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2009 Organ Donation Congress | 10th ISODP & 16th ETCO | Congress Program

October 4 – 7, 2009 | Berlin, Germany

2009 Organ Donation Congress
10th ISODP & 16th ETCO

Congress Program

www.isodp2009.org

DSO
DEUTSCHE STIFTUNG ORGANTRANSPLANTATION
2009 local host

TTS
The Transplantation Society

ETCO

International Society For Organ Donation and Procurement

2009 Organ Donation Congress

Agentur WOK GmbH | Palisadenstr. 48 | 10243 Berlin – Germany | info@isodp2009.org

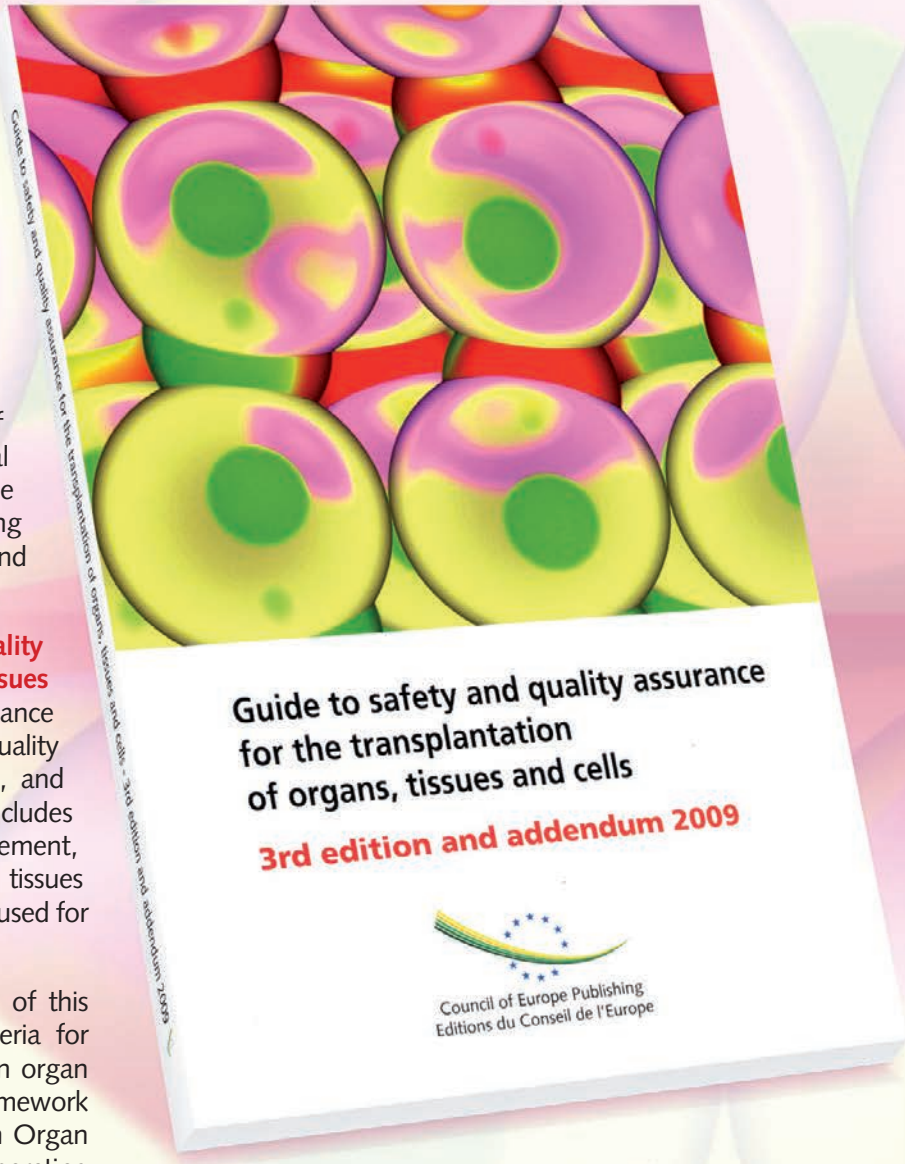
Guide to safety and quality assurance for the transplantation of organs, tissues and cells

Organ transplantation is in many cases the only available treatment for end-organ failure. The transplantation of tissues and cells offers major therapeutic benefits and improvement of the quality of life, but raises a number of questions of principle.

The **Council of Europe** is the leading standard-setting institution in the field. It approaches organ transplantation from an ethical and human rights perspective, taking compliance with the principles of non-commercialisation and voluntary donation of substances of human origin as the basis for all ethical concerns in this respect. Its work includes assuring the safety and quality of organs, tissues and cells, meeting the organ shortage, living donation and preventing and minimising organ trafficking.

The 3rd edition of the **Guide to safety and quality assurance for the transplantation of organs, tissues and cells** is now available. Its aim is to provide guidance for all those involved in order to maximise the quality of organs, tissues and cells and to minimise risks, and thereby increase the success rate of transplants. It includes safety and quality assurance standards for procurement, preservation, processing and distribution of organs, tissues and cells of human origin (allogenic and autologous) used for transplantation purposes.

An addendum has been added to the 3rd edition of this guide (2009), in order to specifically address criteria for preventing the transmission of neoplastic diseases in organ donation. This addendum was finalised in the framework of the European Committee (Partial Agreement) on Organ Transplantation (CD-P-TO), a new committee operating under the aegis of the European Directorate for the Quality of Medicines & HealthCare (EDQM) since 2007.



If you would like to know more about **how to order** the guide, please go to the EDQM's website: **www.edqm.eu**.

If you would like to learn more about the activities of the Council of Europe and the EDQM, come and visit our stand in the exhibition area on **Floor B**.

EDQM, Council of Europe
7 allée Kastner, CS30026
F-67081 Strasbourg
Tel: +33 (0)3 88 41 30 30
Fax: +33 (0)3 88 41 27 71
Website: **www.edqm.eu**
Helpdesk: http://www.edqm.eu/en/FAQ_Helpdesk-521.html

edqm
European Directorate for the Quality of Medicines & HealthCare

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[1] Cattaneo et al., Clin J Am Soc Nephrol 2007. [2] Ojo et al., Transplantation 2000. [3] Eisen et al., J Heart Lung Transplant 2005; 24: 517. [4] Wiesner et al., Liver Transplant 2005; 11: 750.

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2009 Organ Donation Congress
10th ISODP & 16th ETCO

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International Society For Organ Donation and Procurement

Table of Contents

Congress President's Welcome

As chairman of the local organising committee, president of the ISODP and president of the ETCO, we would like to welcome you to the 10th Conference of the ISODP together with the 16th ETCO Conference in Berlin. Both events are held together for the first time and organised in conjunction with the World Day and the European Day of Organ Donation. These events are aimed to create a broad public awareness of organ donation in Europe and around the world. Specific events will take place, such as a concert in front of the Brandenburg Gate dedicated towards organ donation. There will be a specific ceremony on the morning of 5th October in close collaboration with WHO and Fairtransplant as well as the European Council in Strasbourg and the European Union in Brussels as far as the European Day of Organ Donation is concerned. Numerous politicians, VIPs and celebrities from around the world have sent in videos or displays to make it clear that, in their mind, organ donation is extremely important, is a sign of common good sense, and that everyone should take this responsibility seriously within the community.

The scientific committee has planned a very exciting program in the main fields of organ donation focusing on medical, legal and ethical aspects. Outstanding international experts have accepted to give keynote lectures. Sessions will be continued with presentations of the highest ranked abstracts. With the help of the scientific committee, these have been collected out of more than 300 abstracts. Ten highly ranked abstracts will be rewarded with travel grants from TTS. In close collaboration between ISODP and ETCO, a number of workshops are organised starting with a "wetlab" to practice organ preservation in the field of kidney, heart and lung preservation. A special workshop held in Russian is dedicated to let colleagues from Russia and other countries know about the development of organ donation around the world and train them in how to increase organ donation in their home country. Special attention is given to the new European Organ Directive which provides guidelines to be followed concerning safety in organ donation and transplantation.

Organ donation is always in the centre of media interest. One session will deal with the aspects on how to inform the media and how the media can help to establish an atmosphere of trust with the public regarding the process of organ donation and, most importantly, how organ donation is a true act of humanity. We hope this will create more public awareness for organ donation.

We do hope that this international conference will give an ideal opportunity to meet and discuss the most important topics in organ donation, preservation and transplantation. We also hope that you can take some time to visit Berlin, the German capital, with its lively atmosphere and many interesting sites.

We are very much looking forward to meeting you in Berlin.




Prof. Günter Kirste

Howard M. Nathan

Francis L. Delmonico, MD, PhD

Prof. Rui Maio

Address by the Federal President of Germany, Horst Köhler

Welcome to Berlin. I am pleased that this congress takes place in Berlin and it is my hope that it will contribute to raising awareness about the importance of organ donation.

Donor organs are scarce all over the world. Here in Germany, we also have long waiting lists for patients in need of a transplant. No one knows exactly how many people are dying because they do not get a new organ in time. It is up to everyone of us to alleviate the situation.

Making up one's mind to become an organ donor is a very personal decision that is difficult to make for most of us. But we should keep in mind that everyone can help save lives by becoming an organ donor.

This congress provides a platform for scientists from many countries to exchange ideas and experiences – not only regarding the strictly medical aspects of organ donation. I am confident that you all will gain new insights and learn from each other, so that you will be able to further improve cooperation for the benefit of your patients. I wish you all a successful and interesting conference.

Federal President Horst Köhler

Message from the Governing Mayor of Berlin, Klaus Wowereit

Donation and Procurement (2009 Organ Donation Congress) and World Day of Organ Donation/ European Day of Organ Donation from 4 to 7 October 2009 in Berlin

Serious, life-threatening illness is usually the reason for an organ transplant. In other cases, patients whose own organs have stopped functioning have to deal with severe restrictions in their everyday lives. A transplant is often the only way to improve quality of life and reduce the risks of secondary ailments.

One thing is clear: organ donation saves lives. And for people who are seriously ill, it can help make life worth living again.

While the number of organ donors in Germany has risen over the last few decades, the demand for donor organs continues to far outstrip supply. As a result, information and education are as important as ever.

I am therefore very pleased that the German foundation for organ transplantation, Deutsche Stiftung Organtransplantation, is organizing a huge public event in conjunction with the World Day of Organ Donation and European Day of Organ Donation to call attention to this vital subject.

It is just as crucial that researchers continue their hard work in the field of organ transplants. These efforts make international exchange between physicians, other medical professionals, and transplant coordinators all the more important. With this in mind, I would like to extend a very warm welcome to everyone attending the congress of the International Society for Organ Donation and Procurement in Berlin.

I am delighted that you are holding this important scientific congress here in Germany's capital city for the first time. I would like to wish you a productive congress and, in the interest of patients waiting for donor organs, to wish the Deutsche Stiftung Organtransplantation and the experts taking part in the informational event for the public every success. I am convinced that the World Day of Organ Donation being held parallel to the 2009 Organ Donation Congress will make a great contribution to raising public awareness of organ donation.

Klaus Wowereit

Scientific Committee

Scientific Board

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Francis L. Delmonico, MD, PhD, Co-Chair
Rui Maio, MD, PhD, CETC, Co-Chair
Howard M. Nathan, Co-Chair

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Osamu Kato, MD, PhD
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Frank Markel, MD
Rafael Matesanz, MD
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Akinlolu Ojo, MD, PhD
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Axel Rahmel, MD
Oleg Reznik, MD, PhD
Wojciech Rowinski, MD, PhD
Hans Sollinger, MD, PhD
Maria Stadtler, RN, CETC
Nicholas L. Tilney, MD, PhD

Local Committee

Ulrich Frei, MD, PhD
Medical Director of
Nephrologie und Internistische Intensivmedizin,
Charité Campus Virchow Klinikum Berlin

Uwe Heemann, MD, PhD
Medical Director of
Nephrologie, II. Medizinische Klinik und
Poliklinik des Klinikums rechts der Isar

Axel Haverich, MD, PhD
Medical Director of
Thorax-, Herz- und Gefäßchirurgie,
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Peter Neuhaus, MD, PhD
Medical Director of
Allgemein-, Visceral- und
Transplantationschirurgie,
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Arzneimittel

Organ Recovery systems

FRESENIUS BIOTECH

ORGAN DONATION A GIFT FOR LIFE

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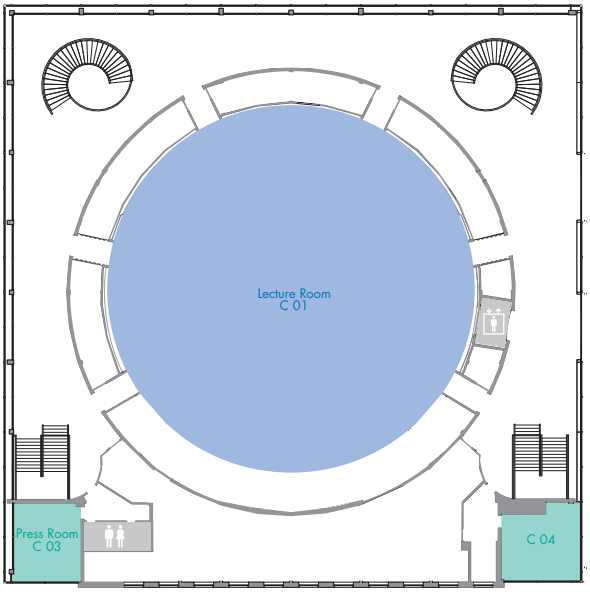
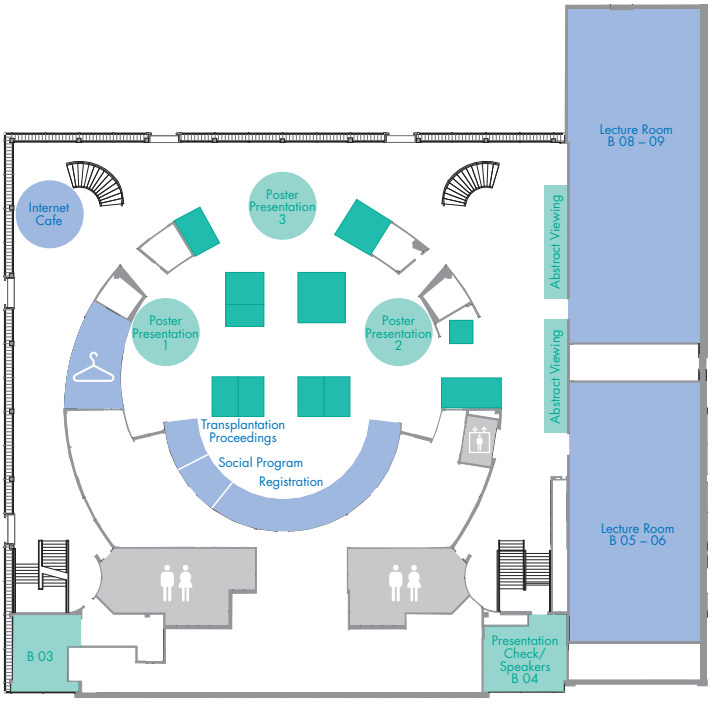
Floor Plan

Floor C



Floor B



Floor A

Program at a Glance

	Sunday, 4 October		Monday, 5 October			Tuesday, 6 October			Wednesday, 7 October | 5th DSO Congress 2009		
08:00 - 10:00	Langenbeck-Virchow Stand-Alone Symposium Novartis		C 01 Organ Donation in the World „Pass the baton on" – World and European Day of Organ Donation	A 04 Symposium Köhler Chemie: „Improved Organ Protection"		B 05 - B 06 Initiatives to Improve Organ Donation	B 08 - B 09 Economical Aspects of Organ Donation	A 04 Workshop Improving Organ Donation in Eastern European Countries and Russia (in Russian language)	B 05 - B 06 Potential for Organ Donation	B 08 - B 09 Ethical and Religious Aspects of Organ Donation	A 04 ETCO-Workshop Communication Skills
10:00 - 10:30			Coffee Break			Coffee Break			Coffee Break		
10:30 - 12:00			C 01 Congress Opening Ceremony for the World Day of Organ Donation/European Day of Organ Donation			B 05 - B 06 Tissue Engineering	A 05 - A 06 Family Care	B 08 - B 09 Commercialism in Organ Donation	B 05 - B 06 Living Donation	B 08 - B 09 Extended Criteria Donor	
12:00 - 12:30											
12:30 - 13:00			Lunch			Lunch	Poster Presentations (12:40 - 13:20)	Lunch	Lunch	Poster Presentations (12:40 - 13:20)	
13:00 - 13:30			A 03 Machine Preservation Workshop					A 04 Workshop Improving Organ Donation in Eastern European Countries and Russia (in Russian language)			
13:30 - 15:00				B 05 - B 06 Donor Management	B 08 - B 09 Surgical Aspects of Organ and Tissue Procurement	B 08 - B 09 DCD Medical Aspects and Outcome	B 05 - B 06 Transplantation of Composite Tissue		B 05 - B 06 Organ Donation and the Media		A 04 ETCO-Workshop Donor Treatment
15:00 - 15:30	In front of the Brandenburg Gate Celebration of the World Day of Organ Donation/ European Day of Organ Donation	Registration desk open at congress venue (bcc Berlin)									
15:30 - 16:00				Coffee Break		Coffee Break			Coffee Break		
16:00 - 16:30				B 05 - B 06 EU Perspectives	B 08 - B 09 DCD Ethical and Legal Aspects	B 05 - B 06 Donor Safety	B 08 - B 09 Transplant Tourism		C 01 25th DSO Anniversary Celebration (in German language)		
16:30 - 18:00											
18:00 - 18:30			A 05 - A 06 ETCO-Genzyme Symposium „(Non-) immunologic factors" in Organ Donation		Poster Presentations (18:15 - 19:30)	B 05 - B 06 General Assembly ISODP	B 08 - B 09 General Assembly ETCO				
18:30 - 19:00											
19:00 - 19:30						C 01 Evening Dinner We are looking forward to seeing you in the cupola-hall for a delightful evening. After a day of scientific discussion we would like to spend an evening with music, good food and inspired conversation with you.					
19:30 - 20:00			B 05 - B 06 Film Presentation: „Heart of Jenin"								
20:00											

Lecture Rooms | Floor A · A 03, A 04, A 05 - A 06 | Floor B · B 05 - B 06, B 08 - B 09 | Floor C · C 01

Exhibition Plan

Exhibition Floor A/Catering

Floor A

08
Bundeszentrale
für gesundheitliche Aufklärung
Ostmerheimer Straße 220
D – 51109 Köln

06
Carinopharm GmbH
Rochusstraße 175-177
D – 53123 Bonn

05
Deutsche Gesellschaft
für Nephrologie
Seumestraße 8
D – 10245 Berlin

05
Deutsche Nierenstiftung
Grafenstraße 9
D – 64283 Darmstadt

01
Dr. F. Köhler Chemie GmbH
Neue Bergstraße 3-7
D – 64665 Alsbach

13
IGL – INSTITUT GEORGES LOPEZ
Parc de Crécy – 1
rue Claude Chappe
F – 69370 St Didier au Mont d'Or

07
Kuratorium für Dialyse und
Nierentransplantation e. V.
Martin-Behaim-Straße 20
D – 63263 Neu-Isenburg

10
Lebertransplantierte
Deutschland e. V.
Maiblumenstraße 12
D – 74626 Bretzfeld

14
Medco AS
Markveien 17
N – 1532 Moss

09
Pabst Science Publishers
Eichengrund 28
D – 49525 Lengerich

12
Sapient GmbH
Kellerstraße 27
D – 81667 München

04
TEVA Deutschland – GRY-Pharma
GmbH
Waldecker Straße 11
D – 64546 Mörfelden-Walldorf

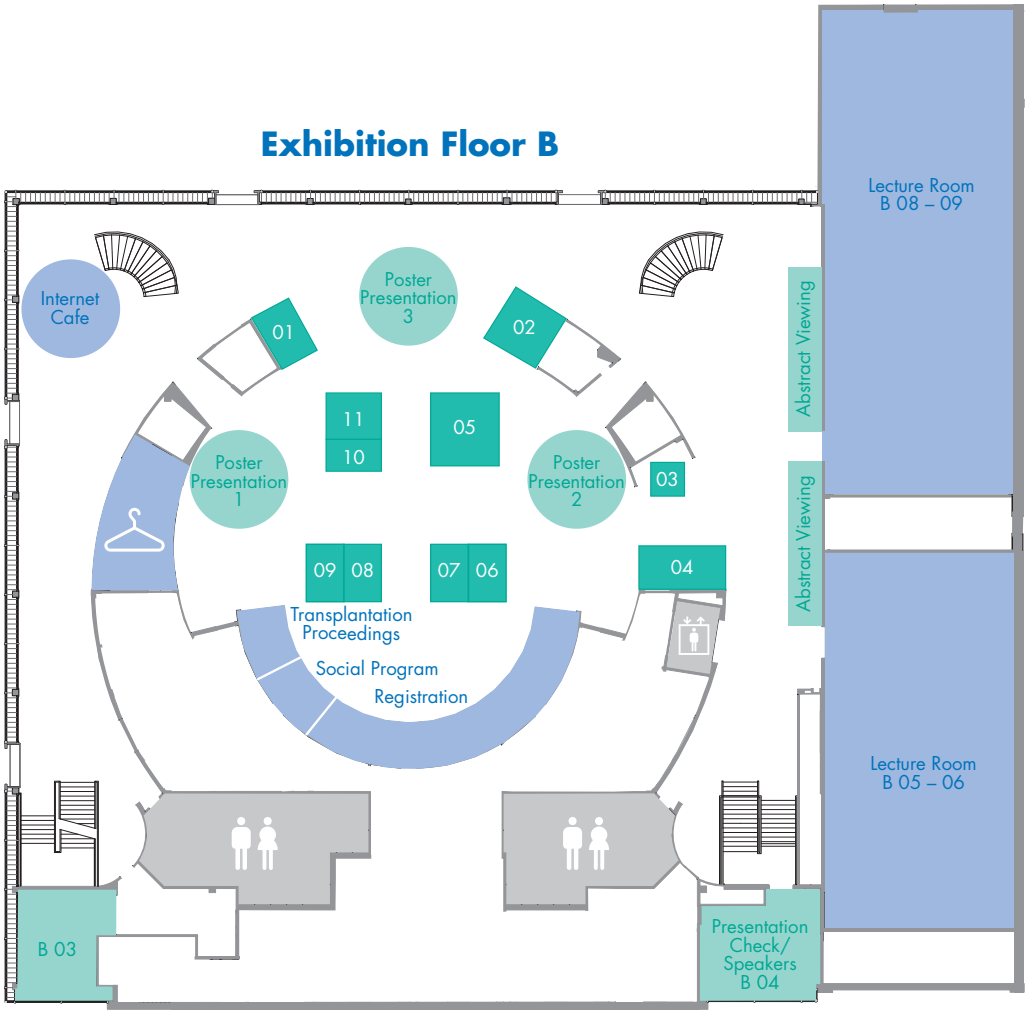
15
TransMedics
200 Minuteman Road, Suite 302
USA – 01810 Andover, MA

03
Transplant Connect
3250 Ocean Park Boulevard,
Suite 204
USA – 90405 Santa Monica, CA

02
Transplant Procurement Manage-
ment
Ciutat de Granada, 131
E – 08018 Barcelona

11
XVIVO Perfusion AB
Box 9080
S – SE-400 92 Göteborg

Exhibition Floor B



Floor B

10
Astellas Pharma Ltd
Lovett House, Lovett Road
GB – TW18 3AZ Staines

06
Deutsche Stiftung
Organtransplantation
– Gemeinnützige Stiftung
Deutschherrnufer 52
D – 60594 Frankfurt/Main

07
Stiftung „FÜRS LEBEN"
c/o Deutsche Stiftung
Organtransplantation
Deutschherrnufer 52
D – 60594 Frankfurt/Main

11
EDQM – Council of Europe
7 allée Kastner, CS 30026
F – 67081 Strasbourg

08
European Transplant
Coordinators Organization
Carrer Joan Maragall, 12
E – 08360 Canet de Mar

01
Fresenius Biotech GmbH
Am Haag 6+7
D – 82166 Gräfelfing

02
Genzyme
Gooimeer 10
NL – 1411 DD Naarden

04
ISODP – International Society
for Organ Donation
and Procurement
The Transplantation Society
1255 University Street,
Suite 325
CDN – H3B 3B4 Montreal, QC

05
Organ Recovery Systems
2570 E. Devon Ave
USA –60018 Des Plaines

03
Roche Pharma AG
Emil-Barell-Straße 1
D – 79630 Grenzach-Wyhlen

09
Hôpitaux Universitaires de
Genève (HUG)
Rue Gabrielle-Perret-Gentil 4
CH – 1211 Genève 14

General Information

Congress Registration

We encourage all participants to visit the registration desk to pick up their name badges prior to the Opening Ceremony. On-site registration is possible, registration fees must be (immediately) paid on site, an invoice is not possible.

Name Badges:

All participants will receive a name badge upon registration. This badge is the official pass and must be worn to obtain access to all congress sessions and associated activities.

The Congress Registration Desk is located in the central area of Floor B (on Ground Level). Opening Times:

Sunday	4 October	15:00 – 18:00
Monday	5 October	8:00 – 19:00
Tuesday	6 October	8:00 – 18:00
Wednesday	7 October	8:00 – 16:00

Speakers' Room/ Presentation Check

The Speakers' Room with the option for presentation check is located on Floor B in room B04. Opening hours are as follows:

Sunday	4 October	15:00 – 18:00
Monday	5 October	7:30 – 18:00
Tuesday	6 October	7:30 – 18:00
Wednesday	7 October	7:30 – 16:00

Social Program

Get to know Berlin!

Experience Berlin's lively cultural scene with three opera houses, numerous museums and theatres of outstanding importance worldwide. At the Social Program Desk you will get information about different options and can sign up for a guided tour on Tuesday, 6 October.

The Social Program Desk is located next to the Congress Registration Desk in the central area of Floor B (on Ground Level).

Accreditation

Physicians:

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of The Transplantation Society (TTS), the International Society for Organ Donation and Procurement (ISODP) and the European Transplant Coordinators Organization (ETCO). TTS is accredited by the ACCME to provide continuing medical education for physicians.

AMA PRA Statement:

TTS designates this educational activity for a maximum of 24.00 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Certificate of Attendance:

After the congress, you need to fill out a questionnaire and after this you will receive your Certificate of Attendance with the according number of CME points. A link to the questionnaire can be found on the website www.isodp2009.org after the congress.

Abstracts:

The congress program includes the abstracts of all oral presentations. These abstracts as well as all poster abstracts are available on CD. The CD can be collected at the Genzyme exhibition stand No. 2 on Floor B.

TTS Travel Grant:

The Scientific Committee has chosen high quality abstracts that were awarded with the TTS Travel Grant. Find these outstanding abstracts when you see the icon ✈.

Lunches and Coffee Breaks:

Lunches and coffee breaks are included in the registration fees. Presentation of your badge will be required to access the lunch areas. Refreshments will be served in the exhibition area.

Internet Cafe:

Internet Cafe will be available in the internet cafe on Floor B next to the entrance, close to the stairway.

Smoking Policy:

Smoking is prohibited in all areas of Berlin Congress Center bcc.

Congress Program

Program changes

The Organizers cannot assume responsibility for any change in the program due to external or unforeseen circumstances.

Sunday, 4 October 2009

08:00 – 16:00 **Langenbeck-Virchow**

Stand-Alone Symposium Novartis

This symposium is only for participants with a pre-congress registration. There are 150 seats available. Please note: Due to the Law on Advertising in the Health Care System in Germany, the participation is reserved for doctors and pharmacists only.

15:00 – 18:00

Registration desk open at congress venue (bcc Berlin)

15:00 – 20:00 **In front of the Brandenburg Gate**

Celebration of the World Day of Organ Donation/European Day of Organ Donation

Monday, 5 October 2009

08:00 – 10:00 **C 01**

Organ Donation in the World

Chairman
Rafael Matesanz, Madrid
Howard Nathan, Philadelphia

Key Note

08:00 **Introduction ISODP**
Howard Nathan, Philadelphia

08:15 **Introduction ETCO**
Rui Maio, Lisbon

08:30 **Statement of a patient representative**
Sarah-Angelina Gross, Flensburg

08:35 **Ethics In Organ Donation And Transplantation**
Nadey S. Hakim, London

08:55 **A Donor's Perspective**
Tom Falsey, Shawnee

09:15 **We Can Do It!**
Liz Schick, Geneva

„Pass the baton on" –
World Day and European Day of Organ Donation

09:35 **The European and World Days of Organ Donation and Transplantation**
Philippe Morel, Geneva

08:00 – 10:00 **A 04**

Symposium Köhler Chemie: „Improved Organ Protection"

Chairman
Nils R. Frühauf, Hannover
Herbert de Groot, Essen

Statements

Transplanting Infections: Donors, Fluids, and Pumps
Camille N. Kotton, Boston

Molecular Mechanisms Of Preservation Injury And Development Of The Vascular Preservation Solution Tiprotec
Ursula Rauen, Essen

Improved Vessel Protection After Cold Storage: Clinical Potential Of The New Storage Solution Tiprotec
Andreas Deußen, Dresden

Machine Preservation Trial In Kidney Transplantation: Results Of A Prospective Randomised Clinical Study Comparing Post-Transplant Outcome After Hypothermic Machine Perfusion vs. Simple Cold Storage
Andreas Paul, Essen

Donor Preconditioning: A „must" For Optimal Protection Of Liver Grafts?
Peter Schemmer, Heidelberg

10:00 – 10:30 Coffee Break

Monday, 5 October 2009

10:30 – 12:30 **C 01**

Congress Opening
Ceremony for the World Day of Organ Donation/European Day of Organ Donation

Congress opening will be celebrated in conjunction with the ceremony of the World Day of Organ Donation and the European Day of Organ Donation.

Introduction
Günter Kirste, Congress President, Germany

„Heart of Jenin"

Children's Choir

Statement
Marita Donauer, Donor Relative

Video Message
Ulla Schmidt, Minister of Health, Germany

Statement
Katrin Lompscher, Senate for Health, Environment and Consumer Protection, Berlin/Germany

Children's Choir

Statements
Luc Noel, Coordinator „Clinical Procedures", World Health Organization (WHO), Geneva

Susanne Keitel, Director of the European Directorate for the Quality of Medicine & HealthCare, Council of Europe, Strasbourg/France

Peter Liese, Member of the Committee on Environment, Public Health and Food Safety, European Parliament, Brussels

Transplantation Transforms
Jeremy Chapman, President TTS, Australia

Children's Choir

12:30 – 13:30 Lunch

13:00 – 18:00 **A 03**

Machine Preservation Workshop

Limited to 28 participants – pre-registration is required! Please see the registration desk for more information and available seats.

13:00 **Review of organ perfusion in kidneys, hearts and lungs**
Stefan Tullius, Boston

13:20 **Overview of results of the Machine Preservation Trial comparing machine preservation to cold storage in kidney transplantation in collaboration with Eurotransplant**
Andreas Paul, Essen

13:40 **Practical use of the OCS for hearts**
Christoph Knosalla, Berlin

14:00 **Practical use of the OCS for lungs**
Andre Simon, Hannover

14:30 Coffee Break

15:00 **Practical sessions on LifePort Kidney Transporter, OCS for hearts, and OCS for lungs**
In groups of 6 participants max. you will have 30 minutes at each station, machine preservation devices will be explained and demonstrated by company representatives. This will include set-up, operation and trouble shooting in a wet lab environment.

This preservation workshop is sponsored by Organ Recovery Systems.

Monday, 5 October 2009

13:30 – 15:30 **B 05 – B 06**

Donor Management

Chairman
Thomas Breidenbach, Mainz
Hakan Gabel, Stockholm

Key Note

13:30 **Protective Strategies For Optimizing Organs For Transplantation**
Rui Maio, Lisbon

13:50 **From ICU Care To Donor Care**
Julien Charpentier, Paris

Oral Presentations

14:10 **Electronic Offering System, Using Technology To Facilitate Organ Donation And Maximise Organ Usage (#1)**
Steve Bell, Wakefield

14:20 **Functional Improvement Between Brain Death Declaration And Organ Harvesting (#2)**
Ioana Grigoras, Iasi

14:30 **Attaining Specific Donor Management Goals Increases Organs Transplanted Per Donor (#3)**
Michael Hagan, Ann Arbor

14:40 **Managing The Potentially Brainstem Dead Patients: Translating Research Evidence Into Clinical Practice At A Major London Teaching Hospital (#4)**
Alla Belhaj, London

14:50 **Methylprednisolone Infusion Decreases Plasma Interleukin-6 (IL-6) After Brain Death And Impacts Organs Transplanted Per Organ Donor (OTPD) (#5)**
Mudit Mathur, Loma Linda

15:00 **Effects Of Methylprednisolone Administration On Hemodynamics, Catecholamine Requirement And Proinflammatory Cytokines In Brain-Dead Organ Donors (#6)**
Onur Kücük, Berlin

15:10 **Rehabilitation of ischemically damaged kidneys by normothermic extra corporal perfusion with leucocytes depletion – First experience (#7)**
Oleg N. Reznik, Saint Petersburg

15:20 **Japanese Strategies For Maximizing Heart And Lung Donor Availabilities (#8)**
Norihide Fukushima, Suita

13:30 – 15:30 **B 08 – B 09**

Surgical Aspects of Organ and Tissue Procurement

Chairman
Peter Neuhaus, Berlin
Shiro Takahara, Key Note

Key Note

13:30 **Concepts To Improve Donor Organ Quality**
Johann Pratschke, Berlin

13:50 **The Dilemma Of Supply And Demand: Consequences Of Organ Quality And Ways To Improve Transplant Outcome**
Stefan Tullius, Boston

Oral Presentations

14:10 **Semiquantitative Evaluation Of The Degree Of Steatosis In Donor Allografts In Orthotopic Liver Transplantation – A Reliability Study (#9)**
Stefan Biesterfeld, Mainz

14:20 **Objectification Of Organ Quality During Postmortal Liver Donation – Liver Histology vs. Clinical Evaluation (#10)**
Heike Basse, Hannover

14:30 **The Split Liver Technique: The Role In A Pediatric Liver Transplant (#11)**
Sabrina Egman, Palermo

14:40 **Inducing Of Immunotolerance By Infusing B7-2 Mab And Cd4+cd25+ Regulatory T Cells On Rat Cardiac Allografts (#12)**
Zhenya Shen, Suzhou

14:50 **Kidney Perfusate Fluid As A New Assessment Tool For Kidney Quality? (#13)**
Marek Nowicki, Los Angeles

15:00 **Validation Of Existing Transport Systems Of Abdominal Organs – Analysis Of Thermal Characteristics Of Different Transportation Boxes Under Simulated Conditions (#14)**
Frank Polster, Berlin

15:10 **Evaluation Of The Influence Of Donor- And Explantation-Specific Criteria On The Success Of SPK Transplantation – Experiences From 433 SPK Transplantations (#15)**
Helmut P. Arbogast, Munich

15:20 **Does A Separate Retrieval Of Small Bowel And Pancreas In The Same Donor Compromise The Results Of Pancreas Transplantation? (#16)**
Carl-Ludwig Fischer-Fröhlich, Stuttgart

15:30 – 16:00 Coffee Break

Monday, 5 October 2009

16:00 – 18:00 **B 05 – B 06**

European Perspectives

Chairman
Patricia Brunko, Brussels
Susanne Keitel, Strasbourg

Key Note

16:00 **Overview of EU Initiatives in the field of Organ Donation and Transplantation**
Patricia Brunko, Brussels

16:20 **Individual doctors decisions versus regulations and directives**
Ferdinand Mühlbacher, Vienna

16:40 **The role of the expert committee of the EDQM for development of Transplantation in Europe**
Bernard Loty, Paris & Per Pfeffer, Oslo

17:00 **Kidney Allocation In The US: Reasons For A Change**
Timothy L. Pruett, Charlottesville

17:20 **The benefits and challenges of an International cooperation in organ allocation and transplantation**
Axel Rahmel, Leiden

Oral Presentations

17:40 **The Presumed Consent For Organ Donation: Is Romania Prepared For It? (#17)**
Ioana Grigoras, Iasi

17:50 **European Donation Day Influences On Public Awareness (#18)**
Danica Avsec, Ljubljana

18:00 – 19:30 **A 05 – A 06**

ETCO/Genzyme Symposium „(Non)-immunologic factors" in organ donation

Introduction
Stefan Tullius, Boston

Innate Allo-Immunity In Organ Donation
Walter G. Land, Taufkirchen-München

Strategies To Reduce The Initial Injury
Rui Maio, Lisbon4

Future Options: Immunomodulation Of Brain Death
Johann Pratschke, Berlin

Summary
Stefan Tullius, Boston

16:00 – 18:00 **B 08 – B 09**

DCD Ethical and Legal Aspects

Chairman
Ulrich Frei, Berlin
Susan Gunderson, St. Paul

Key Note

16:00 **DCD Revisited In View Of Ethical Aspects**
Gauke Kootstra, Maastricht

16:20 **Legislating Circulatory-Respiratory Standards For Death**
Alexander M. Capron, Los Angeles

16:40 **Current Challenges To Defining Death**
Francis Delmonico, Boston

17:00 **Ethical considerations in Non-heart-beating Donors – The German point of view**
Eckhard Nagel, Bayreuth

Oral Presentations

17:20 **Non Heart Beating Donors – How Long Should We Wait For Asystole After Withdrawal Of Treatment? (#19)**
Justin Morgan, Bristol

17:30 **Starting NHBD Maastricht Class II In Italy: Preliminary Results (#20)**
Massimo Abelli, Pavia

17:40 **Donation After Cardiac Death In Italy (#21)**
Paolo Bruzzone, Rome

17:50 **Development Of A National Protocol For Donation After Cardiac Death (DCD) In Australia (#22)**
✈ Gerry O'Callaghan, Canberra

18:15 – 19:30

Poster Presentations (see page 34-36)

Poster Presentations are planned with 4 minutes presentation and 2 minutes discussion each. Posters for the discussion are to be selected by the chairman.

19:30 **B 05 – B 06**

Film Presentation: „Heart of Jenin"

✈ awarded with TTS Travel Grant

Tuesday, 6 October 2009

08:00 – 10:00 **B 05 – B 06**

Initiatives to Improve Organ Donation

Chairman
Rui Maio, Lisbon
Beatriz Domínguez-Gil, Madrid

Key Note

08:00 **Plan Donation-40 In Spain: Benchmarking In Organ Donation**
Rafael Matesanz, Madrid

08:20 **Improving Organ Donation Nationally And Locally**
Hans Sollinger, Madison

Oral Presentations

08:40 **Estimating The Potential Of Deceased Organ Donation: Results Of A European Pilot Study (#23)**
Beatriz Domínguez-Gil, Madrid

08:50 **A Targeted Collaborative Approach Increases Organ Donation Rates Within A Major Metropolitan Australian Hospital (#24)**
Elizabeth Treasure, Parkville

09:00 **Attitudes Regarding Organ Donation After Cardiac Death Versus Brain Death Among The American Public (#25)**
Michael Volk, Ann Arbor

09:10 **Deceased Organ Donors In Saudi Arabia: The Potential vs. The Possible (#26)**
Besher Al-Attar, Riyadh

09:20 **Perspectives From Parents/Guardians About Organ Donation Of Critically Ill Children (#27)**
Thomas Nakagawa, Winston-Salem

09:30 **Ethnic/Race Differences In Preferences For Disclosure Of Organ Donation Intentions In The United States (#28)**
✈ Tanjala S. Purnell, Baltimore

09:40 **Attitude Of The Tunisian Toward Organ Donation (#29)**
Mohamed Salah Ben Ammar, La Marsa

09:50 **Chronic Shortage Of Kidneys For Transplantation In The United States: Is There Any Solution? (#30)**
Yong Cho, Los Angeles

08:00 – 10:00 **B 08 – B 09**

Economical Aspects of Organ Donation

Chairman
Johann Hauss, Leipzig
Tom Mone, Los Angeles

Key Note

08:00 **Organ Donation In Times Of Financial Constrains**
Howard Nathan, Philadelphia

08:20 **Financial Background Of Reimbursement In Organ Donation From A German Perspective**
Thomas Beck, Frankfurt/Main

08:40 **How Good Leadership Can Keep Organ Donation Moving**
Susan Gunderson, St. Paul

Oral Presentations

09:00 **Is Reassessing Transplantability Of Kidneys That Are Declined By External OPO's Financially Viable? (#31)**
Yuriy Yushkov, New York

09:10 **Kidney Allocation: US Challenges And Direction (#32)**
Timothy L. Pruett, Charlottesville

09:20 **Liver Alone Donors, A Useful, But Expensive, Source Of Liver Grafts (#33)**
Jeffrey Punch, Ann Arbor

09:30 **Web Based National Transplant Database & Application: A Complete Software Solution For Organs, Cells And Tissues (#34)**
Roman Benedek, Bratislava

09:40 **New Ways Of Analysis Of Efficacy And Efficiency In Organ Procurement Programs: Analysis In A Cohort Of 1511 Potential Donors (#35)**
José María Domínguez Roldán, Sevilla

09:50 **Deceased Organ Donation Rates Are Inversely Related To Median Household Income In The United States (#36)**
✈ Caren Rose, Vancouver

✈ awarded with TTS Travel Grant

08:00 – 12:00 **A 04**

Workshop
Improving Organ Donation in Eastern European Countries and Russia (in Russian language)

Special registration is required. Please see the registration desk for more information and available seats.

Welcoming Speech And Introduction
Claus Wesslau, Berlin

Status Quo: Organ Donation In Latvia
Sergej Trushkov, Riga

Status Quo: Organ Donation In The Region Saint Petersburg
Oleg N. Reznik, Saint Petersburg

Status Quo: Organ Donation In The Region Moscow
Marina Minina, Moscow

Status Quo: Organ Donation In Poland
Dariusz Patrzalek, Wroclaw

10:00 – 10:30 Coffee Break

10:30 – 12:30 **B 08 – B 09**

Commercialism in Organ Donation

Chairman
Roger Evans, Rochester
Bernard Cohen, Leiden

Key Note

10:30 **Paid Living Donor Kidney Transplantation: Follow-Up Studies**
Anwar Naqvi, Karachi

10:50 **Hurdles To Deceased Organ Donation In Asia**
Abdul Hasan Rizvi, Karachi

11:10 **Transplant Tourism: The Bad and The Ugly**
Anantharaman Vathsala, Singapore

Oral Presentations

11:30 **A Government Regulated Program For Non-Directed Living Unrelated Kidney Donation In The Philippines (#52)**
Romina Danguilan, Quezon City

11:40 **Is There Evidence Of Living Donor Transplant Commercialism In The United States? (#53)**
John Gill, Vancouver

11:50 **Economic Incentives For Organ Donation: A Slippery Slope Towards Organ Commercialism? (#54)**
Paolo Bruzzone, Rome

12:00 **High Morbidity And Mortality Of Patients Who Underwent Commercial Living Unrelated Renal Transplantation (#55)**
Saeed M.G Al-Ghamdi, Jeddah

12:10 **Profitability Of A Lung Uncontrolled Non Heart Beating Donors Program (#56)**
José Ramón Núñez Peña, Madrid

Tuesday, 6 October 2009

10:30 – 12:30 **B 05 – B 06**

Tissue Engineering

Chairman
Axel Haverich, Hannover
Naoshi Shinozaki, Ichikawa

Key Note

10:30 **Tissue Engineering From Human Donors**
Axel Haverich, Hannover

10:50 **Regenerative Medicine Approaches To Replacement Tissues And Organs**
Koudy Williams, Winston-Salem

Oral Presentations

11:10 **In Vivo Implantation Of A Functional Tissue-Engineered Stentless Pulmonary Valve (#37)**
Eva Maria Delmo Walter, Berlin

11:20 **Tissue Procurement System In Japan: The Role Of Tissue Bank In Medical Center For Translational Research Osaka University Hospital (#38)**
Hirotatsu Ohkawara, Suita, Osaka

11:30 **Establishment Of An Individual Human Cell Bank Consisting Of Umbilical Cord Cells: GMP Conditions For The Tissue Engineering Of Heart Valves (#39)**
Cora Lueders, Berlin

11:40 **European Homograft Bank (EHB): 20 Years Of Cardiovascular Tissue Banking And Collaboration With The Transplant Coordination In Europe (#40)**
Ramadan Jashari, Brussels

11:50 **Organ Donation Registers: Utility In An Australian Tissue Bank And A Review Of The Literature (#41)**
Nicholas Nuttall, Woolloongabba, Brisbane

12:00 **Improved Tissue Donor Consent Rates Obtained When Family Is Approached In The Emergency Department (#42)**
John Abrams, Philadelphia

12:10 **Hepatocyte Isolation From Livers Not Suitable For Whole Organ Transplantion And First Clinical Series Of Hepatocyte Transplantation (#43)**
Maria Paula Gómez, Barcelona

12:20 **The Long-Term Surviving In Vivo Autologus Hepatocytes On 3D Matrixes As A Path Of Building Of A Hybrid Liver (#44)**
Murat Shagidulin, Moscow

✈ awarded with TTS Travel Grant

10:30 – 12:30 **A 05 – A 06**

Family Care

Chairman
Detlef Bösebeck, Munich
Maria Stadtler, Los Angeles

Key Note

10:30 **Donor Families Perceptions Of The Care And Service Provided By Health Professionals – Before, During And After Donation: Evaluation Using A Longitudinal National Study**
Tina Coco, Brisbane

10:50 **Deceased Organ Donation And The Family System: What Have We Learned?**
James R. Rodrigue, Boston

Oral Presentations

11:10 **The Power Of Appreciation: A Thank You Letter To Validate Donor Families' Decision And Encourage Them To Inspire Others (#45)**
✈ Anne-Bärbel Blaes-Eise, Homburg/Saar

11:20 **Donor Families As An Invaluable And Untapped Resource To Improve The Donation Process And Consent Rates In Germany (#46)**
Marita Donauer, Kindsbach

11:30 **Mourning And Adaptation To Loss Of Parents Who Donated Their Children's Organs And Tissues (#47)**
Tamar Ashkenazi, Ramat Gan

11:40 **Technical, Interpersonal And Critical Thinking Competency Assessment: A Systemic Approach (#48)**
Sabrina Egman, Palermo

11:50 **How Do Grieving Parents React To The Request For Organ Donation From Their Deceased Child? (#49)**
Sabine Moos, Marburg-Cappel

12:00 **Donor Family Care In DSO, Region East (#50)**
Ingeborg Stöhr, Leipzig

12:10 **European Children Heart Waiting List – ECHL (#51)**
Dagmar Vernet, Bern

12:30 – 13:30 Lunch

12:40 – 13:20

Poster Presentations (see page 37-39)

Poster Presentations are planned with 4 minutes presentation and 2 minutes discussion each. Posters for the discussion are to be selected by the chairman.

13:00 – 18:00 **A 04**

Workshop
Improving Organ Donation in Eastern European Countries and Russia (in Russian language)

Special registration is required. Please see the registration desk for more information and available seats.

Introduction
Claus Wesslau, Berlin

Possibilities And Methods To Increase Organ Donations – Experiences In Latvia
Sergej Trushkov, Riga

Possibilities And Methods To Increase Organ Donations – Experiences In The Region Saint Petersburg
Oleg N. Reznik, Saint Petersburg

Possibilities And Methods To Increase Organ Donations – Experiences In The Region Moscow
Sergey Gotye, Moscow

Possibilities And Methods To Increase Organ Donations – Experiences In Poland
Dariusz Patrzalek, Wroclaw

Tuesday, 6 October 2009

13:30 – 15:30 **B 08 – B 09**

DCD Medical Aspects and Outcome

Chairman
Valter Duro Garcia, Porto Alegre
Kevin O'Connor, Newton

Key Note

13:30 **Determining Death In DCD**
James Bernat, Lebanon

13:50 **Uncontrolled Program: How And Why**
José Ramón Núñez Peña, Madrid

14:10 **DCD: Optimizing utilization and immunosuppression**
Christian Denecke, Berlin

Oral Presentations

14:30 **Over 1,000 DCD Organs Transplanted In 14 Years: An Effective OPO DCD Program Increases The Donor Pool (#57)**
Howard Nathan, Philadelphia

14:40 **Deceased After Cardiac Death Donation In Austria: Experience Gained In 25 Years (#58)**
Ivan Kristo, Vienna

14:50 **Extracorporeal Support In Donors After Cardiac Death (E-DCD): Effects Of Aortic Occlusion And Room Temperature Perfusion (#59)**
Alvaro Rojas, Ann Arbor

15:00 **Lung Transplantation Using Controlled Donation After Cardiac Death Donor Lungs Results In Excellent Early & Intermediate Outcomes (#60)**
Bronwyn Levvey, Melbourne

15:10 **The Outcome Of Renal Transplants Engrafting Kidneys From 250 DCD Donors – The Experience At A Single Center (#61)**
Kiyotaka Hoshinaga, Toyoake

15:20 **Resuscitating The Deceased Donor Program (ddp): A Continual Quality Improvement Project (#62)**
✈ Nisan Manauis, Quezon City

13:30 – 15:30 **B 05 – B 06**

Transplantation of Composite Tissue

Chairman
Zhonghua Klaus Chen, Wuhan
Axel Haverich, Hannover

Key Note

13:30 **Composite Tissue Allotransplantation – The Future Is Now**
Stefan Schneeberger, Innsbruck

13:50 **First Bilateral Upper Arm Transplantation – one year follow up –**
Christoph Höhnke, Munich

14:10 **The Louisville Experience – New Challenges In CTA**
Warren C. Breidenbach III, Louisville

Oral Presentations Donor Management

14:30 **Intensivist-Led Management Of Organ Donors Increases Organ Yield (#63)**
Kai Singbartl, Pittsburgh

14:40 **Benchmarking To Improve The Management Of Possible Donors Inside The Critical Care Units (#64)**
Beatriz Domínguez-Gil, Madrid

14:50 **The Potential Impact Of In-Situ Assessment And Ex-Vivo Optimization Of Allografts In Lung Transplantation (#65)**
Christopher Wigfield, Maywood, Chicago

15:00 **Ventilation During Controlled Perfusion With Cooled Protective Solution In Case Of Non-Heart-Beating Donor (NHBD) Influences The Organ Function Negatively (#66)**
Andreas Kirschbaum, Freiburg

15:10 **The Introduction Of A Standardised Donor Treatment Protocol Has Improved Organ Function And The Number Of Organs Transplanted (#67)**
Andrew Broderick, Plymouth

15:20 **Faith Leaders United In Their Support For Organ Donation – Findings From The Organ Donation Taskforce's Study Of Attitudes Of UK Faith Leaders (#68)**
Gurch Randhawa, Luton

15:30 – 16:00 Coffee Break

✈ awarded with TTS Travel Grant

16:00 – 18:00 **B 05 – B 06**

Donor Safety

Chairman
Anwar Naqvi, Karachi
Dariusz Patrzalek, Wroclaw

Key Note

16:00 **Donor-Derived Disease Transmissions: Lessons Learned By The OPTN/UNOS Disease Transmission Advisory Committee**
Michael G. Ison, Chicago

16:20 **Strategies, Benefits And Drawbacks Of HIV NAT (PCR) Testing For The Improvement Of Donor Safety**
Albert Heim, Hannover

16:40 **Rare Diseases In Organ Donors: Strategy For Detection**
Carl-Ludwig Fischer-Fröhlich, Stuttgart

Oral Presentations

17:00 **Casuistics Of Two Methanol Intoxicated Donors – Follow Up Of Organs (#69)**
Thorsten Doede, Hamburg

17:10 **Possible Errors In HBV And HCV Testing Due To Fluid Disorders In Deceased Organ Donors (#70)**
Jaroslaw Czerwinski, Warsaw

17:20 **Malignant Tumors In Organ Donors – Contraindication Or „Better Than Dying On The Waiting List"? (#71)**
Kerstin Moench, Mainz

17:30 **Assessment Of Tumor Transmission Risk In Organ Donors With Active Or Historical Malignancy (#72)**
Michael A. Nalesnik, Pittsburgh

17:40 **Fatal Donation Outcomes: Emerging Infectious Agent Transmission Through Organ Donation (#73)**
✈ Violet Marion, Carlton

17:50 **Increased Threat Of Vector-Borne Infections Among Organ And Tissue Donors In Western United States (#74)**
Marek Nowicki, Los Angeles

16:00 – 18:00 **B 08 – B 09**

Transplant Tourism

Chairman
Martí Manyalich, Barcelona
Satoshi Teraoka, Tokyo

Key Note

16:00 **Current Realities**
Francis Delmonico, Boston

16:20 Efstathios Antoniou, Athens

16:40 **Transplant tourism, how can we stop it?**
Yves Vanrenterghem, Leuven

Oral Presentations

17:00 **Access Of Non Residents To Transplantation Medicine (#75)**
Daniela Norba, Frankfurt/Main

17:20 **Organ Scarcity, Restriction Of Non-Residents To European Transplant Wait Lists And The Prohibition Of Discrimination Under EU Law (#76)**
Frederike Ambagtsheer, Rotterdam

17:30 **Struggles Of A Deceased Donor Program In The Developing World: The Philippine Experience 2002-2008 (#77)**
✈ Nisan Manauis, Quezon City

17:40 **Promoting Organ Transplantation In India; Issues And Perspectives In The 21st Century (#78)**
NK Mohanty, New Delhi

18:00 – 19:00 **B 05 – B 06**

General Assembly ISODP

18:00 – 19:00 **B 08 – B 09**

General Assembly ETCO

20:00 **C 01**

Evening Dinner

We are looking forward to seeing you in the cupola-hall for a delightful evening. After a day of scientific discussion we would like to spend an evening with music, good food and inspired conversation with you.

✈ awarded with TTS Travel Grant

Wednesday, 7 October 2009

08:00 – 10:00 **B 05 – B 06**

Potential for Organ Donation

Chairman
Francis Delmonico, Boston
Luc Noel, Geneva

Key Note

08:00 **Potential Of Deceased Organ Donation: Overview Of The Current Situation And Knowledge**
Beatriz Domínguez-Gil, Madrid

08:20 **Setting Down International Standards To Estimate The Potential Of Deceased Organ Donation: The WHO, TTS And ONT Project**
Francis Delmonico, Boston

Applicability Of The Pre-Agreed Upon Methodology In Different Resource Environments

08:40 Elmi Muller, Cape Town

08:50 Faissal Shaheen, Riyadh

09:00 Marina Minina, Moscow

09:10 Vivekanand Jha, Chandigarh

Oral Presentations

09:20 **Regional Differences In Mortality Significantly Impact Organ Availability In The United States (#79)**
Kevin O'Connor, Newton

09:30 **Data On Organ Donation And Transplantation In Poland (#80)**
Jaroslaw Czerwinski, Warsaw

09:40 **Establishment Of Active Identification And Management System For Potential Brain Dead Donors In Single Region Of Korea (#81)**
✈ Hyun-Jin Kang, Seoul

09:50 **Countries' Donation Performances Are Associated With Critical Care Staff's Attitudes To Donation – Data From The Donor Action® Database (#82)**
Leo Roels, Linden

08:00 – 10:00 **B 08 – B 09**

Ethical and Religious Aspects of Organ Donation

Chairman
Alessandro Nanni Costa, Roma
Wojciech Rowinski, Warsaw

Key Note

08:00 **Views Towards Organ Donation In The Muslim World**
Mustafa Al-Mousawi, Kuwait

08:20 **The Impact Of The Social And Economical Factors On Live Organ Donation In Asia**
Marwan Masri, Beirut

08:40 **The ethics of organ donation from the point of view of the Catholic Church**
Jacques Suaudeau, Vatican City

09:00 **Specific Aspects Of Organ Donation In The Three-Religion Holy Land**
Gabriel M. Gurman, Beer Sheva

Oral Presentations

09:20 **The Ethics And Law Of Organ Donations From Prisoners (#83)**
David Matas, Winnipeg

09:30 **Directed Organ Donation After Death: Should Organ Donation After Death Always Be Unconditional? (#84)**
Mark Roberts, Cardiff

09:40 **Transplantation Ethics At The Cross Road: To What Extent Are We Allowed To Adjust Ethical Principles To The Needs? (#85)**
Wojciech Rowinski, Warsaw

✈ awarded with TTS Travel Grant

08:00 – 12:00 **A 04**

ETCO-Workshop Communication Skills

Special registration (extra charge) is required. Please see the registration desk for more information and available seats.

Introduction & Welcome To The Worksho
Tina Coco, Brisbane
Maria Stadtler, Los Angeles

Planning And Organising Research Projects
Maria Stadtler, Los Angeles

Guidance To Illustrate Abstract And/Or Scientific Publications
Maria Stadtler, Los Angeles

Practical Session – Application Of Research Tools
Maria Stadtler, Los Angeles

Presentation Performance – How To Improve Your PowerPoint Presentation
Tina Coco, Brisbane

Developing Practical Skills In Working With The Media
Tina Coco, Brisbane

Practical Session – Applying Skills In The Interview Situation
Tina Coco, Brisbane
Maria Stadtler, Los Angeles

10:00 – 10:30 Coffee Break

Wednesday, 7 October 2009

10:30 – 12:30 **B 05 – B 06**

Living Donation

Chairman
Andrew Broderick, Plymouth
Conrad Müller, Basel

Key Note

10:30 **The Promotion Of Living Donor Transplantation**
Gabriel Danovitch, Los Angeles

10:50 **Korean Experience Of Donor Kindey Exchange With Computerized Algorithm**
Dae Joong Kim, Seoul

11:10 **Living Donation To Shorten The Kidney Transplant Wait List**
Willem Weimar, Rotterdam

11:30 **Living donor liver transplantation – A delicate balance**
Burckhardt Ringe, Philadelphia

Oral Presentations

11:50 **Status Of Living Related Kidney Donors In Georgia (#86)**
Gia Tomadze, Tbilisi

12:00 **A Fast And Safe Living-Donor „Finger-Assisted" Nephrectomy Technique: Results Of 359 Cases (#87)**
Nadey S. Hakim, London

12:10 **Prediction Of The Ideal Post-Transplant Kidney Function For Living And Deceased Donor Organs (#88)**
Thomas Mueller, Edmonton

12:20 **Living Kidney Donation And Transplantation: Is It Time For A New Collaborative? (#89)**
James R. Rodrigue, Boston

10:30 – 12:30 **B 08 – B 09**

Extended Criteria Donor

Chairman
Axel Rahmel, Leiden
Nicholas L. Tilney, Boston

Key Note

10:30 **Transplant Survival Rates With Organs Obtained From Extended Criteria Donors**
Gerhard Opelz, Heidelberg

10:50 **Who Should Get A Marginal Kidney?**
Uwe Heemann, Munich

11:10 **The Current Shortage of Donor Kidneys is Neither Inevitable, Nor Unavoidable**
Alan Leichtman, Ann Arbor

11:30 **Does liver allocation via MELD-score serve patients needs?**
Peter Neuhaus, Berlin

Oral Presentations

11:50 **Kidney Donation And Transplantation In Eurotransplant 2006-2007: Minimizing Discard Rates By Using A Rescue Allocation Policy (#90)**
Jacqueline Smits, Leiden

12:00 **Using Extended Criteria Donor Liver Grafts To Expand The Liver Donor Pool: Results Of A Single Center (#91)**
Sandro Gelsomino, Palermo

12:10 **Liver Transplantation Using Deceased Donors Older Than 80 Years During The Meld Era In The United States: Is There Any Age Limit? (#92)**
Yong Cho, Los Angeles

12:20 **Deceased Donor Organ Transplantation With Expanded Criteria Donors (ECD) – A Single Center Experince From India (#93)**
✈ Kamal Goplani, Ahmedabad

12:30 – 13:30 Lunch

12:40 – 13:20

Poster Presentations (see page 40-42)

Poster Presentations are planned with 4 minutes presentation and 2 minutes discussion each. Posters for the discussion are to be selected by the chairman.

✈ awarded with TTS Travel Grant

13:30 – 16:00 **B 05 – B 06**

Organ Donation and the Media

Panel discussion with representatives from the media around the world giving an overview of how to deal with bad and good news as well as media influence on public opinion.

Chairman
Jeremy Chapman, Westmead
Tom Mone, Los Angeles

Key Note
Laurence Altman, New York
Bryan Stewart, Los Angeles
Jo Groebel, Berlin

Discussion
Elisabeth Pott, Cologne
Markus Vetter, Tübingen

Oral Presentations
Health Content Analysis Of Organ Donation And Transplantation News On Television Channels And In Turkish Print Media In Turkey (#94)
Meriç Yavuz, Ankara

Renal Transplant And Media In Saudi Arabia (#95)
Yaser Kattoah, Jeddah

Implementation Of Effective Driver's License Donor Registries Increases Donor Designations And Enhances Organ Donation (#96)
John Green, Philadelphia

13:30 – 18:00 **A 04**

ETCO-Workshop Donor Treatment

Special registration (extra charge) is required. Please see the registration desk for more information and available seats.

Workshop
Presentation Of The Workshop
Francesco Procaccio, Verona
Julien Charpentier, Paris
José María Domínguez Roldán, Sevilla

Relevance Of Donor Management In Transplant Programs
José María Domínguez Roldán, Sevilla

Pathophysiology Of Brain Death
Francesco Procaccio, Verona

Influence Of Brain Death On Organs
José María Domínguez Roldán, Sevilla

Monitoring Of Donors In Brain Dead
Julien Charpentier, Paris

Therapeutic Of Brain Dead Donors
Jose Maria Dominguez-Roldan, Sevilla
Francesco Procaccio, Verona
Julien Charpentier, Paris

Clinical Cases
José María Domínguez Roldán, Sevilla
Francesco Procaccio, Verona
Julien Charpentier, Paris

Final Remarks
José María Domínguez Roldán, Sevilla
Francesco Procaccio, Verona
Julien Charpentier, Paris

16:00 – 16:30 Coffee Break

Wednesday, 7 October 2009

16:30 – 18:30 **C 01**

25th DSO Anniversary Celebration (in German language)

The German organ procurement organisation DSO is celebrating its 25th anniversary on this very day. Keynote speakers will provide statements with their view of the improvement of organ donation in Germany.

Einführung
Günter Kirste, Frankfurt/Main

Organspende als Beispiel gelebter Solidarität
Christina Rau, Berlin

Increasing Organ Donation – What Can Be Done (in English)
Martí Manyalich, Barcelona

Die Bedeutung der Organspende für die Transplantationsmedizin
W. O. Bechstein, Frankfurt/Main

Perspektiven und rechtliche Fragen zum Transplantationsgesetz
Hans Lilje, Halle

Schlusswort
Thomas Beck, Frankfurt/Main

Poster Presentations

Monday, 5 October 2009 | 18:15 – 19:30

Donor Management 1

Chairman:
Levent Yucetin, Istanbul

Time Matters: Organ Procurement Organization (OPO) Allocation Protocol Re-Design Positively Impacts Cadaveric Renal Transplantation (#1001)
John Abrams, Philadelphia

Hydroxyfasudil Treatment Attenuates Cellular Infiltration In A Rat Model Of Renal Ischemia-Reperfusion Injury And Improves Kidney Function (#1002)
Dominik Kentrup, Münster

Donor Pharmacological Hemodynamic Support Is Associated With Primary Graft Failure In Human Heart Transplantation (#1003)
Gianluca Santise, Palermo

Maximising Donation: Identifying And Exploring Key Reasons That Medically Suitable Organs Are Declined For Solid Organ Transplantation (#1004)
Elizabeth Treasure, Carlton

Benchmarking To Improve The Management Of Possible Donors Outside The Critical Care Units (#1005)
Beatriz Domínguez-Gil, Madrid

Silencing The Expression Of MHC Class I Promotes The Survival Of Allogeneic Cells In An In Vivo Rat Model (#1006)
Constanca Figueiredo, Hannover

Use Of An Expedited Recovery Team To Ensure Organ Recovery In Donor Cases With Family Time Constraints Or Donor Instability (#1007)
Sheila Harms, Newton

Disturbance Level TSH And Thiroyd Hormone Of Patients With Brain Death (#1008)
Babaev Maxim, Moscow

N-Acetylcysteine Before Cerebral Angiography Improves Kidney Graft Function From Deceased Donors (#1009)
Juraj Miklusica, Martin

Surgical Aspects of Organ and Tissue Procurement/Economical Aspects of Organ Donation

Chairman:
Nils R. Frühauf, Hannover

Reducing Cold Ischaemic Time; Assessing The Effect Of Local And National Initiatives At A Single Renal Transplant Centre (#1010)
Martha E. Diane Evans, Bristol

Transjugular Intrahepatic Portosystemic Shunt (TIPS) Placement In Patients With Cirrhosis And Concomitant Portal Vein Thrombosis (#1011)
Giovanni Ferrandelli, Palermo

Effect Of Inducing Immunotolerance By Overexpression Of HO-1 On Cardiac Xenotransplantation (#1012)
Zhenya Shen, Suzhou

Evaluation Of The Quality Of Procured Livers In The DSO Middle Region In The Years 2005–2008 (#1013)
Monika Schmid, Mainz

Effect Of Intrathymic Inoculation Combined With Intravenous Injection With MSCs On Cardiac Xenotransplantation (#1014)
Zhenya Shen, Suzhou

First International Long Distance Intestinal Procurement Done For Another Centre (#1015)
Carl-Ludwig Fischer-Fröhlich, Stuttgart

Generic Cyclosporine A (CSA) Formulations Administration In Stable Renal Allograft Recipients In Developing Countries (#1016)
Igor Codreanu, Chisinau

The Transplant Coordinator: A Specialty To Be Officially Recognized (#1017)
Antoine Stephan, Beirut

Diffusion Of Organ Transplantation Technology And Health Technology Assessments (#1018)
Michael Stolpe, Kiel

Minority Organ Donation: The Power Of An Educated Community (#1019)
Clive Callender, Washington, DC

Initiatives to improve Organ Donation – Experiences throughout the world

Chairman: Susan Gunderson, St. Paul

Deceased Donation Programme In India – Its Tribulations, Trails And Triumphs (#1020)
Sunil Shroff, Chennai

Donation Activity In Catalonia: 2004 Vs. 2008, Which Was Better? (#1021)
Jorge Twose, Barcelona

Level Of Knowledge About An Organ Transplant Program Established In Chihuahua, Mexico, 30 Years Ago (#1022)
Aldo Javier Hernandez-Loya, Chihuahua

Determining The Attitudes And Beliefs Related To Organ Donation And Transplantation Of People From Different Religions Living In Turkey (#1023)
Meriç Yavuz, Ankara

Postmortem Organ Donation: An Experience (#1024)
Arti Vij, New Delhi

How To Improve Deceased Organ Donation Rate In Lebanon? (#1025)
Farida Younan, Beirut

Deceased Organ Donations Counseling – The Hyderabad Experience (#1026)
Raghuram Kuppuswamy, Hyderabad

Trends In Organ Donation And Transplantation In Russia: Analysis Of 2006-2008 National Registry Data (#1027)
Sergey Gotye, Moscow

Public Attitude And Consent For Organ Donation In Cape Town, South Africa (#1028)
Fiona McCurdie, Cape Town

Deceased Alert System (DAS): A New System For The Identification Of Organ And Tissue Donors Used In Apulia, A Southern Italian Region (#1029)
Vincenzo Malcangi, Bari

Transplant Coordination Activity: Single Center Experience (#1030)
Dan Adrian Luscalov, Cluj Napoca

Liver Donation And Transplantation In Saudi Arabia (#1031)
Besher Al-Attar, Riyadh

Heart Donation And Transplantation In Saudi Arabia (#1032)
Besher Al-Attar, Riyadh

Organ Donor Demographics And Utilization In Israel: 2004-2008 (#1033)
Jonathan Cohen, Petah Tikva

Donor Safety

Chairman:
Werner Lauchart, Stuttgart

NAT-Screening In CDC-High Risk Organ Donors Increases The Number Of Organs Transplanted: Report From The German DSO-Region Baden-Wuerttemberg (#1034)
Carl-Ludwig Fischer-Fröhlich, Stuttgart

Brain Autopsy In Donors With Suspected Malignancy (#1035)
Monika Weber, Stuttgart

Organ Donor With Unclear Primary Brain Tumor, A Contraindication For Transplantation? – Case Report Of A 1 Year Old Child (#1036)
Johannes Wilhelm Rey, Mainz

Long-Term Outcomes After Transplantation Using Kidneys From CDC Increased Risk Donors (#1037)
Joseph Roth, Springfield

Donor-Derived Disease Transmission Events In The United States 2006-2008: A Report From The OPTN Ad Hoc Disease Transmission Advisory Committee (DTAC) (#1038)
Michael G. Ison, Chicago

Quality Assurance Of The Donation Process – Results After 4 Years (#1039)
Öystein Jynge, Stockholm

Post-Transplant Nuclear Renal Scans Are Robust Measures Of Donor Organ Quality Correlating With Renal Injury Biomarkers And Early Allograft Outcomes (#1040)
Thomas Mueller, Edmonton

Hepatitis C Transmission From Drug Snorting – An Underestimated Risk???? (#1041)
Bettina Clark, Carlton

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Daniel Foltys, Mainz

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Ryohei Hattori, Nagoya

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Martí Manyalich, Barcelona

The Rate Of Organ And Tissue Donation After Brain Death – Causes Of Donation Failure In A Romanian University City (#1044)
Ioana Grigoras, Iasi

How To Increase The Rate Of Organ Donation In A Hospital In Japan? – Challenge From Zero – (#1045)
Yoshihiro Natori, Iizuka

How We Improve Kidney Transplantation In Tunisia? (#1046)
Farida Younan, Beirut

Hospital Development For Emergency Medicine And Transplantation (#1047)
Tatsuji Hirakawa, Urasoe

Potential Donor Audit In The Republic Of Ireland From September 1st 2007 To August 31st 2008 (#1048)
Freda O'Neill, Dublin

Trends In Deceased Organ Donation And Utilization In Korea: 2000-2009 (#1049)
Jongwon Ha, Seoul

Professional Experience Of Critical Care Staff Impacting On Comfort Levels With Donation Related Tasks (#2001)
Leo Roels, Linden

The Republic Of Croatia – National Transplantation Program Donor Rate Increase After Eurotransplant Membership (#1051)
Mirela Busic, Zagreb

Transplant Coordination In A University Hospital In Lisbon – Our Experience And Results (#2002)
Nuno Figueiredo, Lisbon

Implementation Of Minimum Notification Criteria Into An Acute Hospital Critical Care Unit (#1053)
Gregory Bleakley, Manchester

Donor Action Project: A Valuable Tool To Measure Quality And Efficacy Of The Donation Process In Emilia-Romagna (#2003)
Lorenza Ridolfi, Bologna

Potential For Organ Donation After Cardiac Death In A Neonatal Intensive Care Unit (#1055)
Mudit Mathur, Loma Linda

Living Donation – General Aspects

Chairman:
Dagmar Vernet, Bern

Converting Incompatible Directed Living Unrelated Kidney Donors Into Free Non-Directed Donors (#1050)
Hani Haider, Kuwait City

The Rotterdam Good Samaritan Kidney Donation Program (#2004)
Willij Zuidema, Rotterdam

The Dutch National Living Donor Kidney Exchange Program (#1052)
Marry de Klerk, Rotterdam

Long-Term Results Of Pediatric Living Donor Kidney Transplantation At The University Of Heidelberg (#2005)
Arianeb Mehrabi, Heidelberg

Creation And Validation Of A Living Donor Satisfaction Survey – Eulid Project (#1054)
Assumpta Ricart, Barcelona

The Role Of An Interdisciplinary Transplant Team On The Living Donation Kidney Transplantation Program (#2006)
Hamidreza Fonouni, Heidelberg

Does Cross-Over Transplantation Makes Any Difference In Donors Perception? (#1056)
Dan Adrian Luscalov, Cluj Napoca

So What Happened To The Kidney Donors Afterwards? (#1057)
Hani Haider, Kuwait City

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Donor Management 2

Chairman:
Stein Foss, Oslo

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Jie Li, Zhengzhou City

Logistics In Organ Transplantation – Opportunities And Limitations Of Logistics Optimization (#1059)
Marie Lingemann, Münster

Donor Care Specialised Nurses In Intensive Care Units, DCSN, Increased The Donation Rate In The Stockholm County (#1060)
Anna-Karin Morin, Danderyd

Amiodarone Pretreatment Of Organ Donors Exerts Anti-Oxidative Protection But Induces Excretory Dysfunction In Liver Preservation And Reperfusion (#1061)
Mohammed Moussavian, Homburg/Saar

A Stereotyped Transcriptome Response Reflects Heart And Kidney Failure (#1062)
Thomas Mueller, Edmonton

Terlipressin As Rescue Therapy In Catecholamine Resistant Hypotension In Solid Organ Donors (#1063)
Pietro Vecchiarelli, Viterbo

Deceased Donor Qualities And Kidney Transplantation Outcome In Saudi Arabia (#1064)
Besher Al-Attar, Riyadh

Timing In Organ Donation: Reanalysis Of Time Intervals After Implementation Of A New On-Line Documentary System (#1065)
Carl-Ludwig Fischer-Fröhlich, Stuttgart

Wisconsin Solution Minimizes Enzymes Release After Cold Ischemia In Ex Vivo Perfused Rat Liver (#1066)
Vincent Nuyens, Charleroi

New Insights In Liver Graft Preservation Using IGL-1 Solution (#1067)
Mohamed Amine Zaouali, Barcelona

Alternatives To Improve The Cadaveric Graft Quality (#1068)
Dan Adrian Luscalov, Cluj Napoca

The Anesthesiologist's Role In Organ Procurement: An Easily Accessible Reference Card (#1069)
Thomas Nakagawa, Winston-Salem

Initiatives to improve Organ Donation – Surveys

Chairman: Ulrike Wirges, Essen

Students' Attitudes Towards Organ Donation (#1070) | Jenny Prüfe, Cambridge

Attitudes And Feelings Of Intensive-Care Unit Doctors About Organ Donation Procedures (#1071)
Danica Avsec, Ljubljana

PIERDUB International Project On Education And Research In Donation At University Of Barcelona: Training University Students About Donation And Transplantation (#1072)
Martí Manyalich, Barcelona

Attitude Of Health Care Professionals To Organ Donation (#1073) | Gernot Kaiser, Essen

Educational System For Transplant Coordinators In Poland: Postgraduate Studies At Warsaw Medical University (#1074)
Jaroslaw Czerwinski, Warsaw

An International Collaborative Strategy To Increase Donor Activity: The First 2 Years Of The Seusa Program In Apulia (#1075) Gianluigi Zaza, Bari

A National Survey On Knowledge And Attitudes On Organ Donation In A Developing Country (#1076) | Romina Danguilan, Quezon City

Analysis Of Social Awareness Of Organ Donation In The Secondary School Population In Galicia (#1077)
Jacinto Sánchez Ibáñez, Santiago de Compostela

Fourth Year Of Activity Of „AL-MA": Donation And Transplantation Educational Program In Emilia-Romagna Region (#1078)
Lorenza Ridolfi, Bologna

IRODAT: The International Registry On Organ Donation And Transplantation (#1079)
Gloria Paez, Barcelona

Why People Refuse To Donate Organs (#1080)
Jekaterina Romanoviene, Vilnius

How Two-Day Information Effort Impacts Attitudes, Motivation And Knowledge In Organ Donation (#1081) | Öystein Jynge, Stockholm

End The Wait! Offers Comprehensive Solution To Kidney Transplant Waiting List In The U.S. (#1082) | Francis Delmonico, Boston

An Inter-Regional Initiative To Increase Organ Donation In Switzerland (#1083)
Claudia Heidegger, Geneva

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DCD Medical Aspects and Outcome

Chairman:
David Paredes Zapata, Barcelona

Referrals For Non-Heart Beating Donation From The Emergency Department: A Double Edged Sword? (#1084)
Elaine Clarke, Bristol

Prediction Of Asystole Following Treatment Withdrawal In Donation After Cardiac Death (DCD) (#1085)
James Harrison, Plymouth

One OPO's 13-Year Experience With Uncontrolled DCD Donation (#1086)
Howard Nathan, Philadelphia

Pulsatile Perfusion Machine Effect On Preservation And Evaluation Of NHBD Maastricht Class II Kidneys (#1087)
David Paredes Zapata, Barcelona

Lung Donation After Cardiac Death: Analysis Of 23 DCD Allografts Transplanted (#1088)
Christopher Wigfield, Maywood, Chicago

Machine Perfusion Preservation For Kidney Graft With A High Creatinine From Uncontrolled Donation After Cardiac Death (#1089)
Matsuno Naoto, Tokyo

Comparison Of Two Perfusion Methods In Controlled Non-Heartbeating Donors (#1090)
Tineke Wind, Maastricht

Approaches And Management Of Brain Death In Tunisia (#1091)
Mohamed Salah Ben Ammar, La Marsa

Withdrawal Of Therapeutic Efforts Can Be A Conditioning Factor For Deceased Organ Donation? (#1092)
David Paredes Zapata, Barcelona

The Role Of Neurosurgeon In Organ Donation And Transplantation (#1093)
Ono Hajime, Kawasaki

The Role Of CT-Angiography For Identification Of Intracranial Circulatoy Arrest In Brain Death (#1094)
Stefan Welschehold, Mainz

Potential for Organ Donation – Performance & Evaluation

Chairman:
Åsa Welin, Stockholm

Organ Donation Champion Training Increases Health Care Providers' Attitudes, Clinical Confidence And Information Sharing Among Colleagues (#1095)
Kathy Yandle, Philadelphia

The Donor Action[s] Diagnostic Review: A Unique Quality Assurance Tool With The Largest International Organ Donation Database Of Its Kind (#1096)
Leo Roels, Linden

Organ Donation In Infancy, Childhood And Adolescence In The Northern Region Of Germany (#1097)
Thorsten Doede, Hamburg

Quality Control Of The Donation Process In Galicia – Experience In The Last Three Years (#1098)
Jacinto Sánchez Ibáñez, Santiago de Compostela

Evaluation Of The Organ Donation Performance In 64 Hospitals In The Netherlands 2005-2008 (#1099)
Nichon Jansen, Leiden

Definition Of A (German) Donor Profile For Isolated Small Bowel And/Or Multi-Visceral Organ Transplantation (#1100)
Carl-Ludwig Fischer-Fröhlich, Stuttgart

Portuguese Model Of Organ Procurement And Transplant Coordination – Characteristics And Results (#1101)
Isa Santos, Lisbon

Swedish Organ Donation Optimized By New Organization Model – Donation Rate Increased By 36% (#1102)
Åsa Welin, Stockholm

Actual vs. Predicted Performance – Usefulness Of A Quality Assurance Program Of The Donation Process (#1103)
Alba Ribalta, Barcelona

Evaluations Of The Attitude Of The Personnel Working In Organ Transplantation And Dialysis Units To The Donations And Transfers Of Organs And Tissues (#1104)
Tugba Demir, Istanbul

Extended Criteria Donor 1

Chairman:
Thomas Breidenbach, Mainz

Influence Of Non-Immunological Factors In The Outcome Of ECD Kidneys (#1114)
Faissal Shaheen, Riyadh

159 Acute Renal Failure Deceased Donor Kidneys Transplanted: One Organ Procurement Organization's 15-Year Experience (#1115)
Christine Radolovic, Philadelphia

Transplantation Of Kidneys From Organ Donors Reactive For HCV-Antibodies (#2007)
Knut Michael Nowak, Essen

Impact Of Recipient And Donor Non-Immunological Factors On The Outcome Of Expanded Criteria Deceased Donors Kidney Transplantation (#1116)
Besher Al-Attar, Riyadh

Use Of Marginal Organs In Kidney Transplantation For Marginal Recipients: Acceptable Risk? (#1117)
Jürgen Treckmann, Essen

„Calculated Risk Donor" Protocol In Italy: Results After 6 Years Of Activity (#1118)
Carlo De Cillia, Rome

Streptokinase Flush And Lifeport Machine Perfusion In A Kidney That Was Poorly Perfused At Retrieval Recovered Kidney Viability (#1119)
Andrew Broderick, Plymouth

Anoxia And Infection As Causes Of Brain Death Are Associated With Specific Changes In The Transcriptome Of The Deceased Donor Kidney (#1120)
Thomas Mueller, Edmonton

Impact Of Induction Imunsupression In Renal Transplantation From Suboptimal Donors (#1121)
Sergej Trushkov, Riga

Minimum Dose CNI Started Immediately After Renal Transplants Achieved An Excellent Long-Term Graft Survival In The Renal Transplants Engrafting DCD Kidneys (#1122)
Kiyotaka Hoshinaga, Toyoake

Renal Transplants Using Hepatitis B Or C Positive Serology Deceased Donors Can Be Used Safely (#1123)
Valter Duro Garcia, Porto Alegre

Preprocurement Pancreas Suitability Score (P-PASS) Does Not Correlate With Long Term Patient And Graft Survival After Pancreas Transplantation (#1124)
Peter Schenker, Bochum

Lung Transplantation At The University Hospital Of Strasbourg, France: A Series Of 86 Consecutive Cases (#1125)
Jean-Gustave Hentz, Strasbourg

Temporary Alternatives As A Bridge To Transplant Due To Lengthy Waiting List Times For Paediatric Heart And Lung Transplant (#1126)
Núria Masnou, Barcelona

Ethical and Religious Aspects of Organ Donation – Legal aspects around the world

Chairman:
Nicholas Zgrablic, Pula

Donor Compensation – An Ethical Imperative? (#1105)
Jan-Ole Reichardt, Leipzig

Organ Donation In Brain Dead Patients – Administrative, Legal & Ethical Issues (#1106)
Sanjeev Lalwani, New Delhi

Ethical Aspects For Establishing Of Brain Death In The ICU (#1107)
Zoran Zabavnik, Maribor

Is „Brain Death" Dead? (#1108)
Paolo Bruzzone, Rome

Comparative Analysis Of The Religious Leaders And Their Religious Communities' Perspectives On Organ Donation And Transplantation In Turkey (#1109)
Meriç Yavuz, Ankara

Comparisons Of Health Sciences University Students' And Religious Sciences University Students' Perspectives On Organ Donation And Transplantation (#1110)
Meriç Yavuz, Ankara

Organ Donation And Transplantation In Point Of View Of Lanyers By Profession (#1111)
Meriç Yavuz, Ankara

Impact Of Legal Regulations In Organ Transplantation (#1112)
Daniela Norba, Frankfurt/Main

Organ Donation And Transplantation: A Gift Of Life Or Taboo In Malaysia? (#1113)
Selvarani P. Kovil Pillai

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Initiatives to Improve Organ Donation – Training & Quality Management

Chairman:
Yves Vanrenterghem, Leuven

Safety Management In Organ Procurement And Transplantation: „Criticality Analysis In Sardinia And Comparison With The Model Applied In Emilia-Romagna" (#1127)
Giada Giustolisi, Cagliari

Overcoming Barriers And Distances By Bringing Professional Education On Organ Donation ToYour Front Door: The TPM E-Learning Program (#1128)
Gloria Paez, Barcelona

IT-Tool For The Retrospective Analysis Of Deceased Organ Donation Potential In Hospital Based On Data Collected According To § 21 KHEntgG (#1129)
Ulrike Wirges, Essen

Feedback Questionnaire After Organ Procurement Operation (#1130)
Öystein Jynge, Stockholm

Benchmarking To Improve Performance In The Deceased Donation Process (#1131)
Beatriz Domínguez-Gil, Madrid

A 9-Year Inventory Of Deaths In ICU In A 3,8 Million Population In Central Sweden (#1132)
Ann-Christin Croon, Stockholm

Evaluation Of The Long Time Effects Of An Organ Donation Education For Hospital Staff Concerning Attitudes And Confidence In The Donation Process (#1133)
Christina Andréasson, Uppsala

European Training Program On Organ Donation: ETPOD Project, DG SANCO (2005205) Funded (#1134)
Gloria Paez, Barcelona

Family Care / Organ Donation and the Media

Chairman:
Wojciech Rowinski, Warsaw

Improving Patients' Self Care Competence After Haematopoietic Stem Cell Transplantation (HSCT), Using A Modular, Nursing Care Counselling Program (#1135)
Norbert Gittler-Hebestreit, Jena

Shock Of Loss Or Loss Of Shock: The Effect Of The Request For Organ Donation On Grieving Relatives (#1136)
Anne-Bärbel Blaes-Eise, Homburg/Saar

A School-Based Organ Donation Education Program To Encourage Organ Donation Registration And To Change Public Attitudes Related To Organ Donation (#1137)
Astrid Reubsaet, Heerlen

The Greek Donation System Within The Scope Of The Managerial „Congruence Model" – Why A Donation System Needs Congruence In Order To Produce Donors (#1138)
Georgia Menoudakou, Athens

Organ Donation And Transplantation Knowledge Among Medical Faculty Students Of Pomeranian Medical University (#1139)
Krzysztof Pabisiak, Szczecin

Knowledge Levels And Opinions Of Nurses About Organ Transplantation (#1140)
Esin Gulkaya, Ankara

Organ Transplant Education – The Way For Forming Altruistic Behaviors Among Secondary School Students Towards Organ Donation (#1141)
Irena Milaniak, Krakow

Public And Physicians' Attitude Towards Organ Transplantation And The Media Influence (#1142)
Wojciech Rowinski, Warsaw

A National Program Towards Improving Renal Health – Advancing Organ Donation Awareness (#1143)
Remedios De Belen Uriarte, Quezon City

Communicating Deceased Organ Donation – What Worked And What Didn't? (#1144)
Lalitha Raghuram, Hyderabad

Potential for Organ Donation – Mixed

Chairman:
Johann Pratschke, Berlin

Pancreas Transplantation: Can We Select Suitable Donor Grafts By A Scoring System Extracted Only From Data Known Before Procurement? (#1145)
Carl-Ludwig Fischer-Fröhlich, Stuttgart

Organ Shortage Crisis – Problems And Possible Solutions (#1146)
George Abouna, Wayne

Collaborative Analysis Of Deaths Enables Hospital Staff To Increase The Number Of Realized Donors (#1147)
Carl-Ludwig Fischer-Fröhlich, Stuttgart

Difficult Availability Of Instrumental Tests Following Reversal To Whole Brain Death Criteria After 15 Years Long Use Of Brain Stem Death Criteria In Poland (#1148)
Romuald Bohatyrewicz, Szczecin

Increasing The Donor Pool By The Use Of A Lung Donor Quality Score (#1149)
Jacqueline Smits, Leiden

How The Timing Of Organ Donation Requests Impacts Donation Rates (#1150)
Caroline Spaight, Bern

Should A Suspicion Of Long QT Syndrome Be A Valid Reason For Disqualification From Donation Of Haemodynamically Perfect Heart? (#1151)
Romuald Bohatyrewicz, Szczecin

Factors Associated With Professionalism Of Transplant Coordinators (#1152)
Yoko Uryuhara, Kobe

Public Consensus For Recognition Of Brain Death In Japan (#1153)
Manabu Saito, Urasoe

One Organ Procurement Organization's Medical Record Review Methodology Shows Brain Dead Organ Donor Potential Remaining Stable Over Time (#1154)
Kathy Yandle, Philadelphia

Neurocritical Patient Evolution And Organ Donation – Myths And Realities – A Multicentric Study In Catalonia, Spain (#1155)
Teresa Pont, Barcelona

Ethical and Religious Aspects of Organ Donation – General Aspects

Chairman:
Alan Leichtman, Ann Arbor

Medical Ethics And Live Organ Donation (#1156)
Frieder Keller, Ulm

Donor Source In Renal Transplantation In India: Impact Of Social And Legal Factors (#1157)
Sanjay Kumar Agarwal, New Delhi

Reasons Why Organ Donors Are Not Identified And Harvested (#1158)
Juraj Miklusica, Martin

Neonatal Organ Donation – Is There A Future? (#1159)
Holly Northam, Woden

Possible Deceased Donors And Death By Brain Function Criteria In Saudi Arabia (#1160)
Besher Al-Attar, Riyadh

Honoring The Donor's Decision: Experience Upholding The Donor's Legal Donation Decision And Strategies To Minimize Conflict (#1161)
Susan Gunderson, St. Paul

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Living Donation – Programs

Chairman:
Conrad Müller, Basel

Evaluation Of Patients Offering A Kidney For Living Donation Kidney Transplantation At The University Of Heidelberg – A Four Decades' Single Center Experience – (#1162)
Mohammad Golriz, Heidelberg

Older Living Kidney Donors – Kidney Function And Morphometry (#1163)
Jane Tan, Palo Alto

The Role Of The Organ Procurement Organization In Kidney Paired Donation (#1164)
Kevin O'Connor, Newton

Group Education Of Families And Friends Of CKD Patients; The Impact On Living Kidney Donation (#1165)
Ton Van Kooij, Rotterdam

Exclusion Criteria Analysis In Live Liver Donation (#1166)
Giovanni Ferrandelli, Palermo

Expanding The Liver Donor Pool By Using Extended Criteria Donor Liver Grafts: Results Of A Single Center (#1167)
Giuseppe Caracausi, Palermo

Another Case Of Mycophenolate Mofetil Associated With Progressive Multifocal Leucoencephalopathy With Successful Outcome (#1168)
Driss EL Kabbaj, Rabat

Beta Cell Function, Insulin Resistance And Insulin Sensitivity In Cadaveric And Living Donor Kidney Transplant Recipients Immediately After Transplantation (#1169)
Reza Hekmat, Mashhad

Extended Criteria Donor 2

Chairman:
Karim Laouabdia-Sellami, Saint Denis La Plaine

Donor Age Related Conversion Rates: Donor Action® Database Data From 4 European Countries (#1170)
Leo Roels, Linden

Mechanical Circulatory Support In Patients Of Advanced Age (#1171)
Thorsten Drews, Berlin

A 32-Year Old Man With Non-Specified Cause Of Death, Thiamin-Deficiency Syndrome And Multiple Organ Impairments After Employment Abroad – Organ Donation? (#1172)
Catrin Meier, Leipzig

Differences In The Use Of Expanded Criteria Donors Between European Countries (#1173)
Silvia Martín, Madrid

Organ Donation In An Ageing Population: The Experience Of The Last Nine Years In Galicia (#1174)
Jacinto Sánchez Ibáñez, Santiago de Compostela

Development Of Marginal Donor Scoring System In Korea (#1175)
Myoung Soo Kim, Seoul

Outcome Of Organ Transplantation From Deceased Organ Donors 70 Years Or Older (#1176)
Öystein Jynge, Stockholm

Liver Transplantation Utilizing Old Donor Organs – Experience Of A Single Center (#1177)
Falk Rauchfuß, Jena

Successful Use Of ECD Suported By Liver Biopsy With Gomori's Reticulin And Red – Oil O Technique (#1178)
Francesco Frongillo, Rome

Feeding And Alanine Minimize Reperfusion Injury After Cold Ischemia In Ex Vivo Perfused Rat Liver (#1179)
Marjorie Knafel, Charleroi

Early, At ICU Performed, Percutaneous Liver Biopsy: Key To Optimize Organ Allocation? (#1180)
Silvio Nadalin, Tübingen

History Of Malignancy: A Need For Vigilance In Extended Criteria Donors In Liver Transplantation – Case Report And Review Of Literature (#1181)
Arash Nickkholgh, Heidelberg

Extended Criteria Kidney Evaluation And Preservation By Pulsatile Perfusion Machine (#1182)
David Paredes Zapata, Barcelona

Oral Abstracts

Content responsibility

All authors are responsible for the printed content of their abstracts.
No editorial check or proofreading has been done, the original submitted version was used.

05.10.2009 | 13:30-15:30

Donor Management

#1 – Electronic Offering System, using technology to facilitate organ donation and maximise organ usage

S. Bell (1), G. York (2)
NHSBT (1), Sapient Ltd (2)

The UK Government commissioned the Organ Donation Task Force (ODTF) to study organ donation and make recommendations. One of the recommendations was the use of technology to enhance the organ offering process to maximising this precious resource.

Organ Donation & Transplantation (ODT) the transplant arm of the National Health Service Blood & Transplant (NHSBT) special health authority manages the organ offering process and instigated the development of an electronic system to aid organ donation and subsequent transplantation.

Prior to the implementation of an Electronic Offering System (EOS), Donor Coordinators (DTCs) offered organs for transplant by communicating information about the donor and organs over the telephone or by paper to transplant centres across the UK.

For a multi-organ donor, the DTC read an 8 page core donor data form (typically 120 separate fields of information) up to 20 times. Offering was a lengthy process and could take up to 5 hours including the time to make the offer and the time allowed to receive responses to offers.

NHSBT commissioned global services company, Sapient, to design an electronic system for organ offering. EOS was developed following extensive user experience interaction with teams of DTCs, the ODT duty office and transplant centres to ensure it conveys accurate information and is flexible for future development.

In Summary EOS

- Speeds up the allocation process by making information available to all parties in a safe, accurate and secure manner.
- Frees up DTCs to spend more time supporting donor families and caring for the donor.
- Optimises organ quality by reducing Ischemic time (time from when an organ loses a blood supply to when it regains a blood supply) through efficient offering.
- Enhances patient safety by reducing the risk of inaccurate data caused by transcription errors.
- Provides a platform for a totally integrated organ donation and transplantation service.
- Reduces the administrative burden on DTCs.

Summary

The Electronic Offering System is a secure, accurate means of managing organ offering and revolutionises the way donation is facilitated in the UK in terms of speed and patient safety. EOS allows donor coordinators to focus on caring for the donor and their families in addition to other high value activities. EOS forms the basis for future development of the service.

05.10.2009 | 13:30-15:30

Donor Management

#2 – Functional improvement between brain death declaration and organ harvesting

I. Grigoras (1), M. Blaj (2), O. Chelarescu (3), C. Craus (4), F. Grecu (5)
University of Medicine „Gr.T.Popa" (1), University of Medicine"Gr.T.Popa" (2), „Sf.Spiridon"university hospital (3), „Sf Spiridon" University Hospital (4), University of Medicine „Gr.T.Popa" (5)

Introduction

The quality of harvested organs is crucial for the graft survival and for posttransplant evolution. Usually the time frame between brain death (BD) declaration and organ harvesting is short (< 4 hours). Due to local particularities this time period is unusually long (>12 hours) in Iasi, Romania. We investigated the evolution of the functional status of BD patients during this period.

Material and method

The study included the 12 BD patients who underwent organ harvesting between January 2006 and June 2009. We compared the functional status regarding hemodynamics, respiration, kidney and liver function, coagulation, water, electrolyte and acid-base balance evaluated in the moment of BD declaration (P1) and just before organ harvesting (P2). The results of the comparison were expressed as improvement, stable or aggravation.

Results

The time interval between P1 and P2 ranged between 12 and 22 hours. The number of patients with vasopressor support was 9/12 in P1 and 0/12 in P2, oxygenation disturbances 1/12 in P1 and 0/12 in P2, renal dysfunction 9/12 in P1 and 2/12 in P2, liver dysfunction 7/12 in P1 and 1/12 in P2, coagulopathy 4/12 in P1 and 0/12 in P2, hypernatremia 8/12 in P1 and 3/12 in P2. The overall assessment showed improvement in 9/12 pts, stable 3/12 pts and no aggravation. The quality of harvested organs resulted in good early posttransplant evolution.

Conclusions

Despite the fact that the time period for organ harvesting preparation is long (12-22 hours) functional improvement may be achieved with excellent posttransplant results.

Summary

The quality of harvested organs is crucial for the graft survival and for posttransplant evolution. We compared the functional status evaluated in the moment of BD declaration (P1) and just before organ harvesting (P2). The results of the comparison were expressed as improvement, stable or aggravation.

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Donor Management

#3 – Attaining Specific Donor Management Goals Increases Organs Transplanted Per Donor

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Most OPO professionals and transplant surgeons intuitively know that striving to meet donor management goals will improve allocation and transplant outcomes. In this era of evidence based medicine we wanted to see if the data would support this assumption. All six OPOs in UNOS Region 10 came to a consensus agreement on six specific donor management goals and measured the organs per donor when goals were met compared to organs per donor when goals were not met. This was broken down by donor type, SCD, ECD, and DCD donors. Data for all six OPOs for the entire year 2008 show a substantial improvement for SCD donors and Total donors, with a smaller degree of improvement in ECD and DCD donors. When donor management goals were met there was a gain of 1.77 extra organs per donor for SCD donors and an extra 1.36 organs per donor for all donors.

Summary

This large study showed a significant increase in organs transplanted per donor when donor management goals are met. A follow up study was done by Andrew Ellenwood from Indiana Organ Procurement Organization which took these results and applied them to donor hospital management.

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Donor Management

#4 – Managing the potentially brainstem dead patients: translating research evidence into clinical practice at a major London teaching hospital

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Hormonal support following brainstem death allows cardiovascular stabilisation and enables increased organ retrieval.

In our Intensive Care Unit (ICU) hormonal treatment was routinely started after diagnosing brainstem death and consent for organ donation obtained. After a literature review and agreement that the 'best interest' of the patient extended beyond the immediate care, we introduced a guideline for managing patients with potential brainstem death in 2008. This was preceded by 3 months education to maximise compliance. The guideline includes respiratory support to limit volu- and baro-trauma, hormonal treatment with vasopressin, tri-iodothyronine and methylprednisolone, control of serum sodium and hypothermia.

We audited our solid organ retrieval data from 01/05/2008 to 31/05/ 2009 and compared our data with our 2007/8 results and the national average.

During the audit, 14 patients with brainstem death proceeded to organ donation, 11 of whom had a traumatic brain injury (including poly-trauma patients) while 3 had suffered spontaneous sub-arachnoid haemorrhage. The age range of the patients was 23 – 63 years, average 42. All the patients received hormonal treatment as per the new guideline, and in three cases the norepinephrine (required to maintain mean arterial pressure) was weaned off prior to testing.

A total of 64 solid organs were retrieved. Of these all 14 (100%) patients donated their livers as well as both kidneys; 11 (79%) patients donated their pancreases, 7 (50%) their hearts, while 4 pairs of lungs were retrieved. On average 4.57 solid organs were retrieved per patient (range 3 – 6). The data for 2007/8 for our Unit was an average of 4 solid organs retrieved per donor and the national average for 2007/8 is 3.6 organs per donor.

In conclusion, introduction of the new protocol was accompanied by excellent compliance and, while the number of patients is small, we saw an increase in the average number of solid organs retrieved per patient.

Summary

While the introduction of targeted pharmacological donor support prior to brainstem death testing represented a shift change in our Intensive Care Unit, careful management of the process allowed it to be readily accepted and showed an improvement in the average number of organs retrieved per patient

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Donor Management

#5 – Methylprednisolone Infusion Decreases Plasma Interleukin-6 (IL-6) After Brain Death and Impacts Organs Transplanted Per Organ Donor (OTPD)

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Background

Intereukin-6 is a key pro-inflammatory cytokine upregulated after Brain Death (BD) in humans. It mediates inflammation and pre-explantation organ dysfunction, rendering many organs unsuitable for transplantation. Though a bolus dose of the anti-inflammatory agent Methylprednisolone (Solumedrol) is a component of "hormonal resuscitation" in hemodynamically unstable BD donors, its plasma half-life is short (<3 hours).

Aim

To determine whether Solumedrol given as a continuous infusion (SoluDRIP) ameliorates inflammation and improves organ transplantability better than usual care, using plasma IL-6 to quantify inflammation and OTPD as an indicator of donor organ viability.

Methods

We collected data from 29 BD subjects (ages 16-65 years) after obtaining appropriate research consent. All received an initial 30mg/kg Solumedrol bolus as part of OneLegacy's standard donor management protocol. 13 patients also received Solumedrol infusion (100mg/hr) until explantation (experimental SoluDRIP group). The other 16 served as controls. Baseline APACHE II scores were similar between groups. Plasma IL-6 at baseline; 8, 24 hours after the Solumedrol bolus and at explantation was quantified using IL-6 ELISA (Biogen®) with a lower limit of detection at 4 pg/ml. IL-6 levels and OTPD were compared between groups using Mann Whitney-U test with alpha at 0.05.

Results

All patients had elevated IL-6 at baseline. (Table). After an initial decline in all subjects, the controls showed rebound increase in IL-6, whereas SoluDRIP led to continued suppression. Reduction in IL-6 in the Solumedrol infusion group at explantation was significant ($p<0.01$). OTPD trend appeared favorable, ($p=0.19$) although unconfirmed in this sample.

Plasma IL-6(pg/ml) and OTPD *=p<0.01	SoluDRIP		Control	
	Mean	SD	Mean	SD
Baseline	743	652	744	534
8 Hours	345	563	432	538
24 Hours	158	261	278	466
Explantation*	86	84	394	377
Actual OTPD	4.3	1.8	3.2	1.7

Conclusions

Continuous Methylprednisolone infusion reduces plasma IL-6 at explantation and appears to favorably influence the number of organs transplanted from each donor. Suppression of inflammation by Solumedrol infusion should be further studied to determine whether this simple and inexpensive measure for donor management can improve the number of organs available for transplantation.

Summary

The addition of Continuous Methylprednisolone infusion at 100 mg/hr to usual donor mangement in in brain-dead organ donors reduces plasma IL-6 at explantation and appears to favorably influence the number of organs transplanted from each donor.

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Donor Management

#6 – Effects of methylprednisolone administration on hemodynamics, catecholamine requirement and proinflammatory cytokines in brain-dead organ donors

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We aimed to investigate whether high-dose methylprednisolone administration in organ donors improves the circulation, reduces the noradrenalin requirement and lowers the proinflammatory cytokine level.

We performed a randomized prospective study of 100 organ donors. Fifty (group I) were treated with methylprednisolone and 50 (group II) were not treated. Methylprednisolone was given as a bolus followed by 100 mg per hour until organ explantation. Donors' hemodynamics were monitored using the the Picco system (Pulsion Medical Systems Inc., Munich) and the following parameters were recorded: heart rate, mean arterial pressure, central venous pressure, intrathoracic blood volume index, cardiac output index, systemic vascular resistance index and extravascular lung water index. Measurements were made every 2 hours; blood was sampled directly after the first measurements and before the donor left the intensive care unit. S-cortisol, CRP, PCT, Il-6, Il-8, Il 2R and TNF alpha were documented.

There were no differences between the two groups in age, gender, cause of brain damage, intensive care unit stay, number of multiorgan donors or number of transplanted organs per donor. The time between first diagnosis of loss of brain stem function and collection of the first blood sample was 42.8 h in group I, only slightly longer than in group II (38.4 h). Time between the first and second blood sample did not differ significantly between the groups (9.2 vs. 10 h). The methylprednisolone treatment led to a significant increase in mean arterial pressure and cardiac output index ($p<0.05$) and a significant reduction in noradrenalin requirement ($p<0.05$). Il-6, Il-8, Il 2R und TNF alpha were also significantly reduced ($p<0.01$). In the group without treatment the cytokines rose significantly ($p<0.01$); the mean arterial pressure fell and the noradrenalin requirement rose (both without statistical significance).

Summary

Our results show the advantages of methylprednisolone treatment. This should be begun in organ donors as soon as brain death is diagnosed.

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Donor Management

#7 – Rehabilitation of ischemically damaged kidneys by normothermic extracorporal perfusion with leucocytes depletion.First experience

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Introduction

In Russia, the number of brain death donors is not satisfactory due to organizational and national specialties. The potential of donors after cardiac death is actual issue for all countries in which the organ transplantation is presented. Organ removal is allowed only from uncontrolled donors after cardiac death in Russia. Not all non-heart beating donors considered as feasible donors, in other words, not all such donors could be „uncontrolled donors in controlled situation". The crucial point in uncontrolled situation is the warm ischemical time. The aim of „first step" clinical research work is definition of acceptable time between declaration of death as well as development and implementation such kind of new procurement protocols which will allow the organ resuscitation and rehabilitation after ischemical damage.

Background

We suppose that the main reason of organ failure after ischemic condition is the block of microcirculation by leukocytes clots which is forming during to the decelerating blood stream in agonal period and the exhausting of ATP resources in the endothelium cells in conditions of cessation of oxygen supply. Our hypothesis was if we can recommence the regional blood circulation after warm ischemic time and provide the restoration of oxygen supply and elimination of leucocytes, we can expect the rehabilitation of initially damaged organ. The transplant rehabilitation we define as reestablish of organ capability to keep function after relevant warm ischemic damage.

Materials And Methods

There were 5 uncontrolled donors from May till July, 2009. In each cases the death of donors happened in conditions in which the procurement team was unprepared and forensic doctor was absent. The average warm ischemic time was 64 min (minimum 45 min, max 78).Warm ischemic time was defined as time between declaration of death and start of extracorporal normothermic perfusion. The normothermic extracorporal machine perfusion of isolated donor's abdominal region by oxygenated and modificated donor's blood with leukocytes elimination was considered as therapeutic protocol for improving and rehabilitation function of kidneys before procurement. For realization extracorporal perfusion we use the access to femoral access and double-balloon three-luminal catheter insertion in aorta for inflow and cardiac cannula for out flow.As the portable pump machine we use the mechatronic perfusion module „MARS" which is produced by Central Research Institute for Robotics and Technical Cybernetics, Saint-Petersburg. The perfusion characteristics of MARS allow to create the liquid stream from 200 ml/min to 1800 ml/min. The circulation contour includes arterial and venous cardiothomic lines, oxygenator component with portable oxygen supply, and leucocytes depletion filer (6L/min).

The perfusion solution was presented as a modificated donor blood (24°C temperature) including 25000 U heparin, 1,5 mln U streptokinase, 400 ml perfluorocarbonic emulsion. The initial perfusion parameters were performed as 200-500 ml/min volume, pressure 60 mm Hg with increasing till 1500 ml/min, 120 mm Hg, oxygen supply 500 ml/min. The time of abdominal isolated perfusion was in average 120 – 150 min. The quantity of leukocytes were countered on the beginning and to the end of perfusion, gas probe and pH analyzed during normothermic extracorporal perfusion by oxygenated modificated donor's blood. The procurement was performed during normothermic perfusion and was finished by cold preservation flushing by HTK solution.

Results

The characteristics of donors and recipients performed in Table 1. and 2. 10 kidneys were procured. 2 of them weren't perfused enough satisfactory and were discarded after procurement due to pre-existed atherosclerotic changing in the kidneys. Five kidneys shown immediate function, 3 kidneys transplants were with delayed graft function (min 4 days, max 36 days).

Tabl.1 Characteristics of uncontrolled cardiac death donors

Donors	Age	The death reasons	Warm ischemic time,min	Extracorporal normothermic perfusion,min	Leukocytes initial, $x10^9$	Leukocytes final, $x10^9$
1	47	Cerebrovascular	45	120	16	2,4
2	22	Brain injury	68	120	19,4	0,4
3	55	Brain injury	75	150	21	0,1
4	51	Brain injury	78	150	13,4	0,6

Tabl.2 Characteristics of recipients

recipients	Age	Graft function*	Creatinine 2weeks, mmol/L	Creastinine 6 weeks, mmol/L
1a	59	DGF(36d)	469	213
1b	61	DGF(21d)	203	136
2b	67	IGF	204	96
2b	58	IGF	182	112
3a	36	IGF	351	151
3b	42	IGF	300	124
4a	55	DGF(4d)	346	174
4b	49	IGF	256	118

*DGF – delayed graft function
IGF – immediate graft function

Summary

First experience in normothermic abdominal hemoperfusion with leucocytes elimination from circulating donor's blood allows to us to consider this practice as a challenging protocol. The acceptable warm ischemic time could be 80 min and more if there is used such procurement protocol. The routine implementation of this kind procurement/perfusion leads to new trend in organ donation which we can determine as the organ rehabilitation. In turn, it could open new possibilities for increasing of organ transplants. These results are estimated as preliminary but promissory. This practice demands further investigation.

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Donor Management

#8 – Japanese strategies for maximizing heart and lung donor availabilities

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Purpose

As donor shortage is extremely severe in Japan because of very strict Organ Transplantation Law, special strategies for maximizing heart and lung transplant (HTx and LTx) opportunities should be established in Japan. The purpose of this study is to review our special strategies to identify and manage heart and lung donors.

Methods and Materials

All of 74 brain-dead donors procured in Japan between October 1997 and August 2008, were retrospectively reviewed. 39 were male. A mean donor age 44.4 year. The cause of death was 47 in cerebrovascular disease, 15 in head trauma, 11 in asphyxia and 1 in others.

Donor evaluation and management system

Transplant doctors themselves assessed their own donor heart and lung function before starting procurement operation, and skillful staff surgeons harvested their organ. Since November in 2002, one of special transplant consultant doctors visited a procurement hospital, assessed donor organ function and identified which organs were useful. He also intensively cared the donor to improve cardiac and lung function with a drip infusion of anti-diuretic hormone and aspiration of sputa using a brochofiberscopy.

Results

58 HTx (78.3%) and 50 LTx (23 bilateral and 27 single) from 44 donors (59.5%) were performed. A mean number of organs procured from one donor increased from 4.5 to 5.6 after this consultant system was started. 44 HTx donors were marginal (sustained high-dose inotropes in 27, low LVEF in 4, a history of cardiopulmonary resuscitation in 20, and older than 55 years in 9). 32 LTx donors had infectious sputa or showed pneumonia by chest-X-ray. None of 58 HTx recipients (49 bridged cases) died of primary graft dysfunction (PGD). Patient survival 3 years after HTx was 98.0 %. Although 5 of 50 LTx died early after LTx, only one died of PGD. Patient survival at 3 years after LTx was 66.9 %.

Conclusions

Although the number of Tx was still very small, the availability of heart and lung has been very high and the outcomes of HTx/LTx were acceptable. These strategies may be useful to maximize HTx/LTx opportunities.

Summary

As donor shortage is extremely severe in Japan, special strategies for maximizing heart and lung transplant (HTx and LTx) opportunities were carried out. From 74 donors, 58 HTx and 50 LTx (23 bilateral and 27 single) from 44 donors were performed. Patient survival 3 years after HTx and LTX was 98.0 % and 66.9 %. These strategies may be useful to maximize HTx/LTx opportunities.

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Surgical Aspects of Organ and Tissue Procurement

#9 – Semiquantitative evaluation of the degree of steatosis in donor allografts in orthotopic liver transplantation – a reliability study.

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Histological investigations play a major role in decision-making if a donor allograft will be accepted for orthotopic liver transplantation. Beneath the evaluation of fibrosis and necrosis due to preservation failure, especially the semiquantitative estimation of macro- and microvesicular steatosis on H&E-stained frozen sections is of particular importance. Some days later, the results of the frozen sections will be compared with those obtained from regular paraffin sections (gold standard).

In this reliability study, the results of frozen sections and of paraffin sections from liver donor allografts were compared concerning the degree of steatosis. Additionally, an analysis of intra- and interobserver reproducibility was performed. 120 consecutive cases of donor allografts prior to liver transplantation, interpreted by one single pathologist, were re-evaluated retrospectively by an independent second observer who interpreted both the frozen sections and the paraffin sections. The macrovesicular and the microvesicular steatosis were each estimated in 5% steps (0%, 5%, 10%…).

The mean values for the whole series of cases were well comparable between the methods and the observers. For example, the mean value for macrovesicular steato-sis was 12.0% for frozen sections and 12.2% for paraffin sections for observer 1. The respective values for observer 2 were calculated as 14.2% and 13.8%. Differ-ences > 10% between the two observers for the analysis of macrovesicular steatosis were present in only 4 cases for frozen sections (3.3%) and in 3 cases for paraffin sections (2.5%). The respective values for microvesicular steatosis were 2 cases for frozen sections (1.7%) and 6 cases for paraffin sections (5%). Macrovesicular and microvesicular steatosis were not clearly correlated (rmean = 0.54, $p > 0.05$).

In conclusion, the evaluation of macrovesicular and microvesicular steatosis in frozen sections of liver tissue provides a useful method compared to the gold standard of paraffin section interpretation that can be used reliably for decision making on donor allografts offered for liver transplantation.

Summary

We presents a study analyzing the semiquantitatively estimation of steatosis in 120 cases of liver specimens prior to liver transplantation. Comparing two methods (fro-zen sections / paraffin sections) and two observers, reliable results could be demon-strated. Thus, semiquantitative estimation of steatosis represents a suitable method for the evaluation of donor allografts for liver transplantation.

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Surgical Aspects of Organ and Tissue Procurement

#10 – Objectification of Organ Quality during Postmortal Liver Donation – Liver Histology versus Clinical Evaluation

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Background

The reliable evaluation of organ quality during explantation procedure is of vital importance for the organ recipients. The transplantation of wrong classified organs can result either in preventable organ loss for patients on the waiting list or to an uncalculated risk for recipients. Due to this crucial fact we performed a prospective study in our donor region. Results of an intraoperative clinical emanination were compared to histopathological findings of fatty liver degeneration.

Methods

From 2007 – 2008 100 consecutively allocated donor livers from the DSO Region Nord, were macroscopically evaluated by the explantation surgeons using a standardized questionnaire regarding the degree of fatty degeneration before and after perfusion (<33%, 33-66%, >66%). Livers were subsequently classified analog to the EUROTRANSPLANT standard in the categories "good", "acceptable" and "not acceptable". The results were correlated to the findings of routinely conducted needle biopsies (taken from right lobe lateral of gallbladder line, formalin fixation, paraffine embedding, HE-staining and manual analysis by review pathologist).

Results

Organ donor median age was 49 years (7-86 yrs.), male/female 59/41%, median BMI 26 (17-41), stay on ICU median 4 days (1-24 d). The histological classification of the livers was: Group I (<33%, marginal steatosis) n=81, Group II (33-66%, moderate steatosis) n=8, Group III (>66%, severe steatosis) n=11. There was no correlation with duration of ICU-stay and non with BMI. Group I-livers were identified in 75%. Regarding the evaluations (too high or too low) of livers from group II and III the error rate is 75%. Group I-livers got in 95% the rating "transplantable" (good or acceptable), 5% were rated as "not acceptable". Livers of Group II were rated only for 37% as transplantable, 63% as not acceptable. Group III-livers were classified transplantable for 73%, only 27% were rated as not acceptable.

Summary

"Good" livers can be detected easily. The main problem is the gap between clinical and histological findings in organs with >33% steatosis. Therefore, the implementation of standard biopsies for marginal livers has to be discussed. Long term follow-up of the recipients will give further information about the clinical relevance of fatty liver degeneration.

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Surgical Aspects of Organ and Tissue Procurement

#11 – The split liver technique: the role in a pediatric liver transplant

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Introduction

Success of transplantation as the possibility of transplanting all patients in need, with a high success rate and the opportunity for a long healthy life, probably in no other area, as in the cure of children with end-stage liver disease, transplantation has been more successful. The main limitation to the full exploitation of transplantation, namely, organ scarcity is being overcome thanks to surgical techniques and all children in need, even the youngest one, almost completely eliminating wait list mortality.

Aims

Demonstrate that living donor and split liver transplantation have both contributed to reversing a situation in which, children had the highest wait list mortality as compared to adult.

Methods

The donor operation allows for the procurement of two separate grafts of different size, and is indicated when an adult and a pediatric recipient are to be transplanted. A section of the liver along the falciform ligament and divides the left lateral section from the medial left section. The left graft, composed of segments II and III, includes the left hepatic vein, the left branch of the portal vein, and the left branch of the hepatic artery, along with the common hepatic artery and the celiac tripod. The right, composed of segments I and IV to VIII, includes the vena cava, the right branch of the hepatic artery, and the portal vein along with the origin of the mesenteric and splenic veins

Conclusion

The overall results following liver tx are rewarding. The European Liver Transplantation Registry reports liver tx activity in Europe, representing 5895 children transplanted between 1988 and 2005. Overall 1-year patient and graft survival was 84% and 73%, respectively, in patients older than 2 years and 81% and 71%, respectively. Ten-year patient and graft survival rates for the same age groups were 75% and 61%, and 74% and 60%, respectively. United Network for Organ Sharing reported survival rates of the 9064 pediatric patients performed between 1997 and 2004.

Summary

Overall 1-year patient and allograft survival reported to the Studies of Pediatric Liver Transplantation (SPLIT) registry, representing 1611 patients, reached 88% and 82%, respectively, while these were 83% and 74%, respectively, 4 years after transplantation. Specific factors influencing early survival include age, diagnosis, severity of illness, and possibly allograft type

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Surgical Aspects of Organ and Tissue Procurement

#12 – Inducing Of Immunotolerance by Infusing B7-2 mAb and CD4+CD25+ Regulatory T cells on Rat Cardiac Allografts

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Objective

This study aims to investigate the effect of blocking the pathway of B7/CD28 and injection of CD4+CD25+ regulatory T cells on the recipient immunoloregulation in the model of cardiac allotransplantation from SD to Wistar rat.

Materials and methods

CD4+CD25+ regulatory T cells were isolated from Wistar rat splenocytes and peripheral lymphnodes by magnetic cell sorting system (negative selection and positive selection). Donors (SD rat) and recipients (Wistar rat) were divided randomly into four groups. Group A(control group);Group B(infusing B7-2 mAb);Group C(injection with CD4+ CD25+ regulatory T cells); Group D (infusing B7-2 mAb plus injection with CD4+ CD25+ regulatory T cells). The purity and quantity of CD4+CD25+ regulatory T cells in peripheral blood were detected by flow cytometry. The mean survival time (MST) of grafted heart,the proliferation of mixed lymphocyte reaction (MLR), the expression level of IL-2 and TGF-β1 were observed.

Results

The quantity of CD4+CD25+ regulatory T cells of Wistar rat blood in Group C was lower than group D after transplantation($P<0.05$). Group D showed the longest mean survival time of grafted heart . In group D, The secretion of IL-2 was inhibited, while the expression of TGF-β1 was increased. It helped to induce immune tolerance.

Summary

Combined B7-2mAb infusion and CD4+CD25+ regulatory T cells injection strategies could significantly induce immunotolerance in SD to Wistar rat model.

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Surgical Aspects of Organ and Tissue Procurement

#13 – Kidney perfusate fluid as a new assessment tool for kidney quality?

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Background

With the rise in the number of recipients on the waiting list, OPOs are procuring kidneys with less than optimal characteristics and warm ischemic times. Machine perfusion (MP) provides a tool to assess organ inflammatory processes and obtain data for quality assurance. MP safeguards against the transplantation of irreversibly damaged organs and maximizes the use of viable and functional organs. Apart from pump parameters, there is no simple test of organ viability/function. AIM To examine composition of lymphocytes and cytokines eluted from the perfused kidney, and to determine their association with graft survival.

Methods

50 kidneys were obtained from 30 donors. We collected perfusate (UW Solution) from random 39 kidneys (30 donors) MP at our institution. After WBC/viability test we immunophenotyped for T-cells (CD3+), T-helpers (CD4+), T-cytotoxic (CD8+), B- (CD19+), NK (CD56/16+/CD3-), and NKT cells (CD56/16+/CD3+). We tested perfusates for IL-6, sE-Selectin and ADAMTS-13. From UNOS we obtained immediate/delayed organ function measures.

Results

There were enough lymphocytes from 33 kidneys (Group 1) to do immunophenotyping. We observed >95% viability, few RBC and reversed CD4/CD8 ratio. Perfusates contained: NK cells (29.9%), CD8+ (26.9%), CD4+ (19.6%), CD19+ (15.3%), and 5.3% NKT cells. Nine donor kidneys (Group 2) had no lymphocytes. We detected only IL-6 in 2 specimens. Two kidneys from Group 1, and 0 from Group 2 stopped functioning (p=0.3).

Conclusions

Findings suggest that the perfusate lymphocytes are not similar to blood's lymphocytes. Few RBCs and reversed CD4/CD8 ratios suggest that these cells are from tissue. This is supported by the high % of NK/NKT cells. It seems that the NK and NKT cells are derived from within a 'stressed' organ and released into the perfusion fluid soon after the organ is put on the pump. Our data suggest that presence of eluted lymphocytes in perfusate may indicate an ongoing inflammatory process in the organ.

Summary

Recent advances in MP/logistics of organ sharing favor donated kidneys to undergo machine perfusion. Apart from pump parameters there is no test of organ viability. Our findings suggest that the perfusate lymphocytes are not similar to blood's lymphocytes and contain high % of NK/NKT. Presence of eluted lymphocytes in perfusate may indicate an ongoing inflammatory process in the organ.

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Surgical Aspects of Organ and Tissue Procurement

#14 – Validation of existing transport systems of abdominal organs – Analysis of thermal characteristics of different transportation boxes under simulated conditions

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Question

Does the method of packing abdominal organs and their transport in currently available organ transport systems such as organ-temperature-boxes (OTT boxes) ensure a safe transport? Do we need alternative methods?

Methods

Under simulated conditions we compared temperature profiles of 180 animal organs (pig liver and kidneys) in old and new type OTT boxes. Temperature of these organs was taken at predefined time points and monitored over 24 hrs. All measurements were carried out by calibrated instruments. Furthermore, surface temperature of animal organs and human organs was measured by infrared thermometer under real conditions (before packing and transplantation). Additionally, animal organs were packed with different volumes of perfusate.

Results

Temperature profiles of organs during transportation are influenced by different volumes of perfusate. Current OTT boxes ensure sufficient cooling of organs over 24 hrs. In opposition to previous data generated with so-called organ dummies we could show that the freezing point of perfusates is not reached under common transport conditions.

Summary

Conlusion: To assure the quality of organ transport a new sealable box including a separate storage compartment for crossmatch material will be produced. Thus, interruption of the cold chain can be avoided.

05.10.2009 | 13:30-15:30

Surgical Aspects of Organ and Tissue Procurement

#15 – Evaluation of the influence of donor- and explantation-specific criteria on the success of spk transplantation – experiences from 433 spk transplantations

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Introduction

Since the first pancreatic transplantation in Germany, performed as simultaneous pancreas and kidney (SPK) transplantation, in Munich-Grosshadern, in August 1979, a total of 433 SPK transplantations have been performed, so far, in our centre. The present analysis evaluates the influence of donor- and explantation-specific criteria on transplant outcome.

Patients and Methods

The total of 433 SPK transplantations can be divided in three different eras: 95 segmental transplantations in duct occlusion technique (DO), transplanted between 1979 and 1989, 121 SPKs with bladder drainage (BD) between 1989 and 2001 and 217 cases with enteric drainage (ED), transplanted since 1996. In an ANOVA model, donor- and explantation-specific criteria were evaluated concerning their influence on graft and patient survival. Stratified for era of transplantation, these criteria included donor age and BMI, number of mismatches, cold ischemia time (CIT), donor lipase/amylase, use of vasopressors, donor insulin requirement, choice of perfusion solution, duration of ICU stay and duration of explantation procedure.

Results

Best results were obtained in the era of ED with 73% (68%) 5- (10-) y graft survival. BD resulted in 62% (52%), whereas DO reached only 36% (28%) 5 (10-)y graft survival, respectively. Patient survival in the ED group reached 95% (93%) for 5 (10) y. Positive influence on graft and patient survival was obtained for donor age < 30y and BMI < 28, CIT < 10 h, no use of vasopressors and choice of UW as perfusion solution. All other criteria showed no significant influence on graft and patient survival.

Conclusions

For the first time, in a single-center collective, the influence of donor- and explantation-specific criteria on long-term patient and graft survival could be demonstrated. The above investigation not only underlines the benefit of the newly introduced PAS-score, but also the necessity for a renewal of the discussion for the ideal preservation solution.

Summary

433 SPK transplantations are analyzed for the influence of donor- and explantation-specific criteria on graft and patient survival. Stratified for the era of transplantation (duct-occlusion, bladder drainage, enteric drainage), in an ANOVA model, donor age, BMI, CIT, use of vasopressors and choice of preservation solution had significant influence on the outcome of the transplantation, measured by patient and graft survival.

05.10.2009 | 13:30-15:30

Surgical Aspects of Organ and Tissue Procurement

#16 – Does a separate retrieval of small bowel and pancreas in the same donor compromise the results of pancreas transplantation?

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Introduction

If separate retrieval of small bowel (SB) and pancreas (PA) may influence the results of PA Transplantation (TX) is still a matter of debate. In this regard except for single controversial personal communications nothing has been published up to now. Therefore we retrospectively reviewed the national German experience.

Methods

From January 2006 to May 2009, in 10 deceased donors PA and SB were retrieved separately for different recipients. We analyzed the donor and recipient data as well the outcome of PA-Grafts.

Results: In 10 donors PA and SB were harvested for different TX (9 isolated SB-TX and 1 combined Liver+SB-TX).

The donors were characterized as follows: 3 male, 7 female, age: 17.5 [0.6-46] yr., BMI: 21 [16-23] kg/m^2

The organs were perfused with HTK-Solution in 7 and UW-solution in 3 cases respectively.

All 10 SB-grafts showed a good primary function.

Of the 10 PA only 7 could be transplanted and in 2 cases an early graft loss was observed:

- 2 were not used due to donor size (11-25 kg) and the short mesenteric vessels were left to the SB
- 3 had dorsal lesion due to preparation of superior mesenteric artery branches (SMA), 2 of them functioning well and 1 of them refused by the recipient centre,
- 5 had no lesion and were used for TX, 3 of them functioning at 1 Mo. and 2 of them lost due to thrombosis (after reperfusion / 1 week).

Conclusion

The separate procurement of PA and SB from one donor for two different recipients may seriously compromise the quality of PA-Graft. But a SB-disease is more life threatening than optimal treated diabetes mellitus and since SB-donors are very rare, in the case of an offer of PA and SB from the same donor for two different recipients, absolute priority should be given to the SB. Notwithstanding these “critical” PA should not be discarded from the allocation process, but should be taken in serious consideration as good grafts for islet cell isolation at a minimum.

Summary

The separate procurement of PA and SB from one donor for two different recipients may seriously compromise the quality of PA-Graft. Since a SB-disease is life threatening and SB-donors are very rare, in the case of an offer of PA and SB from the same donor for two different recipients, absolute priority should be given to the SB. Notwithstanding the PA should not be discarded and at least be considered for islet cell transplantation.

05.10.2009 | 16:00-18:00

European Perspectives

#17 – The presumed consent for organ donation. Is Romania prepared for it?

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Introduction

The presumed consent is a hot topic around the world. The ethical and legal aspects are a matter of intense debate involving large parts of the society. In May 2008 a legislative initiative regarding the presumed consent for organ donation was proposed for parliamentary debate in Romania.

Material and method

An internet search was initiated in order to assess the public opinions expressed in the Romanian media. The reasons pro and con were identified and were compared with opinions expressed worldwide.

Results

The parts involved in the pro and con debate were governmental structures (The National Agency for Organ and Tissue Transplantation), the medical personnel (The Romanian College of Physicians), politicians, media, religious authorities, non-governmental associations and lay persons. The main pros were: low rate of organ donation and the long waiting lists, enhancement of organ procurement, avoidance of wasting valuable organs, humanitarian purposes (saving lives). The main cons were: unethical issue, violation of human rights, denial of brain death, unethical advantage of public ignorance, unethical use of underprivileged people, little results in terms of organ procurement but huge negative effects on public opinion, public mistrust in transplant programs, impossibility of refusal identification due to particularities of the Romanian medical system. The overall pro opinions were expressed by physicians. The overall con opinions were expressed by ethicists, religious authorities, non-governmental associations and lay persons. Politicians and media had divided opinions. Future directions of action were identified in order to promote this initiative (educational programs, computerized medical system around the country, National Refusal Registry, s.o.).

Conclusion

For the moment Romania seems to be unprepared to accept presumed consent. A future change in public perception regarding organ transplantation may modify the terms of a public debate.

Summary

In May 2008 a legislative initiative regarding the presumed consent for organ donation was proposed for parliamentary debate in Romania and was followed by a public debate.

An internet search was initiated in order to assess the public opinions expressed in the Romanian media. The reasons pro and con were identified. For the moment Romania seems to be unprepared to accept presumed consent.

05.10.2009 | 16:00-18:00

European Perspectives

#18 – European Donation Day Influences on Public Awareness

D. Avsec, G. Cebulc, B. Logar
Slovenija Transplant

Objective

Slovenija Transplant is a member of Eurotransplant and therefore contributing to the corresponding international donor pool. In order to increase the number of organ donors in Slovenia, recognition of possible organ donors, diagnosis of brain death and the approach of the donor family by intensive care unit (ICU) doctors play a key role.

Methods

A validated questionnaire was send to 80 intensive care unit doctors. Firstly to evaluate how well they are doctors acquainted with the brain death procedure, secondly how well they recognise possible donors. Thirdly to analyze their attitudes and feelings, concerning the approach of the family, including the information of death of the relative and the option for organ donation.

Results

The number of returned questionnaires was 60 (75%). The analysis confirms a high level of clinical knowledge of the brain death procedure and identification possible organ donors. The overall attitude towards organ donation and the related procedures is very positive. When asked specifically about feelings concerning brain death, reporting or discussing organ donation, feelings scoring highest were the ones of responsibility, personal exhaustion, emptiness and sadness. This is alarming specially, since in most of the cases the discussions on organ donation are not conducted by the doctors themselves, but by the hospital transplant coordinators.

Conclusion

Our study shows that negative emotions and personal feelings represent a high emotional burden experienced by intensive care unit doctors who might affect the positive action oriented towards organ donor recognition despite clear clinical knowledge of defining brain death and organ donation possibility. This might affect the overall number of organ donation rates in Slovenia, where every donor counts. As a consequence of this study a better support system for medical professionals dealing with brain death and organ donation should be established in Slovenia.

Summary

Celebrating European Donation Day gives a positive feedback to organisers due to continue raising public awareness campaign

05.10.2009 | 16:00-18:00

DCD Ethical and Legal Aspects

#19 – Non Heart Beating Donors-How long should we wait for Asystole after Withdrawal of Treatment?

J. Morgan, E. Clarke, A. Gill, A. Herman, S. Holmes
North Bristol NHS Trust

Introduction

Non heart beating donation programmes funded by UKT have increased the number of kidneys available for transplantation. Our local programme has a 2 hour waiting time between withdrawal of treatment to asystole. If asystole is not achieved in this time, the kidneys are not retrieved/ transplanted. We decieded to study our NHB programme to assess whether this 2 hour waiting time is appropriate.

Method

Records kept by the Donor Co-ordinators of all donors/ potntial donors since th establishment of the programme were examined. Data regarding time between treatment withdrawal and asystole were retreived.

Results

In the four year period studied 67 patients had become non heart beating donors, with an average time to asystole of 15 minutes ranging from less than 1 minute to 98 minutes. One set of data was incomplete. 64 of the donors died within 60 minutes, only 2 donors within the next hour.There had been 29 non donors who did not proceed as asystole occurred beyond the 2 hour waiting period. In this group there were three sets of records not documenting the time of death. In the remaining 26 cases the time to asystole ranged from 2 hours 5 minutes to more than 6 days. Only 2 patients proceeded to asystole in the following 3 hours, both within 2 and a half hours from withdrawal.

Conclusion

This retrospective study shows that a 2 hour waiting time for asystole is appropriate for the retrieval of kidneys from NHB Donors. The implications for cutting the time to one hour would have been four less kidneys over the 4 year period, whereas if we extended the time to 2 and a half hours, we would have retrieved four more kidneys.

Summary

Non Heart Beating donation has increased the number of kidneys available for transplantation. Our local programme has a 2 hour waiting time for asystole. We decided to assess if this waiting time is appropriate. The results demonstrate that 2 hours is an appropriate time to wait. Over the 7 year period since the inception of the NHBD programme little benefit would have been gained from extending this waiting time for asystole.

05.10.2009 | 16:00-18:00

DCD Ethical and Legal Aspects

#20 – Starting NHBD maastricht class II in italy: preliminary results

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Introduction

NHBD could be an additional source of organs for transplant.However,they suffer from a warm ischemic lesion that compromises their quality. Additional efforts and techniques(ECMO, advanced preservation systems)are necessary to limit the warm ischemia and cold preservation effects on the graft. Evaluation of the extent of warm ischemic damage with pulsatile perfusion machine can help to take a decision of transplanting the organ. Our center obtained the authorization for the NHBD program in 2008. The objective of this work is to report the very first experience.

Methods

All donors undergone ECMO before recovery.In the 2 first donors static cold preservation(SCP)was used to preserve the kidneys and organ evaluation was based on the traditional parameters(donor charachteristics, duration of warm ischemia,ECMO parameters,macroscopical aspect of the kidneys, perfusion after recovery and biopsy findings). In the second two donors,after organ extraction, pulsatile perfusion(PP)machine(RM3, Waters Medical Systems)was used to preserve and evaluate the organs. Results are reported in terms of transplant rate,DGF, dialysis need,PNF and graft loss.

Results

4 NHBD were performed between september08 and June09. From the 2 first cases, 3 kidneys were obtained, preserved on SCP and transplanted. 2 of them were lost, 1 because of PNF and the other due to a venous thromboses on the 9th day.

From the 2 next donors, 1 showed severe atherosclerosis which impeded cannulation and ECMO, and severe histological lesions in the pre-transplant biopsy. Anyhow,kidneys were placed on PP machine and clearly bad perfusion variables correlated with histological findings.The other donor was effective,both kidneys were preserved on PP pump and transplanted one showing DGF shorter than the SCP kidney and the other showed inmediate function.

Kidney	1	2	3	4	5	6	7
Donor age		57	57	60	60	52	52
ECMO	Yes	Yes	Yes	No	No	Yes	Yes
Preservation method	SCP	SCP	SCP	PP	PP	PP	PP
PP values	--------	--------	--------	RR=0,7 Flow=52 mL/min	RR=0,7 Flow=52 mL/min	RR=0,3 Flow=90 mL/min	RR=0,25 Flow=95 mL/min
Cold ischemia time (hours)	16	14	18	8	8	16	19
Tx (yes/no)	Yes	Yes	Yes	No	No	Yes	Yes
DGF	--------	Yes	Yes	----------	----------	Yes	No
Number of dialysis	--------	9	--------	----------	----------	2	----------
Duration DGF (days)	--------	19	--------	----------	----------	7	----------
PNF	Yes	No	No	----------	----------	No	No
Tx lost	Yes	No	Yes	----------	----------	No	No

Conclusions

Our first 4 NHBD results suggest the feasibility of procurement of suitable kidneys for transplant by using ECMO and pulsatile perfusion machine.

The evaluation of the MR3 perfusion parametres has given greater guarantees when deciding whether or not to carry out a kidney transplant.

Summary

We report the very first experience on kidney transplantation from NHBD in Italy. 5 kidneys from 4 NHBD were transplanted, 3 after SCP and 2 after machine perfusion. Our results suggest the feasibility of procurement of suitable kidneys for transplant from NHBD in Italy too.The evaluation of the perfusion parametres has given greater guarantees when deciding to carry out a kidney transplant.

05.10.2009 | 16:00-18:00

DCD Ethical and Legal Aspects

#21 – Donation after cardiac death in Italy

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Sapienza Università di Roma

In Italy active or passive euthanasia is a crime and no law concerning the so called „living will" has been yet approved. Therefore it is impossible to perform Maastricht category 3 or „controlled" donation after cardiac death (DCD).In the sixties, at the very beginning of organ transplantation in Italy, kidneys have been removed from DCD or Non Heart Beating Donors (NHBD) and subsequently transplanted. However this kind of procedure was discontinued after that the Italian Parliament approved the „brain death" law.

Recently, DCD has been proposed again from some Italian transplant centers for Maastricht category 2 or 4 „uncontrolled" NHBD. There is partial agreement between some experts in Legal Medicine and some judges that cannulation of the femoral vessels could be performed without previous family consent in patients having sustained cardiac arrest but under timely and effective cardiopulmonary resuscitation. No drugs unuseful for the patient are allowed.

After having obtained the relatives' consent, it is required to stop resuscitation it is mandatory to wait for at least 20 minutes of cardiac arrest, certified by continuous EKC recording. Only afterwards is possible to start cold perfusion and maybe cardiopulmonary by-pass, move the patients to the operating room and proceed to organ harvesting.

In Italy a „presumed consent" transplant law has been approved but not really enforce, mostly due to lack of information of the public opinion. Therefore I think that is risky to perform premortem cannulation of the femoral vessels of the potential donor unless he brings with himself a „donor card" or there is a certain proof of his willingness to donate organs and tissues.

It is my personal opinion that this procedure will allow at best only the retrieval of few marginal kidneys and some tissues, and therefore will not be very helpful for our waiting list patients. I suggest instead modifying first the Italian law in order to be able to declare cardiac death after only 5 minutes of cardiac arrest, certified by continuous EKC recording.

Summary

In Italy death of a human being must be declared either after brain death or after 20 minutes of cardiac arrest, certified by continuous electrocardiography (EKC) recording.

05.10.2009 | 16:00-18:00

DCD Ethical and Legal Aspects

#22 – Development of a National Protocol for Donation after Cardiac Death (DCD) in Australia

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Australian Organ and Tissue Donation and Transplantation Authority (1), The Alfred Hospital (2), NHMRC-NICS (3), NHMRC-NICS (4), NHMRC-NICS (5)

Background

In 2007, DCD represented a 10% increase in total donor numbers in Australia. The re-emergence of DCD as an alternative pathway to organ and tissue donation is due in part to public demand, the waiting list for transplantation and technological advancement in organ preservation techniques. However challenges to the broader uptake of DCD remain, including education, appropriate provision of resources, infra-structure, ethical issues and legislative differences pertaining to organ and tissue donation and death in the States and Territories of Australia.

Purpose

To develop a nationally consistent protocol that ensures the safe, legal and ethically justifiable practice of DCD in Australia.

Methods

A DCD working party was established to guide the process and development of the protocol. The working party includes expert representation from the organ and tissue donation, transplantation, acute care sectors, law, ethics and a public consumer.

The protocol was informed by recommendations in national[1, 2] and state[3] guidelines and further by recommendations from a stakeholder workshop attended by organ and tissue donation and transplantation representatives. Together with the protocol an implementation tool has been developed for local institutional use.

A targeted consultation of 30 days, with relevant professional colleges and societies and a general public consultation period is occurring.

Results

Comments resulting from the consultation period will be incorporated into the protocol where appropriate. Following the consultation phase, a high level implementation plan currently being finalised will be implemented.

1. National Health and Medical Research Council. Organ and Tissue Donation after death, for Transplantation. Canberra: Australian Government; 2007.
2. Australian and New Zealand Intensive Care Society. The ANZICS Statement on Death and Organ Donation. 3rd ed. Melbourne: ANZICS; 2008.
3. NSW Health. Organ donation after cardiac death: NSW Guidelines. NSW Health; 2007.

Summary

DCD has raised a number of clinical, ethical and legal issues in the Australian context. In developing the National Protocol for DCD it was critical to consult widely to ensure these issues were addressed. The intent of the National Protocol for DCD is to support the implementation of DCD across Australia and ensure consistency of practice.

06.10.2009 | 08:00-10:00

Initiatives to Improve Organ Donation

#23 – Estimating the potential of deceased organ donation: results of a European pilot study

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Organización Nacional de Trasplantes (1), Organización Nacional de Trasplantes (2), Organización Nacional de Trasplantes (3), Autoridade para os Serviços de Sangue e Transplantão (4), Slovenija-Transplant (5), Transplant Coordinating Center of Czech Republic,
Prague (6), NHS Blood and Transplant, Bristol (7), Poltransplant, Warszawa (8), Agence de la Bio-médecine, Denis La Plaine Cedex (9), Hungarian National Blood Transfusion Service, Budapest (10), Centro Nazionale Trapianti, Rome (11), Deutsche Stiftung Organtransplantation, Frankfurt/Main (12), Swisstransplant, Bern (13)

Introduction and objectives

DOPKI is a project funded by the European Commission, whose objective is to develop a common methodology for estimating the potential of deceased donation. A pilot study was performed to validate a pre-agreed upon methodology, based on the analysis of hospital mortality data (overall and with a set of selected ICD coded neurologic diseases) and the review of medical records of deceased patients in the intensive care units (ICUs). Thirty hospitals in 11 European countries participated in the study on a voluntary basis.

Results

The availability of data on in-hospital ICD coded mortality was limited. Overall, 26% of hospital deaths and 23% of deaths in the ICU contained at least one of the ICD selected codes between their diagnoses. Notably, 79% of deaths with the selected ICD codes occurred outside the ICU. Deaths in the ICU with the selected codes showed a stronger correlation with the number of brain deaths (BD) ($r = 0.726$, $p < 0.001$) than that existing between the total number of deaths in the ICU with the number of BD ($r = 0.575$, $p = 0.001$).

Three per cent of hospital deaths and 15.1% of deaths in the ICU were BD, with a large inter-hospital variability. The value of both indicators of the potential of donation varied significantly depending on the availability of neurosurgery, the turnover rate of the ICUs and the percentage of deaths with the selected ICD codes who died within the ICU (Table 1).

Table 1: Factors influencing the potential for donation

	Brain Deaths / Hospital Deaths (%)		p	Brain Deaths / ICU Deaths (%)		p
Neurosurgery	**Yes N=25**	**No N=5**		**Yes N=25**	**No N=5**	
	3.01%	1.99 %	0.007	15.6 %	10.1 %	0.0002
	r			r		
Turnover index	0.180		0.349	- 0.463		0.010
Deaths in the ICU with selected ICD codes / Hospital deaths with selected ICD codes (%)	0.515		0.035	0.236		0.316

Conclusions

In our experience, the analysis of the selected ICD codes might help to predict a significant percentage of BD in the ICU and explore a potential of donation outside the ICU. The potential of donation varies according to some hospital characteristics, which establishes the need to provide reference values for these indicators on the basis of those factors. As a pilot study, our results must be corroborated under the scope of studies working with hospitals belonging to the same socio-demographic and health-care reality.

Summary

DOPKI is a project funded by the European Commission, whose objective is to develop a common methodology for estimating the potential of deceased donation. A pilot study was performed to validate a pre-agreed upon methodology, based on the analysis of hospital mortality data (overall and with a set of selected ICD coded neurologic diseases) and the review of medical records of deceased patients in the intensive care units (ICUs).

06.10.2009 | 08:00-10:00

Initiatives to Improve Organ Donation

#24 – A targeted collaborative approach increases organ donation rates within a major metropolitan australian hospital

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Royal Melbourne Hospital

Aims

To maximise organ donation rates and enhance support to family and staff throughout this process.

Methods

The Royal Melbourne Hospital is a tertiary referral centre providing specialist neuroscience services and one of two state trauma centres. Following the implementation of the Australian National Organ Donation Collaborative (NODC), July 2006 – June 2009, a multidisciplinary team was implemented to identify and adopt best donation practices. The approach involved identifying clinical champions within key areas, producing clinical resource tools to aid identification of potential donors and the management of these patients, specialist training to ensure optimal family and staff support, and a general hospital and community education and awareness campaign to highlight the importance of donation. The main outcome recorded was the absolute number of organ donors and the rate of consent in patients with no sign of brainstem function with (Category A) or without brain death certification (Category B).

Results

In the 4 years prior to the NODC there were 16 donors from 49 potential donors. Consent rates were 57% in Category A and 43% in combined A/B Categories. During the 3 year NODC there were 33 organ donors from a potential pool of over 69, and consent rates increased to 76% in Category A and 57% in combined A/B Categories. In the final 12 months of the NODC consent rates in Category A were 73% and Category A/B 50%, and there were 8 organ donors from a potential donor pool of over 23. Medical staff attendance at specialist training increased by over 800% during the NODC period.

Conclusions

In the first two years there was a significant increase in organ donors, potential donor pool and consent rates associated with the implementation of this project. This increase in donation rates was disproportional to national trends of brain dead donors, which declined during this period. The decline in donation and consent rates in the final year highlights the need for ongoing enthusiasm and momentum to achieve sustained changes.

Summary

A targeted collaborative approach to education, training and awareness campaigns can result in increased potential donor pools and ultimately donation rates. Momentum and enthusiasm need to be maintained to ensure changes in donation rates are sustained.

06.10.2009 | 08:00-10:00

Initiatives to Improve Organ Donation

#25 – Attitudes regarding organ donation after cardiac death versus brain death among the american public

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University of Michigan

Background

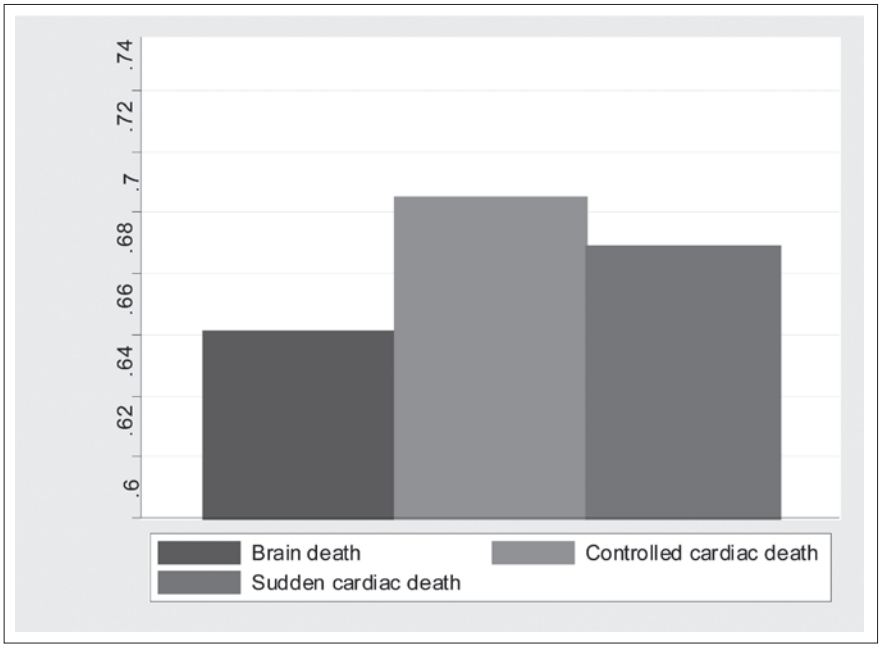
Ethical concerns have posed a barrier to expansion of donation after cardiac death (DCD), particularly the use of rapid organ recovery programs in the context of sudden cardiac death. It is unknown whether the American public would be willing to donate organs in the setting of sudden unexpected cardiac death, or whether such a program would induce mistrust in the medical system.

Methods

A cross-sectional survey was performed using a nationally representative internet panel. Scenarios were provided describing donation in the context of brain death, controlled cardiac death, and uncontrolled (sudden) cardiac death. Participants were randomized to receive questions about trust in the medical system before or after the rapid organ recovery scenario.

Results

Out of 1,631 panelists, 1,049 completed the survey for a response rate of 64%. Participants expressed more willingness to donate in the setting of controlled and uncontrolled cardiac death than brain death (70% and 69% versus 66% respectively, see Figure). Eighty percent of subjects (95% CI 77%-84%) would support having a rapid organ recovery program in their community. The idea of such a program slightly decreased trust in the medical system from 59% to 51% (p=0.02), but did not increase belief that a signed donor card would make doctors not try as hard to save the patient's life (28% vs. 32%, p=0.37).



Conclusions

The American public are more willing to donate organs in the context of cardiac death than brain death, and are generally supportive of rapid organ recovery programs for donation after sudden cardiac death. These findings support expanding the use of DCD, which could dramatically increase the number of organs available for transplantation.

Summary

In this nationally representative survey of the American public, support for organ donation after cardiac death was stronger than support for donation after brain death.

06.10.2009 | 08:00-10:00

Initiatives to Improve Organ Donation

#26 – Deceased Organ Donors in Saudi Arabia: The Potential versus the Possible

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Saudi Center for Organ Transplantation

Introduction

Organ transplantation is the best available method for the treatment of end-stage failure of most essential organs. However, the need for viable organ supply limits its progress; thus, we studied the actual deceased heart beating donors reporting to the potential pool of possible deceased donors (DD) in the country.

Methods

We compared the figures and composition of the cases of possible DD reported nationally during the year 2008 to Saudi Center for Organ Transplantation (SCOT) with the actual number of in-hospital death records of the Ministry of Health and the data concerning the fatal accidents compiled and reported by Saudi Arabian Red Crescent over the same period.

Results

The actual number of deceased potential donors from in-hospital death records is about 800 cases/year (2% of in-hospital death) (amounts to 33.4 PMP). On the other hand, SCOT recorded a total of 533 (22 PMP) reported case of possible DD which is almost 66% of expected cases with only 20% (4.4 PMP) actual rate of organ retrieval. The estimated number of possible donors from injuries, Road Traffic Accident (RTA) and external causes of injuries is 840/year. This figure is based on calculating 12% of the recorded 7,000 fatal accidents (amounts to 35 PMP). This compares to the current reported number of only 310 cases (i.e. 13 PMP) which are only 37% of expected cases from fatal accidents. Taking into account the possible DD cases as described above, one would expect the figure to be reported 3 times the current.

Summary

Early identification and awareness of potential organ donors followed by early reporting to SCOT is required. ER/ICU staff and the Red Crescent paramedics should augment their skills in resuscitation and management procedures to identify possible DD donors so as to decrease the gap between the actual and the possible number of DD.

06.10.2009 | 08:00-10:00

Initiatives to Improve Organ Donation

#27 – Perspectives from Parents/Guardians about Organ Donation of Critically Ill Children

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Wake Forest University School of Medicine

Objective

To better understand parents perspectives about organ donation when their child was hospitalized in a tertiary care pediatric intensive care unit.

Study Design: Prospective study utilizing taped interviews conducted with surrogates (a parent or legal guardian) of patients hospitalized in the pediatric intensive care unit (PICU)

Setting: Pediatric intensive care unit at a tertiary care medical center.

Measurements: Qualitative data analysis was used to assist in the identifying and coding of common themes. Analysis focused on variations in responses to common themes and topics addressed.

Results

Twenty-two parents, 11 mothers, and 11 fathers were interviewed. 21 parents (95.5%) indicted they want to be asked about organ donation (OD) if their child was dying or had died. Twelve parents (54.5%) expressed a preference to be given information well in advance of their child's death while seven parents (31.8%) preferred to be approached about OD after the death of their child. Seventeen parents (77.3%) preferred the physician to be the primary spokesperson to approach them about OD. 5 parents (22.7%) preferred that a member of the medical staff or nurse approach them. Nine parents (40.9%) agreed that the current use of an organ procurement organization (OPO) representative was the best approach. Four parents (18.2%) agreed with this approach, but requested that the physician also be present to discuss OD. Twenty parents (90.9%) indicated that they would like to be approached about donation after cardiac death (DCD) and 19 parents (86.4%) agreed that DCD was an acceptable means of recovering organs for transplantation. All parents indicated a desire to be present when their child died. The distinction between cardiac and neurologic death was not an issue for parents. Twenty one of 22 parents interviewed (95.5%), agreed with the current standard of no reimbursement for donated organs.

Summary

Parents overwhelmingly want to be asked about OD. Parents prefer to be approached by the physician, and when a member of the OPO was requesting donation, parents preferred to have the attending physician present. Parents preferred to be approached about OD before the confrontation of a life-threatening situation and did not distinguish between brain death and cardiac death.

Initiatives to Improve Organ Donation

#28 – Ethnic/Race Differences in Preferences for Disclosure of Organ Donation Intentions in the United States

T. Purnell, N. Powe, M. Troll, N. Wang, L. Boulware
Johns Hopkins University

Little is known about the most preferred methods of disclosing organ donation intentions among persons of different ethnic/racial backgrounds in the United States (U.S.). We performed a national, cross-sectional study of attitudes regarding deceased organ donation among the U.S. general public. Households were identified using random digit selection of telephone numbers, and a telephone questionnaire was administered by trained interviewers to assess differences in attitudes toward alternative methods of public and private disclosure of donation intentions. In multivariable analyses we assessed the independent association of ethnicity/race with perceptions after adjusting for age, sex, marital status, insurance status, and annual household income. Among 845 total study participants (from 85% of eligible households), 302 (36%) stated that they had not yet declared themselves organ donors on a drivers' license or organ donor card. Among non-disclosers, 18% were African American, 62% were female, 53% were married, 88% had health insurance, 57% were older than 40 years, and 52% had annual household incomes greater than $40,000. Among African Americans, discussion with family members was the most preferred method of disclosure (70%), followed by discussion with a doctor (61%), a religious representative (54%), registration through mail/ telephone/ computer (37%), workplace registration (34%), registration at a religious place of worship (33%), and registration at a grocery store/bank/post office (25%). Discussion with physicians was the most preferred method among non-African Americans (66%), followed by registration through mail/telephone/computer (64%), discussion with family (62%), workplace registration (43%), registration at a grocery store/bank/post office (38.4%), registration at a religious place of worship (38.3%), and discussion with a religious representative (37%). After adjustment, African Americans were statistically significantly less likely than non-African Americans to favor registration through mail/telephone/computer (adjusted OR, 0.35; 95% CI, 0.15-0.81; P= 0.014) and workplace registration (adjusted OR, 0.22; 95% CI, 0.09-0. 55; P= 0.001).

Summary

The development and implementation of culturally targeted interventions to enhance private disclosure of donation preferences among families, health care workers, and religious representatives and to relay preferences to organ procurement professionals may improve donation rates among ethnic/racial minorities and help to ameliorate ethnic/race transplant disparities in the United States.

06.10.2009 | 08:00-10:00

Initiatives to Improve Organ Donation

#29 – Attitude of the Tunisian toward organ donation

M. Ben Ammar (1), M. Mebazaa (2), I. Mallekh (3), R. Louhici (4), M. Hmida (5)
Mongi Slim Hospital (1), Mongi Slim Hospital (2), Centre National pour la Promotion de la Transplantation d'Organes (3), Centre National pour la Promotion de la Transplantation d'Organes. (4), Centre National pour la Promotion de la Transplantation d'Organes. (5)

Introduction

To assess the attitude of the Tunisian towards organ donation, conducting an opinion poll by the National Center for the Promotion of Organ Transplantation in Tunis between March 2006 and February 2007.

Methods

Sample of the study: 902 persons. Respondents: 49.7% Men 50.3% Women. Age: 38.5±16 years. 67.6% of responders aged less than 45 years. Questionnaire written in Arabic. Answering 16 questions on four main themes: assessment of knowledge in donation and transplantation; opinion and attitude towards donation and transplantation; explicit justification for refusal of donation and psychological defenses in case of unconscious refusal of donation. Analysis of psychological defenses unconscious refusal of the gift.

Results

80.7% of respondents know the possibility of organ transplantation in Tunisia; 64.3% are aware of the existence of legislation about donation and transplant organs; 30.8% of people say that organs can be taken both in the living brain after death; 49.5% implies that the harvesting and transplantation is carried out only in public health permitted and 62% are aware of the practicalities of expression, in their lifetime, their willingness donation after death. On average, 56% of the responses are accurate. Opinion and attitude towards organ donation after death: while the Tunisian think transplantation is an effective treatment, only one in two people agree to give their organs after death. Analysis of responses of group virtually denying donation (44.1% of the sample): unclear advocacy 55.3%, 16.5% personal reasons, lack of confidence 15.2% and 13% religious opposition. Analysis of psychological defenses unconscious inciting refusal: refusal to violate integrity of the body after death (76.9%), religious obstruction (63.1%), refusal to discuss the matter with his family (61.5%), lack of legislation benign (59.1%), belief in the existence of a trade in human organs (47.9%) and indisputable right to refusal (46.5%).

Conclusion

Our awareness seems necessary but not sufficient to address the other defenses psychological unconscious. We must encourage people to talk more about organ donation and body image.

Summary

To assess attitude of the Tunisian towards organ donation, conducting an opinion poll by the National Center for the Promotion of Organ Transplantation in Tunis between the March 2006 and February 2007.

06.10.2009 | 08:00-10:00

Initiatives to Improve Organ Donation

#30 – Chronic shortage of tidneys for transplantation in the united states: Is there any solution?

Y. Cho (1), M. Stadtler (2), T. Mone (3), I. Hutchinson (4), T. Shah (5)
Mendez National Institute of Transplantation (1), OneLegacy (2), OneLegacy (3), Mendez National Institute of Transplantation (4), Mendez National Institute of Transplantation (5)

Introduction

Due to increasing number of patients with end-stage renal disease (ESRD) on waiting list, many transplant centers have tried to increase donor pool, by utilizing kidneys from living donors, from expanded criteria donors (ECD), or from donation after cardiac death (DCD). However, the demand for deceased donor kidney far exceeds the available supply, so that the number of ESRD patients on a waiting list is steadily increasing.

Materials

During 2000-8, 131,639 kidney transplant alone (KTA) were identified from OPTN/UNOS data as of May 26, 2009. Multiple organ transplants were excluded from this study.

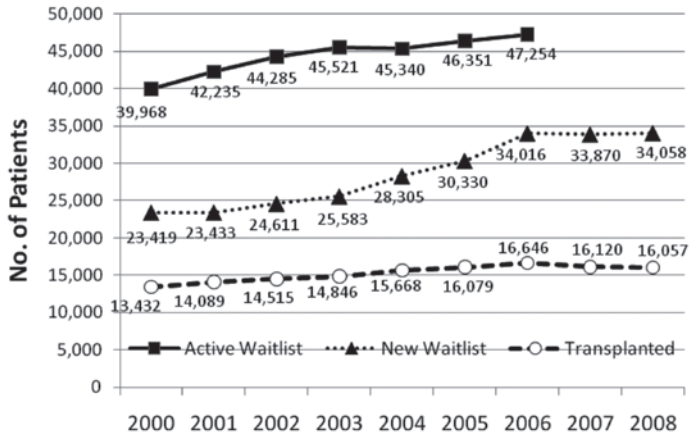
Results

During 2000-2006, the number of waiting list patients for KTA increased by 1,041/year for active waiting list and 1,514/year for new waiting list (Fig 1). During the same period, the number of KTA had increased by 459/year and then decreased (16,646 in 2006, 16,120 in 2007 and 16,057 in 2008). In Fig 2, waiting line of old patient continued to grow during 2000-2008 (607/year increase for age 50-65 yr and 304/year age 65+ yr). In Fig 3, the number of deceased donor (DD) kidney transplants increased during 2000-2006, whereas living donor (LD) had been progressively increased during 2000-2004 and then decreased from 6,638 in 2004 to 5,949 in 2008. Utilization from extended criteria donor (ECD) and donation after cardiac death (DCD) donors had been steadily increased during 2000-2008 (75/year increase for ECD and 120/year DCD).

Discussion

Mortality for waiting list patients increases, resulting from increased mean age of waiting list patients and waiting time (now shown). Expanded criteria donors (ECDs) and donation after cardiac death (DCD) provide more kidneys in the donor pool. However, the financial impact and the long-term benefits of these kidneys have been questioned. Revised reimbursement guidelines will be required for centers that utilize these organs.

Figure 1. Yearly trend of the number of active waiting patients, new waiting patients, and patients who received kidney transplants.



2000 2001 2002 2003 2004 2005 2006 2007 2008

Figure 2. Wait List Additions by Age

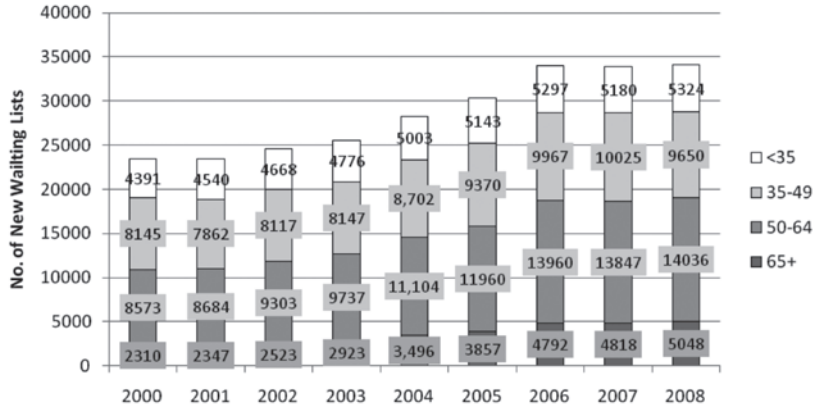
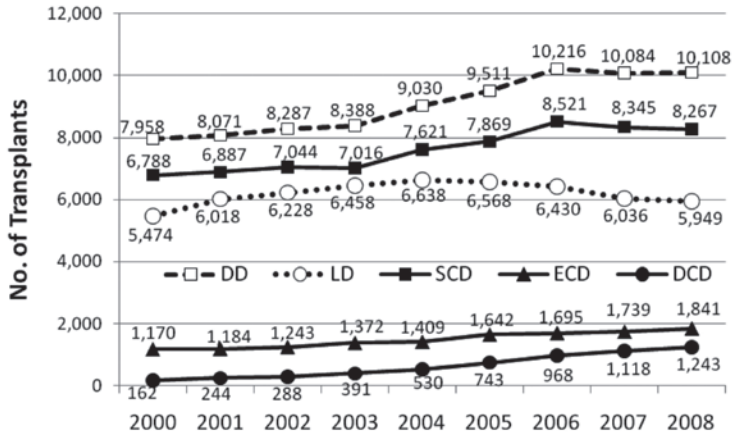


Figure 3. Yearly trend of the number of transplantation according to deceased donor (DD), living donor, standard criteria donor (SCD), expanded criteria donor (ECD), and donation after cardiac death (DCD) donors.



Summary

In order to alleviate chronic shortage of kidneys for transplantation, the rates of living, ECD, and DCD kidney donation should be increased. Concerted efforts should be focused on procurement and utilization of ECD and DCD donors, which can provide major source of kidney donor pool.

06.10.2009 | 08:00-10:00

Economical Aspects of Organ Donation

#31 – Is reassessing transpantability of kidneys that are declined by external opo's financially viable?

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New York Organ Donor Network

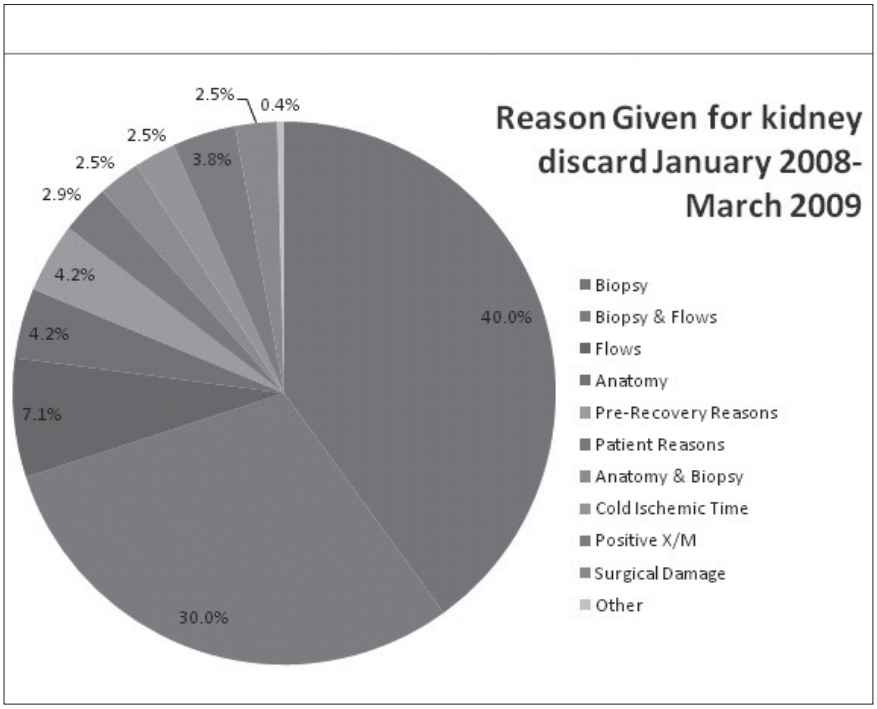
Introduction

The NYODN is an organ procurement organization (OPO) that provides organs and tissues for transplant within a donor service area (DSA) of 13 million people. The NY DSA has one of the largest kidney waiting lists in the US (5,538 in 2008 (1), with a mortality rate (20%) that exceeds the national average (17.4%). In an effort to meet the increasing demand for kidney transplantation in the NY DSA, the NYODN imports and transplants more kidneys from external OPOs than it's own DSA currently provides. This article discusses the financial implications involved.

Methods and Results

During 2008 and Q1 2009 the NYODN brought in 659 kidneys (77 0Ag MM, 582 points) from external OPO's. To reassess the transplantability of these organs, the Optimized Needle Biopsy Technique (ONBT) developed under guidance of the NYODN Kidney/Pancreas committee (2), and Pulsatile Perfusion monitoring were utilized. 566 (97 %) of the imported kidneys were re-biopsied and 525 (90.2%) were placed on a pulsatile perfusion device and monitored for flow and resistance. This reassessment resulted in 346 kidneys (59.45%) being transplanted locally and 236 (40 %) being discarded. The reasons for discard are presented in Graph 1.

The significant costs involved in the evaluation of these kidneys consist of pulsatile preservation ($2400 / kidney) and the cost of biopsy ($400 / kidney. During the analyzed period, the cost of evaluating the discarded points kidneys was $660,800. The total cost to the transplant centers involved in evaluating all 582 points offers kidneys was $1,486,400. According to USRDS 2008 annual data, every transplanted kidney saves Medicare $125,000, as well as decreases the death rate on the local transplant waiting list (3). Thus by having transplanted 342 kidneys in the analyzed period the total savings to NY Medicare represented $42,750,000. Therefore the net-cost benefit to Medicare can be assessed at $42,750,000 – $2,147,200 = $40,602,800.



Summary

Conclusion. The data suggests that reassessing transplantability of kidneys not accepted locally is cost effective and an important source of kidneys for OPO's with ever increasing waiting lists and mortality rates. Kidney reassessment using both ONBT and pulsatile perfusion monitoring as assessment tools has been shown to be a cost effective method that saves peoples' lives.

06.10.2009 | 08:00-10:00

Economical Aspects of Organ Donation

#32 – Kidney allocation: US challenges and direction

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University of Virginia Health System (1), UNOS (2), UNOS (3)

Introduction

The number of people waiting for a kidney transplant (tx) is vastly greater than the available number of deceased donor (DD) organs. One goal of kidney allocation is to minimize wastage. As such, death with a functioning graft (DWFG) shortly after tx is an unacceptable outcome. Current US kidney allocation policy prioritizes candidates mainly by wait time, but this may change to dialysis time in the future. This analysis examines the characteristics of recipients with DWFG within 3 yrs of tx.

Results

26,376 DD, kidney-alone txs reported to the Organ Procurement and Transplantation Network (OPTN) between 2003-5 were reviewed, excluding those with any previous tx. The overall rate of DWFG within 3 yrs was 7.5% (n=1,966), and the majority (78%) of these were among recipients age 50+. The rate of DWFG increased with age from 2.6% among recipients aged 18-34, to 4.3%, 8%, and 13.7% among those aged 35-49, 50-59, and 60+, respectively. The rate of DWFG increased only slightly with increased wait time. For those listed for <=3 yrs, the rate of DWFG was 7.1%. This increased to 8.6% for those listed 3-6 years, and 9.1% for those listed >6 yrs. Similarly, DWFG within 3 yrs was 6.8% for those with no dialysis, 7.0% for <5 yrs dialysis, and 9.2% for >5 yrs dialysis.

Conclusions

Two conflicting goals have been articulated for the US allocation process: 1) care for the "sickest first" and 2) avoidance of futile txs. Substituting dialysis time for waiting time does not appear to increase DWFG and would be a more clinically relevant allocation metric than wait time. Not surprisingly, older recipients are more likely to die within 3 yrs than younger recipients. To the extent that the discrepancy between graft survival and longevity of the recipient can be accurately estimated, this measure should be included in the allocation algorithm so that early DWFG or futile txs could be minimized.

Summary

A goal of US kidney allocation is to minimize organ wastage, and as such, early death with a functioning graft (DWFG) is unacceptable. The current system prioritizes patients mainly based on wait time but could use dialysis time in the future. Substituting dialysis time for wait time does not appear to increase DWFG and would be a more clinically relevant allocation metric than wait time.

06.10.2009 | 08:00-10:00

Economical Aspects of Organ Donation

#33 – Liver alone donors, a useful, but expensive, source of liver grafts

J. Punch (1), A. Kowalczyk (2), D. Gee (3), R. Pietroski (4)
University of Michigan (1), Gift of Life Michigan (2), Gift of Life Michigan (3), Gift of Life Michigan (4)

We have recently noted an increase in the number of organ donors in which only the liver is recovered. Criteria for acceptance of organs have relaxed as patient and graft survival success rates have improved overall, as the average deceased donor grows older, and as waiting lists for organs continue to grow. This is especially true for liver grafts, as it is now recognized that livers from donors over the age of 75 work well. In addition, surgeons are willing to transplant livers that were once not considered to be suitable, including livers from patients with end stage renal failure (ESRD) and grafts from donors that have an increased risk of disease transmission. To date, the outcome for patients that are transplanted from livers from LAD has not been reported, nor has there been an examination of the relative cost of these livers. We reviewed the electronic records for all donors recovered in the 3 year period of 2006-2008 in the Gift of Life Michigan Donation Service Area. Follow-up data on the patient outcomes was obtained from these livers through reports available through Donornet. Actuarial survival was calculated using the Kaplan-Meier method with censoring at last available follow-up. During the study period, livers were recovered from 65 LAD out of 720 total liver donors (9%) . The discard rate of livers from LAD was almost three times as high as that from MAD (37% versus 13%, $p < 0.01$). The reason that other organs were not recovered from these 65 donors were: ESRD in 24 donors (37%); infectious or malignant risk in 14 donors (21%); acute renal failure in 13 (20%); advanced age in 13 donors (20%); and unknown in 1 donor. The mean age of all LAD was 57 years, and 22% were from donors over the age of 70. Cumulative 30 day and one year survival for patients transplanted with livers from LAD was 97.3% and 88.6% respectively, virtually identical to survival in the U.S. for all liver recipients. Survival for liver recipients that received livers from the 17 donors with ESRD had 30 day and one year survival of 100% and 85.6% respectively. The recovery cost for the 41 livers from LAD averaged $25,849 per liver. This was not significantly different from the cost of $25,261 per donor for livers recovered from multi-organ donors. However, the cost per donor does not account for the much higher discard rate of livers from LAD. When the cost per liver that was eventually transplanted was calculated, including the cost of recovering livers that were not transplanted, the average cost of a liver from a MAD was $28,926. In comparison, the average cost of a liver from a LAD was significantly higher at $39,073 ($p<0.01$).

Summary

Livers recovered from LAD represent an important supply of liver grafts that work as well as livers from MAD. However, the cost of livers recovered from LAD is significantly greater than the cost of livers from MAD, primarily because of an increased discard rate.

06.10.2009 | 08:00-10:00

Economical Aspects of Organ Donation

#34 – Web based national transplant database & application. A complete software solution for organs, cells and tissues.

R. Benedek
Artman Technologies

After deployment of National Transplant Database and Applications for United Kingdom (UKT) (GB, Scotland, Ireland, Wales) we have implemented the National Transplant Database and Applications for central Europe region (Slovak Republic). This solution covers the hospitals, transplant units, follow up centres, HLA labs, eye banks and external users in the field of solid organ transplantation process as well as for the first time covers the tissues and cells allocation, storage and procurement mechanism as a whole.

It is a unique computerised web based system that provides transplant centres, organ procurement organisations, histocompatibility laboratories and eye & tissue banks on a national level the ability to:

- Manage their patient's waiting list.
- Access, complete and submit transplant data forms.
- Add donor information and run donor-recipient matching lists.
- Access various transplant data reports and policies.
- Maintain an organ donor register
- Interact with other national transplant systems online
- Manage processes in Eye and Tissue banks
- Manage all processes in tissue typing HLA laboratories
- Compare individual national transplant practices between information systems and exports reports to the relevant international bodies.

Also brings a new potential to international transplant service co-operation, unifies national transplant practices, enable equal access to transplantation between countries, helps guarantee the safety of organs and the ethical standards by which they are retrieved and transplanted.

International registries can also benefit by providing data from a central point to many international studies.

- The fastest Matching Run I have seen so far. Impressive performance. (SFalvey, DO Manager, UKT)
- Absolute accuracy of data stored in the database is of paramount importance to our work and the design of the applications ensures that this objective is achieved. (AMaxwell, DE Manager, UKT)
- Chosen Web technology applications proved to be a visionary solution connecting

Summary

external users to National Transplant Database from all over the UK and Republic of Ireland. Applications are extremely user friendly and remarkably stable. (SHashmi, Head of IT, UKT)

- Comprehensive validation of all records prior to their being committed to the database is in place and the applications are designed to ensure that the management has complete control over all aspects of the validation process. (DShute, MD, UKT)

Economical Aspects of Organ Donation

#35 – New ways of analysis of efficacy and efficiency in organ procurement programs. Analysis in a cohort of 1511 potential donors.

J. Dominguez-Roldan, P. Jimenez-Gonzalez, C. Garcia-Alfaro, J. Egea-Guerrero, F. Murillo-Cabezas
Hospital Virgen del Rocio

One main topic in the organ procurement programs (OPP) is the measurement of the efficacy and efficiency of organ procurement. The resources available for organs procurement teams are good directioned if these investments are in the following of the group of high risk of brain death patients(HRBDP) (where a higher number of donors can generate (efficacy)); however a better investment is made if resources are put in the monitoring of the group of HRBDP where less efforts are need to get enough number of donors to supply the demands of the OPP. Till now, no indicators of efficiency versus efficacy had been developed for this purpose. The development of these indicators has been the objective of this research.

Population and Methods. A cohort of 1511 patients consecutively admitted in a neurological ICU from 2006 to 2008 where included. Variables of study: The development of brain death during ICU admission. Neurological groups studied: Patients with subarachnoid hemorrhage (SAH), Head trauma(HT), Spontaneous intracerebral hemorrhage(ICH), Spontaneous subdural hemorrhage(SSH), Postneurosurgery(PNS), other diseases of central nervous system(OD). Statistical methods used for the analysis of the risk of brain death in each group were: Relative risk(RR), number of patients needed to treat(NNT) , percentage of brain death in each group/Total of patients (%BD), Attributable Risk(AR), and Attributable Risk of Population(ARP). Chi square of mortality of each group compared with the rest of patients was also analyzed.

Results

	NUMBER PATIENTS	NUMBER OF BRAIN DEAD (NBD)	RELATIVE RISK	NNT	% BD	AR	ARP
ICH	152	47	3,71	4,42	3,11	73,1	21,47
SAH	181	40	2,44	7,64	2,64	59,17	14,79
HT	400	49	1,22	44,26	3,24	18,44	5,64
OD	162	13	0,73	34	0,86	-35,79	-2,9
PNS	605	11	0,11	6,88	0,72	-789,57	-54,28
SSH	11	0	0	9,37	0	X	-0.73

Chi-square 71,42 (p<0.0001) for ICH; 27,41 (p<0.0001) for SAH; 1,356 (p=0,244) for HT; 0,975 (p=0.32) for OD; 75,59 (p<0.001) (negative AR) for PNS, and incalculable for SSH (0 BD).

Conclusions

In a cohort of neurological patients, the efficacy of organ procurement in pathological groups can be calculated by %BD and NBD (In this series HT). However for analyzing the efficiency of the programs Relative Risk and its derived parameters (AR and ARP) are new better indicators that should be used for this purpose. In this series higher RR, AR, and ARP are for ICH and SAH.

Summary

In a cohort of 1511 potential donors (different pathological groups) indicators of risk (of brain death) as Relative risk , number of patients needed to treat, percentage of brain death in each group/Total of patients, Attributable Risk, and Attributable Risk of Population were studied. The results shows that Relative Risk and derived parameters are the best indicators of efficiency in organ procurement

06.10.2009 | 08:00-10:00

Economical Aspects of Organ Donation

#36 – Deceased organ donation rates are inversely related to median household income in the United States.

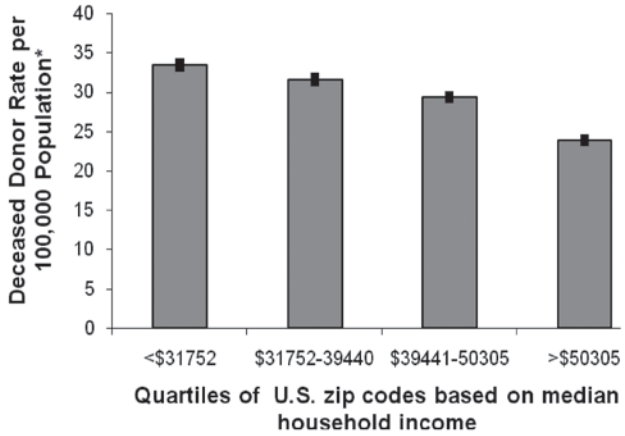
C. Rose, J. Gill, J. Dong, S. Klarenbach, J. Gill
University of British Columbia

The purpose of this study was to determine the association between income and likelihood of deceased organ donation.

Using data from the 2000 Census, we obtained the median household income and number of inhabitants in each zip code in the United States. The total number of donors between 1997-2008 in each zip code was obtained from UNOS. The rate of deceased donation was determined in quartiles of zip codes based on median household income. Within zip code quartiles, the contribution of donors in a given zip code to the overall donation rate was weighted based on the number of inhabitants in that zip code.

The figure shows the deceased donor rate per 100, 000 population in zip code quartiles. The rate of deceased organ donation was significantly higher ($p<0.001$) in zip codes with lower median household income. The inverse association between donor rate and income remained even after excluding donors with death due to trauma, and was consistently evident in states with high and low rates of deceased donation (data not shown).

There appears to be is an inverse relationship between income and deceased organ donation. Although this association may be confounded by differences in the number of potential organ donors in each income quartile, these results suggest strategies to increase deceased organ donation focused solely on socioeconomically disadvantaged groups may be inadequate.



Summary

This study demonstrates that the rate of deceased organ donation in the United States is inversely related to median household income. Although this association may in part be explained by a higher number of potential donors in lower income groups, these findings suggests that efforts to increase organ donation in higher socioeconomic groups are needed.

06.10.2009 | 10:30-12:30

Tissue Engineering

#37 – In vivo Implantation of a Functional Tissue-engineered Stentless Pulmonary Valve

E. Delmo Walter (1), V. Sales (2), D. Martin (3), R. Hetzer (4), J. Mayer (5)
Deutsches Herzzentrum Berlin and Children's Hospital Boston/Harvard Medical School (1), Children's Hospital Boston/Harvard Medical School (2), TEPHA Inc. (3), Deutsches Herzzentrum Berlin (4), Children's Hospital Boston/Harvard Medical School (5)

Objectives

With the known scarcity of an organ or a part of an organ as living tissue replacement, we sought an alternative which is easily reproducible having the same qualities of a living donor. We investigated the feasibility of a tissue-engineered stentless pulmonary valve (PV) by construction of a trileaflet valve using poly-4-hydroxybutyrate (P4HB) scaffolds, evaluating the most suitable thickness and ratio of co-cultured progenitor cells for construction of pulmonary leaflets and annular sewing ring.

Methods

Melt-blown fibronectin-coated P4HB scaffolds(thickness 100 µM, 220 µM) were seeded with varying percentage of characterized ovine bone marrow-derived MSC and peripheral blood-derived EPC (80/20, 60/40, 40/60, 20/80) for 3 days followed by 18 days in a laminar fluid flow system.

Results

H&E of FN-coated scaffolds seeded both with 40% MSC and 60% EPC demonstrated enhanced cellularity extracellular matrix formation, and cellular ingrowth into the interstitial layer of P4HB scaffolds, confirmed by scanning electron microscopy. They demonstrated primary surface expression of CD31+, vWF+ and VEGF-R2 + cells; -SMA+ cells were found both on the surface and in the interstitium evidenced by IHC. Immunoblotting revealed increased expression of -SMA+ Mechanical testing demonstrated increased tensile strength over strain Based on these results, autologous TE stentless PV using 220 µM for PV leaflet covered with 100 µM for annular sewing ring was constructed and successfully implanted into the PV position in a sheep model. The neo-tissue exhibited sufficient integrity to perform a secure anastomosis with adequate tensile strength. Echocardiography demonstrated normal biventricular function, absence of anastomotic dilatation and aneurysm formation, and good coaptation of leaflets with trivial central regurgitation.

Conclusion

The data demonstrate the successful creation of an anatomically functional, autologous TE stentless PV using sequentially seeded progenitor cell sources. This may be a possible alternative to a living organ part replacement.

Summary

Our data demonstrated the successful creation of an anatomically functional, autologous TE stentless pulmonary valve successfully implanted in a sheep model, showing adequate tensile strength,normal biventricular function and good coaptation of leaflets with trivial central regurgitation.

06.10.2009 | 10:30-12:30

Tissue Engineering

#38 – Tissue procurement system in Japan: The role of tissue bank in Medical Center for Translational Research Osaka University Hospital.

H. Ohkawara (1), N. Fukushima (2), T. Kitagawa (3), T. Ito (4), Y. Sawa (5)
Medical Center for Translational Research Osaka University Hospital (1), Department of Transplant Medicine, Osaka University Hospital (2), Medical Center for Translational Research Osaka University Hospital (3), Department of Complementary and Alternative Medicine Osaka University Graduate School of Medicine (4), Medical Center for Translational Research Osaka University Hospital (5)

Although organ procurement has been regulated by Organ Transplantation Law (Brain dead donor since 1997, Donor after cardiac death since 1979), there has been no laws or governmental procurement network concerning about tissue procurement except cornea in Japan.

Since late 1980s, some university hospitals have conducted each original bank. Finally, a guideline for tissue procurement was established by Japanese Society of Tissue Transplantation and Japan Tissue Transplant Networks (JTTN) was established to coordinate tissue harvesting in Japan since 2001. Five tissue banks were joined to TTN (skin in one, heart valve in two, bone in two). As the number of tissue banks is small, each bank cooperates on procurement, but cannot cover the whole Japanese country.

Regards to skin transplantation, only one skin bank – Japan Skin Bank Network (JSBN) located in Tokyo has been organizing skin procurement in Japan. Therefore, it has been very difficult to procure skin in area distant from Tokyo, especially around Osaka. In order to improve such situation, a tissue bank collaborating with the JSBN was established in Medical Center for Translational Research Osaka University Hospital (MTR) in April 2008. The bank has played a role as skin procurement center in West Japan, and supported procurement and preservation at the time of the skin procurement. Between April, 2008 and May, 2009, the bank participated in six tissue procurements in the West Japan area.

In the future, the bank is planning to procure and preserve pancreatic islets and bones. Moreover, there is the design to set up iPS center and stem cell bank in MTR.

Summary

As there has been no legal registration and governmental network concerning tissue procurement in Japan, national tissue procurement system has not been matured yet. In order to increase tissue procurement, the tissue bank was established in MTR in 2008. Although the numbers of tissue procurement was still small, the bank will contribute to increase tissue procurement in the west region in Japan.

06.10.2009 | 10:30-12:30

Tissue Engineering

#39 – Establishment of an individual human cell bank consisting of umbilical cord cells: GMP conditions for the tissue engineering of heart valves

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In Germany vascular diseases are the number one cause of death with a range of about 50%. Annually approximate 100.000 heart surgical interventions are conducted in Germany. 25.000 of these surgeries are heart valve operation in adults. Each eighth of thousand children has a heart defect, each fifth requires a new heart valve. These high numbers of patients affect researches to look for alternatives to conventional treatment. Currently used heart valve prostheses show good hemodynamic results, but they consist of foreign material and do not have the potential to grow and remodel. In particular, pediatric patients are affected, because they grow out of their prostheses and need multiple reoperations. Concerning the lack of donor organs tissue engineering (TE) could be a possible alternative for reconstruction of organs and organ structures. TE as a multi-disciplinary research includes the fields of biology and medicine and combines it with the field of engineering. Basic component of all tissue engineered structures is an appropriate cell source. The human umbilical cord has a great potential of different cell types. It contains not only the blood which is rich of stem cells, but also the vascular cells like endothelial cell, smooth muscle cells and fibroblasts of the vein and arteries. In the last years several research groups and companies have focused on the cryopreservation of umbilical cord blood to supply patients with congenital or acquired heart defects with autologous cells. Currently, it is a question whether these blood cells are suitable for the fabrication of heart valves and blood vessels. The aim of our project is the isolation and cryopreservation of vascular umbilical cord cells and the establishment of an individual cell bank to abrogate the limitations. Furthermore, by means of the cryopreserved cells a solution for allogenic transplantations, i.e. for parents and siblings should be found. Several studies have shown the suitability of human umbilical cord cells for the in-vitro fabrication of heart valves and vessels.

Summary

To allow an unlimited clinical application of cryopreserved cells for the future all necessary pharmaceutical formalities, i.e. the drug laws, the decree for fabrication of drugs and agents, and the EU guide for good manufacturing practice (GMP) should be noted and reduced to practice. This includes the assignation of a license for fabrication according §13 German medicine law by the competent administration of drugs.

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Tissue Engineering

#40 – European Homograft Bank (EHB): 20 years of Cardiovascular Tissue Banking and collaboration with the Transplant Coordination in Europe

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European Homograft Bank, International Association

Established in 1989 in Brussels as International non-profit Association, EHB has been collaborating closely with Transplant Coordination of different Centers in Belgium and other European countries for 20 years.

Donor selection is done after discussion of exclusion criteria with Transplant Coordinator of procurement center. Donor age for valves ranges from newborn up to 65 years, and for arteries from 12 to 55 years. Tissue preparation, morphological evaluation and functional testing are performed in Class A laminar flow following Belgian legislation, EU requirements and EATB recommendations for cardiovascular tissue banking. After decontamination in the cocktail of three antibiotics (Lincomycin, Vancomycin and Polymixin B) during 20-48h, tissues are cryopreserved by means of liquid nitrogen down to -100°C and stored in vapours of liquid nitrogen below -150°C for maximum 5 years. Systematic virological examination of donor blood is performed for HIV, HTLV, Hepatitis B and C and syphilis, and for enteroviruses, Q fever, malaria and Westnile virus by indication. Bacteriological examination of transport medium and tissues for anaerobic and aerobic contamination is performed at different steps of processing. Histological examination for malignant disease and infection is performed systematically. Viability testing and testing of mechanical properties is performed by indication. Indications for implantation are discussed with demanding surgeon. Transport to implantation center is carried out safely in dry shipper at -150°C or in dry ice at -76°C.

4.511 hearts and 1.169 batches of arteries were sent to EHB from January 1989 to December 2008. 5.388 heart valves and 2.064 arteries have been prepared and stored. 4.611 heart valves and 1.756 arterial segments have been distributed and implanted in different European Cardiac and Vascular Centers. EHB is not always in state to meet increasing demands for heart valves and arterial allografts.

Summary

Collaboration between EHB and Transplant Coordination is satisfactory. Donor selection criteria are discussed with transplant coordinator, whereas implantation indication with implanting surgeon. Since EHB is not able to meet all demands for the cryopreserved valves and arterial segments, there is a need to increase number of procurements. General procurement teams could play key role in resolution of this problem.

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Tissue Engineering

#41 – Organ donation registers: utility in an australian tissue bank and a review of the literature

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Aim

The aim of this paper to determine the utility of an Organ Donation Register (ODR) in a tissue bank and to review the literature on effectiveness of ODRs

Body

Australia has a opt-in consent procedure for organ and tissue donation.Queensland Eye Bank (QEB) has a automatic death notification from 14 Queensland hospitals to identify possible tissue donors. In a twelve month period in 2007/8, QEB had 320 cadaveric donors, 124 which were a match on the Australian Organ Donation Register (AODR). 192 had no data registered. There were four objections registered in the same time period which precluded donation. Registration with AODR made the approach for consent easier for the approach for consent interview but in many cases, the relatives of potential donors did not know of their relative's wishes or AODR registration. Additionally, according to consent interviews, many potential donor families thought that they would be notified by AODR or other notificatins systems that donation would take place automatically. There is no utility in AODR identifying potential donors in this eye bank. Review of the literature indicates that ODRs are costly to implement and maintain, they can never be terminated once implemented and they do not increase organ donation.

Conclusion

The utility of the AODR is useful to determine when there is an objection to tissue donation but the majority of tissue donors are not registered with AODR. There are some public perception issues with the current AODR.From the literature it appears the utility of organ donor registers is limited

Summary

In a tissue bank that utilises an automatic death notification mechanism, there is limited utility in identifying potential donors using the national organ donor register. There needs to be increased public awareness of the organ doantion register and how it operates. review of the literature suggests that the utility of ODRs world-wide is limited

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Tissue Engineering

#42 – Improved tissue donor consent rates obtained when family is approached in the emergency department

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Gift of Life Donor Program

Purpose

Deaths in the Emergency Department (ED) are often sudden and unexpected. Families find themselves confronted with making decisions previously not considered or discussed with their deceased loved one. One such end-of-life decision is regarding tissue donation. It is expected that the consent rate for tissue donation will increase when the donation discussion is initiated while the family is still present at the hospital and is made in conjunction with other end of life decisions.

Methods

Starting on November 1, 2008 organ procurement organization (OPO) staff began working with families of potential tissue donors from the ED while the family was still present at the hospital. Prior to that date the vast majority of initial contacts with families from the ED were at home. Beginning on November 1, 2008 the OPO coordinator assessed family dynamics and availability with referring staff whenever the potential donor met suitability for tissue donation. If the family was present and approachable, the requestor asked hospital staff to place the family on the telephone, in a private area, and introduce the requestor as a specialist who works with families in end of life decision-making. The requestor would then initiate the donation discussion with the family. Consent rates obtained when families were first approached in the ED were compared with consent rates obtained when families were first approached after returning home from the hospital.

Results

When approached in the ED, consent rates for bone donation improved significantly from 41% to 56% ($p < .05$). Another benefit was that consent was obtained almost 2 hours earlier when approached in the ED versus at home.

11/1/08 - 5/31/2009		Consent	Mean Time
Timing of Telephone Approach	N	Rate	to Consent (mins)
Approached in ED	216	56%	228
Approached at home	1,127	41%	328

Summary

Conclusions: The ED is the optimal place to initiate tissue donation discussions with next-of-kin compared to speaking with them at home. The family, by definition, is available, they are making other end-of-life decisions, and have support from hospital staff. Education in ED should not only focus on the benefits of tissue donation but on keeping families available for approach while in the ED.

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Tissue Engineering

#43 – Hepatocyte isolation from livers not suitable for whole organ transplantion and first clinical series of hepatocyte transplantation.

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Donation and Transplantation Institute (1), Barcelona Clinic Hospital (2), University Children's Hospital (3), Cytonet (4)

The development and use of new clinical cell therapies from llivers not suitable for whole organ transplantation could improve the problem of scarcity of donor livers. Urea Cycle Disorders (UCD) in children is a rare group of inherited metabolic diseases that have a poor prognosis despite optimal conservative treatment. Early liver transplantation before the onset of neurological damage may cure the disease. However, the obtainment of livers compatible for this kind of recipient is difficult due to the small size of the recipients. Liver cell transplantation (LCT) may be a good alternative to early liver transplantation, as it is less invasive and can be performed during the first weeks of life.

Material and Methods

A liver network was created with defined rules and criteria for organ selection. Collaborative centers were coordinated and logistic and communication processes were established. Two steps were defined to link hospitals to the network. LCT was performed on four patients with severe UCD with neonatal onset and poor prognosis (Table No.1).

TABLE No. 1 PATIENTS UCD STUDY

	PATIENT 1	PATIENT 2	PATIENT 3	PATIENT 4
Diagnosis	cps1-deficiency	citrulinaemia	OTC deficiency	OTC deficiency
Sex	Male	Female	Male	Male
Age at diagnosis	2 days	3 days	Prenatal diagnosis	4 days
Age at lct	10 weeks	3 years	6 hours	9 days
Donor	9 days, male	9 days, male	9 days, male	9 days, male
Mean viability	74%	77%	71%	64%
Vital cells	$1,37X10^9$	$1,46X10^9$	$0,64X10^9$	$0,56X10^9$
Total cells	$1,87X10^9$	$1,89X10^9$	$0,94X10^9$	$0,87X10^9$
Applications	6	4	3	2
Portal vein access	Middle colic vein	Middle colic vein	Umbilical vein	Umbilical vein
Immuno-suppression	Tacrolimus, prednisolone	Basiliximab, tacrolimus, prednisolone	Basiliximab, cyclosporin a, prednisolone	Tacrolimus, prednisolone

Results

The network started in 2003 and linked hospitals in Spain, Germany, Italy and Portugal. So far, 99 livers have been obtained and a total of 250,3 billon cells with an average cell viability of 77% have been isolated. The Cryopreserved human liver cells were transplanted in the four children through the portal vein after thawing. Metabolic stabilisation was shown in all patients. However, one patient died after four months from a fatal decompensation triggered by infection and poor compliance regarding immunosuppression. In the remaining three children, metabolic crises vanished after LCT, and ammonia levels remained in the normal range. One girl is doing well on conservative therapy 28 months after LCT. In the two other boys, subsequent liver transplantation was performed 10 and 15 months after LCT. Both host organs were investigated after retrieval. Whereas the activities of the affected enzymes were around 0% prior to LCT, total enzyme activities of 4.5% and 15.6% of healthy controls were found in the explanted livers. These enzyme activities are in the range of mildly affected heterozygotes.

Summary

The promising results of the first clinical series of liver cell transplantation show that this innovative method may be a suitable option for the treatment of various hepatic-based diseases. It is possible to obtain viable cells from livers rejected for transplantation.

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Tissue Engineering

#44 – The long-term surviving in vivo autologus hepatocytes on 3D matrixes as a path of building of a hybrid liver

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Victor Sevastjanov, Nina Onishchenko, Sergei Gaultier
National Research Institute of Trasplantology and Artifical Organs Department of liver and kidney transplantation, Department of Organ Donation (Transplantzentrum)

Introduction

Management of liver failure during the pretransplant period is an actual problem. The purpose of our work became the working intracorporeal hybrid liver for the treatment of hepatic failure as the bridge to LTX. For the long-term surviving and functioning of autologus hepatocytes (H) required intracorporeal, tridimensional biodegraded and biocompatible matrix. We used matrix ElastoPOB-3DÂ®, allowed for clinical application.

Materials and methods

Dogs (25-30 kg) as donors of H were used. Hepatic failure was modeled by resection of 40 % of liver. Isolated H were obtained by standard procedure with 0,12% collagenase solution. The suspension of isolated H was applied on matrixes as 1β106-2,5β106cells/cm3. Cultivation of H was made within 3 days. The matrixes ElastoPOBÂ®-3D (copolymer of βoxybutiric and βoxyvaleric acids) seeded by H were implanted into dogs mesentery in 3 days after liver resection. Biochemical indices, survival and morphology of cells on matrixes in 90 days after transplantation were investigated.

Results

Cell viability was measured after isolation at 76Â±4%. The common quantity of discharged H was 3,0x108-4,0x108 cells. Hepatic failure was characterized ALT, AST, LDH rising by 6-8 times, sodium lactate rising by 2-2,5 times and depression of synthetic liver function (albumen). On the 5th day after implantation of the H seeded matrixes all biochemical indices returned to norm. Our researches have show viable cells for a long time (90 days) on the biodegradable matrixes ElastoPOBÂ®3-D. Histopathology of neo-tissue have detected neogenic plethoric vessels, growing through matrixes and viable H after transplantation of matrixes with H into mesentery of experimental animals.

Summary

Our preliminary studies have shown a long surviving and viability of isolated autologous H, attached on the three-dimensional biodegradable matrix ElastoPOBÂ®3-D in vivo.

We suppose that matrixes ElastoPOBÂ®3-D can be applied as a tissue engineering method for building intracorporeal bioartificial neo-tissue as a path of building of a hybrid liver.

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Family Care

#45 – The power of appreciation: A thank you letter to validate donor families' decision and encourage them to inspire others

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Deutsche Stiftung Organtransplantation – Region Mitte

Organ donation has been described as a form of gift exchange. Usually, a gift exchange has three aspects: The willingness to give, the willingness to receive, and the opportunity of the recipient to convey gratitude to the gift giver. The last aspect, the opportunity to show gratitude, is not accounted for in the organ donation process in Germany. The underlying gift exchange between donor and recipient is therefore unbalanced and incomplete. A personal sign from the recipient, such as, for instance, an anonymous thank you letter which some recipients send to „their" donor family has been shown to be highly valued by donor families, who see it as a powerful confirmation that they made the right choice in consenting to donation.

Our results support these findings. Respondents indicate that the OPO information regarding the donation outcome which is currently sent to donor families do not fully satisfy their need for feedback. Of 279 surveyed donor relatives between 2004 and 2008, 66 (23.7 percent) expressed the wish to have direct contact to recipients. They did so fully aware of the fact that such contact is currently prohibited by German law which stipulates anonymity between donor family and recipient. A full 111 among them (39.8 percent) indicated a wish for anonymous contact to organ recipients.

Currently, the decision to initiate such contact is left entirely to the discretion of the recipients. Given its positive effect on donor families, recipients should be routinely encouraged to write thank you letters. Developing guidelines on how to write them would be a sorely needed first step in the right direction. Thus honoring donor families' need for first-hand feedback and validating their decision to donate is an important prerequisite to their willingness to openly share their experience and thus inspire others to follow suit.

Summary

Anonymous thank you letters from organ recipients to donor families should be routinely encouraged in the donation process in Germany. Knowing of a recipients' gratitude first-hand greatly validates the donor families´ decision to consent to donation and increases their ease to talk about their experience and inspire others to follow their example.

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Family Care

#46 – Donor families as an invaluable and untapped resource to improve the donation process and consent rates in Germany

M. Donauer
Angehörigeninitiative Region Mitte

Many people in Germany say they are favorable to organ donation, yet few actually carry donor cards. In the acute situation, family members are thus often asked for their consent to organ donation on behalf of a relative. Knowing what motivates their decision for or against donation and what they themselves see as helpful or hurtful in the acute bedside bereavement situation is thus a crucial tool to increase donation rates.

The sister of a deceased organ donor reflects on her experience prior to, during, and after donation in the "DSO Region Mitte" and suggests three main ways in which she believes donor families can help improve the donation process and consent rates.

(1) Donor relatives can provide invaluable first-hand feedback to medical professionals and transplant coordinators to improve workflows and procurement strategies and thus increase consent rates. Providing a forum for donor families to voice both positive and negative aspects of their donation experience and using their first-hand insights can improve work flows. How organ donation is first brought up in the acute bereavement situation in the hospital with family members and how it is then carried out greatly influences the chances of initial consent.
(2) Providing a forum for discussion and exchange among donor families helps them deal with their experience emotionally and find respite knowing that others share and empathize with their unique concerns and emotions.
(3) The strength gained from peer support can be crucial in giving donor family members the courage to talk about their experience publicly, and thus raise awareness about the need for everyone to record their beliefs on organ donation now to relieve family members later.

Sharing their experience openly also delivers a very powerful and emotional appeal to the mass of reluctant donors (and some clinicians) by dissipating misperceptions about increased trauma by organ donation for the family in the acute bereavement situation.

Summary

Donor relatives can play a crucial role in improving the donation process and consent rate by providing first-hand feedback to professionals to improve clinical workflow and solicitation strategy, providing a support forum for donor families and encourage them to publicly share their experience and thus persuasively appeal for donation to generally sympathetic yet still reluctant donors.

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Family Care

#47 – Mourning and adaptation to loss of parents who donated their children's organs and tissues

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Israel Transplant Center (1), Tel Aviv University (2), Haifa University (3)

Importance of the research: the implications of organ donation agreement on family members are currently not known. While public authorities encourage families to agree to donate organs of their close relative, very little is known regarding the emotional and psychological adjustments following the donation. The main purpose of this research is to examine the influences of the agreement to donate organs on family members.

This research will test parents' agreement to donate their children's organs, young and adults during a longer period of time. The loss of a child, regardless of his/her age, is a difficult and prolonged experience.

Targets: to examine the effect of the agreement to donate on mourning styles, adjustment to loss, and the growth of family members following the loss.

Method

- Participants: parents to children (young and adult) to whom an appeal was made to donate organs or tissues. A total of 216 participants.
- Period of time passed since the loss: 1979- 2006.
- Questionnaires: 7 questionnaires for donators, 6 questionnaires for those who refused to donate.
- Filling out questionnaires: through a visit at the families home, some were filled out by the parents and others by interviewers.
- Donators` adjustment to loss will be compared to that of families who refused to donate
- Tests: ANOVA analyses, factor analyses, chi square, correlations, path analyses.

Findings

1. Donors` families expressed less depression ,anger and illness than nondonors.
2. Donors` families reported better relation to the deceased (less conflicts, feelings of guilt, ect.) than nondonors.
3. Donors` families find more meaning in their own life resources after the loss,
4. Parents whose children were declared brain death remembered having received better support and information from the medical staff comparing with those declared cardiac death.

Summary

Summary would be present at the congress

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Family Care

#48 – Tecnical, Interpersonal and Critical Thinking Competency Assessment: A Systemic Approach

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IsMeTT

Competence is more than possessing the knowledge or psychomotor skills necessary to perform a specific task. For transplant nurses, competence means that the caregiver integrates knowledge, skills and personal attributes consistently in daily practice to meet established standards of performance.

The significant growth in key clinical hospital services requires educators to examine nursing competency to evaluate areas that need reinforcement in order to guarantee the high quality of care required by the JCI standards.

This session presents our current Institution standards to assess nursing competencies needed to measure critical thinking and clinical decision-making abilities and necessary as a result of findings from quality- improvement data.

To assess nursing competency a methodological plan had to be established.

Competencies have two major components: the first is a competency statement describing the general performance standard; the second is a list of criteria describing the tasks required to ensure that the general performance standard is met.

Before beginning the competency development process, four important aspects had to be considered: outcome, category, learning domain and audience.

Expected outcomes were clearly defined based on pre-established goals with the aim of assessing acquisition of a new skill or of validating existing knowledge and skills.

Competencies were selected as generic for evaluating the skills and knowledge needed to execute fewer complexes nursing interventions and intermediate or advanced in order to evaluate those needed for more complex interventions.

Identifying a particular learning domain was needed to address competencies.

Novice nurses needed a high percentage of psychomotor competencies, whereas competent nurses needed validation of higher level competencies.

Clear identification of the target audience promoted understanding of the intent of the competencies.

Competency assessment has been proved as a valid tool for building long-term continuous improvement of high quality nursing care.

Summary

Nursing in transplant is complex, competencies evaluation is an essential process to guarantee a good level of standard of care. We identify 3 levels: basic intermediate advance. We organize lecture and course we evaluate the competencies with oral and write test. The attendance was 94% in first year maintain the basic level after that 80% go up to the intermediate level the adherence to the project is 100%

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Family Care

#49 – How do grieving parents react to the request for organ donation from their deceased child?

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DSO (1), DSO Region Mitte (2), DSO (3), DSO Region Mitte (4)

Background

Organ donation of children and adolescents mostly occur in the context of an unexpected, sudden death. The most frequent causes of death in this age group are traffic accidents, suicide and hypoxia. Intensive care staff often hesitates to approach relatives in the difficult situation of the loss of a child to ask for consent to organ donation. Nonetheless, relatives need to receive precise, accurate and unambiguous information on the organ donation process. Since parents usually decide on behalf of their deceased children, the stability and comfort with the decision to donate is particularly important here. Based on survey data we gathered among relatives of child and adolescent organ donors, we evaluate the circumstances and quality of the donation request and thus help alleviate the reluctance of ICU staff to raise organ donation in an emotionally difficult situation.

Methodology

A survey was conducted with a standardized questionnaire from 2004 to 2008 of 279 relatives of a deceased organ donor about a year after the donation. 39 of them were parents who had lost a child aged 0 to 25 and consented to organ donation. We choose this age group because the children still lived with their parents which made the latter primary next of kin and key decision-makers in the donation process.

Results

46 percent (n=18) of the respondents said they expected the request for organ donation when brain death diagnostics were brought up in the conversation with the attending physician. 13 percent (n=5) even brought up organ donation themselves. Asked whether they had felt pressure to consent to donation from the medical staff at the time, 92 percent (n=36) said no, 3 respondents (8 percent) said yes. In retrospect, a majority of relatives felt good about their decision to donate: 89 percent (n=35) indicated they would do it again today, 8 percent (n=3) replied "I don't know," and only one surveyed family said they would decide against organ donation today.

Summary

Discussion:Our data shows that the request for organ donation is legitimate and expected by relatives even in particularly difficult situations, such as the sudden and unexpected death of a child. Since 15 percent of the 12000 patients on wait lists are currently children and adolescents in need for a lifesaving transplant, medical staff should never hesitate to bring up organ donation with relatives.

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Family Care

#50 – Donor Family Procurement In DSO, Region EAST

I. Stoehr, K. Straßburg, C. Wachsmuth
DSO

Introduction

In the region EAST we have organized meetings for donor families since 2005. In our country social appreciation of organ donation is not well established. Therefore donor families are often left alone with their mourning and their decision for organ donation. We arranged donor family meetings and questionated the relatives about their sujective percepts in this difficult situation.

Material and Methods

We organized 2 donor family meetings every year in 2 states and comfortable surroundings, so that everybody can decide the date and place. We invited persons who explicitly agreed to further support.

The meetings have a defined course under the special guidance of a trained psychologist. The families have the possibility to express their mourning, to compare notes and to get further Information, if necessary also professional help and care. At the end of this meeting, the participants are requested to fill in a questionnaire. We evaluated the answers.

Results

From 200 contacted relatives every year, 71 families took part. 20 did not attent the meeting, but filled in the questionnaire.

The medical support from the staff in the hospitals was judged as good to very good by 48 (67 %), the explanation of brain death was judged as comprehensible by 59 (83 %).

34 (47 %) were surprised or shocked about the question of organ donation, 31 (44 %) expected this question or asked the doctor themselves. 68 (95%) would make the same decision again. 35 (49 %) had not talked to their relative before brain death about organ donation. 68 (95 %) talked about organ donation to relatives and friends.

70 (98 %) of participating families wanted further information and judged the meeting as helpful.

Conclusion

The majority of interviewed participants were content with the manner and frequency of support. Half of the families were surprised or shocked about the question of organ donation and had not dealt with this tender subject. We noted, that organ donation in our society is still a difficult path to follow and the acceptance for the decision for organ donation is not generally appreciated.

Summary

We describe the family procurement in Germany, region East. Since 2005 we organize meetings for donor families under the guidance of a trained psychologist. At the end the paticipants get a questionnaire. We resume the attendance of donor families to their perception during organ transplantation.

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Family Care

#51 – European Children Heart Waiting List – ECHL

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Swisstransplant

Introduction

Especially in paediatric heart transplantation, organ shortening is an important issue. Allocation of children hearts from deceased organ donors are logistic demanding, while, paediatric recipients die on waiting list due to the lack of suitable organs. A central listing in the European Children Heart List (ECHL) can facilitate and fasten the allocation modality of children hearts if no recipient is available within the organization involved in allocation of a paediatric donor.

Patients and Methods

A retrospective study was conducted between January 2004 and December 2008 to analyze all pediatric heart recipients and pediatric deceased organ donors less than 12 years old in 19 European countries, covered by 9 Organ exchange organizations. The numbers of inscriptions on waiting list, transplantations and death on waiting list and the number of pediatric organ donors and the number of allocated hearts and there origin were analyzed. The data were collected from the Swisstransplant data base and kindly communicated by the European Organ Exchange Organizations (EOEO).

Results

Overall 731 paediatric heart recipients under 12 years old were listed in Europe in the analyzed period. 420 of them (57%) were transplanted, 218 of them died (29%). 19% of all transplanted hearts were imported from an other organ exchange organization. The total number of deceased paediatric organ donors was 517. About 24% of the transplantable hearts were lost due to logistic problems or due to the fact, that no compatible recipient could be found in time.

Summary

The ECHL,open for the listing of all European paediatric heart recipients allows to improve the donor pool for children on the waiting list.Giving the unique opportunity to provide an important tool to raise the chances to get an organ transplant in time and to increase the number of organs lost for transplantation.This list is open to the European organ exchange organizations since May,1st 2009.

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Commercialism in Organ Donation

#52 – A government regulated program for non-directed living unrelated kidney donation in the philippines

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National Kidney and Transplant Institute

Objectives

Describe program mechanism and present initial donor outcome.

Methods

This is a descriptive study evaluating performance of a national program for non-directed kidney donation from living unrelated donors in its 4 year implementation. Frequencies and percentages measured donor demographic data, medical follow up compliance rate and employment pre- and post-donation. Diagnostic laboratory criteria show donor clinical profiles.

Results

In 2002, the local Health Department issued Administrative Order 124 creating a National Transplant Ethics Committee to address issues of organ sale and donor exploitation. It set guidelines and oversee transplantation from LURDs starting 2004. Salient points are: Prohibition of Sale, Accreditation of Transplant Centers, Enrollment of Waitlisted patients in Deceased Donor and Non-directed LURD Program, Ethics Committee evaluation of LURDs, Creation of National Kidney Transplant Wait List and Live Donor Registry allowing centralized, non-directed kidney allocation, 10% allocation cap to foreigners, Creation of Kidney Donor Monitoring Unit with free 10 yrs medical follow-up to evaluate donor outcome, and Allow "gratitudinal" gifts like health & life insurance, reimbursement for lost income, educational plan, job placement run by a foundation. In 2004 – 2007, 1266 potential donors enrolled. 988 were rejected due to demand for outright sale (120); medical unsuitability (173), Ethics Committee disapproved (90), and retracted consent (605). Of the 278 accepted, 163 donated, 100 had ongoing work up. 15 await allocation at year end of 2007. Demographics show: 671 (55%) single, 1012 (80%) males, 861 (68%) aged 21-40 years old.

144/163 (88%) turned small scale entrepreneurs post donation. 127/163 (78%) complied with medical follow-up.

Mean serum creatinine at 6 mos, 1, 2 and 3 years were 1.3, 1.33, 1.03, 1.02 mg/dL. 3 donors had proteinuria. 1 donor had a BP of 160/100 after 4 years. Mean triglyceride was 110mg/dL.

Summary

Donors were single males, aged 21-40. Most retracted consent and medical unsuitable. They had better socio-economic status. 78% complied with follow up with normal renal function. Proteinuria was in 3 and hypertension in 1. This approach provides a rational, accessible and equitable donor allocation program. It safeguards donor rights, avoids exploitation and proliferation of organ sale.

Commercialism in Organ Donation

#53 – Is there evidence of living donor transplant commercialism in the United States?

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University of British Columbia

The purpose of this study was to determine socioeconomic differences between recipients of living donor kidney transplants and their donors as an indirect measure of living donor kidney transplant commercialism in the United States.

Using data from the 2000 Census we categorized U.S. zip codes into quintiles based on median household income. The zip codes of living kidney transplant recipients and their donors (1997-2007) were obtained from UNOS and the proportion of recipients who received a kidney from a donor with lower income was determined.

Among 63,019 living kidney transplants, median household income of the recipient and donor could be determined in 54, 483 (86%).

Considering all transplants (table below), the majority of recipients received kidneys from individuals with the same income, but 21% received kidneys from individuals with lower income. When only transplants between donors and recipients residing in different zip codes were considered, 35% received kidneys from individuals with lower income. The proportion of recipients with a lower income donor was higher when the donor/recipient were blood relatives.

61% of recipients in the highest income quintile, received kidneys from individuals in the same income quintile, while only 6% received kidneys from individuals in the lowest income quintile (data not shown). Transplantation of high income recipients from low income donors did not increase during the study.

These results suggest that living donor kidney commercialism is uncommon in the United States.

	Recipient income = Donor income	Recipient income > Donor income	Recipient income < Donor income
All recipients N = 54,483	58%	21%	21%
Excluding recipients living in same zip code as their donor N = 32,491	30%	35%	36%
Recipient of kidney from a blood relative N = 37,706	55%	22%	23%
Recipient of kidney from an unrelated Donor (N=10,899)	65%	18%	17%

Summary

This study demonstrates that there are few living donor kidney transplants between rich recipients and poor donors and dispels that commercialism in living donor transplantation is pervasive in the United States.

06.10.2009 | 10:30-12:30

Commercialism in Organ Donation

#54 – Economic incentives for organ donation: a slippery slope towards organ commercialism?

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Recently in USA Senator Arlen Specter (an old Republican who subsequently moved to the Democrat Party) have proposed economical incentives for organ donation, which until presently have been considered a felony by NOTA.

The conservative psychiatrist Sally Satel (and living donor kidney transplant recipient) has just published a book whose self-explaining title is "When altruism isn't enough: The case for compensating kidney donors". In previous interviews, Dr.Satel had proposed tax deductions or tuition vouchers for living kidney donors.

During the 2007 ELPAT congress in Rotterdam a famous USA transplant surgeons proposed a trial of economic incentives for organ donation: his proposal was rejected by the audience.

Only Iran has organized a legal, public system providing economic incentives to living kidney donors. It seems however that some donors in peripheral regions of Iran obtained late or no payment and developed health problems.

The Catholic Church prohibits money compensation for organ donation.

Economic incentives for organ donation seem not acceptable in Europe, but probably will be introduced in USA together with enforcement of control against the so called "transplant tourism".

Summary

In the author's opinion, economical incentives to organ donation may become acceptable in USA but not in EUROPE

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Commercialism in Organ Donation

#55 – High Morbidity and Mortality of Patients who underwent Commercial Living Unrelated Renal Transplantation

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Introduction

Living Unrelated Renal Transplantation (LURT) is one of the most common modality of transplantation sought by Saudi Patients. This type of transplantation is usually performed in countries outside Saudi Arabia and is usually done in sub-optimal conditions with the associated worst outcomes. In spite of this believes, there are no solid data which confirm the perceived local experience.

Methods

This retrospective data on all patients who underwent commercial LURT performed in countries outside Saudi Arabia and were subsequently followed at King Faisal Specialist Hospital & Research Center (Jeddah branch). We included all patients who were seen over 5 year period from January 2003 until December 2008.

Results

Total of 95 patients identified. There were 65 male and 30 female patients with mean age of 47 ± 12. Total of 10 patients had died with 11% mortality rate. Morbidity was much higher. Surgical complications were seen in 25 cases (27%). There were 4 cases presented with primary graft non-function and necrosis necessitating emergency graft nephrectomy. Lymphocele was seen in 22 cases.

Biopsy Proven Rejection was seen in 33 cases (35%) from these there were 27 cases had acute cellular rejection and 6 cases had Antibody Mediated Rejection (AMR).

Blood Stream Bacteria Infection where seen in 21 cases (22%). Fungal infection was seen in 22 cases (23%), where Candidemia is the most commonly seen, though aspergillosis and mucormycosis were seen with varying frequencies especially in patients transplanted in Egypt and Pakistan. CMV disease and infection were seen in 23 cases (24%). Hepatitis C and Hepatitis B virus infection are seen in 21 and 4 cases respectively. TB was seen in 6 cases and 2 cases had open pulmonary TB.

Post transplant Diabetes Mellitus was seen in 26 cases (27%). Post transplant malignancy was seen in 5 cases; 2 Kaposi Sarcoma, 2 skin cancer and one PTLD.

The average Length of Stay was significantly higher than that of living related transplant which was transplanted in the hospital.

Summary

Living Unrelated Renal Transplant is associated with high morbidity and mortality which is probably caused by the nature of suboptimal conditions where these transplants were performed. The unethical commercial nature of this kind of transplantation permits practice which deviates from the norm and certainly does not follow evidence-based transplant medicine.

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Commercialism in Organ Donation

#56 – Profitability of a lung uncontrolled non heart beating donors program

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Introduction

Hospital Clínico San Carlos of Madrid (HCSC) has developed a policy to obtain organs from donors after cardiac death (DACD). From 2002 a specific program to obtain lungs has been established. In this paper we describe the general characteristics of lung DACD, and the main causes of lost or exclusion of these donors.

Method

We study 161 real DACD from September 2002 to December 2008. Inclusion criteria for lung donation are: 1- Age under 50 years. 2.- No bleeding wounds in thorax. 3.- Time known of cardiac arrest. 4.- Less than 10 minutes until beginning of advanced cardiopulmonary resuscitation (ACPR). 4.- Transfer to emergency room less than 90 minutes. 5.- At admission there must be a clear orotracheal tube with no blood nor sign of bronchoaspiration. 6.- No sign of lung or bronchial tree infection. 7.- No mass or infiltrates at chest x-ray.

Results

We got 161 DACD in the study period (84,5% males, 15,5% females). Mean age was 42 years (33-47 years). 52,8% belonged to blood group A. Main cause of dead was sudden death (77,6%), followed by craneoencephalic trauma (CTE) (11,2%). 86 donors were excluded for lung donation, 43 potential donors were not included as such for the following reasons: 15 for macroscopic aspect; No receptor: 9; inadequate PaO2/FiO2: 7; logistic problems: 4; Bronchoscopic findings: 2; other reasons: 6. And 32 were real lung DACD. Main cause for exclusion was the presence of lung infiltrates in the X-ray (27,9%). 15 potential donors were excluded because macroscopic aspect of the lungs at operating room, 9 had no receptor, 7 had a Pa/FiO2 under 300 mm Hg, 4 had "logistic" problems and 8 had another reasons.

Conclusions

1. Lungs obtained from DACD are an excellent alternative to increase the donor's pool.
2. Exhaustive evaluation of donors guarantees the quality of donation process.
3. Improvement of logistics could enlarge the donor's pool.

Summary

Non heart beating policy of hospital clinico san carlos developed a specific program of lung transplant in 2002. From then program has obtained excellent results. We present main causes of rejection of potential lung donors

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DCD Medical Aspects and Outcome

#57 – Over 1,000 DCD Organs Transplanted in 14 Years: An Effective OPO DCD Program Increases the Donor Pool

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Gift of Life Donor Program

Purpose

To demonstrate that an effective DCD program can lead to an increase in the procurement of transplantable organs with satisfactory transplant outcomes.

Methods

This was a single OPO, multi-center study evaluating the procurement and utilization of DCD donor organs. Ongoing hospital education on early referral and DCD protocols was initiated prior to DCD donor recoveries. Transplant outcomes were evaluated using the Kaplan-Meier method.

Results

Since the implementation of its DCD program in June 1995 through June 2009, this OPO has procured 540 DCD organ donors. The mean age was 39 years (r = 0.5 – 76). The primary cause of death was trauma, accounting for 207 (38%) of the donors recovered, followed by anoxia at 181 (34%), CVA at 128 (24%) and other causes of death at 19 (4%). Donors were recovered from 14 transplant centers, 13 trauma centers, and 60 community hospitals. The mean time from donor extubation to cross-clamp, or warm ischemic time (WIT), for kidneys transplanted was 30 minutes (r = 2 – 180). The mean WIT for livers transplanted was 22 minutes (r = 2 – 69). Kidney patient and graft survival was 94% and 86% respectively at 1 year, and 88% and 75% at 3 years. Liver patient and graft survival was 83% and 72% respectively at 1 year, and 71% and 64% at 3 years. DCD donor procurement increased the donor pool by 11% and resulted in the transplantation of 1,035 organs. Moreover, no significant differences were observed in graft survival between DCD and SCD kidneys transplanted over the evaluation period. This increase was achieved while simultaneously achieving a 68% increase in annualized DBD donor procurement for 2009 versus 1995.

Year	Total Donors	DBD Donors Procured (% of Total Donors)	DCD Donors Procured (% of Total Donors)	DCD Kidney Utilization (Transplanted/ Procured)	DCD Liver Utilization (Transplanted/ Procured)	DCD Pancreas Utilization (Transplanted/ Procured)	DCD Lung Utilization (Transplanted/ Procured)	Total DCD Organs Transplanted
1995	222	220 (99%)	2 (01%)	4/4 (100%)	1/1 (100%)	-	-	5
1996	262	250 (95%)	12 (05%)	17/24 (71%)	2/4 (50%)	-	-	19
1997	292	278 (95%)	14 (05%)	21/28 (75%)	3/6 (50%)	-	-	24
1998	298	273 (92%)	25 (08%)	37/48 (77%)	9/14 (64%)	-	-	46
1999	331	307 (93%)	24 (07%)	43/48 (90%)	9/12 (75%)	-	-	52
2000	298	275 (92%)	23 (08%)	42/44 (95%)	9/12 (75%)	-	-	51
2001	315	283 (90%)	32 (10%)	50/64 (78%)	13/18 (72%)	2/3 (67%)	-	65
2002	354	318 (90%)	36 (10%)	65/72 (90%)	12/19 (63%)	0/1 (00%)	-	77
2003	344	293 (85%)	51 (15%)	77/96 (80%)	12/21 (57%)	1/1 (100%)	-	90
2004	387	340 (88%)	47 (12%)	72/94 (77%)	9/14 (64%)	4/4 (100%)	-	85
2005	382	325 (85%)	57 (15%)	88/108 (81%)	22/28 (79%)	4/6 (67%)	-	114
2006	401	334 (83%)	67 (17%)	122/132 (92%)	16/28 (57%)	2/5 (40%)	-	140
2007	389	343 (88%)	46 (12%)	81/92 (88%)	11/21 (52%)	-	-	92
2008	428	358 (84%)	70 (16%)	100/136 (74%)	14/23 (61%)	-	4/4 (100%)	118
2009 YTD*	220	185 (84%)	35 (16%)	51/69 (74%)	6/12 (50%)	-	-	57
Total	**4,923**	**4,382 (89%)**	**541 (11%)**	**870/1,059 (82%)**	**148/233 (64%)**	**13/20 (65%)**	**4/4 (100%)**	**1,035**

Summary

Conclusion: An effective DCD program can lead to an increase in the availability of transplantable organs with satisfactory outcomes. Properly implemented OPO donor referral evaluation protocols can result in an increase in the procurement of DCD organ donors without decreasing the number of DBD organ donors recovered.

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DCD Medical Aspects and Outcome

#58 – Deceased after cardiac death donation in Austria: experience gained in 25 years

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Background

Decreasing donor numbers within the last decade have resulted in alternative ways to increase the donor pool, such as the deceased after cardiac death donation.

The first kidney, donated from a deceased after cardiac death donor, was transplanted in our center in 1984.

We performed a matched single-center study of kidney grafts from donors without a heartbeat compared to donors with a heartbeat including a period of 25 years.

Methods

Between January 1984 and December 2008 4177 kidney transplantations have been performed at the transplant center in Vienna. Long-term outcomes of our kidney transplantation program were compared to 88 grafts obtained from our deceased after cardiac death program. Data were collected prospectively in our database and recipients were matched according to sex, donor age, cold ischemic time (CIT), number and year of transplantation.

Prognostic significance of cold ischemic time (CIT), first warm ischemic time (WIT), delayed graft function (DGF), donor age, HLA- mismatch and acute rejection were calculated by a Cox-model, graft survival being the endpoint.

Results

DGF was significantly higher in the cohort that received their graft from deceased after cardiac death donors (71,6% versus 35%). Despite we observed a higher rate of Primary Non-function (10,2% versus 5,7%) for grafts from deceased after cardiac death donors, long-term outcomes concerning graft and patient survival were similar in both groups.

At 15 years the rate for graft survival for kidneys from heart-beating donors was 53,6% compared to 53,3% in other group.

Patient survival at 15 years was even higher for patients that received grafts from deceased after cardiac death donors (60,6% versus 54,9%).

Univariate analyses of prognostic factors in graft survival showed significance for donor age (p=0,03), DGF (p=0,0001) and CIT (p=0,0001), whereas only DGF (p=0,01) showed significance in multivariate analyses.

Summary

Despite a high DGF rate, long-term results in both groups were similar.

Our experience proves that grafts obtained from deceased after cardiac death donors can be used successfully to increase the donor pool and offer good long-term results.

Extended CIT, DGF and donor age have a negative impact on graft survival and therefore risk factors, such as prolonged CIT, have to be reduced by using standardised protocols.

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DCD Medical Aspects and Outcome

#59 – Extracorporeal Support in Donors After Cardiac Death (E-DCD): Effects of Aortic Occlusion And Room Temperature Perfusion

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Objectives

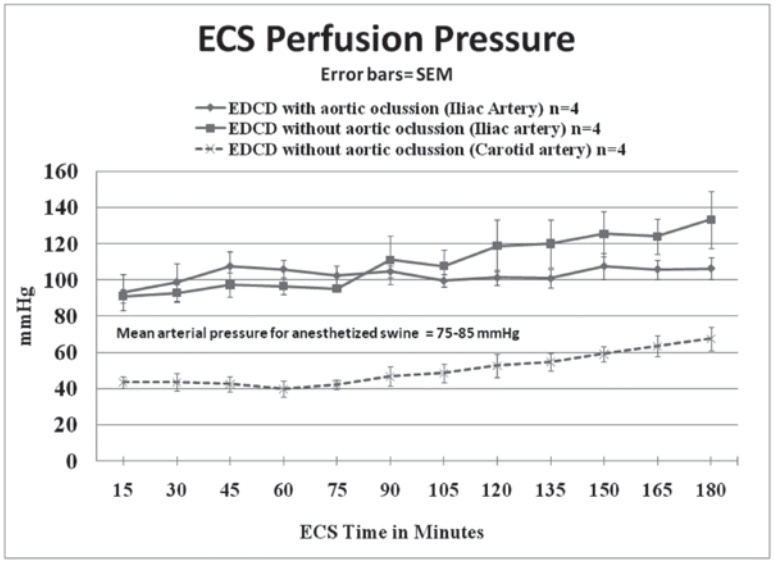
Organs from donors after donors after cardiac death (DCD) have high rates of delayed graft function and primary non function due to warm ischemic injury when circulation stops. Clinical and experimental evidence suggests that veno-arterial Extracorporeal Support (ECS) after cardiac death prior to procurement improves the function of the organs that are later transplanted. This study examined two perfusion techniques for DCD after 45min of warm ischemia to determine if aortic occlusion alters hemodynamics adversely.

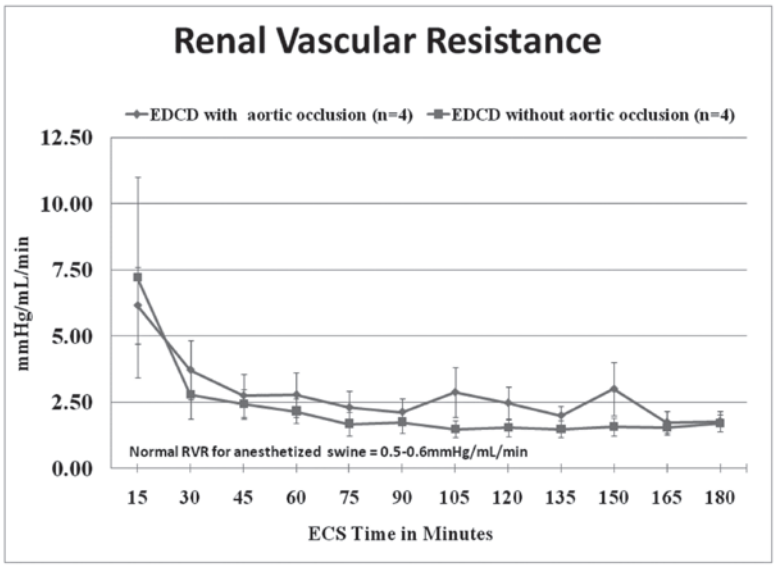
Methods

Cardiac arrest was induced by an apnea in anesthetized and paralyzed swine (30kg), followed by heparin administration, 45min of warm ischemia.and ECS at room temperature (30°C). Target ECS flows were >50ml/kg/min. Eight pigs divided in two groups were studied: 1. DCD with infradiaphragmatic aortic clamping and, 2. DCD without aortic clamping. Data collected included: Perfusion Pressure, Renal Artery Flow, Celiac Trunk Flow, Portal Vein Flow, Bile and Urine output, Carotid Artery Flows and ECS flows.

Results

ECS successfully resuscitated abdominal organs of DCD for 3hrs after 45min of warm ischemia as evidenced by the fact that all donors produced bile (>4ml/hr) and urine (>40ml/hr). No differences were seen during ECS in perfusion pressures and flows, except that portal venous flow was higher in the group with aortic occlusion ($p<0.005$). During ECS, with aortic occlusion urine production was delayed (45min) in the group without clamping and there was a trend towards lower renal vascular resistance, in this group as well, but p value was >00.5 at the end of ECS. As expected no carotid flows were obtained when aortic occlusion was implemented.





Summary

This work suggests that there are no significant differences when aortic clamping is used during DCD at room temperature. Aortic occlusion isolates the thorax and brain from the circulation and its implementation can easily be implemented in the clinical setting using an occlusion balloon.

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DCD Medical Aspects and Outcome

#60 – Lung transplantation using controlled donation after cardiac death donor lungs results in excellent early & intermediate outcomes

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Background

The use of Donation after Cardiac Death (DCD) donor organs has potential to alleviate the shortage of transplantable lungs, however there remains limited data on DCD lung transplant(LTx) outcomes. In 2006, following 4 yrs of clinical research & protocol development, our institution commenced using controlled DCD(Maastricht Category 3 & 4) donor lungs). The warm ischemic time(WIT) limits are unknown and the relationship of WIT to lung allograft outcomes are yet to be determined.

Methods

Data from all LTx performed at our centre from May 2006-May 2009 was retrospectively reviewed, aiming to compare donor data from DCD and brain dead(DBD) donors and recipient factors for the 2 LTx groups. Early recipient outcomes (PF ratios, PGD grade, ICU & hospital stay) and longer term outcomes (rejection, survival) have been analysed. The protocol aimed for <60min total WIT (= BP syst<50mmHg to PA flush). DCD donor hemodynamic data was collected prospectively to evaluate effects of WIT on allograft function short & long term.

Results

130 LTx were performed at our centre; 13 of these were bilateral DCD LTx, retrieved from 18 actual DCD donor referrals (31 potential DCD referrals). 4 DCD donors did not arrest within timeframe, 1 donor had non-acceptable lungs. DCD donors where lungs were retrieved arrested at mean 12mins (range7-20) after withdrawal. Mean DCD lung WIT was 30±14.9mins. There were no significant differences between the DCD and DBD LTx in respect to recipient & donor demographic factors or cold ischemic time. Mean PF ratio at 24hrs was 307.7 (240-507) in DCD LTx; 1 DCD recipient required 24hrs ECMO for PGD grade 3, however incidence of PGD was no different cf. DBD LTx. Median ICU stay was 5days (3-21) & ward stay 14days (8-76) for DCD cf. 5day (2-51) & 14 days(8-76) respectively for DBD LTx.. 1 DCD recipient died from lymphoma at 513 days and overall survival in DCD LTx (mean 1051 ±72d) appears slightly better than for DBD (mean 922± 38d) p=ns.

Summary

Use of DCD donors has increased our LTx numbers by 10% with comparable, possibly superior, early and intermediate clinical results for DCD LTx compared to LTx from DBD donors. These results appear to mirror the limited pooled data on DCD LTx from other centers thus DCD LTx should be considered from all DCD donors. Analyses of the effects of WIT on early & late outcomes is underway.

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DCD Medical Aspects and Outcome

#61 – The outcome of renal transplants engrafting kidneys from 250 DCD donors. The experience at a single center.

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Introduction and Purpose

Because of a world-wide serious shortage of renal allografts, deceased donor kidneys donated after cardiac death (DCD) have been accepted for renal transplants. In this study, the posttransplant outcome of renal allografts procured from 250 DCD donors at a single center, using in situ regional cooling technique, was analyzed. The purpose of this study is to confirm the effectiveness of the technique and to increase the number of renal allografts from DCD donors.

Study Subjects and Methods

Using a specially designed double balloon triple lumen catheter, in situ regional cooling technique was applied to retrieve 495 kidneys from 250 DCD donors since April 1979 at our center. Although 43 kidneys were discarded, mainly due to organ contamination and renal arterial sclerosis, 452 kidneys (91.3%) were transplanted into patients treated with AZA (39 patients) or with CNI (413 patients). In this study, 381 patients in CNI group with follow up period longer than 2 year were enrolled.

Results

The averages of warm ischemic time and total ischemic time were 12.6 minutes and 13 hours 19 minutes, respectively. Following renal transplants, 21 grafts (5.6 %) had never recovered renal function, 53 grafts (13.9 %) had immediate graft function and 307 grafts (80.5 %) had delayed graft function necessitating posttransplant dialysis for 13.5 days in the average. The mean posttransplant nadir serum creatinine was 1.53 mg/dl. The overall patient survival rates at 1, 3, 5 and 10 years were 96.8 %, 92.0 %, 90.6 % and 84.5 %, respectively, and the overall graft survival rates at 1, 3, 5 and 10 years were 85.8 %, 76.2 %, 69.2 % and 54.2 %, respectively.

Conclusions

Using in situ regional cooling technique, the renal grafts retrieved from DCD donors provided an good renal function and long-term graft survival. We conclude that in situ regional cooling technique is very effective in the procurement of renal allografts from DCD.

Summary

Using in situ regional cooling technique, the renal grafts retrieved from DCD donors provided a good renal function and long-term graft survival. The mean posttransplant nadir serum creatinine was 1.53 mg/dl. The overall graft survival rates at 1, 3, 5 and 10 years were 85.8 %, 76.2 %, 69.2 % and 54.2 %, respectively. Renal allografts from DCD should be the excellent resources for the clinical renal transplants.

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DCD Medical Aspects and Outcome

#62 – Resuscitating the deceased donor program (ddp): a continual quality improvement project

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Background

The DDP provides recipients without living donors an opportunity to be transplanted. Despite 23 years of existence, its potential to save life has not been fully maximized. In the Philippines, about 8,00 dialyze each year yet only 700 are transplanted. Organ yield from the Human Organ Preservation Effort (HOPE), NKTI's organ procurement arm and program implementer, has continued to decline since 1996. In 2001, a mulit-disciplinary team took on the DDP as a Continual Quality Improvement project for 3 years.

Objectives

Determine areas for improvement to increase the number of transplants from deceased donors. Identify effective strategies that improve referrals in the Philippine setting.

Methods

Review of systems was done August 2001, alternative solutions drawn October 2001, implementation 2002-2004, and institutionalization January 2005. Frequencies and percentages were used to measure outputs annually from 2002-2008.

Results

System flaws include delayed response time, poor donor management, prolonged screening and ischemia time, low consent rate, limited logistics, and outdated procurement protocols. Solutions implemented were revision of the donation process, intensified network hospital development activities and community advocacy, staff empowerment, encourage enrolment to the transplant candidate waitlist, proper financial management, and protocol setting.

Since 2002, there was an average increase in referrals by 26%, organ yield by 19%, waitlisted patients by 100%. Consent rate maintained at 62%. Ischemia time went down by 60% (30hrs to 12hrs), HOPE response time improved by 300% (4hrs to 1hr). Donor Management and Allocation Protocols and Organ Retrieval Package were set.

Summary

Conclusion There was increased awareness among referring hospitals, organ yield and quality of organs through intense advocacy in the hospitals and communities, people empowerment and adequate logistic support that improved the donation process. Constant audit of processes and strategic planning are vital to enhancing the potentials of the Deceased Donor Program.

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Transplantation of Composite Tissue

#63 – Intensivist-led management of organ donors increases organ yield

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Background

The rising shortage in the availability of transplantable organs has become a public health crisis. Protocols for aggressive donor management (ADM) and in-house transplant coordinators are among the only few strategies with proven success. We here present the impact of intensivist-led organ donor management on organ transplantation.

Methods

We analyzed data from all consented organ donors before (July 2007 – June 2008, 46 donors) and after (July 2008 – May 2009, 51 donors) institution of intensivist-led management in our hospital. Before implementation of intensivist-led donor management, organ donors were primarily managed by organ procurement coordinators and according to standardized protocols. Intensivist-led donor management included 24/7 availability for bed-side assessment and management of the donor from the time of consent until organ recovery. Statistical analysis included odds-based estimates and c2-test of association.

Results

Baseline donor characteristics were comparable in these two time periods. Table 1 summarizes the impact of intensivist-led management on organ transplantation. Data is given as odds ratio (95% confidence interval). An odds ratio >1 indicates that organ transplantation is more likely to occur with intensivist-led management of a donor.

Transplanted Organs	Odds Ratio	χ^2-test
All Organs	1.56 (1.11-2.22)	p = 0.013
Heart	1.36 (0.47-3.93)	p = 0.76
Lung	3.33 (1.29-8.55)	p = 0.019
Liver	1.04 (0.47-2.31)	p = 0.91
Kidney	1.62 (0.92-2.87)	p = 0.13

Discussion

Our data clearly show that the implementation of intensivist-led organ donor management increases the chances of transplanting organs, in particular lungs. The effect of intensivist-led organ donor management on lung transplantation in our program is greater than the effect of previously reported protocols for ADM. One can therefore hypothesize that direct involvement of an intensivist in organ donor management represents a new strategy to alleviate the shortage of transplantable organs.

Summary

Direct involvement of an intensivist in organ donor assessment and management emerges as a new potential strategy to alleviate the shortage of transplantable organs, in particular lungs.

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Transplantation of Composite Tissue

#64 – Benchmarking to improve the management of possible donors inside the critical care units

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Organización Nacional de Trasplantes

„On behalf of the Benchmarking Committee"

To identify best practices, the Spanish Transplant Organization formed a Committee to apply the benchmarking methodology to the process of donation after brain death (BD). This study aims to fit this methodology to the management of the possible donors inside the critical care units (CU).Two indicators were built to estimate it, one to evaluate detection, diagnosis and maintenance of possible donors (Ind.1) and other for obtaining consent to donation (Ind.2).Table 1 shows these indicators and factors with a potential impact on them.

Table 1. Benchmarking applied to the process of donation after brain death inside the Critical Care Units (CU). Indicators and elements of dilation

SUB-PROCESS	INDICATOR	ELEMENTS OF DILATION
Management of the possible donor inside CU	**1.** Brain deaths suitable for recovery waiting for consent to organ donation over total brain deaths (%)	• Availability/Non availability of in-hospital Neurosurgery • CU Occupancy rate (%)
Obtaining Consent to organ donation	**2.** Actual donors over total brain deaths suitable for recovery waiting for consent (%)	• Population over 64 years (% over total population) (Aged population) • Population of African or Asiatic origin (% over total population)

Data were obtained from the Spanish Quality Assurance Programme. Percentages of Asiatic/African and aged population were obtained from the Spanish Statistics Institute.104 hospitals were included in the study,covering the period 2003-2007.

To evaluate the impact of the factors on the indicators, U-Mann Whitney and Spearman Tests were utilized,stratifying per year and excluding outliers. If significant ($p<0.05$) mean differences or Rho >0.4 were found at least 3 years, factor was considered as having an influence and used to establish groups. Best performer hospitals were those with the indicators above P80 of the all-hospitals annual indicator for at least 4 years,and/or above P90 of the all years hospital means. Those with P50 or less in any time were discarded.

Overall,66% of BD were suitable for procurement, waiting for consent. None of the selected factors significantly affected the results. Global consent rate was 83%.Percentage of Asiatic/African and aged population did not significantly affect it. However, hospitals with <14 annual BD had more likely 100% consents to donation, so two groups of hospitals were formed.

Six hospitals were identified as best performers for the first indicator and seven for the second. Specific interviews are being carried out to describe the practices that led them to these excellent results.

Knowledge and dissemination of best practices in the management of the possible donors inside the CU will help other hospitals to adapt and implement measures to increase the number of donors and organs suitable for transplantation.

Summary

To identify best practices, Benchmarking methodology was applied to the management of the possible donors inside the critical care units. Knowledge and dissemination of best practices will help other hospitals to adapt and implement measures to increase the number of donors and organs suitable for transplantation.

06.10.2009 | 13:30-15:30

Transplantation of Composite Tissue

#65 – The Potential Impact of in-situ Assessment and ex-vivo Optimization of Allografts in Lung Transplantation

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Background

The waiting list mortality for lung transplantation (LTx) remains unacceptably high despite allocation systems. Less than 20% of lung allograft offers are currently accepted by transplant programs. The majority of lungs from extended criteria donors (ECD) are rejected based on donor history, parenchymal damage, oxygenation capacity, serology-, HLA- or size- mismatch and less often preservation concerns. Ex vivo lung reconditioning has recently emerged as a promising option to increase lung allografts. We sought to determine the potential increase of LTx performed, if more provisionally accepted donor lungs were found adequate after in-situ evaluation and ex-vivo optimization.

Methods

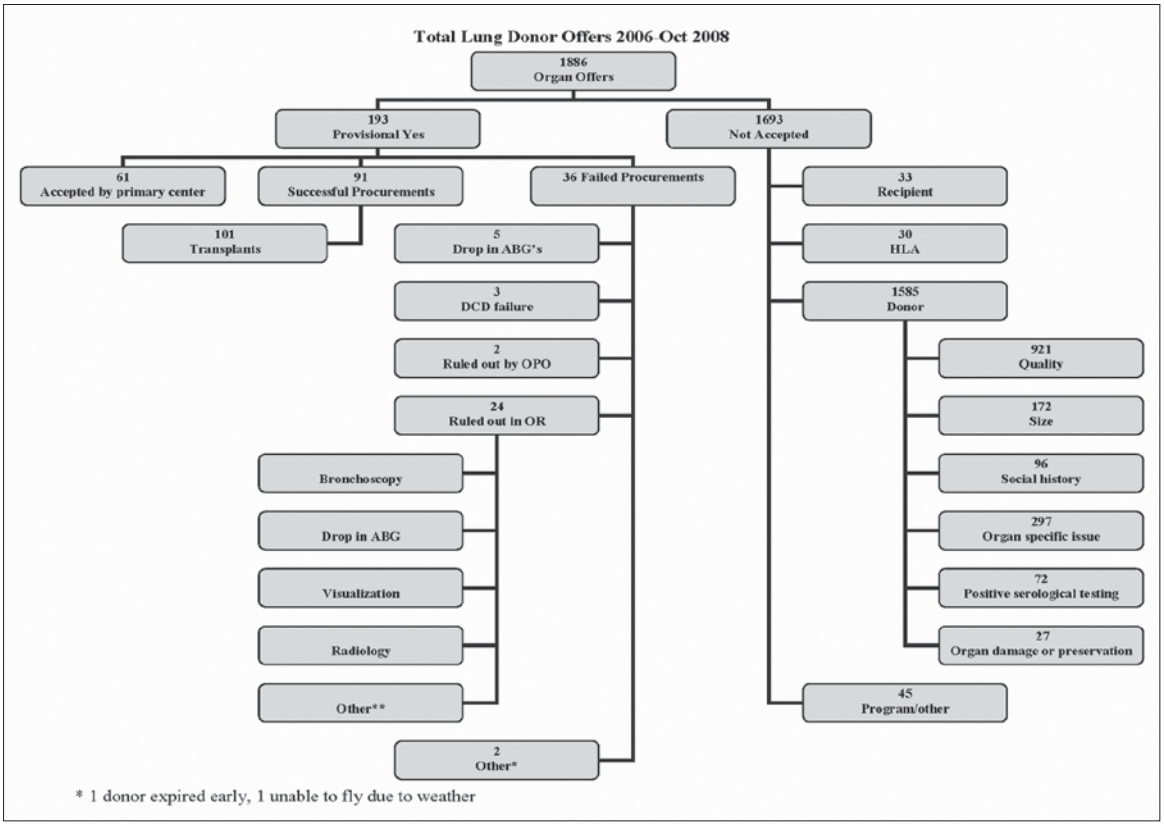
We reviewed donor lung offers at a large volume LTx center (36 months,'06-'08). Offers were reviewed for UNOS donor lung rejection criteria. Evaluation of the procurement process included documentation of reasons for refusal of allografts visualized in donors. Waiting list data was reviewed. Percentage of ECD accepted for LTx and 1 year survival were reviewed. Potential LTx increases were calculated according to hypothetical improvements of provisionally accepted ECD after procurement optimization and current data for ex-vivo optimization.

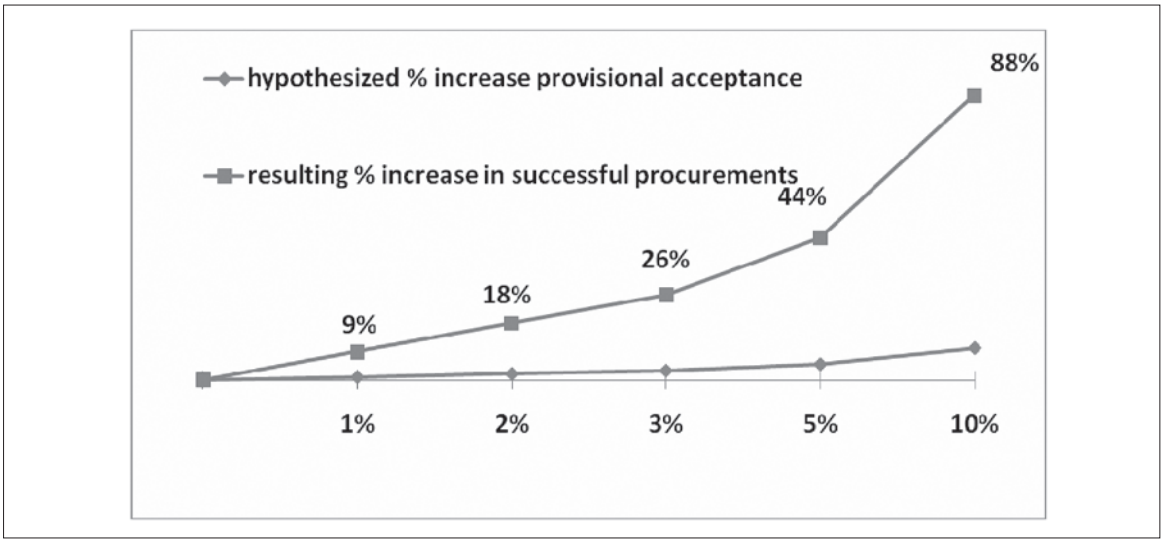
Results

Of 1886 offers recorded, 1693 were not visualized and refused; 53% of provisionally accepted lungs were successfully transplanted , comparable with national UNOS data. In-situ evaluation has a strong impact on procurement rates (see Algorithm 1). A 10% increase of provisionally accepted donor lungs would result in a marked expansion of the donor pool (up to 88%).

Conclusions

Only a small percentage of lung allografts get accepted provisionally. Increased provisional acceptance of ECD lungs and in-situ evaluation has a strong impact on increased procurement rates. A Prospective study is required to quantify the allografts available for ex-vivo optimization.





Summary

A retrospective analysis of all lung allograft donor offers for a major US lung transplant center provides evidence that increased provisional acceptance of ECD and in-situ optimization would dramatically impact the procurement rate. The data extrapolated allows for projection of the potential donor pool for ex-vivo reconditioning , further improving recipient prospects to receive lung transplants.

06.10.2009 | 13:30-15:30

Transplantation of Composite Tissue

#66 – Ventilation during controlled perfusion with cooled protective solution in case of Non-Heart-Beating Donor (NHBD) influences the organ function negatively

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Background

A continous cold perfusion of donor kidneys in case of NHBD has a positive influence on organ protection after transplantation. Such an intervention has not been examined by donor lungs up to now. With a new created experimental model of an isolated perfused and ventilated lung we want to explore if there is any benefit for lungs.

Methods

In the slaughter-house unharmed paracardial pig lung lobes (middle weight 58,2g) were taken to create for this experimental model. The controlled warm ischemia was 2 hours for all lungs. By randomisation the lungs were distributed in three groups (n=7 each).In group 1(control) after pressure controlled perfusion (PAP< 20mmHg,200ml) with a potassium poor dextran solution(4°C) the lobes were stored for 4 hours (4°C). In group 2 a one hour continous perfusion was perforemd after the initial perfusion with low perfusion pressure (PAP< 20 mmHg). During this perfusion period all lungs were recruited with a CPAP + 20 cm H20 and not ventilated. After this, the lung lobes were stored for 3 hours at 4°C. In group 3 the same perfusion and storage concept was done like in group 2, but all lung lobes were ventilated (Vt 7ml/khKG, PEEP + 5 cm H20) during the continous pressure period. At the end of the cold ischemic period all lungs were reperfused with blood (Hkt 28%,37°C) and ventilated for 1 hour. Blood gases, histology, compliance of the lungs and the wet weight were evaluated.

Results

The lung lobes of group 3 increase in weight (72,7g) on the average more, compared to the other two groups (t-test,p<0,05). Four out of seven lobes in group 3 showed macroscopically an edema. In group 1 this occured only in one case (p<0,01). The lungs of group 1 were better oxygenated by Fi02=1.0 than the lungs from group 3(middle pa02=626 versus 470 mmHg, p<0,05) The histology showed in group 3 also a higher part of interstitial edema and even intraalveolar edema. The values for lung comliance was also significantly worse in group 3 compared to group1 and 2 (p<0,05).

Summary

Ventilation during pressure controlled perfusion with a cooled (4°c) dextran solution seems to have a negative influence on organ function after reperfusion. Probabaly there is a mechanical damage during ventilation in the cold perfused period. The recruited and perfused lungs (group2) showed no significant improvement on lung function compared to the group which was stored only.

Transplantation of Composite Tissue

#67 – The Introduction of a Standardised Donor Treatment Protocol has Improved Organ Function and the Number of Organs Transplanted.

A. Broderick
South West Donor Transplant Co-ordinators

The South West Donor Transplant Co-ordinator team wrote a protocol for the treatment of all DBD donors. This was carried out in an attempt to remove the wide variability in practice when treating DBD donors with the ultimate aim of increasing the number of organs transplanted per donor and the post transplant function of each organ.

The protocol was written using best available evidence currently available on donor treatment. The transplant centres within the SWDTC region were contacted to ensure that the parameters for vital signs would be acceptable and agreement was received from all teams.

The protocol gives clear directives on how to monitor the potential donor and what actions should be taken in any given situations.

The protocol was implemented in December 2008 and since that time 9 DBD donors have been treated.

The team expected to see an increase in the number of cardiothoracic organs suitable for transplant however as yet this has not occurred. The protocol has however been very effective in increasing the cardiac output of the potential donors indicating that the protocol could facilitate an increase in hearts suitable for transplantation. Three hearts showed significant improvement in function with an associated reduction in vasoactive medicinal support but were not transplanted for a variety of different reasons.

An additional effect of increasing cardiac output is improved perfusion of abdominal organs and this has been clearly demonstrated with an improvement of kidney function in 7 cases as measured by urine output. Three were marginal donors with poor urine output at initial assessment, however with strict donor management the kidney function improved to a level judged to be suitable for transplantation. The kidneys were then transplanted without delayed graft function.

The protocol has been well received on the referring ICU's as it provides a clear and effective evidence based pathway for the treatment of DBD donors which is simple to initiate and follow.

Summary

It is clear that using a strict evidence based donor treatment protocol can increase the number of organs suitable for transplant. Anecdotal evidence suggests organ function is improved with associated improvement in post transplant outcome. More work should be done to validate our data against existing technologies to support our belief that some organs are suitable even though not retrieved.

06.10.2009 | 13:30-15:30

Transplantation of Composite Tissue

#68 – Faith leaders united in their support for organ donation – findings from the organ donation taskforce's study of attitudes of uk faith leaders

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Background

Data relating to organ donor waiting lists and organ donors highlights significant disparities between ethnic groups. Empirical studies have shown that cultural issues are important influencing factors when making a decision about organ donation. The influence of belief and faith systems is less clear.

Methods

The Organ Donation Taskforce consequently commissioned the author to gather views on the issue of organ donation from the different leading faith and belief organisations in the UK.

Results

From the interviews, it is clear that, while the majority of faith and belief groups interviewed tend to allow organ donation, diverse views exist not only between but also within these groups. A potentially significant finding is that religion per se is not described as a key influence on people's decision to opt in. Many of those interviewed felt strongly that the decision to donate is a personal choice for the individual to make. For example:

„The benefit is that it is a more informed decision and doesn't put the person in a quandary." (Jasdev Singh Rai, British Sikh Consultative Forum)

„The question is of personal autonomy, and being able to make decisions for yourself. So for me, we should stay with the opt in." (Mufti Zubair Butt, Muslim Council of Britain)

There was widespread recognition of the extent of work required at grass roots level within their communities to encourage donation and a willingness to engage with the Government in this work. There was little prior awareness among the interviewees of the leaflets published some years ago setting out the views of some prominent faiths on organ donation. This suggests that written leaflets alone may be ineffective and that other, more direct, methods of engagement need to be found.

Summary

There is a lot of misconceptions surrounding the views of faith groups in relation to organ donation. This study demonstrates that Organ Donation is universally supported by Faith leaders in the UK. If this support is to become widespread, then a multifaceted communications strategy is essential which promotes debate concerning organ donation in all faith groups at both national and local level.

06.10.2009 | 16:00-18:00

Donor Safety

#69 – Casuistics of Two Methanol Intoxicated Donors – Follow up of Organs

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Introduction

The current organ shortage results in extension of the classical criteria for donor acceptance. Now even fatally intoxicated patients may be recognized as organ donors for transplantation.

Severe methanol ingestion is an uncommon form of poisoning that usually leads to metabolic acidosis, which may result in cerebral edema and brain death.

Case Reports

Two 19 years (donor 1) and 17 years (donor 2) old boys were transferred 9 days after ingestion of methanol from a foreign ICU in a german hospital. The patients were treated with intravenous ethanol and folic acid and underwent hemodialysis. CT scans showed in both cases severe cerebral edema and a hemorrhage of the basal ganglia. In Germany according to the "Guidelines for Determining Brain Death" the brain death must be determined in both boys. Laboratory parameters can be seen in Tbl. 1.

Tbl. 1: Laboratory parameters of donor 1 and 2

Parameter	Donor 1	Donor 2	Unit
Hemoglobin	8,3	10,6	g/dl
Leucocyts	9,5	10,9	g/l
Sodium	142	130	mmol /l
Potassium	3,6	4,0	mmol /l
Calcium	2,3	2,0	mmol /l
Glucose	9,5	6,5	mmol /l
Creatinine	101,0	51,1	ymol/l
Urea	16,5	4,5	mmol /l
Quick	93	60	%
C-react. prot.	97,0	64,6	mg/l
Lipase	123	267	U/l
Amylase	234	177	U/l
Total bilirubin	7,5	9,1	ymol/l
GOT	176	73	U/l
GPT	190	108	U/l
pH	7,480	7,410	

All organs had been offered to Eurotransplant, with the exception of both small intestines and the pancreas of donor 2 all organs had been mediated. Intraoperatively a manifest calcification of the pancreas of donor 1 was seen, therefore the acceptance of the recipient centre was cancelled.

All other organs had been extracted and also transplanted. The follow up after 3 days and 4 weeks can be seen in Tbl. 2.

Tbl. 2: Follow up after 3 days and 4 weeks of donated organs

Donor	Organ	Recipient	Diagnosis	Follow up
1	Heart and both lungs	Male, 37 years	Complex cardiac defect wuth shunt	No problems after 3 days and 4 weeks
	Liver	Male, 49 years	Liver cirrhosis, hepatitis B	No problems after 3 days and 4 weeks
	Kidney left	Male, 45 years	Autosomal dominant polycystic kidney disease	No problems after 3 days and 4 weeks
	Kidney right	Male, 30 Years	Mesangioproliferative glomerulonephritis	No problems after 3 days and 4 weeks
2	Heart	Male, 48 years	Severe cardiac infarction	No problems after 3 days and 4 weeks
	Both lungs	Male, 22 years	Cystic fibrosis	No problems after 3 days and 4 weeks
	Liver	Female, 25 years	Biliary atresia	Severe bleeding a few hours after transplantation independent from donor organ, death after 4 weeks
	Kidney left	Female, 36 years	Benign nephrosclerosis, arterial hypertonus	No problems after 3 days and 4 weeks
	Kidney right	Male, 52 years	Alport syndrome	No problems after 3 days and 4 weeks

Summary

There are only a few reports of follow up of organs transplanted from acute methanol intoxicated donors.

Our results confirm the observation, that the survival of recipient and graft do not differ from donors who die because of methanol from the transplants performed with organs from donors who die from other causes. Therefore the donor criteria can be extended to methanol intoxication.

06.10.2009 | 16:00-18:00

Donor Safety

#70 – Possible errors in HBV and HCV testing due to fluid disorders in deceased organ donors

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To avoid donor-recipient viral transmission serological tests in the donor are obligatory. Donor management is associated with alterations in fluid/electrolytes which, we suggest, influence viral testing to provide false-negative or false-positive results.

To explore this potentiality we designed a study of 2435 referred cadaveric donors with aims to assess/compare the incidence of positive and negative anti-HCV, HBsAg and anti-HBc in groups of donors with low (0,11-0,35 l/l), normal (0,36-0,44), elevated hematocrit (0,45-0,56) and groups of donors with low (256-279 miliosmoles/kg), normal (280-300), elevated osmolality (301-404). Anti-HCV was tested in 2185, HBsAg in 2200, anti-HBc in 1183. Hematocrit was recorded, osmolality calculated.

Anti-HCV: in group with low hematocrit we observed a significantly lower incidence (2,2%,p=0,04) of negative tests, in group with hypoosmolarity higher percentage of positive tests were recorded, but not significantly. HBsAg: although in the group with elevated hematocrit, hypo- and normal osmolality numbers of HBsAg(+) were distinctly very low (0 or 1), it was not possible to estimate the significance due to small groups. Anti-HBc(+): differs between groups with different hematocrit (from 12,9% to 16,7%) and osmolality (from 13,0% to 20,0%), but not significantly.

Summary

In cases of donors with hematocrit of less than 0,35 significantly lower percentage of anti-HCV(+) tests is probably related to hemodilution with possible consequence of false-negative viral determination. PCR-RNA should be considered in these donors. Abnormailities in osmolality do not affect viral determination. The influence of homeostasis abnormalities on HBsAg testing requires further investigation in a larger group of donors.

06.10.2009 | 16:00-18:00

Donor Safety

#71 – Malignant tumors in organ donors – contraindication or „better than dying on the waiting list"?

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Introduction

The increasing age of German organ donors carries an increased risk of preexisting donor malignancy and transmission to the recipient. Organ shortage causes a growing acceptance of donors with confirmed malignant tumors.

Material and Methods

Retrospective database-analysis of all organ donors in the Middle Region of the German Foundation for Organ Transplantation (DSO) with a histologically confirmed malignant tumor from January 1, 2006 until August 31, 2008. Follow-up of all corresponding recipients in February 2009.

Results

A total of 1210 organs from 379 donors have been procured and transplanted. 12 donors (3,2%) of 26 transplanted organs had a confirmed malignancy (known at time of procurement in 8 donors, confirmed after transplantation in 4 donors, Table 1). 2 further donors (malignant melanoma, colorectal carcinoma) have been reported to Eurotransplant and the organs have been allocated. No transplantation was performed because of intraoperative organ quality and peritoneal spread respectively.

Neuroendocrine Carcinoma	51	01 / 2007 4 months after Transplantation	09 / 2006	Heart Liver Kidney right+left
Malignant Melanoma	59	1990	06 / 2008	no transplantation (intraoperative kidney infarctions, liver steatosis)
Colorectal Carcinoma pT1, N0(0/13), M0, G2	70	10 / 2006	08 / 2008	no transplantation (intraoperative macroscopic peritoneal spread)

Mean age of all donors was 52 years (0-86), mean age of donors with confirmed malignancy was 64 years (19-78). During a mean follow-up of 18 months (0,5-36) there are two reported tumor transmissions (neuroendocrine carcinoma). There was no suspicion for malignancy in this donor. 8 (31%) of 26 recipients died during follow-up. Transplantectomy had to be performed for 6 organs, including 2 kidneys with RCC (renal cell carcinoma). All other deaths did not show any suspicion of tumor associated causes. Up to date the graft survival is 46% (12 organs).

Summary

Case number and follow-up period is yet too short for a definite predication about tumor transmission. A nationwide analysis of all donors with preexisting malignancy is to be done. Recommendations concerning the acceptance of donors with confirmed malignancy should be developed by a multidisciplinary task force.

06.10.2009 | 16:00-18:00

Donor Safety

#72 – Assessment of tumor transmission risk in organ donors with active or historical malignancy

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Michael A. Nalesnik MD, E. Steve Woodle MD, J. Michael DiMaio MD, James S. Bowman MD, Jon Gockerman MD, Ron Shapiro MD, Vivek Sharma MD, Lode J. Swinnen MD, Lew Teperman MD, Brahm Vasudev MD, Atsushi Yoshida MD, Shandie H. Covington, Sarah Taranto, Michael G. Ison, MD MS.

Multiple reports of potential transmission of donor-derived malignancies have been made to the Organ Procurement and Transplantation Network (OPTN)/ United Network for Organ Sharing (UNOS) Ad Hoc Disease Transmission Advisory Committee (DTAC). In order to more completely assess the underlying risk associated with these reports, DTAC assembled an Ad Hoc Malignancy Subcommittee to provide guidance regarding risk stratification and evaluation of these malignancies.

The Subcommittee formulated a six-tier ranking of risk for tumor transmission (see Table 1). Categorical non-overlapping definitions, frequency estimates and recommended clinical use for each group were provided in a manner meant to preserve the primacy of the local physician-patient relationship. Risk groups were populated with tumor types as based on literature review, Registry experience, and previous work by both the Italian National Transplant Centre and the Spanish National Transplant Organization. A listing of benign tumors was also included for reference purposes and to distinguish those with a risk of malignant transformation. The proposed system is easily updated and can accommodate both current best experience and evidence-based information as it becomes available. The Subcommittee is currently seeking expert consultation regarding individual tumor categorization, will present its conclusions to the OPTN/UNOS and will provide its findings as a first generation resource document applicable for clinical utilization by Organ Procurement Organizations (OPOs) and transplant physicians.

Table 1: Donor Tumor Transmission Risk Categories

Risk Category		Definition		Recommended Clinical Use
		Nominal	Transmission Frequency Estimate	
0	No significant risk	No active malignant tumor or history of tumor found during evaluation	0%	Standard
1	Minimal	Literature suggests minimal risk of tumor transmission	0%-0.1%	Clinical judgment with informed consent
2	Low	Literature suggests low-grade risk of tumor transmission	0.1%-1%	Emergency use with informed consent
3	Intermediate	Literature suggests significant risk of tumor transmission	1%-10%	Use of these donors is generally not recommended. On occasion, a lifesaving transplant may be acceptable in circumstances where recipient expected survival is short (e.g., a few days or less). Informed consent is necessary.
4	High	Literature suggests high risk of tumor transmission	>10%	Use of these donors is discouraged except in rare and extreme circumstances. Informed consent is necessary
U	Unknown Risk	Evaluation for risk factors is incomplete or no literature exists to assess risk	N/A	Emergency use with informed consent

Summary

A system of tumor transmission risk assessment for potential organ donors with active or historical malignancy was formulated by a subcommittee of the OPTN/UNOS DTAC. The approach defines six risk groups with criteria for individual group inclusion and makes clinical recommendations on a categorical basis.

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Donor Safety

#73 – Fatal Donation Outcomes: Emerging infectious agent transmission through organ donation

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Transmission of infectious diseases poses major concerns for organ transplantation. Donor screening for recognised infections occurs routinely. Rare or previously unknown infections may still be transmitted by donated organs. This report regards transmission of a previously unknown virus through organ donation with fatal outcomes in all recipients. The health sector and broader community responses to this event highlight the challenges faced in meeting expectations regarding donor screening and in risk communication.

A 57 year old male donated liver and kidneys to three recipients. At 25 days following donation, routine Organ Donation Service enquiries revealed that all three recipients were unwell. Two recipients died 30 days following transplantation. The third recipient died at 34 days. The donor family and coroner were notified of the recipient deaths.

Extensive additional investigations were undertaken to determine the cause of these apparent infections and deaths. In the ensuing weeks the Victorian Infectious Diseases Reference Laboratory (VIDRL) in collaboration with international laboratories identified a previously unknown strain of arenavirus in tissue samples from the donor and all three recipients. It was deemed implicated in the deaths.

This case generated wide media interest and discussion about current transmissible diseases screening in potential organ donors and the risks of transplantation. Some demanded that routine testing change to include a wider range of infectious diseases; however deciding which additional diseases should be tested proved contentious. It seemed unclear to many that it is not feasible to perform laboratory testing for every emerging disease and not possible to screen for previously unknown diseases.

Waiting lists remain unacceptably long and many people continue to die whilst awaiting transplantation. There also remains an unavoidable element of risk of infection associated with transplantation, including transplantation-transmitted infection.

Summary

Challenges remain in determining a broadly acceptable approach to risk & benefit when deciding upon the screening algorithm for transmissible diseases in the donor and in then communicating with patients and the broader community the balance between the inherent risks of transplantation and the risks associated with precluding donation unjustifiably thus leaving many potential recipients without access to transplantation.

06.10.2009 | 16:00-18:00

Donor Safety

#74 – Increased threat of vector-borne infections among organ and tissue donors in western united states

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Background

Very little is known about exposure to insect-borne infections among organ donors in California. Migration and travel contribute to the increase of donors carrying infections once considered rare. Our laboratory undertook a systematic evaluation of organ and tissue donors for Chagas disease (Trypanosoma cruzi) and Flaviviruses (West Nile Virus/WNV; Dengue Fever virus/DFV; St. Louis encephalitis virus/SLEV).

Aim

To evaluated seroprevalence of vector-borne infections among donors in California,

Methods

A. Flaviviruses: we tested 867 sera collected between 2005 and 2007. We used EIAs for IgM and IgG anti-WNV. Because cross-reactivity to other Flaviviruses is possible, initial EIA+s were confirmed by assay able to differentiate between WNV, DFV, and SLEV. B. Chagas: we used a questionnaire to assess donor risk of exposure to T. cruzi vectors. We applied this tool to 376 cases from Southern California. To test for anti-T. cruzi we used EIA (Ortho Diagnostics) and RIPA/IFA.

Results

A. Flaviviruses: 84 donors were EIA reactive. Upon confirmatory testing 38 specimens were negative, 4 were anti-WNV+, 27 were anti-DFV+, 3 were anti-SLEV+, 11 specimens were "indeterminate", and 5 were QNS/pending. B.Chagas: 156 donors (41.5%) were Latinos. Three donors (0.8%) were reported to be diagnosed with Chagas disease in the past. 60 (15.9%) were reported to have traveled to areas where T. cruzi is endemic and/or stayed in housing potentially infested by the Chagas vectors. One donor tested positive (EIA+RIPA) for anti-T. cruzi (0.3%).

Conclusion

Our data show that organ donors recruited in California have evidence of exposure to several Flaviviruses and T. cruzi. As result our laboratory is routinely testing and offering testing to the collaborating OPOs for T. cruzi and WNV. The changing medical and sociological risk factors among organ donors should be taken into account when evaluating screening for specific geographical regions.

Summary

Very little is known about exposure to insect-borne infections among organ donors in California. Migration and travel contribute to the increase of donors carrying infections once considered rare. Our data show that organ donors recruited in California have evidence of exposure to several Flaviviruses and T. cruzi.

06.10.2009 | 16:00-18:00

Transplant Tourism

#75 – Access of non residents to transplantation medicine

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DSO

When it comes to medical treatment non residents limitations usually exist due to financial reasons. In terms of transplantation another factor becomes important: The scarcity of organs! The question to be raised is: Does an increase of transplantations of non-residents jeopardize the willingness of residents to donate? The answer is not simple in particular the role of the mass media must not be underestimated.

An examination of the existing regulations in Europe and the US dealing with the access of non-residents; respectively the restriction of access to transplantation medicine two general approaches can be distinguished. The first one limits the access of non residents to the (national) waiting list. That means those who are denied access can not be transplanted, no matter how urgent the case might be. Usually a random percentage between 0-10 % is chosen. Registration for transplantation serves as a funnel. This approach was chosen by Eurotransplant and UNOS for example.

The alternative approach is to allow the registration on national waiting list for everybody who is suitable for a transplant but to consider certain groups of persons such as non residents subordinately in the actual allocation process. In this second category various differentiations are possible in particular with view to high urgency patients. This however leads to the consequence that due to the lack of organs there are few chances to receive an organ of good quality or to receive an organ at all. This approach was chosen by UK and Switzerland.

It is however highly doubtful whether the existing regulations would stand the legal proof in the light of constitutional rights in particular human rights assigned to every person irrespective of nationality or residency. Human rights that are at stake are in particular the right to life and to physical integrity but also the prohibition of discrimination. Hence exceptions need to be made at least for high urgency patients. In Europe furthermore European community law needs to be taken into consideration as well in particular the free movement of patients

Summary

When stipulating a regulation for non residents in transplantation medicine the following questions need to be answered. Is there really a need for restricting regulations? Who has the competence to legislate on a national or European level? Does the intended regulation violate constitutional or European law?

06.10.2009 | 16:00-18:00

Transplant Tourism

#76 – Organ scarcity, restriction of non-residents to European transplant wait lists and the prohibition of discrimination under EU Law

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Introduction

This paper examines the application of the non-discrimination principle to organ transplantation in Europe. It addresses four questions. First, what is the meaning of the right to free movement and the non-discrimination principle under EU Law? Second, what is the practice of restricting non-residents on European organ transplant wait lists? Third, does restricting access to non-residents violate the non-discrimination principle? If so, what are the potential legal consequences?

Methods

The study was performed by reviewing European legislation and case law on free movement and the prohibition of discrimination. The cross-border movement of organ recipients and restriction of non-residents on European transplant wait lists was examined by reviewing national transplant laws and reports of European organ allocation organisations.

Results

This study found that although a legal basis for restricting non-residents to transplant wait lists is lacking, limitation of access in practice nevertheless occurs. The number of restrictions in Europe remains unknown due to lack of registration. Although EU Member States have a large degree of discretion with regard to health care, their autonomy is constrained by EU Law. Denying non-residents access to organ transplantation in principle violates the prohibition of discrimination under EU Law. Derogation from this principle might be permitted if justified. Without a specific legal framework appropriately addressing this issue, the subject remains open to legal interpretation.

Conclusion

In the absence of clear-cut rules and case law addressing cross-border movement of EU citizens for organ transplantation, it is recommended that at EU level the legal application of the non-discrimination principle to cross-border organ transplantation is clarified. Insufficient organ supply for residents might justify the restriction of free access to transplant wait lists of non-residents.

Summary

This paper addresses the legal implications of restricting non-residents to European transplant wait lists. It does so by examining EU Law on free movement and non-discrimination and by applying these rules to the European practice in this field.

06.10.2009 | 16:00-18:00

Transplant Tourism

#77 – Struggles of a deceased donor program in developing world: the philippine experience 2002-2008

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Objectives

To describe the difficulties and struggles in developing countries and maintaining the Deceased Donor Program in the Philippines and to present the outcome in the past 6 years.

Study Design: Descriptive Study

Results

The Human Organ Preservation Effort and the Renal Disease Control Program of the National Kidney and Transplant Institute (NKTI) has a continuing advocacy effort aimed at increasing organ donation referrals. There were 434 referrals from 2002 to 2008; 278 (64%) from government hospitals and 156 (36%) from private hospitals. Majority, 386 (89%) were Emergency Room referrals with 48 (11%) from wards or Intensive Care Units. Referrals were trauma victims in 380 (88%). Only 191 relatives (44%) consented to donation, and only 72 of them (17%) were medically suitable.

Challenges included outright refusal of consent in 15% and delayed consent (at least 24 hours) in 14%. Only 8 (2%) families were aware of organ donation prior to offer. Most families (424 or 98%) had difficulty accepting brain death versus heartbeat cessation. Transplant Coordinators (TC) had to deal with furious relatives, the police, local government officials and Trial Courts. Despite the existence of the Organ Donation law, only 1 (2.5%) of the 40 referring hospitals allowed their physicians to sign a Death Certificate for deceased donors. Among the 11 organ retrievals requiring air transport, TCs argued with commercial flight officiials to allow the organs to be hand carried.

All these factors lead to delayed donor management and prolongation of the organ's cold ischemia time.

In 7 years, only 143 kidneys, 9 livers, 4 long bones and 10 corneas were transplanted. A total of 19 kidneys were wasted because they were refused by the physician or potential recipient due to various reasons.

Summary

Organ Donation in the Philippines faces continuing challenges despite the Organ Donation Law. There is low level awareness of the public, airport personnel, and government officials. There is urgent need to intensify the organ donation advocacy campaign in the private and public sectors. The alarming wastage of kidneys requires support from the medical community to improve utilization of organs.

06.10.2009 | 16:00-18:00

Transplant Tourism

#78 – Promoting Organ Transplantation in India; Issues and Perspectives in 21st Century

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The Transplantation of Human Organ Act (THOA) 1994 has been successful in curbing the malpractices and ensuring the minimum standards for transplantation. A committee ‚THOA review Committee' submitted its report in 2005 and its recommendations are being implemented. THOA rules have been amended in July 2008. Application forms have been revised. Medical tests are prescribed for related donors. Greater caution is suggested while dealing with women donors. Financial status of donor/recipient would be probed while granting approval. Round the clock availability of infrastructure has been made mandatory. Accreditation of laboratories for various tests would be mandatory. All foreign nationals (including related and non resident Indians) would be subjected to approval by authorisation committee. Functioning of authorisation committee has been prescribed in detail. With a view of promote the organ donation, THOA is now being revised. THOA would be renamed as ‚The Transplantation of Human Organs & Tissues Act'. Enucleation of eye would be done by a trained technician also. Brain death certification committee is being amended. Swap Donations of organs would be permitted. Request for organ donation would be mandatory. ‚Coordinator' would be compulsory. National registry of the recipients of organ transplants to be started. National Organ Retrieval, Banking & Transplantation Network is being established. There would be enhanced penalties under the Act to curb organ trafficking. A National organ transplant program with special emphasis to promote cadaver donations is being finalised. There are plans to strengthen and initiate Transplantation Centres. A Tissue bank is also envisaged. Capacity building for organ transplantation and its network is a major component. WHO guiding principles on human cells, tissues and organ transplantation would be followed. National Organ Transplant Program is likely to be initiated soon with proposed outlay of about US$ 500 million.

Summary

The Transplantation of Human Organ Act (THOA) 1994 has been successful in curbing the malpractices and ensuring the minimum standards for organ transplantation in India. THOA rules amended in July 2008. Act is also being revised. There would be renewed efforts for IEC and capacity building. A National organ transplant program to promote cadaver donations with outlay of about US$ 500 million would be started.

07.10.2009 | 08:00-10:00

Potential for Organ Donation

#79 – Regional Differences in Mortality Significantly Impact Organ Availability in the United States

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New England Organ Bank

Background

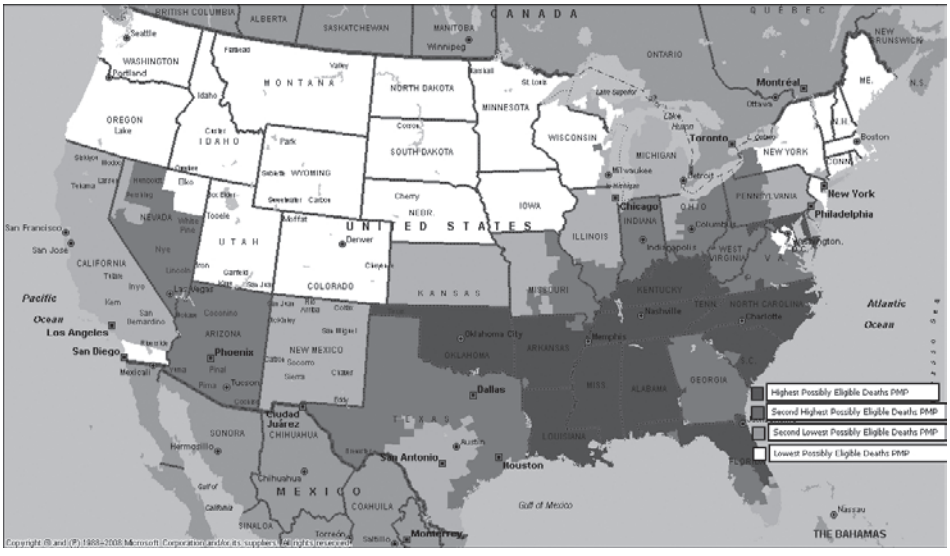
Data submitted to UNOS by Organ Procurement Organizations (OPOs) show large regional differences in eligible deaths per million population (EDPMP) with a range of 19 to 66 EDPMP for 2007. Eligible Death for organ donation requires the patient to be declared brain dead, aged < 70 years and medically suitable as defined by pre-existing standardized exclusion criteria. Using mortality data from the National Center for Health Statistics (NCHS), we studied whether differences in number, causes, and age of deaths help explain variation in EDPMP.

Methods

In hospital deaths for 57of 58 OPOs were analyzed using the 2005 NCHS Detailed Mortality File. A subset of total deaths were categorized as „screened deaths" defined as age <70 years and with ICD-10 codes known to include brain dead potential donors (e.g. CVA, MVA.) The composition of deaths from the NCHS database was compared by cause and age and correlated with OPO-reported data on EDPMP.

Results

There were 906,318 in-hospital deaths in 2005. Eliminating deaths >70 years or with ICD-10 codes that never or rarely lead to brain death (e.g. malignant neoplasm), screened deaths amounted to 239,432 (26% of in-hospital deaths.) Screened deaths varied from 20 to 35% of in-hospital deaths by OPO. The proportion of deaths <70 years ranged from 30 to 45%. Trauma deaths varied from 38 to 128 pmp. Screened deaths were correlated with EDPMP (r2=0.68) with striking regional differences. [figure1]



Summary

Conclusions: NCHS data show statistically significant differences in death rates by U.S. OPO. Rates of death by cause are strongly correlated with EDPMP as reported by OPOs. These findings suggest that regional differences in availability of organs for transplant are significantly impacted by underlying causes of death, in addition to OPO performance.

Potential for Organ Donation

#80 – Data on organ donation and transplantation in poland

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At present organ transplantation activity in Poland is located in the middle among European Union countries. There are appropriate law regulations, well organized legal structures, well educated transplant teams, good transplantation results and transplant registries.

There are 24 organ transplant teams in 20 centers, where 46 transplant programs are realized. Since the beginning in 1966 over 18 000 organs have been transplanted (14300 kidneys, 1800 livers, 1700 hearts, 250 kidney/pancreases, 30 lungs). Every year almost 1500 organs procured from about 500 cadaveric heart beating donors (9-14 pmp) and 50 from living donors are transplanted, 800-1000 kidneys (21-28 pmp), over 200 livers (5-6 pmp) and 60-100 hearts (1,6-2,7 pmp). National transplant registries are held in Poltransplant; central registry of refusals (the policy of presumed consent with registered objection on donation after death is implemented), waiting list, cadaveric and living donor registry, transplant registry.

Summary

There are still some actions that should be undertaken to strengthen transplantation system in Poland, to increase organ availability, enhance the efficiency and accessibility of transplantation systems, improve quality and safety (increasing deceased donations in their full potential, appointing transplant coordinators in every hospitals, promoting quality improvement programs, promoting living donation programs).

07.10.2009 | 08:00-10:00

Potential for Organ Donation

#81 – Establishment of active identification and management system for potential brain dead donors in single region of Korea

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Background

Because of some limitations and inefficiency of hospital-based organ procurement organization (HOPO) system, the need for the establishment of independent organ procurement organization (IOPO) system has been strongly suggested in Korea. The purpose of this study was to promote organ donation by active identification and proper management of brain-dead donor with collaborating network system and to assume operating expenses in the setting of IOPO in Korea.

Methods

As a demonstration project of Korean Ministry for Health, Welfare and Family Affairs, two main university hospitals worked together with 5 base-hospitals as regional OPO named Life-link Center during 8 months from April to December 2008.

Results

We constructed cooperative network system with five base-hospitals by MOU (memorandum of understanding). During the demonstration periods, we visited 138 hospitals 223 times and built up brain-dead organ donation. There were 67 contacts for potential donor evaluation and total 100 solid organs were actually procured from 31 brain-dead donors excluding 4 cases in failure. This is about three times increase than before. We also established and applied a flow chart and critical pathway about the management of potential brain-dead donor. It was worthy of notice to manage 3 brain-dead donors and successfully procured their organs without donor transportation to HOPO. In the medical records analysis of total 265 patients in surgical intensive care units, 95 (36%) patients were considered as potential organ donors, but only 14 (14.7%) donated their organs actually. Arithmetically, we found about seven times increase potential of brain-dead donors.

Conclusion

Our results showed the hope for success of IOPO in Korea which would be founded in the near future. Besides persistent active relationship with regional hospitals, a certain degree of financial support or other means such as increase of organ fee and medical insurance coverage should be considered.

Summary

In Korea, there wasn't systemic donor action activity. We developed a potential DBD detection-report system, and we developed DBD management system and calculated necessary amount of budget. Also, we surveyed frequency of potential DBD through analysis of dead patients at the ICU and prepared honorable treatment for the bereaved. Consequently, we established foundation of Koreanstyle Organ Procurement Organization.

07.10.2009 | 08:00-10:00

Potential for Organ Donation

#82 – Countries' donation performances are associated with Critical Care staffs' attitudes to donation – Data from the Donor Action® Database

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Donor Action Foundation (1), Donor Action Foundation (2), Eurotransplant International Foundation (3), Donor Action Foundation (4)

Study aims

To investigate whether Critical Care (CC) staffs' attitudes to organ donation, the concept of brain death (BD) and self-reported skills in donation related tasks may impact on national donation rates.

Methods

Donor Action (DA) Hospital Attitude Survey (HAS) data was collected from 19,537 CC staff in 245 hospitals in 11 countries (Australia, Belgium, Croatia, Finland, France, Israel, Italy, Japan, Norway, Poland, Switzerland) between November 2006 and October 2008. Data examined included average support to donation, respondents' willingness to donate their own, their children's and relatives' organs, the acceptance of the BD concept and reported confidence levels with donation-related tasks. Countries' donation performance was expressed as a Procurement Efficiency Index (PEI) (organs procured and transplanted / deaths from eligible causes / million population / year)*. (*Ref.:

Countries' Donation Performance in Perspective: Time for more Accurate Comparative Methodologies (Editorial). L. Roels e.a.,. Am J Transplantation 2007; 7:1439-1441)

Results

A strong positive association was found between national PEI rates and CC staffs' average support to donation (R=.700, P=.0141), acceptance of the BD concept (R=.742, P=.0069), notifying a transplant coordinator (R=.722, P=.01), explaining BD to family (R=.763, P=.0045), introducing organ donation to family (R=.867, P=.0002) and obtaining consent to donation (R=.796, P=.0021).

Summary

DA's HAS is a powerful tool to assess CC staffs' attitudes and donation related skills in different environments. HAS outcomes are strong predictors of national donation rates, as demonstrated in this study. Measures to improve countries' donation performance should focus on guidance and education of CC staff so as to ensure their knowledge and confidence with donation related issues.

07.10.2009 | **08:00-10:00**

Ethical and Religious Aspects of Organ Donation

#83 – The Ethics and Law of Organ Donations from Prisoners

D. Matas
University of Manitoba

Ethically, organ donations should not come from prisoners, not even prisoners sentenced to death. Yet, the Government of China has, from the inception of organ transplantation in China, relied on such sourcing. Indeed, prisoners are almost exclusively the source of organ transplants in China.

The paper would, first, go through the history and evolution of Chinese, foreign and international ethical and legal standards on the sourcing of organs from prisoners. This evolution has led to a strengthening of standards.

However, the sourcing of organs from prisoners in China remains. The paper would, second, assess the adequacy of current legal and ethical standards both in China and abroad in light of this continuation.

The existence of an unethical practice raises questions about the ethics of those who deal with those involved in the practice. The paper would, third, address associative law and ethics, the norms that are and should be directed to foreign governments, inter-governmental institutions, non-governmental organizations, professionals, academics and businesses which connect in any way to Chinese transplantation.

The existence of standards raises the question of enforcement and application. The paper would fourth consider these questions: How can global legal standards about organ donations be enforced in China? How can global ethical standards be applied?

Fifth and finally, the paper would consider the practice in China of sourcing organs from prisoners purposively. How and why did the practice arise? Why has it continued? How helpful are ethical and legal standards in ending the practice? What, if anything, is needed besides ethical and legal standards to stop the practice?

Summary

The paper would,

a) go through the history of Chinese and foreign standards on the sourcing of organs from prisoners,
b) assess the adequacy of these standards,
c) address the norms that are and should be directed to those who connect to Chinese transplantation,
d) consider how global standards can be applied to China, and
e) consider purposively the practice in China of sourcing organs from prisoners.

Ethical and Religious Aspects of Organ Donation

#84 – Directed Organ Donation after Death: Should organ donation after death always be unconditional?

M. Roberts
University Hospital of Wales

A 26 year old male was referred to the donor transplant co-ordinator team as a potential non heart beating organ donor. The potential donor's father had established kidney failure and had been waiting for a renal transplant on the cadaveric list for one year. The patient had been identified and fully assessed as a potential live donor for his father before his accident. During the consent process with the donor transplant co-ordinator the family requested that one of his kidneys be donated to his father. Following advice a decision was made that he could donate one of kidneys to his father. This case is one of the first instances that directed organ donation has been allowed since the UK adopted a policy not to accept organs with any conditions attached by the deceased's family.

Directed organ donation after death is rare in the UK. In a high profile incident in the north of England in 1998 a family requested that organs from their deceased relative should be given to white recipients only. This case led to an investigation into conditional organ donation. The review panel recommended that organs had to be donated altruistically and transplanted into those most in need and to those who are the best match to the donor. The Department of Health in the UK had operated a blanket policy where families agreeing to organ donation could not stipulate who their relative's organs could be transplanted into.

Following a second incident which was widely reported in the UK media in 2008 a deceased daughter could not donate one of her kidneys to her mother who was on dialysis despite requests from her family. A statement released by the Human Tissue Authority (HTA) reiterated the principle of organs being allocated to those most in need and the best match to the donor. However the HTA did recognise that there may be exceptional situations where this rule could be reconsidered and proposed to consult on the matter and review the current policies on directed donation.

Summary

During the donation conversation with the donor family a clear distinction had to be established between conditional and directed organ donation. The family had already indicated that they would donate organs whether or not one of the kidneys was allocated to his father. To allocate one kidney to a family member in this case was morally and ethically the right decision.

07.10.2009 | 08:00-10:00

Ethical and Religious Aspects of Organ Donation

#85 – Transplantation ethics at the cross road. To what extend are we allowed to adjust ethical principles to the needs

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Since the very beginning of organ transplantation ethical issues have been of great concern to the physicians and to the whole society. Consent is required from the donor for the use of organs either during the lifetime of after the death. Organs for transplantation cannot be considered as the commodity, and should not be either purchased or sold, there should be no mistake in recognition of death (dead donor rule), organ allocation from deceased donors should always follow medical (never utility) criteria. Living donors should be fully informed about the risk, and healthy.

Organ shortage has become the limiting factor of transplantation. Worldwide the efforts are directed to increase the number of available organs. Recovery of organs from the donors after "controlled " cardiac arrest is used and allows for an increase of number of organs available for transplantation. However recovery after cardiac arrest is it not too easy to overcome the dead donor rule All types of living donors (for kidney or liver transplants) are used- , not only related, but also unrelated to the recipients. In certain centers not quite healthy living donors are being used (nicely called" complex" or "extended criteria" donors) Organ trade is condemned, but we agree to use as donors complete strangers (obviously believing in pure altruistic motivation of such donors without the additional incentives).

These developments have caused that the ethical principles related to various aspects of transplantation must have changed over years. The dead donor rule still stands, BUT are we sometimes not "modifying" this rule recovering organs in controlled cardiac arrest situation? Organs cannot be sold, BUT the incentives to the donors are allowed (what will be the next step?). The use of LD is fully justified, BUT do we have the right to use " complex donors". Finally is the trend to consider utility in organ allocation justified? To what extend are we allowed to adjust ethical principles to the needs?

Summary

The dead donor rule still stands, BUT are we sometimes not "modifying" this rule recovering organs in controlled cardiac arrest situation? Organs cannot be sold, BUT the incentives to the donors are allowed (what will be the next step?). The use of LD is fully justified, BUT do we have the right to use " complex donors". Finally is the trend to consider utility in organ allocation justified?

07.10.2009 | 10:30-12:30

Living Donation

#86 – Status of Living Related Kidney Donors in Georgia

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Georgian Association of Transplantologists

Introduction

A living donation offers many advantages. However living donor needs to have a major operative procedure with average perioperative mortality 0,03% and morbidity 10%. Our AIM was to study long term follow up of health status of living related kidney donors in Georgia.

Material and methods

From 1995 to 2008 in total 90 kidney transplantations were performed in Georgia from living related donors. We were able to obtain information from 55 donors (61%). 35 (39%) couldn't be found (address unknown, deceased at time of study etc).

In order to study consequences of unilateral nephrectomy on LRD we evaluated their general health status, using specially designed questioner and routine medical and laboratory investigations including monitoring of blood pressure, creatinine, urea, hematology, urinalyses. 75% were women and 25% men. 69% was mother, 16% – father, 4% – brother, 4% – sister, 4% – cousin, 4% – spouse.

According to postoperative time: 39 patients (71%) were between 1-5 years, 9 patients (16%) – between 5-10 years and 7 patients (13%) – more then 10 years.

In the age range of 41-60 were 62%, more than 61 years – 25%, 21-40 years – 13%.

Results

16% had mild complains: 4% – general weakness, 4% – scar pain, 2% – postoperative hernia, 2% mild memory loss, 4% – other. 9% had postoperative complications before discharge from the hospital (5%- pneumonia, 2% – wound infection, 2%- other). 45% never had any postoperative complains. Duration of complains for 18% was one month, 18% – 3 months, 7% – 6 months, 5% – one year, 4% – more than 3 years. None of assessed LRD had increased creatinine or urea blood level. 60% have normal and 5,4% – increased blood pressure, needing special treatment which they never used before operation. The average age was higher in the hypertensive group needing special treatment (59,6 vs 51,3 years).

Summary

No impairment of renal function is observed in the living related kidney donors; In 5,4% a hypertension developed which needs special treatment; mild postoperative discomfort could be expected in 16 percent.

07.10.2009 | 10:30-12:30

Living Donation

#87 – A Fast and Safe Living-Donor „Finger-Assisted" Nephrectomy Technique: Results of 359 Cases

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Methods

359 consecutive live donor nephrectomies were performed at the West London Renal Transplant Centre. Demographic data, operative parameters and post-operative complications were recorded prospectively.

Description of finger assisted nephrectomy technique

4.0 cm transverse incision is made anterior to the 11th rib. All muscle layers and the lumbodorsal fascia are cut. The ureter, renal artery and vein are individually divided using the ETS-FLEX. The kidney is removed. The wound is closed in three muscle layers using loop PDS The wound is closed subcutaneously, followed by sub-cuticular skin closure.

Results

Table 1 Patient demographic data	Table 2 Operative parameters and complications
Demographic n=359	Operative Parameter n=359
Age (years) 44.2±12.3*	Right nephrectomy (%) 23 (6%)
Male: Female 166:193	Multiple renal arteries 41 (11%)
Weight (kg) 77.8±17.5*	Time to kidney out (minutes) 80 (29-180)*
Height (cm) 169± 9.4*	Wound length (cm) 6.8 (3.5-15)*
BMI (kg/m2) 28.2±5.3*	Operative time (min) 117 (50-265)*
Smoker (%) 48 (13%)	Warm ischaemia time (min) 4.5 (1.0-10.0)*
Hypertension (%) 21 (6%)	Operative blood loss (ml) 109 (20-500)*
Baseline Isotope GFR 103±23.6*	Intra-operative complications 3 (1%)
Kidney size (mm) 10.6±1.1*	Post-operative complications 13 (4%)
*mean±S.D	*median (range)

Discussion

This prospective series has demonstrated that a modified approach to open mini-incision nephrectomy can result in a smaller incision length, whilst maintaining patient safety, has few post-operative complications, and good graft function.

Summary

This prospective series demonstrates thatfinger assisted docor nephrectomy can result in a smaller incision length whilst maintaining patient safety.

Living Donation

#88 – Prediction of the ideal post-transplant kidney function for living and deceased donor organs

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University of Alberta (1), University of Toronto (2), University of Alberta (3), University of Alberta (4)

In the clinical routine kidney transplant function is evaluated by serum creatinine (s-crea) and/or derived creatinine based GFR measurements. However, these measurements do not provide information what the actual transplant function in the recipient should be and they do not take any donor information into account. Sberro et al recently introduced a Cockroft-Gault based equation combining donor and recipient data to calculate the lowest possible serum creatinine in recipients of living donor (LD) organs [Transplantation 2008; 86: 558].

Our aim was to test the predictive quality of the 'Sberro-formula' in LD and deceased donor (DD) recipients. In addition we evaluated whether gene expression information obtained from donor organ biopsies might further enhance the prediction of post-transplant function.

We used a test set of 87 (45 LD and 42 DD) and a validation set of 64 (39 LD and 25 DD) kidney transplants with a mean follow-up of 3 years. Overall patient characteristics, pre-transplant donor s-crea, age and gender distribution, body weights, post-transplant s-crea, incidence of events, and graft survival rates were comparable b/w test and validation set and the data published by Sberro. The calculated lowest possible s-crea for the LD was 78±28 in the test set, 83±31 in the validation set and 83±27 umol/l in the published data set. For the DD transplants the equivalent levels were 65±25 and 70±34, respectively. The performance of the formula of predicted values versus the observed values is given in the table.

As shown, for LD the 'Sberro-formula' performs similar in our patients compared to the published data. However, it lacks predictive quality in DD patients. Based on our test and validation set the overall predictive quality would improve by assuming an adaptive capacity for LD organs of 50% and for DD organs of 30%. In addition, adding transcript information did significantly enhance the predictive quality of the formulas for both LD and DD outcomes.

Performance of the 'Sberro-formula' in living (LD) and deceased donor (DD) recipients.

Patient sets	R2	P (paired t test)	Precision	Bias	30% Accuracy
LD published set	0.47	<0.0001	21.0	20.5	69
LD test set	0.39	<0.01	24.2	31.3	71
LD validation set	0.45	0.004	22.4	20.0	76
DD test set	0.18	<0.001*	33.8	43.1	26
DD validation set	0.09	<0.001*	34.6	34.4	28

*Failed normality

Summary

The incorporation of donor information to predict the ideal serum creatinine post-transplant as introduced by Sberro et al. provides a major improvement for assessment of living donor kidneys. Our data suggest a further enhancement by fine tuning this formula to the different adaptive capacities of living and deceased donor organs and potentially including transcriptome data.

07.10.2009 | 10:30-12:30

Living Donation

#89 – Living Kidney Donation and Transplantation: Is It Time for a New Collaborative?

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Beth Israel Deaconess Medical Center

The Organ Donation and Transplantation Breakthrough Collaboratives successfully increased rates of procurement and transplantation of suitable deceased donor organs in the United States. Live donor kidney transplantation (LDKT) yields superior graft and patient survival outcomes relative to chronic dialysis and deceased donor kidney transplantation. However, the number of LDKTs in the United States has declined 10% since the Organ Donation Breakthrough Collaborative was launched in 2003. Indeed, LDKTs have declined for 4 consecutive years, the most sustained downturn in the United States for either deceased or living donor kidney transplants in the past three decades. During this same time period, policy changes and the shifting sociodemographic characteristics of transplant candidates may have contributed to lower LDKT rates. Collectively, these factors and the coincidental decline in LDKT highlight the systemic nature of organ donation and transplantation. That is, change in one part of the organ donation and transplantation system inevitably leads to change (desirable or undesirable) in other parts of the system. While LDKT accounts for 36% of all kidney transplants in the United States today, there is considerable variability in LDKT rates across transplant programs and regions. Similar variability exists at the international level. Recent studies also highlight variability in LDKT education for transplant candidates and prospective living donors, strategies to increase LDKT, living donor evaluation processes, donor eligibility criteria, and donor follow-up care practices. There is an emerging need to define, document, and disseminate best clinical practices across all of these parameters, and the Collaborative model is likely to best facilitate breakthrough transformations in living kidney donation practices. We will present data highlighting the systemic shift in LDKT and provide justification for recommending a new Collaborative, one focused exclusively on living kidney donation.

Summary

There is an emerging need to define, document, and disseminate best clinical practices across all of these parameters, and the Collaborative model is likely to best facilitate breakthrough transformations in living kidney donation practices. We will present data highlighting the systemic shift in LDKT and provide justification for recommending a new Collaborative, one focused exclusively on living kidney donation.

07.10.2009 | 10:30-12:30

Extended Criteria Donor

#90 – Kidney donation and transplantation in Eurotransplant 2006-2007: Minimizing discard rates by using a rescue allocation policy

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Eurotransplant (1), Eurotransplant (2), Eurotransplant (3), University Hospital Antwerp (4), Eurotransplant (5)

Background

It is a challenge for every organ exchange organization to maximize the utilization rate of all donors.

Aim

Investigate the benefit of a rescue allocation policy and to study the impact of donor factors on the risk of kidney discard.

Methods

All renal donors offered for allocation to Eurotransplant between 2006-2007 were included [N=4057]. Allocation is patient-oriented based on a point-score system including recipient and donor factors. In case, an organ offer is rejected 5 times for medical reasons, allocation can be switched to rescue allocation, i.e. the organ is then offered in a center-oriented way. A logistic regression model was built to test whether donor factors could predict both the probability of the need for rescue allocation and the probability of kidney discard.

Results

Rescue allocation policy was applied to 665 donors (16.4%); within this group transplant rate was 54.3%, resulting in a donor discard rate of 304 donors (7.5% of the total study group). The multivariate model showed that donors aged <10 years and donors with a high creatinine (>1.5 mg/dL) were significantly more likely to be allocated via the rescue allocation system (OR=6.6, p<0.001 and OR=3.2, p<0.001, respectively). Moreover, a positive virology led to an increased probability of rescue allocation (HbsAg positive: OR=14.8, p<0.0001, HCV Ab positive: OR=28.2, p<0.0001). The odds of kidney discard were significantly associated with donor age (p<0.001), non heart beating donor (p<0.001), serum creatinine (p<0.001), history of diabetes (p=0.025), HbsAg positive (p<0.001) and HCV Ab positive (p<0.001).

Conclusion

Rescue allocation is an effective way to achieve a lower donor discard rate. But even with a rescue allocation scheme, several donor factors were significantly associated with a higher kidney discard rate. The combination of liberal donor criteria and rescue allocation policy can reduce the loss of kidneys thereby decreasing the waiting list for kidney transplantation.

Summary

All renal donors in Eurotransplant (2006-2007) were investigated [N=4057]. Donors with a high creatinine or with a positive virology were significantly more likely to be allocated via the rescue allocation system. The odds of kidney discard were significantly associated with donor age, NHB donor, serum creatinine, DM II, HbsAg + and HCV Ab +. Rescue allocation is an effective way to achieve a lower donor discard rate.

07.10.2009 | 10:30-12:30

Extended Criteria Donor

#91 – Using extended criteria donor liver grafts to expand the liver donor pool: results of a single center

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Ismett (1), UPMC Italy (2), UPMC Italy (3), UPMC Italy (4), UPMC Italy (5)

Introduction

Because of shortage of donor organs there is a disparity between demand and donor supply. For this reason clinicians are continually modifying criteria to accept organs. One of this is the use of hepatic grafts from extended criteria donors (ECD).

Aim

With this study we present the results of our 5-years experience by using ECD in liver transplantation.

Materials and Methods

In the present study 198 deceased-donor liver transplants (LTx), performed between June 2003 and March 2008 were divided into 2 groups: Standard (S) and Non-Standard (NS). In the first group, 87 patients received a liver procured from an ideal donor and in the second group 111 patients received an organ from an ECD.

Marginal liver donor criteria included obesity, age, steatosis, long intensive care unit stay, hypotensive episodes, use of inotropic drug, long cold ischemia time, Na >155.

Patients in the NS group were further divided into 2 subgroups: NS1 group, with 70 pt receiving a graft with < 2 risk factors and NS2 group, in which 41 received a graft with > 3 risk factors.

Results

There was not statistically significant difference in the prevalence of biliary/vascular complications or HCV recurrence and incidence of acute and chronic rejection between S vs. NS group.

No difference was seen in terms of patient and graft survival in the first three months post-OLTx in both groups.

1 and 5 year patient survival in the S vs NS group were respectively 95.06% vs 83.04% and 93.39% vs 76.34%. Graft survival between two groups was 92.75% vs. 78.44% after 1 year and 89.41% vs. 70.19% after 5 years respectively.

Numbers of risk factors do not affect 1-year and 5-year patient and graft survival between NS1 and NS2 subgroups.

During first year post-OLTx, more deaths occurred in the NS vs. S group (17 vs 4). During the five years of follow-up, the overall number of deaths was reduced in both groups, with no statistically significant difference (4 vs 1).

Summary

ECD liver grafts can safely be used and allows recipients on the waiting list to have a greater chance of being transplanted. High rate mortality seen during the first 12 months post-OLTx suggests a careful selection and use of the ECD.

Extended Criteria Donor

#92 – Liver Transplantation using Deceased Donors Older than 80 years during the MELD Era in the United States: Is There Any Age Limit?

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Mendez National Institute of Transplantation (1), OneLegacy (2), OneLegacy (3), Mendez National Institute of Transplantation (4)

Backgroud and Aim

The chronic shortage of organs for orthotopic liver transplantation (OLT) has led to increase utilization of marginal donors. The aim of this study is to evaluate graft and patient outcomes from deceased donor older than 80 years.

Materials and Methods

During 2003-2007, 197 OLTs from deceased donors older than 80 years (range 80-92) (extremely old donors) were identified from the Organ Procurement and Transplant Network/United Network for Organ Sharing (OPTN/UNOS) data as of Aug 20, 2008. For comparisons, 1,219 OLTs from deceased donors aged 70-79 (very old donors) and 2,784 OLTs from deceased donors aged 60-69 (old donors) were selected during the same period. Multiple organ transplants and recipients younger than 18 years were excluded.

Results

Overall graft survival rates of extremely old donor OLTs were not significantly inferior to those of very old (log-rank P=0.937) and old donors (log-rank P=0.382) (Figure 1). Similarly, overall patient survival rates of extremely old donor OLTs were not significantly inferior to those of very old (log-rank P=0.778) and old donors (log-rank P=0.395) (Figure 2). Older recipients, lower MELD score, and lower fraction of HCV-positive recipients were noticed in extremely old donor group compared with those of very old or old donor groups (Table).

Table. Baseline characteristics

	Old Donor (60-9)	Very Old Donors (70-79)	Extremely Old (80-92)	P value
Recipient Age	53.9±9.9	55.8±9.7	58.5±10.1	<0.001
MELD	23.1±7.2	21.4±7.1	19.3±7.3	<0.001
Recip HCV-Positive	33.8%	26.0%	20.8%	<0.001
Donor Trauma Death	12.8%	12.3%	18.3%	0.064
Cold Ischemia Time (hr)	7.7±3.7	7.7±3.6	7.7±3.7	0.765
Hospital Stay (days)	17.5±21.9	16.3±19.7	16.6±13.4	0.023

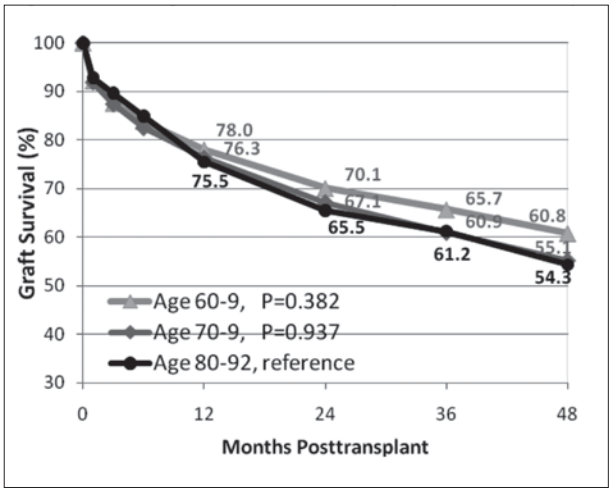

Figure 2. Overall graft survival of old, and extremely old donor liver transplants

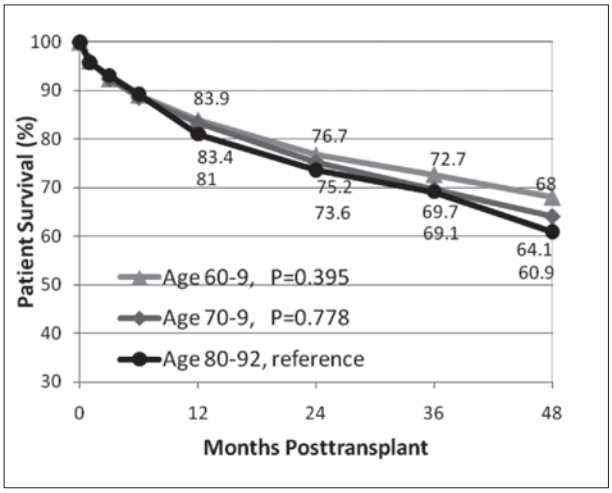

Figure 2. Overall survival of old, and extremely old donor liver transplants

Summary

Extremely old donor age is not an absolute contraindication to OLT. Liver grafts from donors older than 80 years can be used for hepatitis C-negative old recipients with relatively low MELD score.

Extended Criteria Donor

#93 – deceased donor organ transplantation with expanded criteria donors (ecd) – a single center experince from india

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IKDRC & Dr HLT ITS (1), IKDRC &ITS (2), IKDRC & ITS (3), IKDRC & ITS (4), IKDRC & Dr HLT ITS (5)

Introduction

Deceased donor organ transplantation (DDOT) accounts for less than 4 % of renal transplants in India. The increasing awareness has helped more people to come forward for organ donation. Majority of them are marginal donors and outright rejection of the organ would hamper the DDOT program prematurely. Judicious use of these marginal organs is a challenge in developing countries.

Patients and Methods

We had done 29 renal transplants from ECD out of the 115 DDOT done from Jan 2006 to Apr 2009. We did 29 transplants from 21 donors as we did 10 dual kidney transplantations (DKT). Eleven were Donation after Cardiac Death (DACD) and we did six single kidney transplants (SKT) from DACD donors. 14 donors had either HTN or CVA, 9 had both and 4 had DM. The mean age of the donors is 70.3 ± 8.9 yrs. The decision on DKT was done by doing biopsy in 13 out of 21 donors. The mean age of donors from whom DKT was done was 76 ± 9.7 yrs against 64 ± 5.7 yrs from whom SKT was done.

The native kidney diseases were CGN in14, DN in 7 and CTIN in 4 and one each case of ADPKD, FSGS and Lupus nephritis. The mean age of DKT vs SKT was 43.5 v/s 42.3 yrs, meaning that age was not a major criterion. Recipients received thymoglobulin and were put on steroid, MMF and a CNI.

Results

We have mean follow-up of 341 days in 25/ 29 patients. The mean serum Creatinine (Mn S.Cr) of 25 patients is 1.67 mg/dl (range 1.0 – 2.6mg/dl). The Mn S.Cr of patients with SKT is 1.79 ± 0.63 mg/dL and that of DKT is 1.61± 0.48 mg/dL. 10 patients had Delayed graft function and 11 patients had biopsy proven ATN. Seven patients (24%) had biopsy proven rejection (3- type IA, 4- Type 2A). Six patients responded to anti-rejection and one graft was lost at 7 months due to chronic rejection. We had 3 patient loss (10.3%), one each due to MI, sepsis andCMV.

Conclusion

In the circumstances of organ shortage, DDOT with expanded criteria donor is a feasible option.

Summary

Donors with expanded criteria will be a easily available option in countries were DDOT programs are in its infancy. Meticulous clinical evaluation of the donor and biopsy assessment can help in expanding the donor pool effectively. In our experience we were able to give good short term results with death censored graft survival of 89.6%. Longer follow up of these patients would be needed to assess overall benefit from these ECD

07.10.2009 | 13:30-16:00

Organ Donation and the Media

#94 – Health Content Analysis of Organ Donation and Transplantation News on Television Channels and in Turkish Print Media in Turkey

M. Yavuz, D. Hekimoglu, K. Ersoy, F. Sözen, M. Haberal
Baskent University

Media affects the individuals' behaviors especially by means of news and advertisement. In this direction what kind of news comes up in the media? In this study, health content analysis of the organ donation and transplantation news in printed media and television programs in channels for one year period in Turkey were performed. Totally 2449 news on 230 newspapers and magazines, 1179 news and programs on 45 television channels about organ donation and transplantation were analyzed by health content analysis. The news was obtained from Media Pursuit Center and was transferred to the electronic file. The format and content of news about organ donation and transplantation were examined. In the scope of the formal characteristics of the news, totally nine variables; the publication name, the type of the publication, the province of publication, the date of news, the heading of news, the length of title, whether there was a photograph or not, the kind of photograph, the size of news, the page of news were examined. In content analysis of news, nine variables were also examined. Topic of news, the message of heading, the property of words in title, the identification of photographs in the news, the age, gender of actors in the news, donor or receiver were analyzed. As a Summary, in print media and television channels, there was no sufficient informative news about organ donation and transplantation. In addition, the percentage of news about organ donation and transplantation was very small and mostly the negative news was placed in the media. In television channels, except one or two channels, in health related programs, sufficient place were not given to organ donation and transplantation. The news on printed media and television channels were not motivated and altruistic behavior. The given pattern of organ donation and transplantation news is important in terms of perceiving and commenting by public. Furthermore it affects directly to the perception of the news by reader.

Summary

The type of the study was health content analysis. The sample of the study was the news in printed Turkish media and television programs in channels for one year period. Totally 2449 news on 230 newspapers and magazines, 1179 news and programs on 45 television channels about organ donation and transplantation were analyzed by health content analysis.

07.10.2009 | 13:30-16:00

Organ Donation and the Media

#95 – renal transplant and media in saudi arabia

Y. Kattoah
King Faisal Specialist & Research Center – Jeddah

The progress we achieve in saudi arabia in the field of renal transplant is of multifactorial causes ,my presentation will inlight on the role of our media in renal transplantion which i think it's a major contribute for that success.

Our no of renal transplant has been increased from 11 renal transplants in year 1979 to 228 renal transplants in year 2008, not forgetting the follow up of commercial renal transplant of course because of govermental fund, media support in imporving people awarness about prevention of kideny diseases and the important role of renal transplantation and kideny donation

The dialysis center as well growing from 1 dialysis center in year 1979 to more than 175 dialysis center in year 2008 not inclouding the privet dialysis sectors .

But allthough we are lacking some of important ways of media but our social gathring, relegious events, medical confrances and festivals are other way to compensate and to improve the donation pool beside the medical improvement and support.

Summary

We are lacking some of important ways of media but our social gathring, relegious events, medical confrances and festivals are other way to compensate and to improve the donation pool beside the medical improvement and support.

07.10.2009 | 13:30-16:00

Organ Donation and the Media

#96 – Implementation of effective driver's license donor registries increases donor designations and enhances organ donation

J. Green, H. Nathan, J. Weinstock, R. Hasz, S. West
Gift of Life Donor Program

Purpose

To demonstrate how effective state DMV donor consent registries increase donor designations and positively impact the organ donation process and outcomes.

Method

Model legislation for effective "yes" only statewide driver's license donor registries and public education was implemented in three states. Initial and renewing drivers license applicants are asked whether they wish to put the "donor" designation on their license. Only affirmative responses are captured in the registry database, which represents legal consent for donation (first person consent). Upon referral of a pending patient death to the OPO by hospital staff, the OPO accesses the registry to determine if the patient is a registered donor. A three-year analysis of one OPO's potential and actual organ donation rates was compared to the donor designation rate in each category as well as overall DMV designation rates in the service area. Only those cases above age 16 were evaluated.

Results – Donors in Registry 2006-2008

	2006	2007	2008	Total
Referred Potential Organ Donors (POD)	673	677	735	2085
POD in Registry (%)	160 (24%)	188 (28%)	232 (32%)	580 (28%)
Organ Donors Recovered	401	389	428	1218
Organ Donors in Registry (%) *donors age 16+	142 (38%)	151 (41%)	183 (45%)	476 (41%)

GIFT of LIFE DONOR PROGRAM

The number of potential organ donors who were registered as donors increased from 24% to 32% within a 3-year period. During this same period, the number of actual organ donors recovered who were registered as donors increased from 38% to 45%. Whenever a suitable potential donor had a donor designation, the process was reported by OPO coordinators as more efficacious. When the OPO shared with the family the designation decision that an individual made via the registry and through a full disclosure process what that decision means, not only did families support their loved one's decision, but hospital staff were more likely to proactively support interventions for donor management and evaluation. This resulted in nearly all such candidates (who were not ruled out for other reasons) becoming donors.

Summary

Donor registries managed by state Department of Motor Vehicles are critical to increasing donor designations. An effective DMV registry and the access to an individual's documented decision via the registry database can positively impact the organ donation process and ultimately result in more organ donors recovered.

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