	**9**	**1**	**8**	2	6	0	0	0	10	0	10	2
	NMS	**MS**	**9**	**1**	**8**	2	6	0	0	0	0	0	0	-8
	NNY	**NY**	**23**	**4**	**19**	8	11	0	0	0	0	0	0	-19
	NRD	**RD**	**17**	**2**	**15**	5	10	0	0	0	24	6	30	15
	NUT	**UT**	**13**	**1**	**12**	4	8	0	0	0	0	0	0	-12
	NUW	**UW**	**2**	**0**	**2**	2	0	0	0	0	0	0	0	-2
	TOTAL		**115**	**16**	**99**	28	71	0	0	0	71	21	92	-7
Eurotransplant TOTAL			**1286**	**311**	**975**	**141**	**415**	**111**	**308**	**111**	**415**	**196**	**1030**	**55**
From/To outside ET TOTAL			**113**	**45**	**68**	67	0	1	0	0	0	7	7	-61
TOTAL			**1399**	**356**	**1043**	**208**	**415**	**112**	**308**	**111**	**415**	**203**	**1037**	**-6**

Table 5g **Survey of donor split liver exchange in 1999**

1	2a	2b	3a	4	5a	5b	5c	5d/6a	6b	6c	6d	7	8
Country	Region	Centre code	Donors Report Total	Livers Used Total	Destination / Origin							Liver trans-plants Total	National Exchange Balance
					Outside country	Same country	Same region	Local centre	Same region	Same country	Outside country		
Austria	**AGA**	**GA**	**1**	2	0	2	0	0	0	0	0	0	-2
	AIB	**IB**	**1**	2	1	1	0	0	0	3	0	3	1
	AOL	**OL**	**1**	2	2	0	0	0	0	0	0	0	-2
	AWG	**WG**	**2**	4	2	2	0	0	0	2	0	2	-2
	TOTAL		**5**	10	5	5	0	0	0	5	0	5	-5
Belgium/ Luxemburg	**BBR**	**BR**	**1**	2	2	0	0	0	0	0	0	0	-2
	BGE	**GE**	**1**	2	0	0	0	2	0	1	1	4	2
	BLA	**LA**	**2**	4	1	0	0	3	0	1	0	4	0
	BLG	**BJ**	**1**	2	1	1	0	0	0	0	0	0	-2
		LG	1	2	2	0	0	0	0	0	0	0	-2
	BLM	**AS**	**1**	2	2	0	0	0	0	0	0	0	-2
		LM	2	4	3	1	0	0	0	0	0	0	-4
	TOTAL		**9**	18	11	2	0	5	0	2	1	8	-10
Germany	**Berlin**	**BC**	**0**	0	0	0	0	0	7	2	5	14	14
		VB	4	8	1	0	7	0	0	0	0	0	-8
	GBO	**KS**	**1**	2	0	2	0	0	0	0	0	0	-2
	GDU	**DU**	**2**	4	0	4	0	0	0	0	0	0	-4
	GES	**ES**	**2**	4	0	1	0	3	0	7	3	13	9
	GFR	**FR**	**1**	2	0	2	0	0	0	0	0	0	-2
	GGO	**GO**	**1**	2	0	2	0	0	0	1	0	1	-1
	GHB	**MA**	**1**	2	0	2	0	0	0	0	0	0	-2
	GHG	**HG**	**9**	18	0	4	0	14	6	10	5	35	17
		LU	4	8	0	2	6	0	0	0	0	0	-8
	GHO	**HO**	**4**	8	0	2	0	6	0	6	2	14	6
	GJE	**JE**	**0**	0	0	0	0	0	0	2	2	4	4
	GKI	**KI**	**1**	2	0	2	0	0	0	0	0	0	-2
	GLP	**LP**	**0**	0	0	0	0	0	0	0	2	2	2
	GMN	**MN**	**1**	2	0	1	0	1	0	0	0	1	-1
	GMZ	**MZ**	**0**	0	0	0	0	0	0	0	1	1	1
	GRB	**RB**	**1**	2	0	1	0	1	0	0	0	1	-1
	GTU	**TU**	**0**	0	0	0	0	0	0	1	0	1	1
	GUL	**UL**	**1**	2	0	2	0	0	0	0	0	0	-2
	GWZ	**WZ**	**1**	2	0	2	0	0	0	0	0	0	-2
	Muenchen	**ML**	**0**	0	0	0	0	0	0	0	1	1	1
	TOTAL		**34**	68	1	29	13	25	13	29	21	88	20
Netherlands	**NAW**	**AW**	**1**	2	2	0	0	0	0	0	0	0	-2
	NLB NRD NGR	**GR**	**1**	2	0	2	0	0	0	2	1	3	1
		LB	1	2	2	0	0	0	0	0	0	0	-2
	NNY	**NY**	**1**	2	2	0	0	0	0	0	0	0	-2
	TOTAL		**4**	8	6	2	0	0	0	2	1	3	-5
Eurotransplant	**TOTAL**		**52**	**104**	**23**	**38**	**13**	**30**	**13**	**38**	**23**	**104**	**0**

Table 5h **Survey of donor kidney exchange for pancreas+kidney & islet+kidney transplantation in 1999**

1	2a	2b	4	5a	5b	5c	5d/6a	6b	6c	6d	7	8
Country	Region	Centre code	Pancreas Kidneys Used Total	Destination/Origin Outside country	Same country	Same region	Local centre	Same region	Same country	Outside country Total	Pancreas Kidney trans-plants	National Exchange Balance
Austria	**AGA**	**GA**	**4**	1	3	0	0	0	0	0	0	-4
	AIB	**IB**	**8**	0	0	0	8	0	16	2	26	18
	AOE	**OE**	**3**	0	3	0	0	0	0	0	0	-3
	AOL	**OL**	**1**	1	0	0	0	0	0	0	0	-1
	AOW	**OW**	**2**	0	2	0	0	0	0	0	0	-2
	AWG	**WG**	**10**	1	8	0	1	0	0	0	1	-9
	TOTAL		**28**	3	16	0	9	0	16	2	27	-1
Belgium/ Luxemburg	**BBR**	**BR**	**6**	2	1	0	3	0	3	0	6	0
	Bel_1	**AN**	**5**	4	0	1	0	1	1	0	2	-3
		BJ	3	2	1	0	0	0	0	0	0	-3
		LG	7	2	4	1	0	1	2	0	3	-4
		LX	2	2	0	0	0	0	0	0	0	-2
	BGE	**GE**	**17**	4	3	0	10	0	1	0	11	-6
	BLA	**LA**	**7**	1	4	0	2	0	1	1	4	-3
	BLM	**AS**	**1**	1	0	0	0	0	0	0	0	-1
		LM	7	6	0	0	1	0	5	0	6	-1
	TOTAL		**55**	24	13	2	16	2	13	1	32	-23
Germany	**Berlin**	**BC**	**0**	0	0	0	0	17	13	6	36	36
		VB	19	0	2	17	0	0	0	0	0	-19
	GAK	**AK**	**1**	0	1	0	0	0	0	0	0	-1
	GBB	**BB**	**1**	0	0	0	1	6	14	1	22	21
	GBO/GMR	**BO**	**7**	0	2	2	3	4	0	1	8	1
		KS	7	0	2	5	0	0	0	0	0	-7
		MR	0	0	0	0	0	4	1	0	5	5
	GDU	**DU**	**5**	0	3	2	0	0	0	0	0	-5
	GES	**ES**	**5**	0	4	1	0	0	2	0	2	-3
	GFM	**FD**	**3**	0	3	0	0	0	0	0	0	-3
		FM	4	0	3	1	0	0	0	0	0	-4
	GFR	**FR**	**3**	0	0	0	3	0	5	5	13	10
	GGI	**GI**	**3**	0	0	0	3	0	0	0	3	0
	GHA/GJE	**HA**	**4**	0	3	1	0	0	0	0	0	-4
		JE	8	0	4	0	4	1	0	1	6	-2
	GHB	**HB**	**5**	0	5	0	0	0	0	0	0	-5
	GHO	**HO**	**7**	0	3	0	4	0	5	1	10	3
	GHS	**HS**	**2**	0	2	0	0	0	0	0	0	-2
	GLP	**DR**	**2**	0	1	1	0	0	0	0	0	-2
		LP	5	0	3	0	2	1	0	2	5	0
	GMA	**MA**	**2**	0	1	0	1	0	0	0	1	-1
	GMN	**MN**	**11**	0	4	4	3	0	1	1	5	-6
	GMZ	**MZ**	**1**	0	1	0	0	0	1	2	3	2
	GTU	**TU**	**3**	1	1	0	1	0	7	1	9	6
	GUL	**UL**	**6**	1	2	0	3	0	1	0	4	-2
	Koeln	**KL**	**4**	0	1	2	1	1	0	0	2	-2
		KM	3	0	0	1	2	3	2	2	9	6
	Uni_NBAV	**NB**	**4**	0	2	1	1	4	6	1	12	8
		RB	**7**	0	3	0	4	1	0	1	6	-1
		WZ	8	0	3	4	1	0	0	0	1	-7
	Uni_SBAV	**ML**	**8**	0	1	0	7	0	12	3	22	14
	Uni_TVN	**BM**	**1**	0	1	0	0	0	0	0	0	-1
		HG	9	0	6	0	3	1	1	0	5	-4
		KI	7	0	7	0	0	0	0	0	0	-7
		LU	5	0	4	1	0	0	0	0	0	-5
		RO	10	0	5	0	5	0	12	2	19	9
	TOTAL		**180**	2	83	43	52	43	83	30	208	28
Netherlands	**NAW**	**AW**	**5**	0	5	0	0	0	0	0	0	-5
	NGR	**GR**	**5**	3	1	0	1	0	3	1	5	0
	NLB	**LB**	**0**	0	0	0	0	0	8	5	13	13
	NMS	**MS**	**3**	1	1	0	1	0	0	0	1	-2
	NNY	**NY**	**5**	2	3	0	0	0	0	0	0	-5
	NRD	**RD**	**2**	1	1	0	0	0	0	0	0	-2
	NUT	**UT**	**2**	2	0	0	0	0	0	0	0	-2
	NUW	**UW**	**1**	1	0	0	0	0	0	0	0	-1
	TOTAL		**23**	10	11	0	2	0	11	6	19	-4
Eurotransplant TOTAL			**286**	**39**	**123**	**45**	**79**	**45**	**123**	**39**	**286**	**0**

Table 6 **Active waiting list and Transplants [cadaveric donor], by organ, per country**

Table 6a **Kidney: Active waiting list and Transplants [cadaveric donor]**

	Austria		Belgium		Germany		Luxemburg		Netherlands		Eurotransplant	
	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants
1981	237	114	260	154	1342	677	0	2	296	316	2135	1263
1982	272	141	300	139	1554	812	10	2	383	313	2519	1407
1983	337	108	354	194	1844	996	8	5	385	342	2928	1645
1984	486	224	446	206	2475	1232	18	3	459	370	3884	2035
1985	701	229	527	220	3261	1220	19	7	642	289	5150	1965
1986	779	263	616	241	3720	1584	13	2	723	378	5851	2468
1987	862	316	595	344	4488	1585	16	3	779	417	6740	2665
1988	1010	272	663	342	4826	1736	17	5	917	371	7433	2726
1989	992	384	703	380	5100	1917	21	1	949	366	7765	3048
1990	985	409	710	372	5091	1979	16	10	879	401	7681	3171
1991	927	389	714	378	5836	2195	17	7	882	426	8376	3395
1992	868	306	814	330	6437	2034	21	3	883	428	9023	3101
1993	816	380	923	362	6735	2107	13	8	931	436	9418	3293
1994	794	338	952	374	7446	1894	17	4	948	387	10157	2997
1995	819	293	1008	322	7673	2045	17	9	993	395	10510	3064
1996	839	347	1016	410	8112	1887	16	14	1005	425	10988	3083
1997	834	310	932	405	8546	1970	11	6	1001	419	11324	3110
1998	826	325	890	361	9067	1997	16	6	1177	379	11976	3068
1999	742	381	771	427	9441	1895	13	6	1306	346	12273	3055

Table 6b **Heart: Active waiting list and Transplants**

	Austria		Belgium		Germany		Netherlands		Eurotransplant	
	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants
1991	70	64	44	154	367	545	18	43	499	806
1992	79	84	66	124	383	501	24	44	552	753
1993	129	105	57	130	456	493	29	45	671	773
1994	111	91	61	115	520	443	31	47	723	696
1995	121	108	50	101	501	475	37	48	709	732
1996	145	104	37	107	536	488	26	60	744	759
1997	103	92	39	106	575	531	27	53	744	782
1998	86	94	32	96	581	528	22	41	721	759
1999	62	93	21	91	496	481	30	43	609	708

Table 6c **Heart+Lung: Active waiting list and Transplants**

	Austria		Belgium		Germany		Netherlands		Eurotransplant	
	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants
1991	5	4	13	10	30	10	0	0	48	24
1992	5	6	8	9	35	17	0	0	48	32
1993	7	5	8	10	34	13	0	0	49	28
1994	5	4	22	7	44	32	0	0	71	43
1995	3	0	20	19	55	23	1	0	79	42
1996	2	1	11	10	57	22	1	1	71	34
1997	1	3	18	9	45	31	2	0	66	43
1998	3	1	8	5	47	14	2	0	60	20
1999	5	1	3	5	38	20	0	2	46	28

Table 6d **Lung: Active waiting list and Transplants**

	Austria		Belgium		Germany		Netherlands		Eurotransplant	
	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants
1991	7	18	5	9	61	35	17	9	90	71
1992	8	26	8	20	106	45	19	18	141	109
1993	24	33	14	14	135	58	30	14	203	119
1994	18	33	17	19	152	66	40	20	227	138
1995	17	29	12	16	148	60	47	20	224	125
1996	15	29	21	19	119	86	49	20	204	154
1997	21	30	18	26	115	89	62	10	216	155
1998	21	61	14	33	136	117	53	17	224	228
1999	22	70	23	29	242	126	58	17	345	242

Table 6e **Liver: Active waiting list and Transplants [cadaveric donor]**

	Austria		Belgium		Germany		Netherlands		Eurotransplant	
	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants
1991	28	59	39	164	141	411	21	42	229	676
1992	35	66	39	144	161	490	18	65	253	765
1993	26	91	48	143	113	578	16	66	203	878
1994	29	96	46	146	121	575	16	75	212	892
1995	30	110	35	142	175	594	23	98	263	944
1996	33	132	55	135	209	689	30	76	327	1032
1997	47	131	44	139	256	738	27	89	374	1097
1998	42	133	63	139	354	699	33	100	492	1071
1999	56	143	65	176	425	718	47	95	593	1132

Table 6f **Pancreas+Kidney and Islet+Kidney: Active waiting list and Transplants**

	Austria		Belgium		Germany		Netherlands		Eurotransplant	
	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants	Waiting List	Trans-plants
1991	12	8	9	8	94	43	5	11	120	70
1992	12	13	20	8	100	30	9	11	141	62
1993	10	14	19	15	77	44	6	19	112	92
1994	5	12	21	12	66	47	6	17	98	88
1995	5	6	12	19	62	67	6	11	85	103
1996	17	7	20	13	61	103	12	17	110	140
1997	21	21	20	15	82	148	4	18	127	202
1998	16	29	22	16	109	175	8	16	155	236
1999	13	27	21	32	152	208	14	19	200	286

Table 7 **Registrations on the waiting list, by organ, per country**

Table 7a **Kidney: registrations on the waiting list**

	Austria	Belgium	Germany	Luxemburg	Netherlands	Eurotransplant
1993	509	630	3303	7	715	5164
1994	405	506	3392	7	749	5059
1995	422	543	3210	15	696	4886
1996	458	486	3170	12	700	4826
1997	427	440	3385	1	792	5045
1998	418	422	3366	9	833	5048
1999	405	466	3341	5	806	5023

Table 7b **Heart: registrations on the waiting list**

	Austria	Belgium	Germany	Netherlands	Eurotransplant
1993	181	157	966	64	1368
1994	154	156	843	65	1218
1995	181	137	823	67	1208
1996	178	130	941	70	1319
1997	154	132	950	74	1310
1998	137	120	945	48	1250
1999	108	101	794	68	1071

Table 7c **Heart+lung: registrations on the waiting list**

	Austria	Belgium	Germany	Netherlands	Eurotransplant
1993	8	14	56	0	78
1994	6	27	60	0	93
1995	1	22	57	1	81
1996	1	12	57	1	71
1997	3	21	51	1	76
1998	3	10	46	2	61
1999	5	5	28	2	40

Table 7d **Lung: registrations on the waiting list**

	Austria	Belgium	Germany	Netherlands	Eurotransplant
1993	43	23	128	29	223
1994	27	24	139	33	223
1995	38	17	127	44	226
1996	27	36	118	38	219
1997	51	27	175	39	292
1998	74	36	200	31	341
1999	79	47	299	43	468

Table 7e **Liver: registrations on the waiting list**

	Austria	Belgium	Germany	Netherlands	Eurotransplant
1993	107	200	688	72	1067
1994	122	202	706	84	1114
1995	157	175	797	111	1240
1996	174	193	921	105	1393
1997	186	167	1011	104	1468
1998	173	195	1013	119	1500
1999	192	229	1061	133	1615

Table 8 **Mortality on the waiting list, by organ, per country**

Table 8a **Kidney: mortality on the waiting list**

	Austria	Belgium	Germany	Luxemburg	Netherlands	Eurotransplant
1996	64	41	351	0	89	545
1997	53	26	363	3	125	570
1998	61	30	374	1	84	550
1999	50	39	397	0	106	592

Table 8b **Heart: mortality on the waiting list**

	Austria	Belgium	Germany	Netherlands	Eurotransplant
1996	30	17	228	18	293
1997	41	14	225	14	294
1998	28	18	219	8	273
1999	15	10	192	12	229

Table 8c **Heart+lung: mortality on the waiting list**

	Austria	Belgium	Germany	Netherlands	Eurotransplant
1996	0	7	21	0	28
1997	0	4	18	0	22
1998	0	8	19	0	27
1999	2	2	20	2	26

Table 8d **Lung: mortality on the waiting list**

	Austria	Belgium	Germany	Netherlands	Eurotransplant
1996	15	5	38	13	71
1997	6	7	63	13	89
1998	10	7	49	15	81
1999	5	9	61	15	90

Table 8e **Liver: mortality on the waiting list**

	Austria	Belgium	Germany	Netherlands	Eurotransplant
1996	22	25	137	16	200
1997	27	30	151	13	221
1998	35	29	142	6	212
1999	21	30	151	12	214

Table 9 **Living donors used for a transplant, by organ, per country**

Table 9a **Kidney transplants : living donors**

	Austria	Belgium	Germany	Luxemburg	Netherlands	Eurotransplant
1981	2	21	19	0	11	53
1982	0	36	28	0	24	88
1983	0	33	43	0	32	108
1984	3	41	43	1	24	112
1985	9	42	56	2	41	150
1986	12	38	44	3	43	140
1987	35	33	51	1	41	161
1988	34	32	35	1	37	139
1989	27	31	44	0	31	133
1990	14	14	37	0	40	105
1991	6	21	59	0	43	129
1992	15	10	56	0	60	141
1993	7	6	58	0	56	127
1994	12	12	78	0	66	168
1995	12	20	83	0	97	212
1996	18	18	130	0	81	247
1997	24	17	279	0	91	411
1998	49	26	343	0	108	526
1999	39	26	380	0	134	579

Table 9b **Heart transplants: living donors**

	Austria	Belgium	Germany	Netherlands	Eurotransplant
1991	0	0	0	0	0
1992	0	0	0	0	0
1993	0	0	0	0	0
1994	0	0	2	0	2
1995	0	0	0	0	0
1996	0	1	0	0	1
1997	0	0	0	0	0
1998	0	0	0	0	0
1999	0	0	0	0	0

Table 9c **Lung transplants: living donors**

	Austria	Belgium	Germany	Netherlands	Eurotransplant
1991	0	0	0	0	0
1992	0	0	0	0	0
1993	0	0	0	0	0
1994	0	0	0	0	0
1995	0	0	1	0	1
1996	0	0	0	0	0
1997	0	0	0	0	0
1998	0	0	0	0	0
1999	2	0	0	0	2

Table 9d **Liver transplants: living donors**

	Austria	Belgium	Germany	Netherlands	Eurotransplant
1991	0	0	5	0	5
1992	0	0	15	0	15
1993	0	2	12	0	14
1994	0	13	11	0	24
1995	0	16	9	0	25
1996	0	12	10	0	22
1997	2	17	24	0	43
1998	1	12	25	0	38
1999	7	16	41	0	64

Table 10 **Cadaveric donors used for a transplant, by organ, per country**

Table 10a **Donor kidneys: cadaveric donors**

	Austria	Belgium	Germany	Luxemburg	Netherlands	Eurotransplant
1981	114	154	677	2	316	1263
1982	141	139	812	2	313	1407
1983	108	194	996	5	342	1645
1984	224	206	1232	10	370	2042
1985	207	211	1259	8	270	1955
1986	232	271	1571	8	375	2457
1987	321	371	1585	4	417	2698
1988	295	377	1643	8	370	2693
1989	391	409	1847	6	361	3014
1990	432	369	1885	14	406	3106
1991	396	404	2189	10	431	3430
1992	311	350	2012	12	443	3128
1993	397	403	2070	18	426	3314
1994	329	428	1857	8	376	2998
1995	321	375	1914	4	436	3050
1996	350	399	1897	26	423	3095
1997	305	404	1963	10	414	3096
1998	318	358	1992	13	379	3060
1999	389	441	1867	16	320	3033

Table 10b **Heart donors: cadaveric donors**

	Austria	Belgium	Germany	Luxemburg	Netherlands	Eurotransplant
1991	108	156	472	4	92	832
1992	88	115	495	4	69	771
1993	107	123	482	7	65	784
1994	90	121	452	1	60	724
1995	96	117	468	0	65	746
1996	95	108	478	10	82	773
1997	85	126	508	3	81	803
1998	93	105	482	4	62	746
1999	93	119	441	3	52	708

Table 10c **Lung donors: cadaveric donors**

	Austria	Belgium	Germany	Luxemburg	Netherlands	Eurotransplant
1991	18	16	54	1	12	101
1992	22	24	85	1	11	143
1993	30	32	65	1	13	141
1994	27	30	72	0	24	153
1995	27	34	67	0	16	144
1996	33	33	76	1	25	168
1997	29	30	90	0	20	169
1998	37	33	123	0	32	225
1999	45	38	113	1	23	220

Table 10d **Liver donors: cadaveric donors**

	Austria	Belgium	Germany	Luxemburg	Netherlands	Eurotransplant
1991	95	133	375	4	84	691
1992	94	111	416	3	87	711
1993	118	130	488	4	103	843
1994	115	143	457	2	110	827
1995	94	134	483	1	113	825
1996	113	145	535	7	134	934
1997	109	174	548	3	145	979
1998	119	142	582	4	115	962
1999	143	183	591	6	103	1026

Balance sheet and exploitation result of Stichting Eurotransplant International Foundation

Balance sheet

Assets	31.12.1999 x nlg. 1000	31.12.1999 x euro 1000	31.12.1998 x nlg. 1000	31.12.1998 x euro 1000
Fixed assets	293	133	0	0
Short term receivables	5.084	2.308	5.451	2.474
Liquid assets	5.781	2.623	5.564	2.525
	11.158	5.064	11.015	4.999

Liabilities	31.12.1999 x nlg. 1000	31.12.1999 x euro 1000	31.12.1998 x nlg. 1000	31.12.1998 x euro 1000
Equity	519	236	519	236
Reserve funds	2.960	1.343	3.035	1.377
Short term liabilities	7.679	3.485	7.461	3.386
	11.158	5.064	11.015	4.999

Statement of income and charges

Income	1999 x nlg. 1000	1999 x euro 1000	1998 x nlg. 1000	1998 x euro 1000
Registration fees	6.146	2.789	5.993	2.720
Miscellaneous	316	143	285	129
	6.462	2.932	6.278	2.849

Charges	1999 x nlg. 1000	1999 x euro 1000	1998 x nlg. 1000	1998 x euro 1000
Salaries	3.921	1.779	3.629	1.647
General expenses	1.403	637	1.371	622
Medical expenses	266	121	460	209
Transport	147	67	135	61
Housing	271	123	299	136
Depreciation	364	165	391	177
Miscellaneous	166	76	160	73
	6.538	2.968	6.445	2.925
Exploitation - balance	-76	-36	-167	-76
	6.462	2.932	6.278	2.849

Accounting policies

Current assets and liabilities
These are stated at nominal value. For doubtful accounts a provision has been made.

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

Auditor's opinion

We have audited the financial statements of Stichting Eurotransplant International Foundation for the year ended December 31, 1999 from which the summarized financial statements were dereived, in accordance with relevant auditing standards. In our report dated June 13, 2000 we expressed an unqualified opinion on the financial statements from which the summarized financial statements were derived. These financial statements are the responsibility of the Foundation's management. Our responsibility is to express an opinion on these financial statements based on our audit.

In our opinion, the accompanying summarized financial statements are consistent, in all material aspects, with the financial statements from which they were derived.

For a better understanding of the Foundation's financial position and the results of its operations for the period and the scope of our audit, the summarized financial statements should be read in conjunction with the financial statements from which the summarized financial statements were derived and our audit report thereon.

Leiden, 13 June, 2000

Deloitte & Touche