2007 Organ and Tissue Donation Congress

9th ISODP & 6th ITCS
Philadelphia, Pennsylvania, USA
November 11 - 14, 2007

Abstract Supplement
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## ITCS Program

### Sunday, November 11, 2007

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## ISODP Program

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Oral Abstract Presentations: Consent

Abstract# 1
WHAT DONOR FAMILIES CAN TEACH US ABOUT CONSENT: DONOR FAMILY VIDEO INTERVIEWS. Lisa Dinharo.1,2 1Thanatology, Hood College, Frederick, MD, USA; 2KoDen, LLC, Frederick, MD, USA.
PURPOSE: This presentation will feature video clips and coordinating educational components of a video interview project investigating: the experience, decision-making factors, coping mechanisms and outcomes in selecting organ and tissue donation subsequent to homicide, suicide, pediatric death and multiple simultaneous loss within one family; understanding the impact of positive and negative death notifications on consent; short/long-term perceptions of brain death and decision-making; the transformative power of donation on traumatic/stigmatized death during and after consent; the psychological/spiritual perceptions of a living host for an anatomical gift; presumptive consent vs. consent election.

METHOD: Individually videotaped interviews of Caucasian and African American organ and tissue donor families who had experienced traumatic loss through a mid-west U.S. organ procurement organization. Participating families were voluntarily consented verbally and in writing regarding the purpose, scope and educational intent of the project with release for application in various settings. Interviews averaged 90 minutes in length and were edited to accompany didactic educational training curriculums for requestors, hospital development and aftercare staff, community healthcare professionals and college students. Individual family anonymity was maintained until after the project was completed.

RESULTS: Participating families highlighted much needed information regarding how to work with them from the initial notification of crisis, to consent through to bereavement, and confirmed the option of donation as a powerful coping mechanism and transformative tool for dealing with traumatic and unexpected loss.

CONCLUSION: The project has been successful in highlighting donor family needs and concepts. Abolishing negative bias, misinformation and stereotyping about donation; caring for families experiencing traumatic loss and the impact that care has on the decision-making process and outcomes. Feedback from professional and lay viewers in various educational settings has been overwhelmingly positive and educational.

Abstract# 2
A STRATEGY TO RE-APPROACH FAMILY DECLINES INCREASES CONSENT RATES. Gigi Vulgamott,1 Laura Schons,1 John Sommerauer.2 1Family Services, MTN, Westwood, KS, USA; 2Critical Care, CMH, Kansas City, MO, USA.
PURPOSE: Over 97,000 people await an organ transplant in the USA. Despite continuing increases in donation and transplantation rates, great disparity exists between the number of donors and individuals on the wait-list. Concentrated efforts are required to maximize consent with every potential donor. We hypothesize that the practice of re-approaching declines for donation will increase the number of consented donors.

METHOD: A retrospective analysis of all requests made by two coordinators at a Midwestern Organ Procurement Organization (OPO) was conducted during a 15 month period (N=88). We evaluated the source of the initial request for donation, initial family response and whether consent was ultimately obtained. All declines were re-approached by the OPO.

RESULTS: Of the 88 requests, 25% were family initiated (N=22), 30% were hospital initiated (N=26) and 45% were OPO initiated (N=40). Initial consent was obtained in 21 of the family initiated requests. The one family initiated decline converted after re-approach. Only 14 of the 26 hospital initiated requests resulted in consent. A total of 7 of the 12 declining families gave consent after re-approach. Consent for donation was obtained in 32 of the 40 OPO initiated requests. Two consents were obtained after re-approach. Overall, declines decreased by 10. This represents a 48% conversion rate on initial declines. This is a significant increase in organ donation consent rates with families who were re-apprroached after initial declines (p-value = 0.051). Effective strategies for converting declines include: providing a positive vision of donation (N=4), addressing myths (N=2), early family support by the OPO (N=2), ongoing OPO family support after the declination (N=1) and continuing dialogue about end-of-life issues (N=1).

CONCLUSION: A re-approach strategy for families who initially decline donation results in increased consent rates. Utilization of an experienced requestor to re-approach after an initial decline provides additional family support and information thereby ensuring that the family has an opportunity to make an informed decision.

Abstract# 3
PEDIATRIC ORGAN DONATION: WHAT FACTORS MOST INFLUENCE PARENTS’ DONATION DECISIONS? James R. Rodrigue,1 Danielle L. Cornell,2 Richard J. Howard.1 1The Transplant Center, Beth Israel Deaconess Medical Center, Boston, MA, USA; 2LifeQuest Organ Recovery Services, Gainesville, FL, USA.
PURPOSE: To identify factors that influence parents’ decisions when asked to donate a deceased child’s organs.

METHOD: We conducted semi-structured telephone interviews of 74 parents (49 donors, 25 non-donors) of donor-eligible deceased children who were previously approached by coordinators from one organ procurement organization (OPO) in the southeastern USA.

RESULTS: Multivariate analyses showed that organ donation was more likely when the parent was a registered organ donor (OR=1.4, CI=1.1, 2.7), the parent had favorable donation beliefs (OR=5.5, CI=2.7 ,12.3), the parent was exposed to organ donation information prior to the child’s death (OR=2.6, CI=1.7, 10.3), a member of the child’s healthcare team first mentioned organ donation (OR=1.4, CI=1.2, 3.7), the requestor was perceived as sensitive to the family’s needs (OR=0.4, CI=0.2, 0.7), the family had sufficient time to discuss donation (OR=5.2, CI=1.4, 11.6), and family members were in agreement about donation (OR=2.8, CI=1.3, 5.2).

CONCLUSION: Higher rates of pediatric organ donation would extend and improve the lives of many more children and adults awaiting solid organ transplantation. Parents’ donation decisions are influenced by a number of modifiable variables that should be targeted for additional education and intervention.

Abstract# 4
THE STABILITY OF ORGAN DONATION DECISIONS BY NEXT-OF-KIN AND FACTORS THAT PREDICT IT. James R. Rodrigue,1 Danielle L. Cornell,2 Richard J. Howard.1 1The Transplant Center, Beth Israel Deaconess Medical Center, Boston, MA, USA; 2LifeQuest Organ Recovery Services, Gainesville, FL, USA; 3Department of Surgery, University of Florida, Gainesville, FL, USA.
PURPOSE: To examine the stability of organ donation decisions made by next-of-kin and factors that predict whether non-donors now wish they had consented to donation.

METHOD: Data were gathered via telephone interview with 285 next-of-kin who had been approached about donation in one OPO in the southeastern USA.

RESULTS: Of the 147 next-of-kin donors, 138 (94%) would make the same decision again; 6 (4%) would now consent to donation and 3 (2%) were unsure about the decision they would make now. Six of the 9 who either would not donate now or are unsure consented to donation knowing that the deceased family member did not want to be an organ donor. Of the 138 next-of-kin non-donors, 89 (64%) would make the same decision again; 57 (29%) would now consent to donation and 12 (9%) were unsure what decision they would make now. Thirteen (27%) of the 49 next-of-kin who now would likely donate initially refused consent knowing that the deceased one wanted to be an organ donor. Multivariate logistic regression analysis showed that regret was more likely when the next-of-kin non-donor had more favorable attitudes toward transplantation (OR=1.76, CI=1.15,2.69), had the first donation discussion with a non-OPO professional (OR=0.21, CI=0.13,0.65), was not told their loved one was dead before first donation discussion (OR=0.23, CI=0.10,0.50), did not perceive the timing of the request to be optimal (OR=0.19, CI=0.07,0.51), did not feel the family was given enough time to make the decision (OR=0.25, CI=0.11,0.55), had discussed organ donation with family members (OR=0.30, CI=0.13,0.72), and had heard a public service announcement about organ donation (OR=0.29, CI=0.13,0.67).

CONCLUSION: A surprising one-third of families that refused donation likely would not make the same decision again. Several modifiable factors predict this regret, and OPOs should target these variables in educational campaigns and donation request approaches.
Abstract@ 5
THE DONATION DECISION – FAMILIES ELABORATE ON FACTORS SURROUNDING THEIR DECISION TO DONATE.
Jennifer Gillott,1 Geoff White.2 *Australasian Donor Awareness Programme, Australian Red Cross Blood Service, Sydney, New South Wales, Australia; 2Centre for Medical, Nursing & Health Sciences Education, Monash University, Melbourne, Victoria, Australia.
PURPOSE: To investigate Australian donor families’ experiences of the approach to consider organ donation and factors influencing their decision to donate.
METHOD: A descriptive, retrospective study with closed and open-ended questions, self-administered and anonymous, was distributed by mail. 193 families of organ donors from 2002 were asked to recall events and experiences surrounding their decision to agree to organ donation for their deceased relative.
RESULTS: 131 families responded, representing a sixty-eight percent response rate. 97% of respondents believed that their decision to consent to organ donation was the right choice and was congruent with the values of the donor. Consistent with this response, the importance of not overriding a previous decision of the deceased was also highlighted.
In response to the question ‘why did you decide to donate?’ 40% of families had discussed organ donation before the death of their relative, and were aware of their wishes. 60% indicated that having this knowledge assisted them in making their decision to donate.
Additional factors influencing the decision to donate included altruistic motives (60%) and an opportunity for something positive to come out of a tragedy (70%). 67% of respondents indicated that being approached about organ donation did not add to their distress, however 18% recalled feeling rushed or pressured.
CONCLUSION: Families’ decision-making processes about organ donation are multi-factorial and complex. Professional education programmes and public awareness campaigns and about organ donation are informed by the factors identified.

Abstract@ 6
INTRODUCING DashTrack©, THE DASHBOARD MADE EASY. Hedi Aguiar, Seung W. Lee, Maria Stadtlar, Tom Mone, Esther-Marie Carmichael.
OneLegacy, Los Angeles, CA, USA.
PURPOSE: Centers for Medicare and Medicaid Services (CMS) regulations require Organ Procurement Organization (OPO) Hospital Service Coordinators (HSCs) to provide reports (dashboards) summarizing donor potential, outcomes, and process measures to hospitals with organ donor potential. Dashboards were manually created requiring aprox. 2 workdays/month, leading to multiple data errors, unclear process performance measurements, and estimation of referral rate, timely notification, and effective request use. Compilation of dashboards differed vastly between each HSC leading to inconsistent reporting.
The aim was to evaluate if the newly computerized dashboards led to a consistent, unified approach, improved time efficiency, and accuracy of the CMS-required hospital reports, and if the re-organized data management improved real-time hospital service.
METHOD: In June/06, we created an excel-based tool (DashTrack©) allowing for easier referral tracking and data-management. DashTrack© contains the following pages: #1 dashboards, #2 - numerical report with the donor numbers/month and category, #3 - activity and outcome tracking, and #4 - instructions and legends. Pages 1-3’s cells are linked updating the DashTrack© automatically when the tracking page is utilized. The DashTrack© has been adopted by our 26 HSCs and is utilized for 133 hospitals in our OPO’s donation service area for >11 months.
RESULTS: The average time spent on dashboard-reporting decreased from 2 days to approx. 1/2 month with a drastic decrease of data calculation errors, improved oversight of hospital activity, more accurate measure of performance in the various process measures, a consistent reporting approach, and the generation of real time dashboard information.
CONCLUSION: DashTrack© is an efficient data management tool allowing HSC involvement and improved tracking of activity in each hospital. Implementation of this new tool minimizes time spent on producing hospital reports, ensures a consistent approach, reduces errors, and increases HSC and hospital satisfaction. Standardized dashboards are now provided to all collaborating hospitals.

Abstract@ 7
A NEW HOSPITAL SERVICES SERVICE MODEL. Esther-Marie Carmichael, Hedi Aguiar, Maria Stadtlar. OneLegacy, Los Angeles, CA, USA.
PURPOSE: Our organ donation hospital service model focused on establishing best practices in our 220 hospitals through professional education, based on the Hospital Service Coordinator (HSC) or hospital’s perceived need. The attendance of this education was often lacking. In June 2006, our HSCs adopted a new Hospital Services Service Model (HSSM) that provided focused professional education, increased hospital ownership and hardwiring collaborative best practices in hospital policies.
We had two aims: (1) Develop effective professional education resulting in increased early referrals, conversion rates, and eligible donors. (2) Evaluate if the HSSM resulted in behavioral changes increasing early referrals, conversion rates, and donors.
METHOD: Our HSSM includes these core elements:
METHOD: Our core-elements are executed through the hierarchal process ‘REAL TIME HOSPITAL SERVICE’ emphasizing critical thinking, communication, strategic planning, presentation, time management skills, and cultural competence.
RESULTS: Since the inception of the HSSM the referral rate for 2006 increased to 3587 with 432 donors and a conversion rate of 62.24% as compared to 2005, the referral rate of 3159 with 373 donors and a conversion rate of 56.8%.
CONCLUSION: The HSSM achieved the aim of increasing referrals, eligible donors and conversion rates. Behavior change was made apparent, creating a new educational opportunities, and best practices were hardwired, thus leading to hospital ownership of the donation process.

Abstract@ 8
REMOTE DSA HOSPITAL IMPROVEMENTS. Dorothy Starr, Shante Wells. ‘Organ Recovery Services, Texas Organ Sharing Alliance, Austin, TX, USA; 2Hospital Services, Texas Organ Sharing Alliance, Austin, TX, USA.
PURPOSE: In 2006, a Level II Trauma Center, isolated geographically from the regional OPO office, had a consent and conversion rate of less than 35%. Challenges include a mutual lack of trust, a 2 hour trip to respond to referrals, lack of hospital buy-in to the process and perceptions of conflict of interest.
METHOD: The OPO involved all its departments in developing a strategic plan which included: 1. Establishing a hospital donor improvement committee 2. Encouraging hospital ownership of the data 3. Recruiting and committing staffing resources to improve on-site visibility 4. Established a code of conduct for per diem coordinators 5. Consult the University of Texas MBA program for marketing ideas.
RESULTS: The Donor Improvement Committee consisted of the chaplaincy, unit managers, public relations, a physician champion, CQI and OPO staff and met every two weeks. Initial meetings were unfocused but energetic. The committee focused on the problems it could influence and the OPO did the same.
Response time to referrals was shortened by hiring 3 additional local per diem nurses. A code of conduct for per diem coordinators was developed outlining how referrals are processed when a local per diem nurse is caring for a potential organ donor. Fully trained OPC’s from the Regional Office were on site early on potential donors and for every family approach. The OPO changed its interaction with the hospital staff from aggressive and controlling to cooperative and committed to change. The physician champion has added credibility to the process with the other physicians and has carried the cause to the Hospital CEO.
CONCLUSION: The hospital has taken ownership and reviews their data monthly. Specific cases are discussed openly with a commitment to problem solving. The Committee suggested the development of a “Good Family Care” program. The MBP program at the University of Texas is currently working on the marketing aspect of the donation program as it relates to isolated communities. Consent rates for the first two quarters of 2007 were 100% (6/6) and the conversion rate is 83% (5/6).

Oral Abstract Presentations: Hospital Development
Abstract# 9
ESTIMATING TISSUE DONATION POTENTIAL OUTSIDE THE ACUTE CARE SETTING. Kimberly Young, Simon Avis, Karen Hornby, Christina Rogers. Canadian Council for Donation and Transplantation (CCDT), Edmonton, AB, Canada.
PURPOSE: The Canadian Council for Donation and Transplantation (CCDT) undertook this project to identify potential tissue donors outside the acute care setting. Only 50% of deaths in Canada occur within acute care facilities.
METHOD: A sample of coroner/medical examiner cases for the year 2003 in Alberta, British Columbia, Ontario and Newfoundland were reviewed. Data was collected on all accidental and natural deaths; those occurring in hospital healthcare facilities were excluded. The inclusion/exclusion criteria used to determine eligibility were based on Canadian Standards Association Standards 2000 series. All cases in Newfoundland (400) were reviewed; 400 cases were randomly sampled from the remaining three provinces with sampling done to reflect proportions of accidental and natural deaths as well as their monthly distributions.
RESULTS: *see tables*
CONCLUSION: This study identified a relatively large number of potential tissue donors that are rarely considered in the present Canadian context. Although recent work on tissue supply and demand in Canada suggests there are more than enough potential donors within the acute care setting, this potential source requires careful consideration. Tissue banks will need to consider these identifies potential increases when designing and forecasting their programs.

Abstract# 10
OPO STRATEGY FOR TIMELY NOTIFICATION OF POTENTIAL ORGAN DONORS DRAMATICALLY IMPACTS CONVERSION RATES. Gwenneth D. George, Sharon M. West, Richard M. Hasz, Howard M. Nathan. *Hospital Services, Gift of Life Donor Program, Philadelphia, PA, USA; *Transplant Information Center, Gift of Life Donor Program, Philadelphia, PA, USA; *Clinical Services, Gift of Life Donor Program, Philadelphia, PA, USA.
PURPOSE: Despite increases in organ donation, studies have shown that the donor pool has not been maximized. Organ Procurement Organization (OPO) and hospital collaborations to standardize the organ referral process are an important intervention aimed at closing the donor gap. This abstract demonstrates the impact of one OPO’s strategy on standardizing referral practices and the associated effect on conversion rates.
METHOD: OPO model includes 14 staff assigned to its hospital market, with special emphasis on centers with high potential, and the strategy is aimed at implementing best practices and eliminating variability. Model includes comprehensive education in critical care areas, ongoing dialogue and mutual critique, debriefing following clinical interactions, and special emphasis on physician relationships. Physician-focused strategies included grand rounds, sharing of data, business correspondence and CCU nursing staff (45.7%) expressed their need for further related education. Related issues, against 13.9% of CCU nurses (P=.08). A large number of OR (42.8%) and CCU nursing staff (45.7%) expressed their need for further related education. CONCLUSION: Higher distress levels and compromised support for donation amongst professionals who are closest to the procurement process are likely to be transmitted to other hospital staff and the general public if not countered timely and adequately. Based on these findings, we have started to implement improvement measures, included an educational program for OR nurses on donation and procurement related tasks.

Abstract# 11
CRITICAL CARE AND OPERATING ROOM NURSES’ PERCEPTIONS TOWARDS ORGAN AND TISSUE DONATION. Beatrice Pelleriaux, Denis Dufrane. University Tissue Bank, UCL, St Luc, Brussels, Belgium.
PURPOSE: Whilst Critical Care (CCU) nurses play a key role in the donation process, Operation Room (OR) nursing staff are the most close to the procurement process.
METHOD: Between March 2006 and February 2007, an anonymous 32-questions Donor Action (DA) Hospital Attitude Survey was conducted in 13 CCUs and the OR amongst medical, nursing and auxiliary staff. Surveyed nursing and auxiliary staff profiles were similar between the CCU group (n=177) and the OR group (n=37) and with regard to gender, age and professional experience.
RESULTS: OR nurses showed significantly less support for donation in general compared to their CCU colleagues (78.4% vs. 95.5%, P=0016). They were more reluctant to donate their own organs (78.4% vs. 93.2%, P=009) and even more reluctant to donate their own tissues (67.6% vs. 82.5%, P=0009). More OR nurses strongly opposed donation of relatives’ organs compared to their CCU colleagues (5.4% vs. 0.6%, P=06). Significantly more OR nurses were dissatisfied with the coordinating services provided by the transplant coordinators (15.4% vs. 2.5%, P=032). Only 5% of the surveyed OR nurses reported to have received professional education on donation related issues, against 13.9% of CCU nurses (P=08). A large number of OR (42.8%) and CCU nursing staff (45.7%) expressed their need for further related education.
CONCLUSION: Higher distress levels and compromised support for donation amongst professionals who are closest to the procurement process are likely to be transmitted to other hospital staff and the general public if not countered timely and adequately. Based on these findings, we have started to implement improvement measures, included an educational program for OR nurses on donation and procurement related tasks.

Abstract# 12
PURPOSE: There are few studies which have been carried out with those responsible for the donations of tissue, with the specific purpose of knowing their opinion about this process. The purpose is to discover the feelings of the cornea donor relatives about the phases of the process: pre-donation, globe enucleation and post-donation, with the objective of improving the quality of the cornea donation.
METHOD: We carried out a qualitative survey with those responsible for the donations of corneas from May 2006 to April 2007 (n=230) in the ISCMPA Hospital. They were interviewed by telephone. The main question of the research was “how was the process of donation, from the beginning to the end?”. RESULTS: Of the 230 relatives contacted, 130 did not participate in the research due to structural and logistic problems: cell phones turned off or out of service (58), unable to find those responsible (43) or nonexistent telephone numbers (29). The 100 people responsible for donation of corneas that were located agreed to participate in the research. There were two complaints regarding the time spent waiting for globe enucleation, considered too long (4 to 5 hours), the mean time of wait is about 1 hour. The relatives related 41 complications during the funeral: bleeding (10), hemetoma (17) and edema (14). In five cases (5% of the total), the bleeding caused concern, the person responsible for donation felt uncomfortable in front of the family. 65 people complained there was no contact from the coordinator agency of the state, after the process of donation, as was communicated during the interview. 44 people interviewed felt dissatisfied with the cornea donation process: 39 because of lack of information after donation and 5 due to complications of globe enucleation. However, no one regretted the act of donation.
CONCLUSION: Based on the results of the interview we concluded that better explanations should be given to the relative about the possibility of small complications, and the teams of globe enucleation need to improve their surgical technique and the CITs should maintain better contact with the relatives after donation.
Abstract# 13
HOW EFFECTIVE ARE HEART VALVE TRANSPLANTS FROM DONORS OVER 65 YEARS OF AGE? Katharina Große,1 Rudolf Meyer,2 Roland Hetzer,2 Erna Schmitzer,2 Onur Kucuk,2 Frank Polster,2 Claus Wesslau.1 1Northeast Region, Deutsche Stiftung Organ Transplantation, Berlin, Germany; 2Deutsches Herzzentrum Berlin, Berlin, Germany.
PURPOSE: Since there is no upper age limit for general organ donation, unlike heart valve donation, and since a quarter of all organ donors are 65 years old and older, we examined whether the heart valves from these donors are suitable as allografts.
METHOD: In the period 1999 to 2004 the aortic valve and pulmonary valve of 100 organ donors over 65 years of age were examined to establish whether they would have been suitable as valve grafts in accordance with the standards of the Bio Implant Service. To compare the valve grafts above and below the age limit of 65 years, we used data on the aortic and pulmonary valves of 380 organ donors below the age limit in the same time period off the Deutsches Herzzentrum Berlin.
RESULTS: Half of the all heart valves above and below the age limit of 65 years examined would have fulfilled the medical standards for suitability for transplantation. The morphological suitability of heart valves alters during the 4th decade of life. Suitability of the aortic valves decreases rapidly and near to the age limit only 6% of them are accepted as grafts. The rate of potentially acceptable aortic valve grafts from organ donors aged over 65 years of 15% is also small. By contrast, the pulmonary valves are not affected by age-related tissue changes that might reduce their transplantability. The great majority (85%) of potential pulmonary valve grafts from organ donors over 65 years of age fulfilled the acceptance criteria, 48% even showing good tissue quality.
CONCLUSION: These findings show that, from a morphological viewpoint and also on the basis of economic considerations, there is no justification for an age limit of 65 years for heart valve donation in organ donors. The likelihood of harvesting a valve graft from a donor over 65 years for transplantation is just as high as in donors below the age limit. In addition, investigations that are important for recipient protection will already have been performed. In light of these results the age limit was raised to 70 years in 2005.

Abstract# 14
EVALUATION OF SURGICAL BONE BANKING IN CANADA. Kimberly Young, James W. Mohr, Marc Germain, Christina Rogers. Canadian Council for Donation and Transplantation (CCDT), Edmonton, AB, Canada.
PURPOSE: The CCDT undertook this project to determine the number of surgical bone banks in Canada and to obtain a sense of the surgical bone potential in Canada. Deceased bone donations cannot currently meet the Canadian demand for cancellous bone and surgical bone could be seen as a viable means to offset this disparity.
METHOD: 173 orthopaedic departments were contacted to determine the number of surgical bone banks operating in Canada. Each orthopaedic department was interviewed for the number of femoral heads obtained per year, information on operational practice, femoral head donation and rejection rates, banking costs and key issues affecting the ability to maintain operation of the surgical bone banks. Data from the Canadian Joint Replacement Registry was used to estimate the number of femoral heads available from total hip replacements.
RESULTS: 9 see table
CONCLUSION: The main issues identified as driving current practice in surgical bone banking included the following: surgeon preference for femoral heads and increased use of allograft procedures placing more demand on banks. The development of a shipping model of surgical bone banking where femoral heads from orthopaedic departments that do not have tissue banks are shipped to regional established surgical bone banks will ameliorate the gap between supply and demand for cancellous bone.

Abstract# 15
TRAINING OF TRANSPLANT EDUCATIONAL COORDINATORS – INITIAL EXPERIENCE IN BRAZIL. Valter D. Garcia,1 Clotilde D. Garcia,1 Elizete Keitel,1 Lisiane Picasso,1 Adriana P. Barbosa,2 Paulo Rene.1 1Transplant Coordination, Santa Casa, Porto Alegre, Brazil; 2Industries Federation of Rio Grande Do Sul, Porto Alegre, Brazil.
PURPOSE: One of the main transplant obstacles is the elevated rate of non family authorization for donation, which is due to many reasons (non comprehension of encephalic death diagnosis, fear of body deformation, fear of commerce, unfamiliarity of the allocation system, etc). These fears and lack of comprehension cannot be resolved only by general campaigns, but need more specific explanations. The purpose is to give the necessary information about the process of donation – transplant by mean of courses for training “Educational Transplant Coordinators” in the RS State.
METHOD: The courses were elaborated by the Hospital Transplant Coordination Department of the Hospital Complex of Santa Casa in association with the Bank of Organs and Transplants of FIERGS for students and professionals from the health area and also for voluntary workers as well as NGOs. These courses, with 40 to 80 students each, involve a total of 12 hours with the objective of supplying basic knowledge about the process of donation – transplant. Which give students knowledge, so they can participate in lectures and debates in schools, universities, clubs and companies.
RESULTS: Between December 2002 and December 2006, nine courses were carried out, training 580 educational coordinators. These educational coordinators are giving lectures about donation and participating of debates, in schools, universities, factories and clubs.
CONCLUSION: With these “educational transplant coordinators” working as voluntary, their possible tos to carry out 200 lectures a month, with an average of 50 - 60 participants, so that by the end of the year approximately 120.000 persons (1.2% of the population of the State), would have the opportunity to receive accurate information about donation and transplant. If this project is maintained for the next eight years, approximately one million people (10% of State population), should receive information about the process of donation – transplant. This project should be implemented in other cities of Brazil.

Abstract# 16
INTERNATIONALITY AS THE TRAINING BEST FEATURE. Gloria Paez, Ricardo Valero, Martí Manyalich. Transplant Procurement Management, IL3 - Universitat de Barcelona, Barcelona, Spain.
PURPOSE: Transplant Coordinators need a multidisciplinary profile to work on the organs and tissues donation. They have to develop solid and comprehensive skills on technical, scientific, psychological and human capabilities by integrating the theoretical and practical knowledge in the daily clinical practice.
METHOD: Based on the learning-through-experience model, TPM has been developing since 1991 a training methodology aimed at answering the needs of health professionals involved in organ and tissues donation and transplantation: face-to-face courses offer a wide variety of theoretical and practical modalities and degrees, on-line modules go deeply in each step of the procurement process, and blended-learning programs, such as the International Master, include face-to-face and virtual courses, a hospital stage and research project.
TPM has acquired an International dimension soon after its start thanks to a vast network of qualified professionals throughout the world that collaborate as faculty members. Whether by organizing national or international courses, TPM considers that the understanding of different donation and transplantation models in use is an important point to be trained in. Course programs are designed to facilitate the exchange of experiences among participants and faculty members.
RESULTS: Each year health professionals from all over the world participate in the TPM training programs, as it is shown in the table 1.

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2005</th>
<th>2004</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>face-to-face training</td>
<td>47</td>
<td>38</td>
<td>80</td>
<td>44</td>
</tr>
<tr>
<td>on-line training</td>
<td>56</td>
<td>14</td>
<td>12</td>
<td>19</td>
</tr>
</tbody>
</table>
Up to now, 4714 participants have been trained by the TPM considering all the training modalities.
CONCLUSION: The learning process has reinforced the communication among professionals enhancing the international information sharing and collaboration. This built network has also allowed TPM to engage health professionals in International Projects which purpose is to analyze and improve the quality and safety associated to the organ, tissue and cell donation and transplantation among the European countries.

Abstract# 17
PURPOSE: Human fascia lata allograft is mainly fresh frozen (FF) to maintain the immunogenicity and the risk of bacterium/viral priion transmission, a sequence of multiple treatments were conducted to develop the “freeze-dried fascia lata” (FDF). New clinical indications were then developed.
METHOD: Fascia lata procurement, processing and clinical uses were retrospectively analysed, between 1999-2006, in one university tissue bank center. FF grafts were directly preserved at −80°C until use. In contrast, FDF grafts were chemically (defatting, decellularization, pathogen agents inactivations) and physically (freeze-drying, gamma irradiation) treated for preservation at room temperature.
RESULTS: During the last 7 years, a significant increase of human fascia lata procurements was recorded (+32%). Most fascia lata were FF until 2002 (+50%)

Oral Abstract Presentations: Coordinator Education
especially for orthopaedic surgery (>90%) (Table). During this period of time, only 40% of fascia were processed as FDF for essentially (81%) orthopaedic applications (interposition materials). Between 2002 and 2006, majority of fascia were processed as FDF (62.4%) but essentially for new indications in neurosurgery, ORL and abdominal surgery.

CONCLUSION: Modifications of biological/mechanical tissues properties can directly open new clinical indications. FDF demonstrated its capacity to be a biocompatible scaffold for cellular recolonization which can be used in neurosurgery (as dura mater substitute), ORL (after tumor resection) and abdominal wall reconstruction.

RESULTS:

<table>
<thead>
<tr>
<th>Fascia Lata donors</th>
<th>1999</th>
<th>2002</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>0</td>
<td>20</td>
<td>44</td>
</tr>
<tr>
<td>FF</td>
<td>Nr</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>orthopaedic (%)</td>
<td>100</td>
<td>100</td>
<td>90.2</td>
</tr>
<tr>
<td>Neurosurgery (%)</td>
<td>0</td>
<td>7.8</td>
<td>7.8</td>
</tr>
<tr>
<td>Plastic surgery (%)</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ORL (%)</td>
<td>15</td>
<td>23</td>
<td>108</td>
</tr>
<tr>
<td>orthopaedic (%)</td>
<td>63.3</td>
<td>69.6</td>
<td>50.6</td>
</tr>
<tr>
<td>Neurosurgery (%)</td>
<td>6.7</td>
<td>15.7</td>
<td>15.7</td>
</tr>
<tr>
<td>ORL (%)</td>
<td>0</td>
<td>30.4</td>
<td>11.2</td>
</tr>
<tr>
<td>Abdominal surgery (%)</td>
<td>1</td>
<td>0</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Fascia lata procurement (N= number of donors), processing as FF or FDF for clinical applications (Np=number of provided grafts) (%= frequency of total use)

Abstract# 18

HEALTH CARE PROFESSIONALS – WHAT DO THEY KNOW ABOUT ORGAN DONATION? Teresa Pont,¹ Núria Masson,¹ Rosa María Gràcia,² Pere Salamero,¹ Roser Deufoeu.¹ Transplant Coordination Department, Hospital Vall d’Hebron, Barcelona, Spain; ²Intensive Care Department, Hospital Vall d’Hebron, Barcelona, Spain; ³Catalan Transplant Organization, OCCT, Barcelona, Spain.

PURPOSE: Donor detection is influenced by the legal system and family refusal, underreporting due to erroneous knowledge of donation criteria and a lack of familiarity with the procedure on the part of medical professionals is also a contributing factor. This study investigates the standpoint of critical health professionals participating in our postgraduate courses (2001 to 2006) with regard to organ donation.

METHOD: We carried out an in-depth survey, evaluating attitudes, knowledge, roles and experiences around organ and tissue donation-transplantation. This was administered to 350 participants, prior to and following the post-graduate courses.

RESULTS: We collected 690 from 350 attendees. These were 14(4%) medical staff, 32 (9%) medical trainees and 304 (87%) nurses of Intensive Care and Emergency Services. In the first survey; 280 (80%) of them showed a positive attitude towards organ donation, 210 (60%) towards tissue donation and 24 (7%) declared lack of knowledge about the subject. However, when asked about their own relatives’ organ donation only 175 (50%) of them responded affirmatively. 63 (18%) of participants believed brain death is not equivalent to death. 176 (50%) claimed a lack of adequate training in this area and 211 (60%) felt uncomfortable approaching families for donation. Only 88 (25%) were able to give the percentage of people receiving an organ in Spain whilst 36 (10,2%) reported the correct number of transplants carried out. After the course the participants declared a progress in attitudes and comfort levels around donation. Furthermore, whilst correlation can not be demonstrated, it is worth noting that family refusal decreased from 33% to 8-11% in our hospital.

CONCLUSION: It is clear that in order to keep pace with demands for healthy organs for transplant, continuous training of health care professionals in transplant, the legal system and communication skills are crucial for successful organ and tissue donation.

Abstract# 19

INCIDENTAL RENAL CELL CARCINOMA IN BRAIN DEAD ORGAN DONORS. Kerstin Moench,¹ Christian Moench,² Fernando Bittenger,¹ Jochen Thies,¹ Dietmar Maurer.¹ German Foundation for Organ Transplantation (DSO), Middle Region, Germany; ²Surgery, University Hospital, Frankfurt/Main, Germany; ³Pathology/Transplantation Surgery, University Hospital, Mainz, Germany.

PURPOSE: Accidental transmission of infection and malignoma from donor to recipient is a rare but severe complication. Especially small tumors without any symptoms are difficult to diagnose and mostly not detected before procurement.

METHOD: Retrospective case-by-case analysis of n=16 renal tumor suspicious masses in organ donors from Jan 1, 2006 until Feb 15, 2007 in the DSO-Middle Region.

RESULTS: 16 kidneys of 164 donors showed a macroscopic suspicious nodule which required histopathological examination. 8 benign lesions were found. 8 cases showed RCC. One of these was initially classified benign in frozen section and was finally diagnosed as an RCC. RCC measured 0.6 cm to 2.7 cm (all pT1a-tumors). Lymph node or distant metastasis could not be detected. The histopathological grading showed 6 G1-, 1 G2- and 1 G3-tumor. Histogenetically RCC were clear cell type and 4 RCC were tubulo papillary type. One of the kidneys with RCC was transplanted but immediately explanted after diagnosing RCC. In 1 case the contralateral kidney was transplanted. In 1 case each the heart and the liver of the donor was transplanted. None of the recipients shows signs of tumor transmission. The mean age of all donors was 52.6 years. The mean age of the RCC group was 64.4 years (p=0.001). 64% (89) of all donors were male, 46% (75) were female. In the RCC group, the gender was predominately male (6) compared to female (2).

CONCLUSION: RCC was found in 5% of all donors. Donor age over 60 was a significant risk factor for RCC. Due to this high incidence of RCC, procurement surgery was standardized to increase recipient safety: The gerota fascia including perirenal fat is totally removed back-table before organ allocation. Sterile intraoperative ultrasound is performed in indistinct cases. All suspicious lesions are histologically investigated. The recipient center is to be contacted early. Although the incidence of RCC is low compared to other tumors, it is a relevant problem in aged donors an should not be underestimated.

Abstract# 20

TO ACCEPT OR NOT TO ACCEPT: ARE CURRENT CRITERIA FOR LUNG DONATION STILL OPTIMAL OR SHOULD THEY BE REVISED? Marion Nickle,¹ Andre Simon,² Nils Fruehauß.¹ ¹Region Nord, Deutsche Stiftung Organ Transplantation (DSO), Hannover, Niedersachsen, Germany; ²Thorax-, Herz- und Gefäßchirurgie, Medizinische Hochschule (MHH), Hannover, Niedersachsen, Germany.

PURPOSE: While lung transplantation has become a standard therapy for a variety of end stage lung diseases, criteria for lung donation have remained restrictive. Thus, a review of the experiences of transplanting centers of successful lung donations may be a way to increase potential donor numbers.

METHOD: A retrospective analysis of the donor data of 80 lung donors, matched to the outcome of their respective recipients was performed.

RESULTS: Mean donor age was 37 yrs. (± 23), mean arterial pO2 was 450 mmHg (± 35), mean time on ventilation was 130 h (± 40). Microbiological analyses of the bronchoalveolar lavage (BAL) yielded positive results in 59% of the donors. 94% of lung tissue samples were positive. While there was transmission of donor bacteria in single cases, no recipient developed post transplantational disease. Grafts procured from donors >55 of age were implanted into older recipients. (58 yrs vs. 57 yrs) with no difference in 5-year survival (77% vs. 79%). 34 organs accepted for transplantation had concomitant diseases (e.g. aspiration pneumonia), showing a decreased survival in the respective recipient group (74% vs. 82%).

CONCLUSION: Rigorous analyses of donor data may allow for an increase of the number of available lung donors. While concomitant diseases may increase mortality, these organs can be transplanted with an acceptable risk, if selected carefully. Extended ventilator times and positive microbial analyses of BAL do not automatically exclude from lung donation. Donor age remains a relative contraindication at the most.

Abstract# 21

RECENT, 5-YEAR HCV SEROPREVALENCE TREND AMONG CADAVERIC ORGAN DONORS IN CALIFORNIA. Marek J. Nowicki,¹ Dem Brucal,¹ Eugene Osborne,¹ Helen Nelson,¹ Tom Mone,² Robert Medrez,¹ ¹National Intitute of Transplantation, Los Angeles, CA, USA; ²California Transplant Donor Network, Oakland, CA, USA; ³Golden State Donor Services, Sacramento, CA, USA; ⁴OneLegacy Transplant Donor Network, Los Angeles, CA, USA.

PURPOSE: After introduction of screening for the hepatitis C virus (HCV) in early '04 with subsequent reversal. For OPO 1+2, the 5-years HCV seropositivity was not underreported due to erroneous knowledge of donation criteria and a lack of familiarity. Thus, the experiences of transplanting centers of successful lung donations may be a way to increase potential donor numbers.

METHOD: A retrospective analysis of the donor data of 80 lung donors, matched to the outcome of their respective recipients was performed.

RESULTS: Mean donor age was 37 yrs. (± 23), mean arterial pO2 was 450 mmHg (± 35), mean time on ventilation was 130 h (± 40). Microbiological analyses of the bronchoalveolar lavage (BAL) yielded positive results in 59% of the donors. 94% of lung tissue samples were positive. While there was transmission of donor bacteria in single cases, no recipient developed post transplantational disease. Grafts procured from donors >55 of age were implanted into older recipients. (58 yrs vs. 57 yrs) with no difference in 5-year survival (77% vs. 79%). 34 organs accepted for transplantation had concomitant diseases (e.g. aspiration pneumonia), showing a decreased survival in the respective recipient group (74% vs. 82%).

CONCLUSION: Rigorous analyses of donor data may allow for an increase of the number of available lung donors. While concomitant diseases may increase mortality, these organs can be transplanted with an acceptable risk, if selected carefully. Extended ventilator times and positive microbial analyses of BAL do not automatically exclude from lung donation. Donor age remains a relative contraindication at the most.
Abstract# 22

SIGNIFICANT REDUCTION OF PROINFLAMMATORY CYTOKINES BY TREATMENT OF THE HUMAN BRAIN DEAD DONOR – A PROSPECTIVE RANDOMIZED TRIAL. Onur Kucek,1 Johann Pratschke,2 Katharina Grosse,1 Sven Jonas,2 Andreas Pascher,1 Sascha Weiss,2 Peter Neuhaus,1 Claus Wesslau,1 1Northeast Region, Deutsche Stiftung Organ Transplantation, Berlin, Germany; 2Department of Surgery, Charité, Campus Virchow, Medical School, Berlin, Germany.

PURPOSE: Experimentally it was proven that the brain death of the donor has a significant impact on graft quality. It is unknown, whether the upregulation of proinflammatory cytokines can be reduced by donor treatment and therefore the donor organ quality optimized before transplantation.

METHOD: We investigated the expression pattern of cytokines comparing serum (n=102) in human brain dead donors. In a prospective randomized trial 49 donors were treated with steroids before organ harvesting (250 mg initial, afterwards 100 mg/h until laparotomy). The outcome after liver transplantation was compared between treated and untreated donor organs. Serum samples were gathered after declaration of brain death and before laparotomy. The assessment of serum cytokines was performed by CBA-kits (IL-6, IL-8, IL-10, LB, PD-1, TGFb, TNFa, HO-1, Mip1a). Additionally steroid levels, FT3 and FT4 were determined. After transplantation the ischemia/reperfusion injury liver function was assessed (AST, ALT, GLDH, Bilirubin).

RESULTS: The transcription of pro-inflammatory cytokines is increased significantly in untreated brain dead donor livers compared to donor grafts after steroid application (p<0.005). Donor treatment with steroids lead to significantly decreased serum expression of proinflammatory cytokines (p<0.005) and revealed comparable levels to living donors. The reduction of proinflammatory cytokines correlated with reduced transaminases after liver transplantation.

CONCLUSION: Serum protein levels of proinflammatory cytokines are a valuable and accessible marker for defining the immunological graft quality. Our study suggests a beneficial effect of antiinflammatory donor treatment in brain dead organ donors. Standardized donor treatment regimens should be established.

Abstract# 23

CAN MACHINE PERFUSION DECREASE THE LIKELIHOOD OF KIDNEY DISCARD? Yong W. Cho,1 Suphamaan Bunnapradit,2 Maria Studtler,1 Vicki Simmins,1 Jim Locke,1 Thomas Mone,1 Robert Mendez,1 Tariq Shah.1 1National Institute of Transplantation, Los Angeles, CA, USA; 2Nephrology, UCLA School of Medicine, Los Angeles, CA, USA.

PURPOSE: Biopsy findings is the most common reason for kidney discard, but no guidelines exist. Furthermore, it is debating whether the use of machine perfusion (MP) decreases the likelihood of discard. Our aims were to identify factors that predict discard of biopsied kidneys and assess the impact of pulsatile perfusion on discard of those kidneys.

METHOD: A total of 566 kidneys from deceased donors aged ≥40 yrs from 2000-2005 were biopsied in our donor service area (DSA). We used logistic regression model to estimate the adjusted odds ratios of kidney discard.

RESULTS: Thirty three per cent (n=186) of biopsied kidneys were discarded. Kidneys with glomerulosclerosis (GS) > 20% had the highest likelihood of discard. Other significant predictors of discndard included older donor age, arteriosclerosis, arteriosclerosis, anatomic abnormalities, smoking history, and terminal serum creatinine (SCr) ≥1.5 mg/dl. MP kidneys (n=70) were less likely to be discarded than cold storage (CS) kidneys (adj OR=0.41, P<0.02).

CONCLUSION: Biopsy findings were most likely to increase the odds of discard, however, the use of machine perfusion decreased the likelihood of discard among biopsied kidneys.

Factors associated with kidney discard

| Age (yr) | GS > 15% vs GS <15% | Glomerulosclerosis (G%) vs GS 15-20 | Glomerulosclerosis (G%) ≥20 vs ≤15 | Arteriosclerosis Moderate vs None/Mild | Arteriosclerosis Severe vs None/Mild | Arteriosclerosis Moderate/Severe | Abnormalities | Smoking History | Terminal Lab Scr (mg/dl) | Preservation
<table>
<thead>
<tr>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>0-15</td>
<td>0.67 (1.42-9.47)</td>
<td>2.84 (1.33-4.85)</td>
<td>8.21 (4.68-14.5)</td>
<td>1.84 (1.10-3.18)</td>
<td>1.88 (1.27-3.19)</td>
<td>1.75 (1.06-2.84)</td>
<td>2.31 (1.22-4.39)</td>
<td>2.77 (1.16-6.58)</td>
<td>6.51 (1.02-26.4)</td>
<td>0.41 (0.19-8.68)</td>
</tr>
<tr>
<td>16-20</td>
<td></td>
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</tbody>
</table>

Abstract# 24

DOES CALCIUM CHANNEL BLOCKER IMPROVEMENT OF PERFUSION IMPACT FOR FUNCTIONING KIDNEY GRAFT IN EARLY PERIOD AFTER TRANSPLANTATION? Maciej Nowacki, Marek Ostrowski, Maciej Romanowicz, Jerzy Sienko, Tadeusz Sulikowski.

Department of Surgery and Transplantation, Pomeranian University of Medicine, Szczecin, Poland.

PURPOSE: So far we did not receive answer if pharmacological improving perfusion could lead better functioning kidneys after transplantation or it is dependent of metabolic (calcium) changes. Many studies suggest that calcium plays a main role in the pathogenesis of preservation injury and loss of organ viability.

METHOD: The 48 kidney cadaver-donors and 96 transplanted patients were analyzed. The dose of Verapamil was 0.1 mg in 10 ml 0.9% NaCl solution. Two minutes before starting gravity perfusion we injected by syringe Verapamil solution directly to the one of kidney artery (left or right). After finishing administration kidneys were retrieved by the classical aortic cooling method with gravity hydrostatic pressure of 100 cm H2O. On the back table we connected catheter to the each of kidney artery and we measured renal flow of perfusion solution (Eurocollins) during one minute. Diuretics, levels of serum creatinine and urea were estimated in three months after transplantation.

RESULTS: Kidneys were divided to two groups (each 48 patients) with or without adding Verapamil. Mean perfusion level of kidneys from group W was higher (161 ml/min) than in the control group K (111 ml/min). Diuresis of recipients from group W was higher in 14, 30, 90 days after transplantation. Recipients from group W reached faster level 2.0 mg/dl serum creatinine than recipients from control group (p<0.005).

CONCLUSION: Vessel resistance is significant decreasing after administering Calcium Channel Blocker directly to the kidney artery before starting perfusion. Lowering level of vessel resistance does not influence significant for functioning kidneys in early time after transplantation. Administering calcium channel blocker to kidney artery improves functioning graft in early period after transplantation. Better functioning graft seems to be based more on metabolic effect than haemodynamic effect.

Abstract# 25

PRESERVATION OF KIDNEY GRAFTS USING THE AIRDRIVE, A NOVEL DISPOSABLE PERFUSION SYSTEM: PRELIMINARY RESULTS. Marie-Claire J.M. Schreinemachers,1 Benedict M. Doorschodt,1 Mario Sitzia,2 Thomas M. Van Gulik,1 Rene H. Tolba.1 1Surgical Laboratory, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands; 2House of Experimental Therapy, University of Bonn, Bonn, Germany.

PURPOSE: Hypothermic machine perfusion (MP) has proven to be beneficial in the preservation of donor kidneys. To circumvent the high costs, complex logistics and required expertise associated with the currently available hypothermic machine perfusion systems, a disposable, low cost perfusion system for oxygenated preservation of kidney and liver grafts was developed, named the Airdrive (AD). The aim of the study was to assess MP preservation with the Airdrive using our recently developed perfusion medium, Polysol. As controls, kidney grafts were cold stored using the University of Wisconsin (UW) or Polysol solution (PS).

METHOD: German Landrace pigs (20-28 kg) underwent left nephrectomy. The kidneys were thereafter flushed with either UW (n=6) or PS (n=6) followed by 20 hr CS using UW or PS, respectively. Machine perfused kidneys were flushed using PS followed by 20 hr of MP (n=3). Pulsatile perfusion was performed with a mean arterial pressure of 25 mm Hg at a temperature of 2-6 °C. After the preservation period all preserved kidneys were autotransplanted and the contralateral kidneys removed. Renal function was assessed daily. Seven days post-transplant, animals were sacrificed and the kidney grafts removed for histological evaluation.

RESULTS: All animals survived for seven days. An improved recovery of renal function was seen in both the PS AD group and the PS CS group compared to the UW CS group, except for the lower serum creatinine and blood urea values on day 7 (mean creatinine values ± standard error of the mean (SEM), 2.04 ± 0.26, 2.02 ± 0.28 and 10.21 ± 3.40 mg/dl, respectively, and mean urea values ± SEM, 28.0 ± 5.3, 40.5 ± 9.2 and 195.0 ± 10.8 mg/dl, respectively).
70.0 mg/dl, respectively). Also, peak-creatinine and peak-urea areas were lower in PS preserved grafts, for both CS and MP.

CONCLUSION: Using the Airdrive perfusion system, renal function was significantly improved after 20 hr preservation compared to CS using UW solution in a clinically relevant large animal model.

Abstract# 26

BENEFICIAL EFFECT OF U-74389G ON RENAL TISSUE IN AN EXPERIMENTAL MODEL OF ISCHEMIA/REPERFUSION INJURY OF THE KIDNEY IN RATS. Apostolos Papalois,1 Constantina Papadopoulou,1 Periklis Tzardis,1 Marina Kontogiorgi,1 Ioannis Sfniadakis,4 Evangelos Felekouras,2 Emmanuel Leandros,3 George Zografos,3 Ioannis Bramis,3 Elias Bastounis.2 1Experimental-Research Center, ELPEN Pharmaceuticals, Pikermi, Athens, Greece; 21st Dpt of Surgery, University of Athens, School of Medicine, Athens, Greece; 31st Dpt of Prozapaeutic Surgery, University of Athens, School of Medicine, Athens, Greece; 4Dpt of Pathology, Navy Hospital, Athens, Greece.

PURPOSE: The purpose of this study was to evaluate (analytical histological examination and by measuring biochemical parameters, the malondialdehyde (MDA) and TNF-α levels on tissue), the effect of U-74389G in an experimental model of ischemia (i)/ reperfusion (r) injury of the kidney in rats. This molecule can be an important agent for the kidney protection during organ harvesting or transplantation.

METHOD: Totaly 60 male Wistar rats were used (280 - 350 g) and divided into 6 groups with 10 animals in each group. Group 1: Control, 30 min of i. and 60 min r. Group 2: Control, 30 min i. and 120 min r. Group 3: i. for 30 min, IV administration of ascorbic acid (a.a) and 60 min i. Group 4: i. for 30 min, IV administration of a.a and 120 min r. Group 5: i. for 30 min, IV administration of U-74389G and 60 min of i. r. Group 6: i. for 30 min, IV administration of U-74389G and 120 min of r. Renal i. was produced by occluding the artery and vein. For our experimentation, the “Guiding Principles in Care and Use of Animals” was followed. Also this research was funded in part by Elen Pharma.

RESULTS: The administration of U-74389G resulted in a statistically significant reduction of the extent of tissue damage and in certain histological features. U-74389G also resulted in a statistically significant reduction of the levels of MDA and TNF-α compared to those of controls as well as a.a groups.

CONCLUSION: U-74389G exerted a high protective effect on renal r. injury in rats. The mechanism of U-74389G is considered to be through its potent antioxidant and free radical scavenging activities.

Abstract# 27

COLD ISCHEMIA DETERMINATES ACUTE REJECTION AND LONG-TERM GRAFT LOSS BUT NOT DELAYED GRAFT FUNCTION AFTER KIDNEY TRANSPLANTATION, IN THE MODERN IMMUNOSUPPRESSION ERA. Dimitri Mikhalski,1 Karl Martin Wissing,2 Nilufer Broeders,2 Pierre Vereestraeten,2 Anh Dung Hoang,1 Valerio Lucidi,3 Florance Hut, Patricia Loi,1 Fredi Mboti, Alexis Buggenhout,4 Vincent Donckier,4 Daniel Abramowicz,3 Digestive Surgery and Sub-Diaphragmatic Transplantation Unit, Hospital Erasme, Brussels, Belgium; Nephrology, Hospital Erasme, Brussels, Belgium.

PURPOSE: The aim of our study was to examine the respective roles of cold ischemia time (CIT) and delayed graft function (DFG) on acute rejection (AR) rate and long-term graft survival in a cohort of kidney transplant (KT) recipients received modern immunosuppression therapy.

METHOD: We retrospectively reviewed 611 KT performed at our center between 1996-2005. Most patients received CNI as maintenance therapy, either cyclosporine (43%) or tacrolimus (52%). 76% of the patients received an antilymphocyte induction therapy. Study end points were DGF, first-year AR and long-term graft survival. Uni- and multivariate analysis performed to determine factors that may have influenced the study outcomes.

RESULTS: Globally, DFG was observed in 16.2% of patients. DFG rates were similar in patients receiving CNI before KT or not. Both CIT and donor age were significant risk factors for DFG. AR occurred in 16.5% of grafts during the first year. Independent predictors of AR by multivariate analysis were longer CIT, longer duration of dialysis, current PRA> 5%, and the number of HLAA, B and DR mismatches. Each hour of cold ischemia increases the risk of rejection by 4%. Considering death-censored graft survival, 3 pre-transplant parameters emerged as independent predictors of graft loss: longer CIT, younger recipient age and peak PRA >5%. The detrimental effect of CIT on graft survival was entirely due to its propensity to trigger AR. When AR was added to the multivariate Cox model, CIT was no longer significant whereas first-year AR became the most important predictor of graft loss (HR: 4.6).

CONCLUSION: CIT affects the rate of AR after KT and consecutively impacts the rate of DGF and graft loss. Thus, patients with prolonged CIT should receive adequate immunosuppression, eventually including anti-lymphocyte preparations.

Concurrent Oral Abstract Presentations I: Expanded Criteria Donor - Liver I

Abstract# 28

SEVERE HYPERNATREMIA IN DECEASED LIVER DONORS DOES NOT INCREASE THE RATE OF PRIMARY NON-FUNCTION. Richard S. Mangus, Jonathan A. Fridell, Rodrigo M. Vianna, Jared Anderson, A. Joseph Tector. Transplant Division, Department of Surgery, Indiana University School of Medicine, Indianapolis, IN, USA.

PURPOSE: Previous studies have suggested an increased risk of primary non-function in livers procured from deceased donors with severe hypernatremia. The purported mechanism for this effect is unknown. This study analyzes the initial graft function, and the rate of graft failure, for donor livers procured from patients with severe hypernatremia.

METHOD: The on-site organ procurement records for 698 consecutive deceased liver donors between 2001 and 2006 were reviewed. Serum sodium was categorized as severe for a level ≥ 180, moderate ≥ 170 to 179, and mild ≥ 160 to 169. Outcomes included 30-day post-transplant AST, ALT and total bilirubin. Early graft failure included any graft loss within 7 days of transplant. Ninety-day graft and patient survival is reported.

RESULTS: Results are reported in the table. Serum transaminases did not differ among the groups.

Table: Liver transplanted outcomes stratified by donor serum sodium level.

<table>
<thead>
<tr>
<th>Donor Serum Sodium Level</th>
<th>Number</th>
<th>below 150</th>
<th>150-179</th>
<th>180-190</th>
<th>≥ 190</th>
<th>eGFR</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>intra-operative death</td>
<td>6/651 (1%)</td>
<td>1/150 (1%)</td>
<td>0/150 (0%)</td>
<td>0/150 (0%)</td>
<td>0/150 (0%)</td>
<td>1/651 (0%)</td>
<td>0.31</td>
</tr>
<tr>
<td>Failure within 7 days</td>
<td>21/651 (3%)</td>
<td>10/150 (6%)</td>
<td>5/150 (3%)</td>
<td>5/150 (3%)</td>
<td>1/150 (1%)</td>
<td>16/651 (2%)</td>
<td>0.98</td>
</tr>
<tr>
<td>30-day graft survival</td>
<td>415/651 (65%)</td>
<td>135/150 (90%)</td>
<td>67/150 (45%)</td>
<td>53/150 (35%)</td>
<td>30/150 (20%)</td>
<td>136/651 (21%)</td>
<td>0.73</td>
</tr>
<tr>
<td>90-day patient survival</td>
<td>412/651 (64%)</td>
<td>135/150 (90%)</td>
<td>67/150 (45%)</td>
<td>53/150 (35%)</td>
<td>30/150 (20%)</td>
<td>136/651 (21%)</td>
<td>0.53</td>
</tr>
</tbody>
</table>

CONCLUSION: The post-transplant measures of liver function did not differ based upon donor serum sodium level. Donor serum sodium should not be utilized in determining the viability of a deceased donor liver allograft.
Abstract# 30
USE OF SEVERELY OBSESE DONATED DECEASED DONORS IN NON TRANSPLANTATION: RAPID TRESOLUTION OF STEATOSIS IN THE POST-TRANSPLANT PERIOD. Richard S. Mangus, Jonathan A. Fridell, Rodrigo M. Vianna, Chelsea R. Vandenboom, A. Joseph Tector. Transplant Division, Department of Surgery, Indiana University School of Medicine, Indianapolis, IN, USA.

PURPOSE: Severe donor obesity is related to an increased risk of steatosis in the liver allograft. Some centers exclude these donors from liver donation based upon body mass index (BMI) alone. This study evaluates all liver allografts procured from donors with a BMI of 35.0 and higher and transplanted at a single center. Outcomes include graft and patient survival and biopsy results in the peri-operative period.

METHOD: The on-site organ procurement records for 698 consecutive deceased liver donors between 2001 and 2006 were reviewed. Recipient outcomes for severely obese donor grafts were compared to all other recipients. Outcomes included 30-day post-transplant AST, ALT and total bilirubin. Routine biopsies were obtained at reperfusion and 3-5 days post-transplant. Minimum follow up is one-year. No liver allografts were utilized with estimated total steatosis greater than 40%.

RESULTS: Sixty-seven donors (9.6%) had a BMI 35.0 or higher (overall range 13.2 to 61.2). Recipients receiving these allografts did not differ from all other recipients in age or MELD at transplant. Initial recipient post-transplant AST, ALT and total bilirubin were higher for the obese donor grafts, but were equivalent thereafter. There was no difference in 1-year graft survival (p=0.67) or in the rate of primary non-function. There were more rejection rejection biopsies which demonstrated steatosis (58%). Follow up biopsy within 5 days found only 18 biopsies with steatosis (27%). Steatosis for the time 0 biopsy was 5.4% (0-40%) and at the second biopsy was 2.0% (0-25%).

CONCLUSION: These results support the use of liver allografts from severely obese deceased donors. Outcomes were equivalent for initial function and 1-year survival. There appears to be a rapid resolution of hepatic steatosis in the immediate post-transplant period as demonstrated by closely timed post-transplant biopsies.

Abstract# 31
EXPANDED CRITERIA LIVER DONORS (ECD): EFFECT OF CUMULATIVE RISKS. Carl-Ludwig Fischer-Froehlich, Werner Laucht, Region Baden-Wuerttemberg, Deutsche Stiftung Organ Transplantation, Stuttgart, Germany.

PURPOSE: The use of ECD in liver donors increases the risk of primary non function (PNF). The German Medical Association (2004) define an ECD, if one of the following conditions exists: high risk of disease transmission, hemodynamic deterioration, donor age > 65years, BMI > 30kg/m², bilirubine > 51mmol/l, ASAT or ALAT > 3*reference, sodium > 165mmol/l, days on ICU >7, steatosis >40% or equivalent liver pathologies. The effect of ECD-criteria was assessed.

METHOD: Out 422 consecutive donors (1992-2004) with 282 liver grafts were transplanted (LTX). Existing ECD criteria were cumulated per donor (2ECDD), grouped and compared to the number of grafts used and the one year graft function rate (all grafts / censored for grafts lost due to PNF only). Discrimination was determined by Receiver-Operating-Characteristics (ROC).

RESULTS: With increasing ECDD the rate of grafts procured declined (Table). Similarly the one year graft function rate diminished (for grafts lost due to PNF: p=0.0001). The best cut off for prediction of grafts used was a ECDD of 0-1 vs. 2-5 (sensitivity 55%, specificity 87%). But the one year graft function rate was adversely affected in ECDD ≤3. All three grafts used for LTX with confirmed severe steatosis at donor operation (n=3) did not function despite of any other ECD.

CONCLUSION: Grafts from ECD can be used for LTX. Cumulated ECD was associated with an increased risk of PNF requiring acute retransplantation. Despite this fact not using donors with cumulated ECD will decrease the limited donor pool. Such livers should be ideally allocated regionally to avoid additional ischemic - reperfusion damage.

<table>
<thead>
<tr>
<th>ECDD</th>
<th>Donors</th>
<th>Grafts used</th>
<th>One year graft function rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0/1</td>
<td>142</td>
<td>146</td>
<td>61</td>
</tr>
<tr>
<td>2/3</td>
<td>62</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>4/5</td>
<td>12</td>
<td>15</td>
<td>12</td>
</tr>
</tbody>
</table>

Abstract# 32
WHY DO OLDER DONOR LIVERS FAIL? AN ANALYSIS OF LIVER ALLOGRAFTS FROM DONORS OVER AGE 60. Richard S. Mangus, Jonathan A. Fridell, Rodrigo M. Vianna, Terra R. Pearson, A. Joseph Tector. Transplant Division, Department of Surgery, Indiana University School of Medicine, Indianapolis, IN, USA.

PURPOSE: The donor factor most consistently demonstrated to affect liver allograft survival is donor age. Elderly liver grafts post-transplant have a higher risk of graft failure, a higher risk of recurrent hepatitis C, and a faster rate of fibrosis progression. This study evaluates all liver grafts from donors age 60 and older at a single center, and follows transplant outcomes to evaluate causes of graft loss and patient death.

METHOD: The on-site organ procurement records for 698 consecutive deceased liver donors between 2001 and 2006 were reviewed. Recipient outcomes for older donor grafts were compared to all other recipients. Outcomes included 30-day post-transplant AST, ALT and total bilirubin. Early graft failure included any graft loss within 7 days of transplant. Individual recipient records were reviewed in cases of graft failure to determine graft function at recipient death, or cause of graft loss in the case of retransplantation. Minimum follow up is one-year.

RESULTS: Perioperative and long-term outcomes are listed in the table. Thirty day liver function values for the two groups were equivalent.

<table>
<thead>
<tr>
<th>ECD</th>
<th>Donor age ≥ 60 years</th>
<th>Donor age &lt; 60 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>intra-operative death</td>
<td>10/70 (1.4%)</td>
<td>8/20 (1.3%)</td>
</tr>
<tr>
<td>Graft loss within 7 days</td>
<td>4/70 (5.7%)</td>
<td>27/628 (4.3%)</td>
</tr>
<tr>
<td>Graft loss within 30 days</td>
<td>11/70 (15.7%)</td>
<td>46/628 (7.3%)</td>
</tr>
</tbody>
</table>

Abstract# 33
HOW ACCURATE ARE FROZEN SECTION BIOPSIES OF DECEASED DONOR KIDNEYS? Scott A. Ames, Steven Dikman, Eric B. Grossman, Enver Akalin, Steven Lerner, Jonathan S. Bromberg. 'Recanati/Miller Transplantation Institute, Mount Sinai School of Medicine, New York, NY, USA; 2Pathology Department, Mount Sinai School of Medicine, New York, NY, USA; 3Medical Director, New York Organ Donor Network, New York, NY, USA; 4Nephrology Division, Mount Sinai School of Medicine, New York, NY, USA.

PURPOSE: As criteria for acceptable deceased donor kidneys expanded, so has the use of frozen section (FS) biopsy to evaluate them. The impact of glomerulosclerosis (GS), tubulointerstitial scarring (TIS) and intimal fibrous narrowing (IFN) on outcome is clouted by FS technique adequacy of tissue, and variable reporting. We compare FS findings to permanent sections (PS) from July 2005-2006 and the potential impact on discarding acceptable kidneys and transplanting unacceptable kidneys.

METHOD: 1-2 cores (n=152), or wedge were evaluated by FS. The same tissue was submitted for PS. FS findings were reported in real time after review by attending pathologists on call. PS were reviewed later by a single renal pathologist (SK). Acceptable criteria were GS<15%, TIS<11-25%, & IFN<26-50%. For FS, PS=IFN if %GS remained within category: 0-10, 11-15, 16-20, >20. For TIS & IFN, a simplified scheme was used.

<table>
<thead>
<tr>
<th>GS</th>
<th>PS &amp; IFN</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>11-25%</td>
</tr>
</tbody>
</table>

RESULTS: Of 271 biopsies obtained, adequate tissue for both FS and PS was obtained in 161 kidneys (minimum 10 glomeruli). Results: FS vs PS & Impact on Kidney Use

<table>
<thead>
<tr>
<th>Donor Age</th>
<th>FS</th>
<th>PS</th>
<th>TIS</th>
<th>IFN</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-20</td>
<td>10/10</td>
<td>10/10</td>
<td>10/10</td>
<td>10/10</td>
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<tr>
<td>11-15</td>
<td>10/10</td>
<td>10/10</td>
<td>10/10</td>
<td>10/10</td>
</tr>
<tr>
<td>0-10</td>
<td>10/10</td>
<td>10/10</td>
<td>10/10</td>
<td>10/10</td>
</tr>
</tbody>
</table>

CONCLUSION: For the 60+ donor group, initial graft function and periprogative graft loss are similar to that for the younger donor group. However, 30-day graft survival is significantly lower for the recipients of older donor livers. These findings suggest that graft loss in the first 30-days post-transplant accounts for a significant proportion of the graft loss seen in older donor livers. Death analysis indicates that most of these early deaths are not related to graft function, which suggests that higher risk recipients are transplanted with older livers.
Abstract# 34
DUAL KIDNEY TRANSPLANTS FROM VERY OLD OR VERY YOUNG DONORS: OUTCOMES AND COMPLICATIONS. Mark R. LaFavii, Mahmood Kalyalate, Romesh Kohli, Mohammad Ibrahim, Oleh G. Pankewycz. Division of Transplantation, University at Buffalo and Kaleida Health, Buffalo, NY, USA.

PURPOSE: The disparity between the supply of cadaveric donors and the demand for organ transplants continues to grow steadily. In the USA, every year 6700 patients (pts) die while waiting for an organ transplant. To increase utilization of cadavere organs we have recently expanded our acceptable criteria to include very old (VO) or very young (VV) donors. For such donors we transplanted both donor kidneys (Dual Transplant) into a single recipient. The aim of this study is to evaluate the outcomes and complications of dual kidney transplants from VO or VY donors.

METHOD: From July 2001 to December 2006, 350 kidney (kd) transplants were performed in our center. 24 pts (mean age 68, range 60-78) received kds from VO (mean age 72, range 60-79) donors and 16 pts (mean age 47, range 27-72) were transplanted from VY (mean age 17 months, range 2-36) donors. 74% of these kds were imported outside of our region after being deemed unacceptable by their local center due to the quality (extreme age) of the donor.

RESULTS: The two year pt and graft (gt) survival was 100% and 90% using VO donors and 100% and 85% in recipients of VY kds respectively. Mean hospital stay was 6 days in both gns. One pt. (8%) in the VY gt and no pt. in the VO gt experienced acute graft rejection. In the VO gt, one pt experienced ureteral stenosis, one pt. developed urinary leak and one pt developed a lymphocele after tx. Three gt losses occurred in the VY gt: 1 due to lymphoma 11 mos post tx, 1 due to HUS 7 mos post tx and one due to early thrombosis on POD 2. Four pts experienced UTI’s and 3 pts developed incisional subcutaneous seroma. Mean serum creatinine at two years was 1 mg/dl in the VO gt and 1.6 mg/dl at one year in the VY gt.

CONCLUSION: Our study showed that using dual kidneys from cadaveric donors that fall outside the general acceptance criteria for kidney donation are a valuable source and can provide similar outcomes compared to conventional single kidney transplant when properly placed.

Abstract# 35
ASSESSMENT OF DECEASED DONOR KIDNEYS BY PROTEINURIA. Mirian Ogposnooth,1 Andreas Reif,1 Detlev Boesesebeck,1 Christian Hugo.2 1Deutsche Stiftung Organ Transplantation, Munich, Bavaria, Germany; 2Nephrologie, Erlangen, Bavaria, Germany.

PURPOSE: A better assessment of donor kidneys is vital to identify kidneys at highest risk of prolonged graft dysfunction or failure. In this study we tried to find out whether analyzing the extent and profile of donor proteinuria could be helpful in predicting the early graft function.

METHOD: In 2006 we collected urine samples of deceased donors in Bavaria. Laboratory measurements of albumin (a/c), alpha-1-microglobulin (a-1-m/c), immunoglobulin G (IgG/c), gamma-glutamyl-transferase (GGT/c) and N-acetyl-beta-glucosaminidase (NAG/c) were performed - always using the ratio of protein to creatinine . Moreover data concerning the early outcome (3 weeks after transplantation) of the transplanted kidneys was collected.

(I) We compared kidneys that worked well (FK) 3 weeks after transplantation and kidneys that still required dialysis (NFK) after that time.

(II) Furthermore, we compared the group of paired kidneys - that both worked well (PFK) versus the group where both kidneys did not work (PNFK).

RESULTS: Mean values for all 116 donors were: a/c 126,14 mg/g (+196,1), a-1-m/c 95,86 mg/g (+219,7), IgG/c 23,54 mg/g (+289,1), GGT/c 52,45 U/g (+100,4), NAG/c 26,03 U/c (+24,6).

(I) There was a trend for a/c, IgG/c and GGT/c being higher (though not yet) significantly in the NFK versus the FK: 141,50 mg/g, 26,75 mg/g, 58,0 U/g vs. 115,09 mg/g, 20,78 mg/g, 43,15 U/g.

(II) IgG/c and GGT/c were significantly higher in the PNFK vs. the PFK: 37,0 mg/g, 8,7 U/g vs. 19,3 mg/g (p=0,01), 41,6 U (p=0,001). The same is true for different groups of (marginal) donors, i.e. older donors with delayed or non-functioning kidneys showed higher urinary IgG/c and GGT/c.

CONCLUSION: Most of the donors showed proteinuria for a/c and a-1-m/c. High proteinuria for IgG/c and GGT/c seem to be a risk factor for delayed graft function, which might prove useful in the assessment especially of marginal donors.

Abstract# 36
FACTORS ASSOCIATED WITH DISCARD OF RECOVERED KIDNEYS. Yong W. Cho,1 Tarig Shah,1 Maria Stadler,2 Vicki Simmons,2 Renee Hawthorne,3 Thomas Mone,2 Robert Mendez,1 Suphamai Bunnapradist,2 National Institute of Transplantation, Los Angeles, CA, USA; 3OneLegacy, Los Angeles, CA, USA; 1Nephrology, UCLA School of Medicine, Los Angeles, CA, USA.

PURPOSE: We reviewed deceased donor kidney procurement at single donor service area in S. California to examine factors associated with discard.

METHOD: From 2000 to 2005, 3,598 kidneys from 1,936 donors were recovered, of which 349 (8.8%) were subsequently discarded. We used multivariate analysis to estimate the odds ratio of kidney discard.

RESULTS: Primary discard reasons were biopsy findings (68.3%), abnormalities (63.7%), donor quality (46.6%), too old to be pumped (44.0%). Age, HCV, history of disease, final resistance, biopsy results, and anatomy abnormality were associated with discard status (not shown). Significant prognostic factors for discard were old donor, high resistive index (RI>0.4), glomerulosclerosis (GS), arteriosclerosis, arteriolar sclerosis, HCV positivity, and anatomic abnormality (Table).

CONCLUSION: These findings will help setup the groundwork towards a more uniform approach to organ utilization in our donor service area and other parts of the US.

Table:

<table>
<thead>
<tr>
<th>labels</th>
<th>Adj OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (yr)</td>
<td></td>
</tr>
<tr>
<td>0-9</td>
<td>4.3 (1.6-10.4)</td>
</tr>
<tr>
<td>10-29</td>
<td>1.0</td>
</tr>
<tr>
<td>30-39</td>
<td>2.9 (1.5-5.9)</td>
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<tr>
<td>40-49</td>
<td>6.4 (3.5-11.5)</td>
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<tr>
<td>50-59</td>
<td>9.7 (5.4-17.3)</td>
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<tr>
<td>60-69</td>
<td>13.2 (7.1-24.5)</td>
</tr>
<tr>
<td>70-79</td>
<td>29.4 (13.1-65.6)</td>
</tr>
<tr>
<td>Glomerulosclerosis (%)</td>
<td></td>
</tr>
<tr>
<td>16-20 vs 0-15</td>
<td>2.4 (1.2-4.6)</td>
</tr>
<tr>
<td>&gt;20 vs 0-15</td>
<td>9.9 (6.6-16.3)</td>
</tr>
<tr>
<td>Arteriosclerosis</td>
<td>Moderate vs None/Mild</td>
</tr>
<tr>
<td>1.7 (1.1-2.7)</td>
<td>0.03</td>
</tr>
<tr>
<td>Severe vs None/Mild</td>
<td>3.3 (1.4-10.1)</td>
</tr>
<tr>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>Arteriosclerosis</td>
<td>Moderate vs Severe</td>
</tr>
<tr>
<td>2.2 (1.4-3.5)</td>
<td>0.001</td>
</tr>
<tr>
<td>Anatomy</td>
<td>Abnormal</td>
</tr>
<tr>
<td>2.7 (1.9-4.0)</td>
<td>0.001</td>
</tr>
<tr>
<td>Final Resistive Index</td>
<td>&gt;0.4</td>
</tr>
<tr>
<td>12.4 (2.2-71.0)</td>
<td>0.005</td>
</tr>
</tbody>
</table>

Abstract# 37
GRAFT LOSS IN KIDNEY TRANSPLANTATION USING EXPANDED CRITERIA DONORS: A MULTIVARIATE RISK FACTOR ANALYSIS. Rajinder P. Singh, Philip Moore, Alan Farney, Jeffrey Rogers, Erica L. Hartmann, Amber Reeves-Daniel, Michael Gautreaux, Samy Iskandar, Patricia L. Adams, Robert J. Stratta. General Surgery, Nephrology & Pathology, Wake Forest University Baptist Medical Center, Winston-Salem, NC, USA.

PURPOSE: Expanded criteria donor (ECD) kidneys are being increasingly utilized, but it is uncertain whether risk factors (RF) for graft loss (GL) differ from standard criteria donors (SCD).

METHOD: In 2006 we collected urine samples of deceased donors in Bavaria. Laboratory measurements of albumin (a/c), alpha-1-microglobulin (a-1-m/c), immunoglobulin G (IgG/c), gamma-glutamyl-transferase (GGT/c) and N-acetyl-beta-glucosaminidase (NAG/c) were performed - always using the ratio of protein to creatinine . Moreover data concerning the early outcome (3 weeks after transplantation) of the transplanted kidneys was collected.

(I) We compared kidneys that worked well (FK) 3 weeks after transplantation and kidneys that still required dialysis (NFK) after that time.

(II) Furthermore, we compared the group of paired kidneys - that both worked well (PFK) versus the group where both kidneys did not work (PNFK).

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(I) There was a trend for a/c, IgG/c and GGT/c being higher (though not yet) significantly in the NFK versus the FK: 141,50 mg/g, 26,75 mg/g, 58,0 U/g vs. 115,09 mg/g, 20,78 mg/g, 43,15 U/g.

(II) IgG/c and GGT/c were significantly higher in the PNFK vs. the PFK: 37,0 mg/g, 8,7 U/g vs. 19,3 mg/g (p=0,01), 41,6 U (p=0,001). The same is true for different groups of (marginal) donors, i.e. older donors with delayed or non-functioning kidneys showed higher urinary IgG/c and GGT/c.

CONCLUSION: Most of the donors showed proteinuria for a/c and a-1-m/c. High proteinuria for IgG/c and GGT/c seem to be a risk factor for delayed graft function, which might prove useful in the assessment especially of marginal donors.
Abstract# 38
EVOLUTION OF A 20 YEAR DATA ANALYSIS OF A NATIONAL DONOR EDUCATION PROGRAM. Clive O. Callender, Patrice V. Miles. National MOTTEP, Howard University, Washington, DC, USA.
PURPOSE: Since 1982, we have participated in a national minority donor education program emphasizing community education and empowerment requiring the community to be an efficient change agent.
METHOD: The grass roots approach is combined with the mass media approach aimed to: 1) increase organ donation rates and 2) adopt healthy lifestyles utilizing culturally sensitive and ethnically similar messengers.
RESULTS: Nationally, African American data yielded an increase - 8 organ donors/million (1982) to 40.8 organ donors/million (2002). Minorities now donate in proportion to their population distribution. Black - 12.7% (population) = 12.6 (donation rate = D); Hispanic - 10.9% (P) 12.2 (D); Asian - 3.8% (P) 2.6 (D). Illustrated below are additional results of the impact on donors - donation rates with a national structured program versus areas without a national structured program (Table 1) and organ donors/million (Table 2).
CONCLUSION: 50% of all grafts survive at least 5-9 years. Outpatient dialysis costs $40,000/patient and transplants after 3 years provide an average savings of $30,000/yr for each year the grafts survives over 3 years assuming a graft survival rate of 6 years. Each donor (living or deceased) would save at least $135,000 per donor. National donor programs such as the one described above can save billions of dollars. Considering outpatient kidney transplant costs after 3 years ($10,000) and the illustrated tables, the cost benefit ratio of the described model is a worthy investment whose benefits greatly outweigh the underfunded support.

<table>
<thead>
<tr>
<th>National Program</th>
<th>No National Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donation Rate</td>
<td>Donors Rate</td>
</tr>
<tr>
<td>White, Non-Hispanic</td>
<td>59.3</td>
</tr>
<tr>
<td>White, Hispanic</td>
<td>105.9</td>
</tr>
<tr>
<td>Black</td>
<td>43.4</td>
</tr>
<tr>
<td>Other</td>
<td>50.7</td>
</tr>
</tbody>
</table>

Organ Donation Rates

<table>
<thead>
<tr>
<th></th>
<th>No. of Donors</th>
<th>Organ Donors/Million</th>
<th>Donation Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>259</td>
<td>137.2</td>
<td>40.8</td>
</tr>
<tr>
<td>Hispanic</td>
<td>518</td>
<td>113.9</td>
<td>40.2</td>
</tr>
<tr>
<td>Asian</td>
<td>73</td>
<td>278</td>
<td>26.2</td>
</tr>
</tbody>
</table>

Abstract# 39
BLACKS AS DONORS FOR TRANSPLANTATION: SUBOPTIMAL OUTCOMES OVERCOME BY TRANSPLANTATION INTO OTHER MINORITIES. Clive O. Callender, Wida S. Cherikh, Patrice V. Miles, Margueretta B. Hall. National MOTTEP, Howard University, Washington, DC, USA. Data Research, UNOS, Richmond, VA, USA.
PURPOSE: Since Opele's 1977 report, it has been known that kidneys from Blacks and Black recipients fared statistically poorer than all other ethnic groups. Analysis of a total of 118,769 transplants from the OPTN/UNOS database for the period of 04/01/94 - 12/31/00: 77,689 - living and deceased donor kidney, 26,124 - deceased donor liver and 14,956 - deceased donor heart.
METHOD: We compared the consequences of donation for all ethnic donors for kidney (KI), liver (LI) and heart (HR) transplantation by comparing graft/patient survival of different donor-to-recipient ethnic combinations. A multivariate Cox regression model was used to analyze the effect of donor-recipient ethnicity combination on graft survival in kidney, liver and patient survival in heart recipients.
RESULTS: Results are presented as relative risk (RR) of graft loss/mortality. For comparison purposes, White to White combination was used as the baseline and given a score of 1.0. The highest relative risk (RR) was associated with Black heart donors (1.513), but was overcome when these hearts (Black) were transplanted into Asian and other minorities with a RR of 0.650. (See table below).
CONCLUSION: Poorer outcomes of Black donated organs are overcome when Black organs are transplanted into Hispanics, Asians or other minorities. These differences mandate the need for research to help understand these differences.

<table>
<thead>
<tr>
<th>Ethnicity Combination</th>
<th>RR of Graft Loss</th>
<th>RR of Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black to White</td>
<td>1.213 (&lt;0.001)</td>
<td>1.215 (&lt;0.001)</td>
</tr>
<tr>
<td>Black to Hispanic</td>
<td>1.509 (&lt;0.001)</td>
<td>1.515 (&lt;0.001)</td>
</tr>
<tr>
<td>Back to Hispanic</td>
<td>1.099 (0.28)</td>
<td>1.340 (0.13)</td>
</tr>
<tr>
<td>Black to Asian</td>
<td>1.035 (0.27)</td>
<td>1.059 (0.62)</td>
</tr>
<tr>
<td>Black to Other</td>
<td>0.717 (0.21)</td>
<td>0.842 (0.85)</td>
</tr>
</tbody>
</table>

*Asian and other minorities were combined due to small number

Abstract# 40
HISPANIC ORGAN DONATION: IMPACT OF TWO MASS MEDIA COMMUNITY CAMPAIGNS. Sara Pace Jones, Eusebio M. Alvaro, Jason T. Siegel. Donor Network of Arizona, Phoenix, AZ, USA; Claremont Graduate University, Claremont, CA, USA.
PURPOSE: There is a vital need for organs, especially kidneys, among Hispanic Americans. Nearly 1.2 million out of 30 million Hispanic Americans have been diagnosed with diabetes and, compared to the general population, Hispanics also have higher rates of obesity, non-insulin dependent diabetes, and end-stage kidney disease. While the need for organs is greater among Hispanic Americans than Non-Hispanics, Hispanic Americans - who will constitute one-third of the American population by the turn of the century—are 60% less likely to be donors. This study reports on a HRSA-funded mass media intervention designed to improve organ donation awareness, attitudes, and behavior among Hispanics.
METHOD: The study has two phases. Phase 1 was designed to test the relative impact of two series of TV and radio ads. Series 1 ads were developed as part of an earlier study while Series 2 ads were National Coalition on Donation ads. Over 9 months, ads from both series were aired in Las Vegas. Pre- and post-intervention telephone surveys and monthly calls to the local OPO assessed ad impact. In Phase 2, effective ads from Phase 1 aired over 9 months in Phoenix. As with Phase 1, pre- and post-intervention surveys and monthly calls to the local OPO assessed overall ad impact.
RESULTS: Phase 1: No monthly differences in calls obtained, however, three TV ads—two from Series 1 and one from Series 2 were best recalled. Two ads from Series 1 were the best recalled radio ads. Surveys indicated pre- to post-intervention changes in organ donation intentions, discussions, barrier reduction. Transplant center data revealed significant pre/post increases in Hispanic consent rates (37% to 50%) and in actual % of transplanted organs from Hispanics (11% to 20%). Phase 2: The replication proved successful with similar pre/post differences in the survey and transplant center data.
CONCLUSION: Results indicate that Spanish-language mass media campaigns targeting Hispanic organ donation have an impact on organ donation beliefs, intentions, and behaviors, however, not all ads elicit similar responses.

Abstract# 41
CULTURALLY COMPETENT METHODS TO PROMOTE ORGAN DONATION AMONG AFRICAN AMERICANS (AA) USING VENUES OF THE BUREAU OF MOTOR VEHICLES (BMV). Carlumando Alzamarrano, E. Zaramo, T. I. Modlin, T. M. Morton, J. Bowden, J. Carroll, 1MHMC, Cleve. Clinic, Richmond Hts., OH, USA; 2LifeBanc (OPO), Cleveland, OH, USA.
PURPOSE: Diversity in the US is a great asset, but overshadowed by the disproportionate disease borne by minorities. Evidence of disparate health is documented in low life expectancies and rates of cancer, diabetes, cardiovascular disease(CVD). AAs are 3 times likely to develop CVD/Kidney disease than their counterparts, a risk explained by the higher %’s who have diabetes/high blood pressure. AA represents 13% of the U.S yet 1/3 of those awaiting kidney transplantation (TX). The % of AAs who donate is at 12% commensurate, but incommensurate with the need. It is accepted that in select candidates, TX is the therapy of organ failure. AA’s face barriers to TX, including longer waiting times and fewer options for living donors. The donor allocation system is weighted on HLA. If more AA donors were available then more would be allotted. Barriers to promote the % of organs available to AAs are the historical distrust that AAs have toward healthcare systems. This influences an apprehensive behavior.
METHOD: Factors that affects AA to become donors, living/deceased, (often overlooked) is Cultural Competency(CC), which indicates how culture has the ability to influence relations with physician-patient. CC is a tool for disparities related to donation. Improving CC allows ability to connect with patients to promote donation. We established a AA health educational outreach to AA BMVs, to provide acceptance in donation, thru improved trust/communication.
RESULTS: Our intervention facilitates the trust between AAs and healthcare. This trust is a prerequisite for success in promoting donation. This outreach enabled us to reach 14 (n=28) predominately AA BMV’s in 2006-07 for education regarding donation and subsequently resulted in an increase of 8.6% (15-67% p<0.0001) AAs registering on the Ohio Registry (ODR).
CONCLUSION: Our intervention surpassed target goals with ODR. To continue to maintain trust we must effectively train CC providers and develop curriculums to limit barriers that deflect AAs from donation.
Abstract# 42
A NOVEL HOME-BASED EDUCATIONAL PROGRAM TO INCREASE LIVE DONOR KIDNEY TRANSPLANTATION. James R. Rodriguez,1 Danielle L. Cornell,2 Bruce Kaplan,3 Richard J. Howard.4 1The Transplant Center, Beth Israel Deaconess Medical Center, Boston, MA, USA; 2LifeQuest Organ Recovery Services, Gainesville, FL, USA; 3Departments of Medicine and Pharmacology, University of Illinois at Chicago, Chicago, IL, USA; 4Department of Surgery, University of Florida, Gainesville, FL, USA.

PURPOSE: To evaluate the effectiveness of a home-based educational program in increasing live donor kidney transplantation (LDKT), especially in African-Americans.

METHOD: Patients were randomized to one of two LDKT educational interventions: clinic-based education alone (CB, n = 69) or CB plus home-based education (CB+HB, n = 63).

RESULTS: Compared to CB, more patients in the CB+HB group had living donor inquiries (63.8% vs. 82.5%, p = 0.019) and evaluations (34.8% vs. 60.3%, p = 0.005), and LDKTs (30.4% vs. 52.4%, p = 0.013). Assignment to the CB+HB group, White race, more LDKT knowledge, higher willingness to discuss LDKT with others, and fewer LDKT concerns were predictors of having LDKT (p’s < 0.05). Both groups demonstrated an increase in LDKT knowledge after the CB education, but CB+HB led to an additional increase in LDKT knowledge (p < 0.0001) and in willingness to discuss LDKT with others (p = 0.0001), and a decrease in LDKT concerns (p < 0.0001). In the three years prior to study initiation, only 12.8% of African Americans at the study site received LDKT, which is consistent with the 13.8% rate we observed in the CB group. In contrast, 45.2% of African American patients in the CB+HB group underwent LDKT, which represents a nearly four-fold increase from the three years prior to study implementation.

CONCLUSION: A home-based outreach program is more effective in increasing LDKT rates than clinic-based education alone. An educational program that is culturally sensitive, includes patients and their extended support system, is community-based and informal, and allows ample time for questions and answers may help to increase donation knowledge, reduce fears and concerns about living donation, increase willingness to pursue LDKT, and increase actual LDKT.

Abstract# 43
Abstract Withdrawn by Author

Abstract# 44
REGULATED UNRELATED LIVING DONATION AND TRANSPLANT TOURISM: EFFECT ON LIVING-RELATED DONOR TRANSPLANTATION AND DECEASED DONATION IN ISRAEL. Eytan Mor, Rachel Michowitz. Department of Transplantation, Rabin Medical Center, Beilinson Hospital, Petah-Tiqwa, Israel.

PURPOSE: Two new alternative organ resources have become available for patients awaiting kidney transplantation in Israel: living unrelated donor transplantation (LURD) which is regulated by the Ministry of Health and transplant tourism whereby hospital charges for transplant performed abroad are reimbursed by the health insurance. We sought to determine the effect of LURD and transplant tourism on living-related and deceased donation in Israel.

METHOD: A chart review of potential living unrelated donors interviewed at our pre-transplant clinic between 1/00-12/06 was performed. We recorded the number of donors who finished the 3-months process and donated and those who were disapproved prior to study implementation.

RESULTS: A total of 5985 reported cases were obtained in the study period (1984-2006) with an annual average of 400 cases per year for the last 5 years. The mean age was 27.6 years with male to female ratio of 5:1. The age and sex distribution reflect the fact that 3100 cases (52%) resulted from road traffic accidents. Other trauma accounted for 61% of the transplants. Uruguay, Costa Rica, Puerto Rico and Argentina were the only countries that surpassed the 20 transplants pmp, while the majority of the countries carried out between 5 and 20 transplants pmp. Uruguay (93.9%) and Cuba (91.7%) carried out more than 90% of the transplants with deceased donors.

CONCLUSION: Kidney transplantation increased in Latin America, more than other regions of the world (7.5% to the year), although the rate per million population (15.4 pmp) is still low, and it is necessary to maintain this growth for the following years.

Abstract# 45

PURPOSE: Latin America has a population of 536 millions of inhabitants and has carried out kidney transplants for 50 years (Argentina,1957). Since 1993 the Latin American Society of Transplants has had a registry of transplant. The purpose is to present the follow-up of renal transplants in Latin America.

METHOD: The data was obtained through national registries, from the registry of “Punta Cana Group” of Latin-American coordinators, and from publications, presentations in congresses and information supplied by transplant teams.

RESULTS: Almost all countries (23) in Latin America perform renal transplants and the number of transplantation centers is increasing (181 in 1990 and more than 400 in 2006). Latin America contains 8.5% of the world’s population, and carried out, until 1990, 20,800 kidney transplants, 8.9% of the transplants carried out in the world. By the year 2000, 63,618 transplants had been performed in Latin America, 12.7% of the kidney transplants registered, and in 2004 reached 91,324 transplants which corresponds to 14% of the transplants carried out in the world. In 1980, 780 transplants (2.2 pmp) were performed, by 1990 this number surpassed to 2.300 (5.3 pmp) and in 2000 reached 6.420 (11.5 pmp). By 2006, the number was 8,210 (15.3 pmp). The rate of kidney transplants with deceased donors was 23% in 1980, increased to 42% in 1990 and stabilized in 1995 in about 50%. Between 1991 and 2006, the annual number of kidney transplants grew 176%. The waiting list for kidney transplant was 33,000 in 1995 and passed to 51,095 in 2006. In 2006, Brazil (3,281) and Mexico (1,763) were responsible for 61% of the transplants. Uruguay, Costa Rica, Puerto Rico and Argentina were the only countries that surpassed the 20 transplants pmp, while the majority of the countries carried out between 5 and 20 transplants pmp. Uruguay (93.9%) and Cuba (91.7%) carried out more than 90% of the transplants with deceased donors.

CONCLUSION: Kidney transplantation increased in Latin America, more than other regions of the world (7.5% to the year), although the rate per million population (15.4 pmp) is still low, and it is necessary to maintain this growth for the following years.
Abstract# 47
ORGAN DONATION IN GERMANY – PERSPECTIVES TO INCREASE POST MORTEM ORGAN DONATION. Franz Schaub, Claus Wesslau, Guenter Kirste. Deutsche Stiftung Organ Transplantation, Neu-Isenburg, Germany.

PURPOSE: Organ donation in Germany (pop. 82 Mill.) is organised by the German Transplantation Foundation (DSO). Seven regional offices, are responsible for eight to eighteen million inhabitants.

METHOD: In order to detect the donor potential in Germany a study was conducted. Data were collected on deceased persons on ICU’s with primary or secondary brain damage via specially designed data entry forms.

RESULTS: It could be shown that the number of potential donors is 40 donors per million population. The refusal of relatives to organ donation is the main obstacle to the realisation of organ donation. The study revealed an increase of refusal rate over the years 2003 to 2005 (2003 34.8%; 2004 39%, 3% and 2005 39.2%; 2%). These findings enabled us to develop strategies in order to enhance organ donation. This strategy focuses primarily on measurements in order to ensure the detection and referral of potential donors to the OPO’s, to reduce obstacles to organ donation based on medical reasons and last but not least the reduction of the family refusal rates.

The total number of organ donors in the year 2006 amounted to 1,259 (15.2 donors pmp). This corresponds to an augmentation of 3.2% compared to 2005. However, the study revealed considerable differences regarding the organ donation rates amongst the German regions (12.0 vs. 21.0 effective donors pmp). The reasons for these regional discrepancies however can not be explained due to the lack of countrywide epidemiological studies.

CONCLUSION: Strategies for the enhancement of organ donation in Germany: The analysis shows, that the donor potential of organ donors pmp is comparable to worldwide standards. Essential for the increase of the donation rate are:

- Increase of the referral of potential donors by the donor hospital.
- Reduction of the refusal rates.

In order to realise these goals a concept is understood to optimize communication that apparently is the breakthrough to success. This concept is based on two pillars:

- Improvement of the communication between DSO and donor hospitals
- Improvement of the communication with the relatives of the deceased.

Concurrent Oral Abstract Presentations II: Expanded Criteria Donor - Liver II

Abstract# 48
USE OF HIGH DONOR RISK INDEX LIVER GRAFTS LEADS TO INCREASED GRAFT LOSS AFTER LIVER RETRANSPANTATION. Cosme Manzarbeitia, Barbara Aguilar, Kenneth Rothstein, Victor Araya, Mauricio Orrego, Santiago Munoz, Adina Osband, David J. Reich. Surgery, Albert Einstein Medical Center, Philadelphia, PA, USA.

PURPOSE: A recent analysis of the scientific registry of transplant recipients proposed using the donor risk index (DRI) as a measure of relative risk for allograft loss after liver transplantation (LT).

METHOD: Patient and graft survival was analyzed within categories of DRI, and retransplant (ReLT) status. DRI was considered high if it was > 1.5.

RESULTS: Since 1995, 543 LT were performed in 511 patients at our center. Mean DRI for all grafts was 1.87 (range 1.19 to 3.56). Over 75% of grafts had high DRI (>1.5, HDR1) and 24.8% had low DRI (<1.5, LDRI). LDRI grafts had significantly higher 1-year survival than HDR1 (85.3% vs. 76.7%, p=0.0395). However, there was no difference in patient survival between HDR1 & LDRI (89.1% vs. 82.8, p=0.11), accounting for the positive effect of ReLT, which was performed in 37 patients (6.9%). In this group, use of HDR1 grafts was significantly associated with decreased graft survival (78.3% vs. 53.9%, p=0.0143), despite using lower DRI grafts for retransplants than for first grafts (1.68 vs. 1.88, p=0.001).

CONCLUSION: Use of HDRI grafts is justified in an era of scarce donors. HDRI significantly affects graft survival in LT and ReLT. Use of LDRI grafts should be maximized in ReLT situations whenever possible. The effect of DRI needs to be further studied within different MELD subgroups to fully understand its significance at the time of organ allocation.

Abstract# 49
POSITIVE IMPLICATION OF APPLYING EXTENDED DONOR CRITERIA IN LIVER TRANSPLANTATION. Arash Nickkholgh,1 Peter Schennen,1 Ulf Hinz,1 Till Gerling,1 Peter Sauer,2 Jens Encke,2 Jürgen Weitz,1 Markus W. Bächler,1 Jan Schmidt.1 Department of Surgery, Ruprecht-Karls University, Heidelberg, Germany; 2Department of Internal Medicine, Ruprecht-Karls University, Heidelberg, Germany; 1Eurotransplant, Leiden, Netherlands.

PURPOSE: This study was designed to analyze the impact of applying extended donor criteria (EDC) in orthotopic liver transplantation (OLT).

METHOD: Between December 2001 and December 2004, we performed 165 primary cadaveric whole OLTs. Up to three EDC, that is, ventilation >7 days, aminotransferases (ALT or AST) >3 x normal; bilirubin >3 mg/dl; anti-HBc or HBsAg positivity; donor age >65 years; liver steatosis >40%; donor body mass index >30; cold ischemia time >14 hours; peak serum Na(+) >165 mmol/L; history of extrapathic malignancy; or previous drug abuse were present in 55% of all grafts.

RESULTS: Both univariate and multivariate analysis revealed that EDC status had no effect on graft or patient survival, the necessity for retransplantation, the length of intensive care/intermediate care unit stay, mechanical ventilation, complications, or posttransplant laboratory findings. Recipient age of 40--55 years was the only independent prognostic factor for survival, regardless of IDC.

CONCLUSION: These findings suggested that the use of grafts from EDC donors are safe and expand the donor pool.

Abstract# 50
UTILIZATION OF HTLV SEROLOGY POSITIVE ALLOGRAFTS FOR LIVER TRANSPLANTATION. Irene J. Lo, Barbara Alkofer, Cindy Kin, James V. Guarerra, Benjamin Samstein, Dominique Jan, Michael Schilsky, Samuel Sigal, Lorna Dove, Paul Gaglio, Robert Brown, Jean C. Emond, John F. Renz. Center for Liver Disease and Transplantation, Columbia University Medical Center, New York, NY, USA.

PURPOSE: Positive serologies for Human T-Cell Lymphotrophic Virus (HTLV) is considered contraindication to donation as lethal complications from HTLV viral transmission have been reported. HTLV outcomes are not well documented: SRTR reported 9 HTLV liver allografts utilized for transplantation (OLT) with no follow-up or confirmatory data. Sensitivity and specificity of HTLV screening are high, but the incidence of false positives amongst deceased donors (DD) is unknown.

METHOD: Prospective study of 25 DD allografts involving 18 OLT using allografts from HTLV positive donors was performed.

RESULTS: 22 of the 25 ELISA positive results were confirmed by Western Blot/Immunoblot analysis. Predictors of HTLV infection in donors were assessed. Complete recipient demographic and physiologic data were collected. Post-OLT surveillance was performed at 1-3-6-12 months. All recipients were HTLV negative pre-OLT. 9 of the donors positive by ELISA were negative by confirmatory testing and 4 donors were indeterminant, yielding a false positive serology incidence of 62%. 8 ELISA positive donors were confirmed positive by Western blot/Immunoblot; 5 HTLV I and 3 HTLV II. Of these, 4 (all HTLV II positive) allografts were transplanted. 2 recipients died without seroconversion and 2 recipients seroconverted to HTLV II within 1 mo (one remains clinically asymptomatic at 6 mo post-OLT and the other died 3 mo post-OLT due to questionable encephalitis/neurologic failure). The remaining recipients have remained seronegative.

CONCLUSION: In conclusion, current screening of donors for HTLV results in the erroneous exclusion of potential donors. Utilization of HTLV serology positive donors can increase the potential organ pool; however, efficient viral transmission occurs. Prospective, multi-center, long-term follow-up research incorporating recipient screening and surveillance are necessary to accurately assess the ultimate safety of these allografts.
Abstract# 51

USE OF HEPATITIS C-INFECTED DECEASED DONORS IN LIVER TRANSPLANTATION: A CASE CONTROL STUDY. Richard S. Manguis,1 Paul Y. Kwo,2 Sydney Wilson,2 Jonathan A. Fridell,1 Rodrigo M. Vianna,1 A. Joseph Tector1 1 Transplant Division, Department of Surgery, Indiana University School of Medicine, Indianapolis, IN, USA; 2 Hepatology Division, Department of Medicine, Indiana University School of Medicine, Indianapolis, IN, USA.

PURPOSE: This study utilizes a case-control design to compare transplant outcomes for 38 recipients of livers from HCV-infected donors to those for 76 standard, non-extended criteria (ECD) donors (1 case / 2 controls). Study outcomes include patient and graft survival, hepatitis C recurrence and hepatic fibrosis.

METHOD: Data were extracted from the transplant center registry and the original on-site donor data chart. Thirty percent of all donors met non-ECD criteria (standard donors) and were included as potential matches for the case-control study. Each HCV-positive liver donor recipient was matched to two standard donor recipients as matched standard donor controls (MSDC) by: recipient age +/- 10 years, primary diagnosis, cancer stage for those with HCC, recipient MELD +/- 5, and donor age +/- 10 years. Outcomes included graft and patient survival at 3-months, 1-year and 2-years; perioperative death; and, HCV recurrence by 4-month and 1-year fibrosis (F0-F4).

RESULTS: The HCV-donor and MSDC groups did not differ demographically or for ischemia times. Survival results and fibrosis progression are shown in the table. Median follow-up time was 36 months. Kaplan-Meier actuarial survival demonstrated improved graft survival for HCV-infected donors (p=0.10).

<table>
<thead>
<tr>
<th>Variable</th>
<th>HTLV (+)</th>
<th>HTLV (+)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age - Rec (yr)</td>
<td>31/31</td>
<td>52/52</td>
<td>0.001</td>
</tr>
<tr>
<td>Age - Don (yr)</td>
<td>31/31</td>
<td>52/52</td>
<td>0.001</td>
</tr>
<tr>
<td>Gender - Male - Don (%)</td>
<td>34/34</td>
<td>63/63</td>
<td>0.0001</td>
</tr>
<tr>
<td>SGOT/AST - Don</td>
<td>58/58</td>
<td>100/100</td>
<td>0.0006</td>
</tr>
<tr>
<td>AFP/ALT - Don</td>
<td>43/43</td>
<td>80/80</td>
<td>0.0005</td>
</tr>
<tr>
<td>CR - Rec</td>
<td>1/1</td>
<td>1/1</td>
<td>0.0004</td>
</tr>
<tr>
<td>HCV - Rec</td>
<td>2.7</td>
<td>16.8</td>
<td>0.1585</td>
</tr>
<tr>
<td>MELD</td>
<td>18/18</td>
<td>2/2</td>
<td>0.1585</td>
</tr>
<tr>
<td>Race - Black (%)</td>
<td>24/24</td>
<td>42/42</td>
<td>0.0010</td>
</tr>
<tr>
<td>Diabetes (%) - Don</td>
<td>15/15</td>
<td>32/32</td>
<td>0.0009</td>
</tr>
<tr>
<td>Hypertension (%) - Don</td>
<td>22/22</td>
<td>42/42</td>
<td>0.0010</td>
</tr>
<tr>
<td>Previous malignancy - Rec (%)</td>
<td>16/16</td>
<td>5/5</td>
<td>0.0004</td>
</tr>
<tr>
<td>Rejections (%)</td>
<td>29/29</td>
<td>52/52</td>
<td>0.0001</td>
</tr>
<tr>
<td>National sharing (%)</td>
<td>47/47</td>
<td>3/3</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

CONCLUSION: These preliminary results suggest that HCV-infected liver transplant recipients, receiving livers from HCV-infected donors, may have a slower rate of fibrosis progression at 1-year. A trend was seen in survival advantage for those receiving HCV-donor grafts compared to standard donor controls.

Abstract# 52

LIVER TRANSPLANTATION (LT) USING DONORS POSITIVE FOR HTLV I/II – REPORT OF UNOS REGISTRY DATA. Michael R. Marvin,1 Kwadwo Kwarteng,2 Guy N. Brock,2 Kadiyala V. Ravindra,1 Mary Eng,1 Joseph F. Buehl.1 1 Surgery, Division of Transplantation, University of Louisville, Louisville, KY, USA; 2 Bioinformatics and Biostatistics, University of Louisville, Louisville, KY, USA.

PURPOSE: The availability of SCD organs for LT has not met the growing need. This has led to an increase in the use of ECDs. HTLV I/II has been associated with leukemia/lymphoma and progressive neurological disease. The purpose of this study was to evaluate the results of LT with the use of donors positive for HTLV I/II.

METHOD: An analysis of the UNOS/OPTN database was performed and included all LTs performed in the United States from 11/92-7/06. Donor, recipient, and organ procurement logistical factors were evaluated. Statistical analysis was performed using SAS software.

RESULTS: There were 33,014 (-) and 64 (+) donors. Selected differences between the HTLV (+) and (-) donors are listed in the table below.

Graft and patient survival was similar (p=0.2180 and 0.098, respectively).

Abstract# 53

EFFECTIVE REGIONAL SHARING OF SPLITT LIVER GRAFTS. Meghna V. Misra,1 Jordan R. Gutweller,1 Matthew Y. Suh,1 Laura E. Krawczuk,2 Roger L. Jenkins,3 Craig W. Lillehei,2 Maureen M. Jonas,2 Heung Bae Kim,2 1 Surgery, Children’s Hospital Boston, Boston, MA, USA; 2 Surgery, Lahey Clinic, Burlington, MA, USA; 3 Gastroenterology/Nutrition, Children’s Hospital Boston, Boston, MA, USA.

PURPOSE: Deceased donor split liver transplantation expands the donor organ pool. In our region, the majority of pediatric split liver transplants are performed at one freestanding pediatric transplant center. This study analyzes the outcomes of grafts following split liver transplantation into adults and children in a region where grafts are usually shared between different centers.

METHOD: This investigation was exempt from review by the Institutional Review Board. Data was obtained by retrospective review of medical records from our center, the New England Organ Bank, and the United Network for Organ Sharing (UNOS).

RESULTS: Since 2001, our pediatric transplant team has evaluated 19 deceased donor liver grafts following separate allocation of two potential liver grafts. Of these, 3 were inadequate to split at procurement and were reallocated as whole organs. Of 16 livers that were successfully split, 15 were primarily allocated to pediatric patients. One pediatric transplant surgeon performed all splits using standard in situ technique. One segment 2.5 graft was discarded due to an unstable recipient. 15 segment 2.3 grafts were implanted into pediatric patients. 1-year pediatric graft and patient survival for transplant performed before May 2006 was 100% (n=9). One patient died from sepsis at 4 months post-op. 16 segment 1,4-8 grafts were implanted at 5 adult institutions. 1-year adult graft and patient survival was 88.9% (n=9). Two patients died within 1 month post-op, one from fungal and bacterial sepsis, and the other due to myocardial infarction. In both recipient groups, there was no case of retransplantation, and no case of biliary stricture or vascular thrombosis causing graft failure.

CONCLUSION: A successful split liver transplant program can be adopted in a region in which pediatric and adult programs are separate. Appropriate UNOS organ allocation policies should be followed whether a whole or split liver is allocated.

Abstract# 54

FLUORESCENCE SPECTROSCOPY AS A METHOD FOR THE DIAGNOSIS OF HEPATIC STEATOSIS. Gustavo R. Oliveira,1 Orlando Castro-ern-Silva,1 Ajith K. Sankaranartty,1 Juliana Ferreira,1 Cristina Kurachi,1 Sergio Zucoloto,2 Vanderlei S. Bagnato,2 1 Liver Transplantation Division, IFSC-USP/FMRP-USP, Sao Carlos/Ribeirao Preto, Sao Paulo, Brazil.

PURPOSE: In the present study, the applicability of laser-excited optic fluorescence spectroscopy was investigated as a method for the diagnosis of different degrees of steatosis experimentally induced in rats.

METHOD: Wistar rats received a high-fat diet for different periods of time (1 day and 2, 3, 4 or 7 days) for the induction of hepatic steatosis and were divided into groups according to the degree of steatosis detected by histology. The control group received a standard diet for 7 days. The concentration of fat in the liver was correlated with laser-induced fluorescence by means of the steatosis fluorescence factor (SFF), defined as the ratio of the backscatter peak to the fluorescence amplitude peak.

RESULTS: The groups were classified as follows according to liver fat concentration: Severe Steatosis (39.8 ± 3.75 mg/g liver), Moderate Steatosis (29.22 ± 6.17 mg/g liver), Mild Steatosis (16.06 ± 3.75mg/g liver), and Control (11.05 ± 2.98 mg/g liver). Fluorescence intensity was directly correlated with fat content. It was possible to estimate the mean for the fluorescence intensity variable by means of different confidence intervals (p=95%) for each steatosis group. SFF was significantly higher in the Severe Steatosis group (6.05 ± 0.58; <0.0001) compared to the Moderate Steatosis (4.40 ± 0.46), Mild Steatosis (3.21 ± 0.49) and Control (2.69 ± 0.66) groups. SFF was significantly higher in the moderate Steatosis group than in the Mild Steatosis and Control groups (p<0.0001), and was significantly higher in the Mild Steatosis group compared to Control (p<0.01).

CONCLUSION: The various degrees of steatosis were directly and positively correlated with SFF. Laser spectroscopy proved to be a method capable of identifying the degree of hepatic steatosis and may have clinical application for liver transplantation or even for noninvasive evaluation of the degree of steatosis.
Abstract# 55


PURPOSE: Donor screening for Hepatitis B core antibodies (anti-Hbc) became mandatory in 1999 in order to detect the risk of Hepatitis B virus (HBV) transmission. The implication for liver transplantation (LTX) will be reviewed.

METHOD: 172 consecutive HBsAg negative liver-donors were screened prospectively for anti-Hbc (July 1999-2004). If anti-Hbc was positive anti-Hbc-IgM and anti-Hbc (>10 IU/ml ~ positive) was investigated. Follow up of LTX performed at different cen-tres de novo HBV-infection was done in April 2006.

RESULTS: 156 donors were positive for anti-Hbc (91%). No De-novo HBV-infections were reported. 16 donors were positive for anti-Hbc and negative for anti-Hbc-IgM (9%) with different anti-Hbc titres. In anti-Hbc and anti-Hbc positive donors all two HBV naive recipients without HBV-prophylaxis or -vaccination developed de-novo HBV-infection at two and four months after LTX. Recipients being vaccinated against HBV or receiving HBV-prophylaxis after LTX seemed to be protected. In donors only anti-Hbc positive without any other parameter positive in two HBV-naive recipients without HBV-protection no de-novo HBV-infection after LTX was observed yet.

CONCLUSION: In the case of an anti-Hbc positive donor extended screening helps to identify the risk for HBV transmission: If the donor is anti-Hbc positive HBV-transmission occurs via the graft: HBV naive recipients without HBV-vaccination or HBV-prophylaxis were after LTX infected. In donors only anti-Hbc positive without any other parameter the failure of “not observing” de-novo HBV-infection after LTX might be caused by a false positive anti-Hbc result or more likely the impossibility to detect HBV-transmission currently. Safety precautions should include HBV-prophylaxis in HBV-naive recipients until HBV-infection of the donor is ruled out definitively and always protective vaccination before LTX.

Concurrent Oral Abstract Presentations II: Organ Allocation

Abstract# 56

VIRTUAL CROSSMATCH IMPROVES ORGAN ALLOCATION IN SENSITIZED PATIENTS. Robin Waxman,1 B.M. Hagan,1 Josef Stelhik,2 Matthew Movsesian,1 Bhava Reddy,1 Michael E. Gilbert,1 A.G. Kfoury,1 Dale Renlund,1 Feras Bader,1 David Bull,1 Anne Fuller,1 M.E. Hammond,1 Nauman Islam,1 David Eckels,1 Cardiology, George Wahlen VAMC, SLC, UT, USA; 2Cardiology, LDS Hospital, SLC, UT, USA; 3Cardiology, University of Utah, SLC, UT, USA.

PURPOSE: Heart transplantation in patients with human leukocyte antigen (HLA) sensitization presents challenges in organ allocation. Requirement of prospective crossmatch effectively halts the use of distant donors (DD), resulting in longer wait times. The use of “virtual crossmatch”, in which sensitized recipients HLA antibody profiles are determined by Class I / Class II LabScreen®/PRA beads on Luminex platform and compared to the antigen profile of the donor, could increase the use of DD allografts.

METHOD: We included sensitized recipients transplanted since 2001 with antibodies to specific Class I / II HLA-antigens. For these patients, prospective crossmatch was compared to the antigen profile of the donor, could increase the use of DD allografts.

RESULTS: Thirty patients met inclusion criteria. Fourteen patients received allografts from DD with negative virtual crossmatch (Table 1).

CONCLUSION: Virtual crossmatch by HLA typing allowed utilization of allografts from DD in more than half of sensitized patients. While antibody-mediated rejection was more common with transplants from DD, intermediate mortality was not unfavorably affected. Virtual crossmatch in heart transplantation is likely to improve organ allocation in sensitized patients.

Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Virtual Crossmatch (n=16)</th>
<th>Prospective crossmatch (n=14)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (yrs)</td>
<td>44</td>
<td>48</td>
<td>NS</td>
</tr>
<tr>
<td>PRA (%)</td>
<td>15</td>
<td>27</td>
<td>NS</td>
</tr>
<tr>
<td>Graft Ischemic Time (min)</td>
<td>259</td>
<td>158</td>
<td>NS</td>
</tr>
<tr>
<td>Postoperative use of Immunosuppressive Agents (%)</td>
<td>68</td>
<td>52</td>
<td>NS</td>
</tr>
<tr>
<td>Antibody Mediated Rejection 1st Year (%)</td>
<td>17</td>
<td>13</td>
<td>NS</td>
</tr>
<tr>
<td>Cellular Rejection &gt; 1K, 1st Year (%)</td>
<td>19</td>
<td>7</td>
<td>NS</td>
</tr>
<tr>
<td>Mortality* (% / mean follow-up)</td>
<td>0% / 17 months</td>
<td>19% / 29 months</td>
<td>NS (log rank)</td>
</tr>
</tbody>
</table>

*none of the deaths were rejection related

Abstract# 57

CONSEQUENCES OF ALLOCATING DECEASED DONOR ORGANS BASED ON RECIPIENT ANTIBODY SPECIFICITIES (CPRA). Ronald H. Kerman,1 Charles T. Van Buren,1 Stephen M. Katz,2 Stan Stepkowski,1 Teresa Shafer,2 Carolyn Olivarez,2 Barry D. Kahan,1 Surgery-Organ Transplantation, University of Texas Medical School, Houston, TX, USA; 1LifeGift OPO, Houston, TX, USA.

PURPOSE: The UNOS Board of Directors has approved the change from using Panel Reactive Antibodies (PRA) to calculated PRA (CPRA) when determining the allocation of deceased donor kidneys. CPRA is a formulated, specificity based PRA that identifies unacceptable antibodies and is expected to universally standardize the degree of patient sensitization. Donor organs expressing unacceptable antigens will not be offered to a recipient (recipient) with donor (antigen) specific antibodies (DSA). Highly sensitive, solid phase assays (Flow PRA and Lumines) are used to identify these antibodies (Ab). It is unclear whether Abs identified by these techniques are clinically relevant for organ allocation.

METHOD: We evaluated Flow-PRA, flow cytometry crossmatching (FCXM), HLA Ab specificities and titers of 300 pretransplant (Tx) sera from Tx recipients of deceased renal allograft donors transplanted following a negative cytotoxic - AHG (anti-human globulin) crossmatch.

RESULTS: Of the recipients with low-titer (≤16) DSAs, 81% (44/54) of these recipients experienced negative (-) FCXM and excellent 2 year (yr) graft survival of 91% compared to only 60% 2 yr graft survival for the 19% (10/54) of recipients with a positive (+) FCXM (p<0.001). Recipients with non-donor specific HLA Abs (high or low titters) also experienced (-) FCXM (50%, 55/110 of recipients) with excellent 2 yr graft survival of 89% compared to 74% for the other 50% of these recipients with (+) FCXM.

CONCLUSION: These data suggest that in the presence of donor-specific or non donor specific HLA Abs you cannot predict the outcome of the crossmatch result without actually performing the crossmatch which will influence allocation of the donor organ. Recipients with (+) low-titer DSA and a (-) FCXM experience excellent graft survival. Therefore, donor organ allocation based on CPRA (antibody specificities and unacceptable antigens), utilizing highly sensitive Flow PRA and Lumines assays, may disadvantage recipients who could be successfully transplanted.

Abstract# 58


PURPOSE: The purpose of this study was to review our single center experience in zero-antigen mismatch [0MM] kidney transplant [KT] recipients with reference to expanded [EC] and standard criteria deceased donors [SCD].

METHOD: From 10/01 to 02/07, we performed 390 adult deceased donor KT's. Patients [pts] received rATG or alentuzumab induction with FK, MMF and steroids.

RESULTS: A total of 84 pts (21.5%) received 0MM KT's, including 69 (82%) from SCDs and 15 (18%) from ECDS. Comparison of SCD and ECD 0MM KT's revealed no differences in pt or graft survival, delayed graft function [DGF], acute rejection [AR], or infliximab rates between groups. However, median waiting time to KT (29 months for 0MM vs 10 ECDD, p=0.0001) was longer in the OMM SCD KT group. We next compared 0MM and non-0 (+) MM KT's within the SCD and ECD groups; analyses showed no differences in patient or graft survival, AR, readmissions, reoperations, infections or 1 yr renal function. However, within each group and when comparing all 84 0MM pts with the remaining 306 +MM pts, DGF was less (9% 0MM vs 25% +MM, p<0.001) and initial length of stay [LOS] was shorter (median 6 days 0MM vs 7 +MM, p<0.001) shorter waiting times (mean 18 months 0MM vs 24.0 +MM, p<0.001), shorter waiting times (mean 18 months 0MM vs 28 months +MM, p<0.001), fewer ECD donors (18% 0MM vs 45% +MM, p<0.001) and more pts with detectable antibody (45% 0MM vs 21% +MM, p<0.001).

CONCLUSION: Identical benefits can be achieved through 0MM sharing of either SCD and ECD kidneys including less DGF, shorter cold ischemia and waiting times, reduced LOS, improved resource utilization, and transplantation of more pts with either retransplants or detectable antibody.

Abstract# 59

KIDNEY ALLOCATION IN CANADA: CONSENSUS RECOMMENDATIONS FROM THE 2006 FORUM. Kimberly Young, Greg Knoll, Tracy Brand. Canadian Council for Donation and Transplantation (CCDT), Edmonton, AB, Canada.

PURPOSE: Kidney Allocation in Canada was the first in a series of fora dedicated to the area of organ allocation. It was conceived to address how deceased and non-directed living donor kidneys are allocated to adult and pediatric patients on wait-lists.
METHOD: The aim of this forum was to develop a step-by-step decision-making model that would be acceptable, useful, and adaptable within unique regions across the country. It provided an opportunity for discussion and agreement on the key components of a deceased donor kidney allocation model. Small group discussions focused on specific questions related to kidney allocation. The five challenge areas were discussed and included human leukocyte antigen matching and sensitization, wait-time, medical issues, legal and ethical issues and ranking.

RESULTS: Overall recommendations included that the kidney allocation process reflect a thoughtful and transparent balance of utility and justice, grounded in the best available evidence; that all material information be provided to transplant recipients in a manner that is understandable and that respects existing legal requirements for both consent and donor privacy; and that members of the public be consulted when reviewing and developing kidney allocation algorithms. In addition, algorithms should be available for public scrutiny; for example, in hospital clinics, in dialysis units, and on appropriate websites.

CONCLUSION: The CCDT has forwarded these recommendations to Canadian transplant programs and the relevant government body, the Conference of Deputy Ministers of Health, to inform current practices and relevant health policies.

Abstract# 60
TREAT THE KIDNEY LIKE A HEART – USING DISTRIBUTION TIMES TO IMPROVE RENAL ALLOCATION.
J. Abrams,1 L. Suplee,1 D. Agers,2 P. Sammut,2 R. Hasz,2 H. Nathan,1 S. West,1 S. Doll.2 TIC, Gift of Life, Phila, PA, USA;1 QI, Hosp of the Un of Penn, Phila, PA, USA.

PURPOSE: After the 2002 UNOS definition of expanded criteria donors (ECD), one OPO re-designed its renal allocation practices. Since OPO’s do not solely influence cold ischemic time (CITT), OPO established renal distribution time (RDT) to measure effectiveness of renal allocation. RDT is time from crossclamp to when kidney is available to a transplant center (TXC) for a specific recipient. This includes complete final crossmatch, biopsy, anatomy, and pump parameters. Our purpose is to evaluate the impact of OPO renal allocation practices on RDT.

METHOD: To improve RDT, OPO re-designed renal allocation practices 1) centralized laboratory (CL) performs donor HLA and preliminary crossmatches on high-titer recipients with peripheral blood; 2) OPO initiates early distribution of donor blood to CL after consent; 3) 3) local organ procurement organization (LPO) developed pre-recovery peripheral blood. To accomplish this, RDT results were evaluated pre- and post- implementation to determine improvement in renal allocation practices. Additionally, 2006 and Jan.- May 2007 were characterized by donor type, standard (SCD), expanded (SCD), or donor after cardiac death (DCD), to determine if differences exist in RDT.

RESULTS: Mean RDT for 2006 was 10 hrs, 30 mins, for 2006 was 6 hrs, 46 mins, for January - May 2007 was 6 hrs, 50 mins. This represents a 35% reduction in overall RDT from 2002. RDT varied by donor type with DCD having the greatest RDT.

CONCLUSION: OPO re-design of processes for renal allocation decreased RDT 3 hours, 46 minutes (35%). Time saved through RDT should reduce CIT, which is critical in marginal donors. OPO’s should monitor RDT to determine their effectiveness in renal allocation.

Abstract# 61
NO DIFFERENCE IN INITIAL OR LONG-TERM OUTCOME FOR LIVERS ACQUIRED LOCALLY AND THOSE SHARED REGIONALLY AND NATIONALY.
Richard S. Mangus,1 Jonathan A. Fridell, Rodrigo M. Vianna, Jay Read, A. Joseph Tector. Transplant Division, Department of Surgery, Indiana University School of Medicine, Indianapolis, IN, USA.

PURPOSE: In the United States, liver allograft allocation is strictly regulated. Local centers have the first option to accept a donor liver, followed by regional allocation for those donor livers not used locally, and finally, national allocation for those donor livers not accepted regionally. For a liver transplant to be accepted nationally, between 5 and 20 centers have previously rejected the organ for use. This study reviews the outcomes of all liver allografts utilized over 5 years’ time (2001 to 2006) and evaluates initial, as well as long term, function stratified by geographic source of the donor liver allograft.

METHOD: The records for 698 consecutive deceased donor liver transplants were reviewed. Donor geographic source of the allograft was recorded. Within the local organ procurement organization, there is one liver transplant center, and, within the region, there are nine active centers. Outcomes included 30-day post-transplant AST, ALT and total bilirubin. Early graft failure included any graft loss within 7 days of transplant. Long-term graft and patient survival is represented using a Kaplan-Meier survival curve.

RESULTS: There were no differences between the three groups in initial graft function, intra-operative death or early graft loss. Graft survival results are listed in the figure.

CONCLUSION: Liver allografts rejected for use by a large number of centers can still be successfully utilized without affecting early graft function or long-term survival results.

Abstract# 62
THE ISSUE OF RESCUE ALLOCATION IN LIVER TRANSPLANTATION WITHIN EUROTURANT AREA: HEIDELBERG EXPERIENCE.
Arash Nickkhohl,1 Peter Schremmer,1 Ulf Hinz,2 Till Gerling,2 Peter Sauer,2 Jens Encke,2 Jürgen Weitz,1 Markus W. Büchler,1 Jan Schmidt.1 Department of General Surgery, Ruprecht-Karls University, Heidelberg, Germany;2 Department of Internal Medicine, Ruprecht-Karls University, Heidelberg, Germany; Eurotransplant, Leiden, Netherlands.

PURPOSE: Organ shortage has driven many transplant centers to extend their criteria for organ acceptance. Graft allocation policies have been modified accordingly. This report focuses on the impact of applying the so-called “rescue allocation” (RA) strategy in liver transplantation (LT) within the Eurotransplant (ET) area.

METHOD: Liver grafts are considered for RA when the regular organ allocation is declined by at least three centers or is averted due to donor instability/ unfavorable logistical reasons, thus entering a competitive or a single recipient rescue organ offer procedure, respectively. Between Jan. 2004 and Dec. 2006, we transplanted 85 RA livers after a total of 479 registered referrals within ET due to “poor donor quality” (n=234), “poor organ quality” (n=70), “incompatible age/size match” (n=71), “recipient reasons: nonimmunological” (n=24), “organizational reasons: inside the transplant center” (n=4), and other (n=76).

RESULTS: Median ischemic time for RA grafts was 10 hr (range: 4-17). The indications for LT were: hepatocellular carcinoma (HCC, 44%), chronic liver disease (54%), including viral chronic active hepatitis (15%), and acute liver failure (2%). The MELD score was 13±7 (range: 6-40), and was 12±7 for HCC (p=ns). RA significantly decreased the median active waiting time for HCC patients (128 days) compared to other chronic liver diseases (333 days, p=0.0002). There were 3 primary nonfunctions (PNF). One-year patient and graft survival was 84% and 75%, respectively.

CONCLUSION: The use of RA organs within ET has increased the donor pool and transplantation dynamics with satisfying results. The unique possibility to match with recipients, which is left to the discretion of accepting center, should be judged according to the center’s experience to decrease the waiting times for a timely “rescue” of organs/recipients while avoiding “futile” transplantations.

Abstract# 63
MAXIMIZING IMPORTATION AND USE OF LOCALLY UNWANTED KIDNEYS.
Scott A. Ames,1 Carrie D. Cornellas,2 Enver Akalin,3 Lisa B. Vanderbeek,1 Eric B. Grossman,4 Jonathan S. Bromberg.1, 1 Renanati/Miller Transplantation Institute, Mount Sinai School of Medicine, New York, NY, USA; 2 Transplant Services, State University of New York at Stony Brook, Stony Brook, NY, USA; 3 Division of Nephrology, Mount Sinai School of Medicine, New York, NY, USA; 4 Medical Director, New York Organ Donation Network, New York, NY, USA.

PURPOSE: Past deceased donor (DD) import kidney offers to centers in our organ procurement area (OPA) were often declined for quality concerns or unavailability of recipients to which it was offered. Most offers were either biopsied or pumped by the host OPA (our routine for local kidneys), so imports came with less data. In 2005, we changed import allocation and evaluation protocols. We review how 3 changes affected import activity.

METHOD: First, full waivers were obtained. Imports were re-biopsied and pumped on arrival, re-evaluating organ quality. Second, imports were backed up among all OPA candidates, not just within the initial accepting center, for optimal organ-recipient match (old for old, small for small, low anti-HLA antibody). Third, we centralized biopsy and pumping to our OPA facility.
RESULTS: Results are tabulated below (0 HLA antigen mismatch imports excluded).

<table>
<thead>
<tr>
<th>Source/Disposition</th>
<th>2004 / Monthly</th>
<th>2005 / Monthly</th>
<th>2006 / Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Procured</td>
<td>1927 / 31</td>
<td>1606 / 33.8</td>
<td>1409 / 33.8</td>
</tr>
<tr>
<td>Local Transplants</td>
<td>234 / 19.5</td>
<td>264 / 22</td>
<td>205 / 22.8</td>
</tr>
<tr>
<td>Exports</td>
<td>81 / 6.8</td>
<td>75 / 6.3</td>
<td>70 / 7.8</td>
</tr>
<tr>
<td>Local Discards</td>
<td>257 / 4.8</td>
<td>67 / 5.6</td>
<td>54 / 7.8</td>
</tr>
<tr>
<td>Local Discard Rate</td>
<td>15.3%</td>
<td>16.5%</td>
<td>21.2%</td>
</tr>
<tr>
<td>Imports</td>
<td>187 / 7.8</td>
<td>254 / 23.8</td>
<td>116 / 20.6</td>
</tr>
<tr>
<td>Import Transplanted</td>
<td>18 / 6.5</td>
<td>234 / 19.5</td>
<td>285 / 30.6</td>
</tr>
<tr>
<td>Import Discards</td>
<td>17 / 1.4</td>
<td>51 / 4.3</td>
<td>77 / 8.1</td>
</tr>
<tr>
<td>Import Discard Rate</td>
<td>18.3%</td>
<td>17.8%</td>
<td>29.8%</td>
</tr>
<tr>
<td>Total Transplants</td>
<td>560 / 30</td>
<td>564 / 47</td>
<td>476 / 52.9</td>
</tr>
<tr>
<td>Percent Imports</td>
<td>21.6%</td>
<td>41.5%</td>
<td>51.5%</td>
</tr>
</tbody>
</table>

* Nine Month Totals

CONCLUSION: Liberal use of centralized biopsy and pumping services, with OPA-wide candidate back-ups, increases the number of imports accepted and transplanted, substantially increasing total DD kidney transplants, with acceptable discard rates.


PURPOSE: Kidney donation for transplant is a procedure justified by the excellent results in the receptor and by the low risk offered to the donor. However, some donors develop end stage renal disease (ESRD), and they have priority on the waiting list for transplant in several countries. The purpose is to relate the kidney donors evolution after the development of uremia, while on dialysis in our Unit.

METHOD: A retrospective data analysis of the living kidney donors who was followed at our clinic out patient.

RESULTS: Six healthy donors, with a mean age of 35.2 years (range 22 to 54 years) at the moment of donation, started a dialysis program, 13.8 years (7 to 25 years) after nephrectomy. Five belonged to four Unit of Renal Transplant (URT) and one came from another state. One donor, that began dialysis in 11/2006, 25 years after donation, was untreated. These centers reported only 4 complications to UNOS during the time they participated in the LODN registry and insurance program. One donor received disability income from LODN during recuperation from complications.

CONCLUSION: 1. Donors are willing to participate in this registry.
2. Donors come from the immediate family of the recipient.
3. Donors are employed in jobs that offer insurance, vacation, and disability income.
4. Donors and their families earn less than $50,000.
5. Donors report more complications than are reported to UNOS.
6. Donors are not confident that their complications are addressed.
7. LODN insurance can provide for donors.
overcome ABO: 1) IgA isoagglutinin removal with plasma exchange (ABOITX) or 2) Paired kidney exchange (PKE). Our purpose is to compare the attitudes of potential donors and recipients regarding these two options. 

METHOD: A 15 question donor survey and 18 question recipient survey was administered to patients in clinic prior to their initial evaluation. A 5-point Likert scale was used to gauge their responses where 1 is strongly disagree and 5 is strongly agree. 24 potential donors and 20 potential recipients were included. The completion rate was 95%.

RESULTS: The demographics were not significantly different. Donors had a stronger preference to donate to someone they know as compared to the recipient preference (3.8 vs. 2.9, p=0.03). Recipients showed a greater willingness to participate in PKE (4.5 vs. 3.6, p=0.05). Donors were willing to wait for 2-3 year for a PKE before opting for an ABOITX, as opposed to 6 months-1yr for recipients. Finally, recipients showed a stronger preference to meet the donor/recipient pair after the exchange (3.9 vs. 3.2, p=0.14).

CONCLUSION: Given the options for ABOI transplants, potential recipients have a stronger preference to undergo PKE as compared to donors. Since ABOITXs have greater morbidity and an increased rejection rate, education and counseling should be directed towards participation in PKE. In light of these results, greater emphasis should be directed towards potential donors. Furthermore, the 8months to 1 yr that recipients are willing to wait for a PKE should be considered when setting up exchanges and running algorithms.

Abstract# 69 EVALUATING LIVING KIDNEY DONORS: RELATIONSHIP TYPES, PSYCHOSOCIAL CRITERIA, AND CONSENT PROCESSES AT U.S. TRANSPLANT PROGRAMS. James R. Rodrigue,1 Martha Pavlakis,1 Gabriel M. Danovitch,2 Scott R. Johnson,3 Seth J. Karp,3 Khalid Khwaja,1 Didier A. Mandelbrot,1 The Transplant Center, Beth Israel Deaconess Medical Center, Boston, MA, USA; 1Division of Nephrology, University of California at Los Angeles, Los Angeles, CA, USA.

PURPOSE: To gather information about current living kidney donor evaluation and selection practices.

METHOD: A 36-item web-based survey was sent via email to medical and/or surgical directors of kidney transplant programs in the U.S. The 15-minute survey included questions about living kidney donor evaluation and selection processes, including living donor types, alternative living donor programs, medical and psychosocial evaluation procedures and contraindications, and informed consent.

RESULTS: There is heterogeneity in donor-recipient relationships that are considered acceptable, although most programs (70%) will not consider publicly solicited donors. Most programs (75%) require a psychosocial evaluation for all potential living donors. Most programs agree that knowledge of financial reward (90%), active substance abuse (86%), and active mental health problems (76%) are absolute contraindications to donation. However, there is greater variability in how other psychosocial issues are considered in the selection process. Consent processes are highly variable across programs: donor and recipient consent for the donor evaluation is presumed in 57% and 76% of programs, respectively. The use of 13 different informed consent elements varied from 65% (alternative donation procedures) to 86% (description of evaluation, surgery, and recuperative period) of programs. Forty-three percent use a “cooling off” period.

CONCLUSION: There may be consensus within the transplant community on principles that should guide the evaluation and selection of living donors, but our findings highlight many different pathways to fulfilling them. We hope that this information is useful for the transplant community as we continue to tackle these clinically and ethically challenging issues.

Abstract# 70 Abstract Withdrawn by Author

Abstract# 71 ENHANCING LIVING DONATION IN CANADA: CONSENSUS RECOMMENDATIONS FROM THE 2006 VANCOUVER FORUM. Kimberly Young, Sandra Cockfield, Tracy Brand, Diane Hébert. Canadian Council for Donation and Transplantation (CCDT), Edmonton, AB, Canada.

PURPOSE: The deceased donor rate is stagnant in Canada and the gap is widening between the number of people waiting for solid organ transplants and the number of available organs.

METHOD: The Canadian Council for Donation and Transplantation (CCDT) hosted a national consensus forum in 2006 to explore the enhancement of living donation in Canada as a way to begin to bridge the gap. The objective of the forum was to build national agreement by experts and practitioners in bioethics, health law, organ donation, and transplantation to maximize living organ donation and to overcome the barriers to this form of donation.

RESULTS: The resultant 38 recommendations are in 7 areas: risks and benefits (informing the donor); organ-specific assessments (kidney, liver, and lung); psychosocial assessment; donor eligibility; consent for living organ donors; follow-up after donation, and; financial disincentives to living donation. Each area also offers key considerations for health care professionals, health administrators or policy makers.

CONCLUSION: The CCDT will forward these recommendations to Canadian transplant programs and the relevant government body, the Conference of Deputy Ministers of Health, to inform current practices and relevant health policies. The long-term goal of the recommendations is to effect change in the systems supporting organ donation so that opportunity for living donation is maximized in a safe and ethical environment, and that confidence in live organ donation is enhanced for potential and actual donors, transplant recipients and their families, members of the public and health care professionals.

Abstract# 72 ATTITUDES TO ORGAN DONATION: A SURVEY OF CURRENT AND FUTURE UK DOCTORS. Joanna E. Vamvakopoulos,1 Melpomeni Kountouri,1 Paul Cockwell.1 2The Medical School, University of Birmingham, Birmingham, United Kingdom; 1Dept of Nephrology, University Hospital Birmingham NHS Trust, Birmingham, United Kingdom.

PURPOSE: Transplantation is limited by the availability of donor organs. The attitudes of medical professionals may influence public perceptions and organ donation rates. We documented the attitudes of UK doctors and medical students towards organ donation and determined their relationship with various personal attributes.

METHOD: 3,252 students, representing all 31 UK medical schools, and 669 doctors, drawn from 41 fields and all grades of practice, completed the online questionnaire fully. Univariate and multivariate tests were applied to disclose personal attributes independently associated with being a registered organ donor and/or holding an organ donor card.

RESULTS: Two-thirds of all respondents were registered organ donors and/or donor card holders, equally represented among doctors and medical students. However, approximately 90% misinterpreted the legal status of organ donor registration and underestimated the prevalence of registered organ donors in the UK. Relevant knowledge and concern scores were inversely correlated (p<0.001). Higher knowledge scores were independently associated with being a registered organ donor and/or holding an organ donor card. Fewer years in practice (p<0.001) and knowing an organ transplant recipient (p=0.014) were also associated with registered organ donor status specifically among doctors.

CONCLUSION: The findings of this study, the largest yet of its kind on organ donation, suggest that fundamental misconceptions about the process exist within the medical profession. Educational initiatives targeted at this professional group may have a positive impact on public perceptions and organ donation rates.

Abstract# 73 IMPROVING THE SUPPLY OF ORGANS FOR TRANSPLANT FROM THE EMERGENCY DEPARTMENT. A RETROSPECTIVE AUDIT OF DEATHS AND EDUCATIONAL DEVELOPMENT STRATEGIES. Paula Mary Aubrey, North Thames Donor Transplant Coordinators, Chelsea and Westminster NHS Trust, London, United Kingdom; 1Sociology Department, The University of Surrey, Guildford, United Kingdom.

PURPOSE: Despite many initiatives to increase the number of cadaveric organs for transplant a worldwide critical shortage remains. An audit of deaths undertaken in a group of Emergency Departments in North Thames identified a significant, missed potential of solid organ donors that were not being realised. The findings from that audit have shaped
our current Organ Donor Emergency Department Education Programme.

The main purpose of the programme is to increase the number of organ donor referrals from the Emergency Department which in turn have an increased effect on transplant operations.

**METHOD:** Between October 2004 and December 2005 we undertook an audit of deaths within ten Emergency Departments. Our aim was to determine the potential number of controlled non heart beating donors and heart beating donors available from this clinical area.

**RESULTS:** The Audit identified twenty potential organ donors from within the ten units and it is believed that these numbers could be replicated over the thirty two Emergency Departments in the Region.

The audit also identified that non identification of the potential donor is the major barrier to organs donation from the Emergency Departments.

**CONCLUSION:** The Emergency Education Programme involves assessing the educational needs of key emergency nursing and medical staff, and developing programmes aimed at helping staff identify potential organ donors. This includes presenting lectures and ‘holding clinics’ and formal study days for key staff.

We acknowledge the programme is in its infancy and we have a long way to go before we achieve a desired 100% referral rate. However, as demonstrated below, the significant increase in donor referrals rates from the Emergency Department is very encouraging.

North Thames Emergency Department Donation Activity 2001-2006

<table>
<thead>
<tr>
<th>Year</th>
<th>Donor referrals</th>
<th>Tissue referrals</th>
<th>Transplants performed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>1</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>2002</td>
<td>9</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2003</td>
<td>9</td>
<td>10</td>
<td>14</td>
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<td>2004</td>
<td>17</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>2005</td>
<td>4</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>2006</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

**Abstract**

**74 EXPANDING THE MEDICAL EXAMINER/OPO RELATIONSHIP.**
Amy Olszewski,1 Joan Bates,2 Mara Venner,1 Richard Pietroski.1, Gift of Life Michigan, Ann Arbor, MI, USA; 1Musculoskeletal Transplant Foundation.

**PURPOSE:** Recently, medical examiners (ME) have spoken in opposition to a proposed section of the revised Uniform Anatomical Gift Act which would deny ME the ability to refer grafts for organ donation. Michigan’s Public Act 176 of 2005 not only contains this language but also requires ME notification on all medically suitable non-hospital deaths as potential tissue donors. This study revisits research of ME solid organ referrals (MER) in Michigan and assesses the impact the law has had on donation.

**METHOD:** From 1999-2004 in Michigan, there were 92 MER (17 full/75 partial), with 126 solid organs (heart, liver and lungs) refused. During the same time period, an average of 713 tissue donors were recovered per year (does not include eye-only).

Once passed, all ME cases were tracked where a MER was imminent. Cases where ME did not oppose donation were not included in the study. The requirement for ME notification on all non-hospital deaths was enacted in early 2006. Protocols were created for this process with ME staff, ME offices are being trained, and OPO staff can track ME tissue referrals.

**RESULTS:** MER were attempted in 16 Michigan cases since October 2005. Twelve cases (75%) proceeded to donation and resulted in over 40 organs transplanted. In three cases (19%) the family withdrew consent, and, in one case, the transplant center refused the organ, citing legal conflicts (1%). With 27 (32%) of Michigan counties trained, required tissue notification from ME have generated 402 referrals resulting in 67 cases (5% of all tissue donors recovered).

**CONCLUSION:** The law has increased the number of organs available for transplant, however, there is evidence of withdrawal of consent as a result of ME police pressure on the family. Further education is needed for both the ME and law enforcement communities to understand the balance between saving lives through donation and prosecution of criminal cases. Required notification of non-hospital deaths, with appropriate protocols and training of ME staff, has provided donors that would not have been otherwise referred to the OPO for potential recovery and an avenue to expand the ME/OPO relationship.

**Abstract**

**75 G.I.V.E: IMPLEMENTING CLINICAL TRIGGERS INTO PRACTICE.**
Katherine H. Poser. NBOTTP Government of New Brunswick, Fredericton, NB, Canada.

**PURPOSE:** To address the most widely acknowledged barrier to organ donation: the failure of healthcare professionals to identify potential donors and initiate the referral and request process is vital to sustaining a high performance organ and tissue donation system. Providing frontline staff with tools to facilitate this process and the accompanying educational material is crucial to the success of implementing clinical triggers into practice. The development of this program has proven successful in ensuring that the population which they serve are offered the fundamental right to choose to GIVE the gift of life. Sharing this groundbreaking initiative with the participants of the 9th ISOPD will promote best practices internationally.

**Abstract**

**76 A COLLABORATIVE CAMPAIGN TO INITIATING A DCD POLICY IN SOUTHERN CALIFORNIA HOSPITALS.**
Glenn M. Matsuji,1 Wanda H. Jones,2 *Hospital Development, OneLegacy, Los Angeles, CA, USA; 2Clinical, OneLegacy, Los Angeles, CA, USA.

**PURPOSE:** Over the last decade organ transplantation has saved the lives of more than 300,000 people in the USA.[1] With this success, however comes the increasing demand for cadaveric organs. To meet this growing need there has been a renewed interest in DCD. Even with the success of DCD, many hospitals in OneLegacy’s DSA did not know how to implement a DCD policy within their institution, thus not meeting The Joint Commission’s 2007 requirement for hospitals to address DCD in policy. Expressing concern that hospitals would be noncompliant with the January 2007 deadline, HRSA asked OneLegacy to host a nationwide teleconference providing a forum for initiating a critical pathway to DCD within their hospitals; with the goal to share clinical experiences and provide a critical pathway through a national collaborative campaign documenting strategies to implement a hospital DCD policy.

**METHOD:** In October 2006 OneLegacy sponsored an international conference call. The agenda included identifying potential DCD candidates and the importance of physicians providing leadership role with the development and implementation of DCD policies. Participants were invited via e-mail blasts to the HRSA Listserv and the memberships of UNOS, NATCO, AOPO and the Western Consortium for Hospital Development. Through the HRSA website, the participants were provided a “toolbox” that included reference materials, sample DCD policies, case studies and a DCD algorithm. There were 308 active lines with an estimated 1500 listeners across the United States, Canada, and Japan (via rebroadcast) including approximately 20% of hospitals from OneLegacy’s DSA.

**RESULTS:** Prior to the conference call only 38% of hospitals in OneLegacy’s DSA had addressed DCD in policy. Six months post the call 72% of hospitals had developed a DCD policy within their institution meeting The Joint Commission’s 2007 requirement for hospitals to address DCD in policy.

**CONCLUSION:** A collaborative effort of education between hospitals and the OPO resulted in a 34% increase of hospitals developing, initiating or implementing a DCD policy within the DSA.

**Abstract**

**77 IMPLEMENTING DONATION AFTER CARDIAC DEATH AS PART OF END-OF-LIFE CARE.**
Judy Kojlak,1 Michael Sharpe,1 Frank Rutledge,1 Susan Williams,1 Patricia Merrifield,1 Clare Payne.2 Program in Critical Care, University of Western Ontario, London Health Sciences Centre, London, Canada; 2Trillium Gift of Life Network, Toronto, Canada.

**PURPOSE:** The Critical Care Program had begun a process to improve end-of-life care for dying patients. Knowing that some families want to donate their loved one’s organs after death, we considered the possibility of donation after cardiac death (DCD) for those who did not meet brain death criteria.

**METHOD:** With advocacy from physicians, nurses and palliative care as well as support from hospital Senior Leadership, and in partnership with Ontario’s OPO Trillium Gift
of Life Network (TGLN), we were pro-active in incorporating best practice strategies to provide families with all options. We improved our communication among team members as well as between hospital staff and families regarding patients’ wishes and end-of-life care plans. The decision-making process became more collaborative. Staff were also supplied with help develop educational resources best meet their needs.

RESULTS: Initiation of donation-related tasks and information requests establishing a formal policy. We had, however, been working on our approach to use DCD donors and we viewed the family wishes as paramount, fitting within our hospital’s mission and values. When approached by the family, several supports were already in place: Canadian Consensus Forum on DCD Donors (2005); draft policy from TGLN (2006); and expertise as a leading transplant centre. We became the second Canadian hospital to offer this option to families and the first one to retrieve livers. From July 2006-April 2007, we had 5 potential DCD donors at our hospital; of these, 4 became donors providing kidneys, livers, corneas and heart valves.

CONCLUSION: In our commitment to improve end-of-life care, another opportunity was created: to incorporate best practices around organ donation, including DCD. This process was a dynamic relationship between policy development and practice where practice informed policy. A multi-disciplinary team has now developed protocols for approaching families and for donor care (including checklists) and educational materials for staff and families.

Abstract# 78
ATTITUDES TOWARDS DONATION AMONGST CRITICAL CARE STAFF: A SINGLE CENTER ANALYSIS. Beatrice Pelleraux, Denis Duflane, University Tissue Bank, St Luc, Brussels, Belgium.

PURPOSE: Critical Care (CCU) staff’s attitudes towards donation play a vital role in the donation process and are a decisive factor in obtaining consent. This study aimed at analyzing physicians’ and nurses’ attitudes towards donation, their self-reported skills and comfort levels within donation-related tasks and educational needs.

METHOD: The Donor Action (DA) 27-items Hospital Attitude Survey questionnaire was used to collect 199 responses from 13 CCUs in a 964 bed Belgian University Hospital in 2006. The respondents’ cohort consisted of 11.1% medical, 79.4% nursing and 9.5% auxiliary CC staff.

RESULTS: Table 1

<table>
<thead>
<tr>
<th>Item</th>
<th>Overall response (n=199)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support donation in general</td>
<td>96/1 (100%)</td>
<td>N.S</td>
</tr>
<tr>
<td>Would donate own organs</td>
<td>93.9/100%</td>
<td>N.S</td>
</tr>
<tr>
<td>Would donate own tissues</td>
<td>93/100%</td>
<td>N.S</td>
</tr>
<tr>
<td>Average involvement in donation process</td>
<td>41.1/10%</td>
<td>.002</td>
</tr>
<tr>
<td>Feel comfortable with notifying transplant coordinator</td>
<td>56.7/10%</td>
<td>.008</td>
</tr>
<tr>
<td>Feel comfortable with explaining brain death</td>
<td>58.6/10%</td>
<td>.001</td>
</tr>
<tr>
<td>Feel comfortable with introducing subject of donation</td>
<td>42.2/10%</td>
<td>.038</td>
</tr>
<tr>
<td>Feel comfortable with asking family to make a decision</td>
<td>50.0/10%</td>
<td>.038</td>
</tr>
<tr>
<td>Need more education in explaining treatment</td>
<td>19/10%</td>
<td>.004</td>
</tr>
<tr>
<td>Need more education re coordinating donation process</td>
<td>50.0/10%</td>
<td>.001</td>
</tr>
<tr>
<td>Need more education re family grief counseling</td>
<td>51.1/10%</td>
<td>.001</td>
</tr>
<tr>
<td>Need more education re notification of graft</td>
<td>18/10%</td>
<td>.001</td>
</tr>
<tr>
<td>Need more education re making the donation</td>
<td>49.4/10%</td>
<td>.001</td>
</tr>
<tr>
<td>Need more education re family issues in decision making</td>
<td>52.2/10%</td>
<td>.012</td>
</tr>
</tbody>
</table>

Table 1

CONCLUSION: When it comes to average self-reported involvement in the donation process and comfort levels with donation-related tasks, nursing staff perform significantly lower compared to medical staff. They report the need for more education in all donation-related issues, which is largely due to medical staff, who should be addressed appropriately to smooth the whole organ and tissue donation process.
utilized. DCD warm time ranged from five minutes to 155 minutes with mean of 21 minutes; 350 DCDs were controlled recoveries; age was from 2 to 76 and mean of 38.

CONCLUSION: This OP0 aggressively pursued every DCD donation opportunity and increased the number of transplanted organs to the largest in the U.S. over a 12 year period.

Abstract# 82
A SUCCESSFUL DECADE OF CONTROLLED DONATION AFTER CARDIAC DEATH DONOR (DCD) LIVER TRANSPLANTATION. David J. Reich, Cosme Manzarbeitia, Barbara Aguilar, Adina Osdob, Radi Zaki, Mauricio Orrego, Victor Araya, Kenneth Rothstein, Santiago Munoz. Surgery, Albert Einstein Medical Center, Philadelphia, PA, USA. PURPOSE: Controlled DCD Donation is the fastest growing source of transplanted livers but only a few centers have published their results on DCD liver transplantation (LTX)

METHOD: We reviewed one of the largest DCD LTX experiences, with the longest reported Eu. Attending surgeons rapidly recovered DCD organs after withdrawal of support in the O.R. without premortem cannulation.

RESULTS: Since our first DCD LTX 10 yr ago DCDs provided 33 / 465 cadaver LTXs (7%; 896/9,096). Mean Eu is 46 mo (10 pts < 15 yr, 15-3 yr, 29-3 yr). DCDs were 371 yr old; 10 were >50 yr. Total warm ischemia time (withdrawal to flush) was 217 min (r 9-34). True warm ischemia (mean pressure <50 to flush) was 154 min (r 4-26). Mean total ischemia time was 10 hr.

Patient 1 and 3 yr survival rates are 91% and 67% (vs 84% and 77% for donation after brain death [DBD] LTX, P=0.3), graft survival rates are 88% and 67% (vs 80% and 73%, P=0.6). There was 1 PNF 3% and no primary HAT. Mean peak ALT and t bilirubin were 1,334 u/ml and 8 mg/dl. 5 pts had biliary complications attributable to the DCD source (15%): temporary sludge (2), ischeamic type biliary strictures/ graft failure (ITBS; 3). Oldest donor age, longer ischemia times, or other risk factors for ITBS were not identified. There were 12 deaths, only 3 attributable to the DCD source: PNF (1), ITBS (2; both died early after rel.LTX). HCV recurrence was similar after DCD and DBD LTX.

CONCLUSION: Multicenter efforts are needed to identify risk factors and methods of preventing ITBS after DCD LTX. This centers decade long experience of significant and safe expansion of the liver donor pool selectively using both older and younger DCDs encourages continued, careful pursuit of DCD LTX.

Abstract# 84
INTRODUCTION OF A DECEASED CARDIAC DONOR PROGRAM IN THE UK. Sharon B. Carey, Martin B. Walker. Intensive Care Unit, Derriford Hospital, Plymouth, United Kingdom.

PURPOSE: UK deceased cardiac donors (DCDs) are termed non-heart beating donors. Uncertainty exists about the optimal introduction of controlled non-heart beating donation (CNHBD), outcomes, the prediction of asystole timing and the concerns of staff and relatives. We present our experience implementing CNHBD in a university hospital.

METHOD: Prospective data were recorded for cases referred for CNHBD and formal records of the implementation process were accessed.

RESULTS: Stakeholders were identified and the consensus, confounders and costs assessed; the programme commencing in 2005. There have been 54 referrals, resulting in 25 DCDs (11-71 years old) and 44 kidney transplants. The DCDs (40% males) had suffered intracranial haemorrhage (13), hypoxic brain injury (7) or traumatic brain injury (5). Twenty-nine referrals did not proceed due to delayed asystole (11), declining assent (6), medical unsuitability (7), early asystole (3), absence of family (1) and irreversible brain death (1). Only 6 DCDs required over 50% inspired oxygen and 3 patients required PEEP over 5 cmH_2O at withdrawal. Fourteen patients required less than 0.1mcg/kg/min norepinephrine at withdrawal. Only 5 patients were not extubated as part of withdrawal. The median time from withdrawal to asystole was 15 minutes (IQR 10.0-24.0). The median primary warm ischemic time (systolic blood pressure >50mmHg to perfusion) was 19.0 minutes (15.0-26.0) and the median cold ischaemic time was 14.5 hours (11.7-20.0). Six retrieved kidneys were not utilised due to unsuitability. Machine perfusion was utilised in 70% of organs. Delayed graft function occurred in 41%, but no patients were dialysed beyond 5 days. The mean 6-month serum creatinine was 130µmol litre⁻¹. Structured interviews revealed no significant dissatisfaction with CNHBD amongst family members and staff.

CONCLUSION: Structured implementation resulted in a successful CNHBD programme. Early involvement of stakeholders contributed to success. DCDs reached asystole rapidly despite low levels of ventilatory and circulatory support. Most patients were extubated as part of withdrawal. Introduction of CNHBD has not caused significant concerns amongst patients’ families and staff.

Abstract# 85
DECEASED TISSUE DONATION: (TO WHAT EXTENT) SHOULD WE MODIFY CONSENT PROCEDURES TO INCREASE DONATION RATES? Lisa Dinhofer, Annette Schulz-Baldes. 1/2 Thaumatology, Hood College, Frederick, MD, USA; 1/2Institute of Clinical Bioethics, National Institutes of Health, Bethesda, MD, USA; 1/2Institute of Biomedical Ethics, University of Zurich, Zurich, Switzerland.

PURPOSE: From its beginnings, the shortage of organs and tissues has been a defining feature of transplantation medicine. Strategies for increasing donation rates from both living and deceased donors have been proposed and rejected, implemented, abandoned and resumed on a continuous basis. Much emphasis has recently been placed on altering the approach to donor families during the consent discussion, for example through the ‘presumptive approach to consent’ or a ‘value-positive approach to obtaining consent (dual advocacy)’. But (to what extent) should we modify consent procedures to increase donation rates? This presentation will examine whether recent approaches to obtaining consent should be applied in the deceased tissue donation context. The underlying hypothesis is that strategies to increase donation rates are often transferred prematurely from the organ to the tissue donation context. Despite the many similarities with organ donation, human tissue donation and subsequent practices in tissue processing, distribution and transplantation display a number of particular features that need to be taken into account when discussing consent. A systematic analysis of the dissimilarities will not only show that caution is warranted regarding ‘presumptive’ or ‘value-positive’ approaches to obtaining consent for deceased tissue procurement, due to the limited public knowledge about tissue transplantation and the often controversial practices in the field. This analysis will also raise the question more generally whether serving as a voice of the recipient, guiding the family toward the goal of donation, using presumptive phrases that strongly affirm donation et cetera is compatible with informed and voluntary decision-making.

Abstract# 83
INTRODUCING DONATION AFTER CARDIAC DEATH THE CANADIAN WAY. Frank M. Markel, Claire Payne. 1/Trillium Gift of Life Network, Toronto, ON, Canada; 1/Health Policy, Management and Evaluation, University of Toronto, Toronto, ON, Canada.

PURPOSE: Canada entered the modern era of Donation after Cardiac Death in June of 2006, when physicians and staff at the Ottawa Hospital, working with the support of Trillium Gift of Life Network, met the wishes of a donor family to allow their 32 year old daughter to fulfill her desire to be an organ donor, even though her death did not come by neurological criteria. This presentation will discuss the crucial steps which led to the successful introduction of DCD in Canada, despite a background of caution and of some considerable opposition.

METHOD: Against this chilly background, two accomplishments stand out. First, the Canadian Council for Donation and Transplantation, working diligently, organized a national wide consensus conference on DCD, the proceedings of which were published in the Canadian Medical Association Journal. This effort successfully met the challenge posed by the critical care community that a national consensus had to be reached on the appropriateness of DCD. Even so, that same journal published a caustionary editorial, written by a prominent intensivist, urging careful consideration of the DCD approach.

Second, Trillium Gift of Life Network, Ontario’s Organ Procurement Organization, as early as 2004, set as a goal the successful introduction of DCD in Canada’s largest province. Driven by that goal, the Network worked hard to develop the necessary policies and procedures, and to insure that key staff were fully trained in the relevant procedures. As a result, when the Ottawa donor family asked that the DCD option be made available to their daughter, both the Ottawa Hospital and Trillium Gift of Life Network were prepared to meet the family’s request.

RESULTS: The successful results of the 14 cases done in Ontario to date will be presented, including an analysis of organs recovered, and patient outcomes.

CONCLUSION: In the course of a year, Ontario has seen 14 DCD cases performed. Neighbouring Quebec has seen three cases. Even when snows, DCD is now available in Canada’s two largest provinces.

Concurrent Oral Abstract Presentations III: Tissue Banking

Abstract# 83
Abstract# 86
REDUCTION OF CATEGORY 3 ORGANISM GROWTH IN RECOVERY CULTURES OF POST-AUTOPSY DONORS BY AN ABDOMINAL CAVITY PREP. Susan Cohrs, Ken Blair, David Smith. Community Tissue Services, Dayton, OH, USA.

PURPOSE: CTS found an increase in the amount of tissue being discarded due to growth of Category 3 organisms. (Cat. 3 organisms include Gram-Positive Bacillus Anaerobic NOS, Gram-Positive Bacillus Not Viable, Group A Strept, Gram-Positive Coccos Aerobic NOS, and all species of Clostridium.) Many tissues were recovered from post-autopsy donors, which historically yield higher positive culture rates than non-autopsy donors.

METHOD: A physical abdominal cavity prep in post-autopsy donors was performed with the goal of reducing the level of Cat. 3 organism growth. The abdominal cavity prep included removing the viscera bag from the chest cavity, filling the cavity with 70% Isopropyl Alcohol and aspirating the fluid. The abdominal cavity was surgically cleansed by scrubbing for 5 minutes with 7.5% Povidone Iodine, using sterile prep trays, gowns, and gloves. The remaining fluid was removed with sterile lap sponges resulting in a dry cavity. Cultures were obtained from each tissue by swabbing all surface areas after retrieval. Microbiology testing was conducted using Thioglycollate and Trypticase Soy Broth media.

RESULTS: Culture data was compared from 3 groups of donors: post-autopsy with cavity prep, post-autopsy without cavity prep, and non-autopsy controls (n=94 for each group). Results were randomly selected for data analysis. Positive growth was observed on 29.8% of the 5,586 tissues cultured, 7.6% of which grew Cat. 3 organisms. There were a greater number of Cat. 3 positive tissues from all autopsy donors compared to non-autopsy donors. Fewer Cat. 3 positive tissues were observed in the post-autopsy donor group that received the cavity prep compared to the group that did not receive the prep.

CONCLUSION: The abdominal cavity prep was moderately effective in reducing Cat. 3 organisms on tissues recovered from autopsy donors. Although the number of Cat. 3 tissues in the prep group remained higher than non-autopsy donors, the recoup of nine additional tissues (corresponding to four donors) is a positive outcome that warrants further study.

Abstract# 87
IMPROVEMENT MEASURES TO INCREASE TISSUE DONATION – LESSONS FROM TWO UNIVERSITY HOSPITALS IN BELGIUM AND SPAIN. Beatrice Pelleriaux, Denis Dufrane. University Tissue Bank, UCL, St Luc, Brussels, Belgium.

PURPOSE: To optimize tissue donation rates in our hospital (Hosp I), we implemented the Donor Action program in December 2005. By introducing simple process improvements within CCUs, tissue donation rates significantly increased in 2006. This study aimed at identifying areas of improvement and comparing the Hosp I 2006 tissue donor conversion rates with those of a Spanish center (Hosp II).

METHOD: We retrospectively reviewed all 847 Hosp I death records from January until December 2006 and compared them with 1,960 Hosp II death records between May 2001 and May 2002. We calculated the theoretical and remaining potential for donation by excluding contra-indications, the missed potential, and the result of family approach and May 2002. We calculated the theoretical and remaining potential for donation by excluding contra-indications, the missed potential, and the result of family approach.

RESULTS: Overall, 682 (80.5%) of all Hosp I deaths were excluded for tissue donation because of medical contra-indications, compared to only 73.6% in the group I (P<0.001). Age was the strongest exclusion criterion, both in the Hosp I and II (56.8% vs. 39.3%, P<0.001), followed by malignancies (16.3% vs. 13%, P<0.0214), and sepsis, active viral infections and or risk groups (6% vs. 20.3%, P<0.0004). Of the 165 (19.5%) theoretically potential Hosp I donors, 65 (7.7%) were excluded due the lack of blood samples or delayed referral (222 in Hosp II, or 11.3%, P<0.0034), which left us with 100 potential hosp I donors, 65 (7.7%) were excluded due the lack of blood samples or delayed referral (222 in Hosp II, or 11.3%, P<0.0034), which left us with 100 potential Hosp II donors (15%, P<0.0254).

CONCLUSION: The abdominal cavity prep was moderately effective in reducing Cat. 3 organisms on tissues recovered from autopsy donors. Although the number of Cat. 3 tissues in the prep group remained higher than non-autopsy donors, the recoup of nine additional tissues (corresponding to four donors) is a positive outcome that warrants further study.

Abstract# 88
STUDY OF USEFULNESS OF EYE DONATION IN RELATION WITH DEATH TO ENUCLEATION TIME (DET). Aarti Vrij,1 M. Kumath,2 S. Lalwani,1 R. Tandon,4,5Organ Retrieval & Banking Organisation, All India Institute of Medical Sciences, New Delhi, Delhi, India; 1Dept of Forensic Medicine, All India Institute of Medical Sciences, New Delhi, Delhi, India; 2Dept of Forensic Medicine, All India Institute of Medical Sciences, New Delhi, Delhi, India; 3Dept. of Ophthalmology, All India Institute of Medical Sciences, New Delhi, Delhi, India.

PURPOSE: The numbers of patients requiring cornea transplantation are increasing with time. Safety and viability of the donor cornea is an essential prerequisite for successful outcome of corneal transplant procedure. It is generally recommended that corneal preservation should occur as soon as possible after death and many eye banks routinely accept tissue only up to 12 hours time after death. Keeping the ever increasing demand of cornea in mind a study was conducted to assess the vitality of cornea changes in relation to the time which elapsed since the donor’s death (death to enucleation time- DET).

METHOD: A total of 100 samples of enucleated eye balls were collected and their corneas were graded as A, B, C (criteria followed at AIIMS) after examination. The corneas were then divided into four groups based on time lapsed between death and enucleation (DET). i.e. Group1 with DET less than 6 hours, Group2 with DET 6-12 hours, Group3 with DET 12-24 hours and Group4 with DET 24-48 hours.

RESULTS: The percentage of donor eyes i.e. 96.70% from 6-12 hours DET Group and 93.5% from 12-24 hours DET Group was turned out to be useful to the patients. Even in 24-48 hours DET Group 67% of the donor eyes collected were turned out to be of use to the patients.

CONCLUSION: Time is one of the most important factor existing with respect to organ and tissue donation and therefore majority of centers receive donations of cornea from the donors with in 6-12 hours time after death but data’s from the present study has revealed that even corneas from donors of more then 24 hours postmortem period were of use to the patients. Thus there is a need to create awareness among the medical fraternity/society with respect to eye donation and transplantation.

Abstract# 89
THE EFFECTS OF RECOVERY SITE ON MICROBIOLOGIC CULTURE RESULTS. Reg Dawson,1 Ann Lay,2 David Smith,2 Community Tissue Services, Toledo, OH, USA; 3Community Tissue Services, Dayton, OH, USA.

PURPOSE: To evaluate recovery culture positive rates by branch and recovery site for effects of site on the positive culture rate.

METHOD: Microbiologic recovery culture results were examined from six CTS locations. The data collected consisted of recovery site (i.e. morgue, coroner, etc) number of donors cultured, number of tissues cultured, number of grafts with positive cultures, and Class of microbiological growth (Class 2 pathogenic organisms, Class 3 organisms requiring tissue discard per AATB standards).

RESULTS: 30,470 individual tissues were cultured with a mean positive growth rate of 21.4% or 6,117 tissues. Recoveries were analyzed by branch and recovery sites. The 2 branches with significantly higher positive culture rates performed more recoveries in Coroner’s offices, hospital morgues, and funeral homes, which have the highest positive culture rates. Recoveries had a significantly lower positive culture rate when performed in a controlled location (recovery suite or hospital operating room).

Table 1
<table>
<thead>
<tr>
<th>Site</th>
<th>% Positive Donors C 2 &amp; 3</th>
<th>% Negative Donors C 1a, 2 &amp; 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coroner</td>
<td>12%</td>
<td>88%</td>
</tr>
<tr>
<td>Hospital Morgue</td>
<td>4%</td>
<td>96%</td>
</tr>
<tr>
<td>Recovery Suite</td>
<td>5%</td>
<td>95%</td>
</tr>
<tr>
<td>Funeral Home</td>
<td>3%</td>
<td>97%</td>
</tr>
<tr>
<td>A Total</td>
<td>8%</td>
<td>92%</td>
</tr>
</tbody>
</table>

Table 2
<table>
<thead>
<tr>
<th>Site</th>
<th>% Positive Donors C 2 &amp; 3</th>
<th>% Negative Donors C 1a, 2 &amp; 3</th>
</tr>
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<tbody>
<tr>
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Abstract #90
IMPACT OF PULSATILE PERFUSION ON TRANSPLANTS FROM DECEASED DONOR AFTER CARDIAC DEATH: AN OPTN/UNOS ANALYSIS. Bishoy N. Anastasi, Jagbir Gill, Gabriel M. Danovitch, Yong W. Cho, Tariq Shah, Suphamai Bunnapradist. Nephrology, University of California at Los Angeles, Los Angeles, CA, USA.
PURPOSE: The use of after cardiac death donation (DCD) kidneys is on the rise. Graft survival (GS) of DCD transplants is comparable to standard criteria donor (SCD), and, is better than extended criteria donor (ECD) transplants. Pulsatile perfusion (PP) has been shown to reduce the incidence of delayed graft function (DGF) but has no effect on graft survival in both SCD and ECD transplants. The mechanism by which PP reduces DGF in brain dead donors is not yet well defined. The objective of this study was to examine the frequency of PP use and its impact on DCD kidney transplant outcomes.
METHOD: 2,365 DCDs were transplanted between 2000-2005. 41,398 SCD and 7,460 ECD transplants were performed during the same period. Multiple organ transplants or dual kidney transplants were excluded. Outcomes included DGF defined (as the need for dialysis within the first week post transplant) and overall graft survival.
RESULTS: PP was used in 58% of DCD kidneys compared to 10% of SCD and 23% of ECD kidneys. The incidence of DGF was highest in the DCD group (41.5%), followed by the SCD group (21.5%) and the ECD group (82.7% at 1-yr and 67.8% 3-yr, p<0.001). Within the DCD group, the incidence of DGF in the PP group was 40.8% compared with 42.5% in the cold storage (CS) group (p=0.41)(Table). No significant difference in graft survival was found between the CS and PP group (p=0.21).
CONCLUSION: We found that the incidence of DGF is significantly higher in DCD compared with those of SCD and ECD transplants. PP, used in the majority of DCD transplants during the study period, did not reduce DCF and had no impact on GS. In contrast to brain death transplants, where PP reduces DGF, PP impacted DGF in DCD transplants.

Concurrent Oral Abstract Presentations III: Organ Preservation

Abstract #91
IMPROVEMENT OF BILE DUCT LEAKage IN Experimental Lung transplantation. Eleftheria L. Apostolidi,1 Panayiotis Dedeilias,2 Maria Chorti,2 Efstratios Koletsis,3 Efstratios Apostolakis,1 Maria Chorti,2 Varvara Syfya,2 Aikaterini Pneumidi,2 Constantine Bolos,2 1Experimental-Research Center, ELPEN Pharmaceuticals, Pirkeri, Athens, Greece; 2Dept of Cardiovascular Surgery, Evangelismos Hospital, Athens, Greece; 3Dept of Cardiothoracic Surgery, University of Patras, School of Medicine, Patras, Achaia, Greece; 4Dept of Pathology, Sismanoglion Hospital, Melissia, Athens, Greece; 5Dept of Anaesthesiology, Evangelismos Hospital, Athens, Greece.
PURPOSE: The pulmonary artery and the pulmonary vascular resistance index (PVRI) remain high after lung transplantation (Tx). Lipid peroxidation is an important factor of r.i. and U-74389G (21-anino-lazaroid) is an inhibitor of peroxidation The aim of this study was to evaluate the effectiveness of U-74389G after 24 h Tx lung. METHOD: 16 pigs weighted 24.5 - 28.1 Kg (mean 25.8) underwent single left lung Tx. Heart and lung were retrieved from donors using single flush perfusion with Celsior solution. The graft was stored for 24 h at 4°C. After left pneumonectomy the left lung graft Txs to the recipient. The lazaroid was injected IV to 8 of the recipients just before the release of the pulmonary artery clamp. The haemodynamic and respiratory study lasted for 3 h following Tx. Baseline biopsy was taken from right lung before storage and after the 24 h of storage and finally 3 h after lung Tx. The "Guiding Principles in Care and Use of Animals" was followed. Also this research was funded in part by Elpen Pharma. RESULTS: The pulmonary artery and the pulmonary vascular resistance index (PVRI) were better preserved in lazaroid group (p<0.05). The PO2/FiO2 ratio was higher in the lazaroid group (p=0.05). The compliance was almost equal among the two groups. Histological study and malondialdehyde levels (tissue measurements) were also better in lazaroid specimens (p=0.05). CONCLUSION: The use of U-74389G improves the quality, the tissue condition and the haemodynamic profile of the Tx graft. Thus U-74389G can be recommended as a powerful antioxidant agent with many properties and applications in different stages like organ harvesting, preservation and Tx.

Abstract #92
THE USE OF LAZAROID U-74389G REDUCES ISCHEMIA-REFUSION INJURY IN EXPERIMENTAL LUNG TRANSPLANTATION. Apostolos Papalois,1 Panayiotis Dedeilias,2 Efstratios Koletsis,3 Efstratios Apostolakis,1 Maria Chorti,2 Varvara Syfya,2 Aikaterini Pneumidi,2 Constantine Bolos,2 1Experimental-Research Center, ELPEN Pharmaceuticals, Pirkeri, Athens, Greece; 2Dept of Cardiovascular Surgery, Evangelismos Hospital, Athens, Greece; 3Dept of Cardiothoracic Surgery, University of Patras, School of Medicine, Patras, Achaia, Greece; 4Dept of Pathology, Sismanoglion Hospital, Melissia, Athens, Greece; 5Dept of Anaesthesiology, Evangelismos Hospital, Athens, Greece.
PURPOSE: Pulsatile flow is necessary to perfuse the lung tissue and maintain the function of the allograft. Method: 16 pigs weighted 24.5 - 28.1 Kg (mean 25.8) underwent single left lung Tx. Heart and lung were retrieved from donors using single flush perfusion with Celsior solution. The graft was stored for 24 h at 4°C. After left pneumonectomy the left lung graft Txs to the recipient. The lazaroid was injected IV to 8 of the recipients just before the release of the pulmonary artery clamp. The haemodynamic and respiratory study lasted for 3 h following Tx. Baseline biopsy was taken from right lung before storage and after the 24 h of storage and finally 3 h after lung Tx. The "Guiding Principles in Care and Use of Animals" was followed. Also this research was funded in part by Elpen Pharma. RESULTS: The pulmonary artery and the pulmonary vascular resistance index (PVRI) were better preserved in lazaroid group (p<0.05). The PO2/FiO2 ratio was higher in the lazaroid group (p=0.05). The compliance was almost equal among the two groups. Histological study and malondialdehyde levels (tissue measurements) were also better in lazaroid specimens (p=0.05). CONCLUSION: The use of U-74389G improves the quality, the tissue condition and the haemodynamic profile of the Tx graft. Thus U-74389G can be recommended as a powerful antioxidant agent with many properties and applications in different stages like organ harvesting, preservation and Tx.

Abstract #93
IN SITU PROCUREMENT FLUSH WITH LACTATED RINGER’S SOLUTION IMPROVES OUTCOMES AND DECREASES COST IN ADULT LIVER TRANSPLANTATION. M.A. Jafari, M. Lucia, C. Andrews, A.D. Tevar, E. Steve Woodle, S.M. Rudich. Surgery, University of Cincinnati, Cincinnati, OH, USA.
PURPOSE: Evaluate the use of Lactated Ringer’s (LR) solution as the in situ aortic and portal flush during liver procurement. METHOD: A retrospective review comparing recipients who had received hepatic allografts in which the in situ aortic and portal flush at procurement was done with LR vs those who had UW or HTK solutions (Control) as the in situ flush solution. Records were evaluated documenting demographics along with perioperative considerations (MELD/CTP scores, indications, ischemic times, blood products) and outcomes (complications, allograft and patient survivals). RESULTS: 209 consecutive liver transplants were evaluated. 38 allografts (18.2%) were procured using LR as aortic and portal flush. There was no difference between groups with respect to demographics, indications, ischemic times, or blood product administration. The incidence of biliary complications was markedly less in the LR group (7.9%) compared with the Control group (14%). Graft function (LFTs, factor V function) and patient/graft survivals were similar. Comparison Between Control and LR Flush Cohorts

Abstract #94
PURPOSE: The intestinal preservation injury consists in progressive submucosal edema, with the extravasated fluid and electrolytes equally coming from the lumen and interstitium. The current vascular flush aims to control the later but overlooks the former compartment. We studied if the ischemic injury is decreased by the intraluminal delivery of macromolecular solutions, aimed at retaining the fluids intraluminally and preventing its intraperistaltic shift. We also tested several combinations of flush luminal solutions. METHOD: In SD rats, solutions of polyethylene-glycol PEG3350 with two different electrolyte content (high and low Na+ content) were instilled intraluminally just before preservation. Intestines were perfused and stored in either HTK or UW for 8, 14 and 20 hours. We analysed tissue injury, water retention (wet/dry weight), enzyme and metabolite leak in the preservation solution and brush-border malaise activity. RESULTS: Grafts preserved in UW always always had superior morphology to HTK-preserved intestines. Intraluminal low sodium PEG-solutions further improved graft morphology at 8h and 14h in UW-preserved grafts. The macromolecular solutions did not influence the preservation injury in the HTK groups. Water content, reflecting tissue edema, was higher with HTK than with UW. In UW-preserved grafts, water retention was highest in grafts with luminal high-sodium PEG-solutions. Maltase activity was not affected by the luminal introduction of the PEG solutions and gradually decreased during preservation. Enzyme leak (LDH) and lactate concentration in the preservation solution increased in time, and were lower in the HTK groups, perhaps due to the different rheology of HTK and better access to the muscular layer. CONCLUSION: Intraluminal delivery of macromolecular solutions may modulate the preservation injury in UW but not HTK-preserved intestines. While high-sodium macromolecular solutions (e.g., Golytely®, Laxabon®) may prove detrimental, intraluminal low-sodium solutions (Movicol®) immediately before preservation may reduce preservation injury. UW appears superior to HTK for intestinal preservation over longer periods.
Concurrent Oral Abstract Presentations III: Donation Improvement Models

Abstract# 94.5
LONG TERM BENEFITS OF PERFUSION KIDNEY STORAGE BEFORE TRANSPLANTATION. Artur Kwiatkowski,1 Michal Wszola,1 Maciej Kosieradzki,1 Agnieszka Perkowska-Ptasinska,1 Roman Danieliwicki,1 Krzysztof Ostrowski,1 Wojciech Lisik,1 Janusz Trzebiicki,1 Piotr Domagala,1 Magda Dulrik,1 Leszek Pacek,2 Andrzej Chmura,1 Wojciech Rowniowski,1 1Department of General and Transplantation Surgery, Medical university of Warsaw, Warsaw, Poland; 2Department of Transplantation Medicine and Nephrology, Medical University of Warsaw, Warsaw, Poland. METHODS: Perfusion storage of kidneys was introduced at the beginning of 2005, mainly in high risk kidney transplants. A total of 37 kidneys recovered from 33 non-heart beating donors were perfused with UW, before surgical transplantation. RESULTS: Only 1 kidney needed to be discarded (ischemia time > 180 minutes). All kidneys were transplanted successfully. The mean ischemic time was 32 minutes. 1 donor kidney was lost due to technical issues, before transplantation. CONCLUSION: Perfusion storage of kidneys is an effective and safe method before transplantation. A comparison with the last 5 years, before perfusion implementation, showed no differences in immediate and long term outcomes.

Abstract# 94.7
MEASURING ORGAN DONATION PERFORMANCE INTERNATIONAL: MODELING THE EFFECTS OF AVAILABLE DENOMINATORS FOR ORGAN DONATION RATES. Karen Hornby,1 Ivan B. Pless,2 Sam Shemie.1 1Pediatric Critical Care, Montreal Children’s Hospital, Montreal, QC, Canada; 2Community Development and Epidemiologic Research, Montreal Children’s Hospital, Montreal, QC, Canada. PURPOSE: To identify best practices in organ donation (OD), and maximize donated organs, appropriate measures must be used to evaluate performance. International comparisons of OD rates use donors per million population, a potentially inaccurate measure. We investigated alternative methods to measure OD rates to demonstrate how rates change and stimulate discussion on the most appropriate measure given the available data. METHOD: We used 5 measures to calculate deceased OD rates, based on 5 different denominators: million population; 1,000 deaths; 1,000 deaths < 65 years; 1,000 eligible deaths; and 1,000 eligible deaths < 65 years. OD rates for each measure were calculated for 10 countries for 2001-2006. Data were collected from OD organizations and the World Health Organization. Relative rates were calculated using Spain as the standard and changes examined. RESULTS: The relative rates are summarized in the table below. The relative rates of organ donation - 2002

<table>
<thead>
<tr>
<th>Donors/million population</th>
<th>Donors/1,000 deaths</th>
<th>Donors/1,000 deaths &lt; 65 yrs</th>
<th>Donors/1,000 eligible deaths</th>
<th>Donors/1,000 eligible deaths &lt; 65 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>195</td>
<td>209</td>
<td>212</td>
<td>142</td>
</tr>
<tr>
<td>France</td>
<td>82</td>
<td>84</td>
<td>84</td>
<td>58</td>
</tr>
<tr>
<td>Italy</td>
<td>81</td>
<td>82</td>
<td>82</td>
<td>58</td>
</tr>
<tr>
<td>Japan</td>
<td>81</td>
<td>79</td>
<td>79</td>
<td>56</td>
</tr>
<tr>
<td>Spain</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>7</td>
</tr>
</tbody>
</table>

Conclusions
- Relative rates vary depending on the denominator used.
- The relative rates of organ donation are higher when using the denominator of donors per million population.
- The relative rates of organ donation are lower when using the denominator of donors per 1,000 deaths < 65 years.
CONVERTING FAMILY ADVOCATES TO LEVEL 1 RECOVERY COORDINATORS. Cammie M. Caillouet-O'Neal, Quentin G. Booker. 'Education and Training, Louisiana Organ Procurement Agency, Baton Rouge, LA, USA; 'Family Advocate, Louisiana Organ Procurement Agency, Baton Rouge, LA, USA.

PURPOSE: The Family Advocate plays a crucial role in the organ and tissue procurement process for transplantation and research. This responsibility can weigh profoundly on the consent/conversion rates for the Family Advocate. Some potential donor families consider time as a critical factor when deciding to donate. It was hypothesized that case time will decrease by >20% if Family Advocates were trained to become Level 1 Recovery Coordinators and utilized during organ only cases with Brain Dead Donors.

METHOD: 6 Family Advocates divided into two groups; Group A and Group B. Both groups were trained to utilize the initial steps for beginning organ cases. The steps are as followed: 1. Obtain Verbal Consent, 2. Complete Consent Documentation, 3. Obtain Coronor Clearance, 4. Contact admissions and switch over care of pt from hospital to OPO. 5. Ask RN to draw blood for serology and HLA, 6. Complete Initial Order Set, 7. Enter Admit Course/Donor Demographics/Hospital Referral Data, labs into OPO Database. For 6 months the Family Advocates in Group A completed only steps 1-3 after obtaining consent. Similarly, Family Advocate/Level 1 Coordinators Group B completed steps 1-7 for 6 months, while the ICU Coordinator was in route. Data was compiled indicating the length of time for cases.

RESULTS: Group A Family Advocate's length of case time was 5 hours more from start of case to OR than that of Group B. Similarly, Group A had 4 hours more from start of case to end of case than Group B. (Table 1a.)

CONCLUSION: The results indicate that Family Advocates who can function in the role of Recovery Coordinator I may decrease donor management by hours. Incorporating Family Services with donor management can improve the standard in the donation process.

Abstract# 99
COMMITTING RESOURCES TO THE RETENTION OF HIGHLY SKILLED TRANSPANT COORDINATORS ADVANCES BOTH THE MISSION OF ORGAN AND TISSUE DONATION AND RESULTS IN COST SAVINGS AS COMPARED TO HIRING AND TRAINING OF REPLACEMENT STAFF. Keith B. Klasic, Jan L. Weinstock, Howard M. Nathan. Gift of Life Donor Program, Philadelphia, USA.

PURPOSE: This study evaluates the cost of employee turnover in critical clinical positions and highlights the savings associated with employee retention.

METHOD: Employee turnover within the clinical transplant coordinator position during calendar year 2006 was 19.1%. The TC turnover rate in 2005 was 39.4%. The preceding three year (2003–2005) average turnover rate of TC’s at GLDP was 35.3%. The average salary and benefit cost associated with a TC during the 2005 and 2006 calendar years was determined. The average cost associated with recruiting, hiring, training and a TC during the relevant time period was also determined. The annual cost of turnover included advertising expense, training expense (four months of wages) and benefit expense (three months). The cost of TC turnover in 2006 was $243,700 as compared to $375,300 in 2005.

RESULTS: Data Analyzed 2003 2004 2005 2006 Avg. # TC's Staffed 23 26 25 12 Actual # TC Separations 1 1 1 1 Turnover Rate(%) 19% 27% 49% 16% CONCLUSION: A variety of retention programs including the provision of competitive wages, retention bonuses and comprehensive benefits, as well as employee recognition, learning and growth opportunities have long been a standard practice within industries with difficult to fill positions and high turnover. The transplant coordinator position is similar. The evaluation demonstrates that using a variety of retention programs are less costly than employee turnover and that overall performance may also be enhanced as a result of continuity in personnel. OPOs should consider similar strategies to ensure that staffing remains stable and clinical practice can be maximized.

Abstract# 100
MACHINE PERFUSION AS A TOOL FOR SELECTION AND RECOVERING OF KIDNEYS FROM UNCONTROLLED DONORS AFTER CARDIAC DEATH. Oleg N. Reznik, Igor V. Logino, Alexander N. Ananyev, Sergey V. Eremich, Victoria A. Iljina. 'Organ Procurement & Kidney Transplantation Center, State Research Institute for Emergency, Saint-Petersburg, Russian Federation; 'Kidney & Liver Department, National Research Institute of Transplantology and Artificial Organs, Moscow, Russian Federation; 'Association of Transplant Coordinators, Saint-Petersburg, Russian Federation.

PURPOSE: The deficit of the kidneys leads to the use of donors after cardiac death, DCDs. In Russia all DCDs are uncontrolled (UDCDs). The significant warm ischemic time (WIT) is reason for primary injury and worse results, and high rate of discards. For reducing these effects and enlarging donor pool we have started clinical trial of the using pulsatile perfusion.

METHOD: From December 2005 till May 2006 we have 20 uDCDs. Each donor’s couple of the kidney were divided by the type of preservation - one kidney was preserved by the machine perfusion, the other - by cold storage. The average WIT (we define it as the time between cardiac arrest and beginning cold perfusion of kidney in situ) was 35 ± 13 minutes and average cold ischemic time was 18 ± 6 hours. The recipients were divided and according to the kind of conservation to the control group (16 recipients) who were obtained cold stored kidneys, other group, 20 recipients - received transplants after pulsatile perfusion by LifePort™, ORS. A non perfused kidneys (control group) were discarded because derived from extremely marginal DCDs (high creatinine, large WIT, multiorgan injuries). Profiles of perfusion ans zero-biopsy were estimated during pulsatile perfusion. Operation decisions were made on this ground.

RESULTS: The early results are shown in the table.

Comparison of early results

<table>
<thead>
<tr>
<th>Criteria</th>
<th>control, n=16</th>
<th>pulsative perfusion, n=20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transplantation</td>
<td>immediately function</td>
<td>4</td>
</tr>
<tr>
<td>Delayed function</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Primary nonfunction</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Hemodialysis</td>
<td>6±3</td>
<td>3±2</td>
</tr>
<tr>
<td>Creatinin D3,p&lt;0,05</td>
<td>0.814±0.12</td>
<td>0.58±0.13</td>
</tr>
<tr>
<td>Creatinin D30,p&lt;0,05</td>
<td>3.34±0.09</td>
<td>2.20±0.07</td>
</tr>
</tbody>
</table>

CONCLUSION: Our first results have shown excellent perspectives for machine perfusion in order to use marginal, uncontrolled DCDs.

Abstract# 101
OPO EXPERIENCE WITH NON-NEUROLOGICAL INJURIES INCREASES DONATION AFTER CARDIAC DEATH DONORS AND ORGANS FOR TRANSPLANTATION. Judy M. Ferrarie, Gwenneth D. George, Richard D. Hasz, Howard M. Nathan. Gift of Life Donor Program, Philadelphia, USA.

PURPOSE: To demonstrate how using broad clinical triggers to generate organ donor referrals dramatically increases DCD donors, including vent-dependent patients with non-neuro-injuries.

METHOD: Broad clinical triggers to generate organ donor referrals calls for the referral of all vent-dependent patients with non-recoverable neuro injuries, and any vent-dependent patient with a non-recoverable injury/illness prior to withdrawal of life-sustaining treatment or the initiation of a DNR status. Early notification, prior to families making DNR/withdrawal decisions, allows OPO to conduct an on-site patient evaluation to determine donation options and ensure that end-of-life decisions do not preclude organ donation. A retrospective analysis of ‘not brain dead’ organ referrals and OPO DCD cases was performed from Jan 2003 – Dec 2006 to evaluate the impact of broad clinical triggers on this OPO DCD experience, especially among patients with non-neuro-injuries.

RESULTS: Broad clinical triggers increased organ donor referrals. Thirty-four percent of these referrals were evaluated for DCD opportunities, which resulted in 429 organ transplants from 222 DCD donors. Seven percent of these DCD cases performed involved patients with non-neuro-injuries, resulting in 27 additional organs for transplantation.

<table>
<thead>
<tr>
<th>Year</th>
<th>Organ Referrals</th>
<th>Not Brain Dead</th>
<th>Organ Referrals</th>
<th>DCD</th>
<th>DCD w/Non-Neuro Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>5,540</td>
<td>537</td>
<td>51</td>
<td>90 (1.8)</td>
<td>6 (12%)</td>
</tr>
<tr>
<td>2004</td>
<td>7,734</td>
<td>613</td>
<td>67</td>
<td>85 (1.3)</td>
<td>2 (4%)</td>
</tr>
<tr>
<td>2005</td>
<td>2,334</td>
<td>195</td>
<td>27</td>
<td>114 (2.0)</td>
<td>4 (7%)</td>
</tr>
<tr>
<td>2006</td>
<td>2,464</td>
<td>197</td>
<td>67</td>
<td>140 (2.1)</td>
<td>4 (7%)</td>
</tr>
<tr>
<td>2007</td>
<td>1,972</td>
<td>122</td>
<td>38</td>
<td>229 (1.9)</td>
<td>16 (17%)</td>
</tr>
</tbody>
</table>

CONCLUSION: These data represent an encouraging trend for the future in DCD and the availability of organs recovered for transplantation. OPOs should work...
collaboratively with hospitals to develop broad clinical triggers allowing for OPO evaluation of all potential patients for DCD, inclusive of those who have not suffered a neuro injury.

Abstract# 102
ARE WE READY TO UTILIZE NON-HEART-BEATING DONOR FOR CLINICAL ALLOTRANSPLANTATION IN CHINA? Zidong Liu, Ping Yun, He Xu. Department of Transplantation, Jinan Central Hospital, Shandong University, Jinan, Shandong, China.

PURPOSE: Organ donation has been a major issue in China. Although the concept of “brain death” is recognized in most parts of the world, it has not been accepted by the majority of Chinese due to traditional customs. Importantly, it is not recognized as a legal entity. We have developed a non-heart-beating organ donation protocol based on international standards and issues related to Chinese customs and ethics. METHODS: The major principles guiding our establishment of the protocol include: separation of the decision to terminate life support from the discussion and decision regarding organ donation, family-centered donation, freedom of conflict of interest, and complete prohibition of any organ and tissue sales. The protocol covers the policy of donation, identification of potential donors, family consent for donation and related medical intervention, special legal documents, donor evaluation, determination of death, procurement, special organ distribution policy and other considerations. A randomized survey was conducted regarding organ donation.

RESULTS: There have been several arguments after the development of this protocol. First, do donor family members have the right to make decision of withdraw life support? This has not been recognized until recently and increased debate regarding using non-heart-beating donor for transplantation. Another issue is whether family members have right to consent to organ donation following the death without a will from the donor? A randomized survey found that over 94% of people do not have a will and have not discussed their interests in organ donation with their family members. The last issue is whether the hospital can financially help to arrange the funeral after organ procurement?

CONCLUSION: We have taken these issues seriously and debated them nationwide with different opinions. Here we hope to find right solutions through international debate and help. We believe that the use of non-heart-beating donor organs has potential in China and we are hopeful, that it will become a major organ source, one that is developed in such a way so as to be accepted in China and also internationally.

Abstract# 103
DONATION AFTER CARDIAC DEATH: CONSENSUS RECOMMENDATIONS FROM THE 2005 VANCOUVER FORUM. Kimberly Young, Sam Shemie, Christopher Doig. Canadian Council for Donation and Transplantation (CCDT), Edmonton, AB, Canada.

PURPOSE: Current Canadian practice supports organ donation after death as determined by neurological criteria and tissue donation after death determined by cardiocirculatory criteria. However, contrary to international practice and historical practice in Canada prior to brain death criteria, organ donation after cardiocirculatory death has not been offered to dying patients in Canada and is not available to families who request it.

METHOD: The Canadian Council for Donation and Transplantation (CCDT) hosted a national consensus forum in 2005 to explore to initiate a national multi-stakeholder discussion to inform and guide health care professionals involved in developing programs for donation after cardiocirculatory death. The purpose of this initiative was to discuss and develop recommendations on the principles, procedures and practice related to DCD within a sound ethical and legal framework in the context of protecting and serving the public.

RESULTS: It was recommended that programs should begin with controlled DCD within the intensive care unit where death is anticipated, but has not yet occurred, and unhurried consent discussions can be held. Uncontrolled donation (where death has occurred after unanticipated cardiac arrest) should only be considered after the controlled DCD program is well established. Although it was recommended that programs commence with kidney donation, it is recognized that regional transplant expertise may guide the inclusion of other organs. The impact of DCD, including pre and post-mortem interventions, on donor family experiences, organ availability, graft function and recipient survival should be carefully documented and studied.

CONCLUSION: The CCDT has forwarded these recommendations to Canadian transplant programs and the relevant government body, the Conference of Deputy Ministers of Health, to inform current practices and relevant health policies.

Abstract# 104
EMPOWERING THE POWERLESS WITH LIFE IN DEATH. Hedi Aguiar, Tasha R. Querantes, Esther C. Montoya, Maria Stadtlter, Tom Mone, Esther-Marie Carmichael. OneLegacy, Los Angeles, CA, USA.

PURPOSE: Two unusual Donation After Cardiac Death (DCD) case-studies challenge the Organ Procurement Organization (OPO), the Hospital Service Coordinator (HSC), and a hospital to think “outside of the box”. Case 1: a 30-year-old woman with Amyotrophic Lateral Sclerosis (ALS) in a Skilled Nursing Facility (SNF) Case 2: a 50-year-old quadriplegic man, admitted with pneumonia in a community hospital non-supportive of DCD. Both decide to discontinue their treatments and provide first-person consent to become organ donors, requiring transfer to the same local hospital for donation.

METHOD: Both patients were referred to the OPO on weekends when resources were limited. The HSC worked with the hospital to understand the patients did not fit normal criteria of DCD or brain death donors and championed the patients’ decisions. After consult with the Intensive Care (ICU) Director and the hospital’s Ethics Committee, the hospital was committed to honor the patients’ wishes regardless of the unusual circumstances of first person consent. The HSC worked with the Intensivist group and successfully found physicians willing to accept these patients.

Added complicating circumstances were present with the quadriplegic patient, who had declined ventilation for treatment and was placed on Bi-level Positive Airway Pressure (BiPAP), requiring frequent bronchoscopies to prevent full respiratory decompensation. He decided to be intubated to facilitate transfer and the donation process, which added temporary confusion during transfer arrangements.

RESULTS: Both first person consent DCD patients expired within thirty minutes post-extubation and were able to be donors. The hospital Ethics Committee debriefed after each case and after the latter one understood the need for policy revision, recognizing that future DCD patients may not always be ventilated.

CONCLUSION: While both patients had become dependent on others to care for them, both no longer wished to continue to be dependent and through facilitating their request to become organ donors upon their death they were empowered to give life to others, when their own had to come to an end.

Concurrent Oral Abstract Presentations IV: DONOR MANAGEMENT

Abstract# 105

PURPOSE: Today, heart transplantation (HTX) is a routine therapeutic approach for patients with end-stage heart failure. The number of patients on the HTX waiting list is continuously increasing. But the number of available donor hearts is not. Therefore up to 30% of patients die while on the waiting list for HTX. Because of donor heart shortage, the criteria for organ acceptance have been expanded considerably over the past years. In particular the upper donor age limit has been extended. In Europe 25% of potential donor olders are older than 50 years. Thus the probability of unintended transmission of coronary artery disease (CAD) is significantly increased. The risk for early graft failure is raised two to threefold by donor heart CAD. No clear protocol has been developed to properly evaluate older donor hearts. Up to now only donors older than 60 years are routinely examined by coronary angiography.

METHOD: This is the first prospective study consecutively evaluating frequency and extent of CAD in 130 donors, 40 to 65 years old, by coronary angiography. CAD was defined as minor with <50%, as moderate with 50 –75%, and as severe with > 75% diffuse and/or focal stenosis.

RESULTS: In 38% of all potential donor hearts CAD was present. CAD frequency did not differ statistically in 40 to 49, compared to 50 to 65 years old donors (P = 0.1). If CAD is present in 50 to 65 years old donor hearts, its degree is significantly higher than in the younger donor group.

CONCLUSION: Younger, 40 to 49 years old donor hearts are not safer than older hearts, showing no difference in CAD frequency. We therefore recommend heart catheterization in all donor hearts over 40 years. This would allow to use safely the older donor pool, effectively preventing donor CAD transmission. One major risk for early graft failure would be diminished, improving the outcome of heart recipients.

Abstract# 106
3 YEARS OF QUALITY MANAGEMENT INCREASED THE NUMBER OF TRANSPLANTED ORGANS IN A GERMAN ORGAN DONATION REGION. Monika Schmid, Kerstin Moench, Dietmar Mauer. Middle Region, German Foundation of Organ Transplantation (DSO), Mains, Germany.

PURPOSE: An increase in median age and co-morbidity reduced the number of organs recovered per donor (conversion rate) in our region in 2001-2003. We evaluated, whether the adoption of a Quality Management System can improve conversion rates in organ donation.
Abstract# 108
TUMOR NECROSIS FACTOR GENOTYPE OF THE DECEASED DONOR KIDNEYS ASSOCIATED WITH DELAYED ALLOGRAFT FUNCTION (DGF). Ajay K. Israni, 1 Na Li, 1 Bojana B. Cizman, 3 Jon Snyder, 4 John Abrams, 5 Marshall Joffe, 5 Timothy Rebbeck, 1 Harold Feldman. 3
1Medicine, Hennepin County Medical Center; University of Minnesota (MN), Minneapolis, MN, USA; 2Biostatistics, Univ of MN, Minneapolis, MN, USA; 3Center for Clinical Epidemiology & Biostatistics, Univ of Pennsylvania (PA), Philadelphia, PA, USA; 4CDRG, Hennepin County Medical Center, Minneapolis, MN, USA; 5Gift of Life Donor Program, Philadelphia, PA, USA.
PURPOSE: DGF after a deceased donor renal transplantation is associated with an increased risk of allograft loss. Inflammatory response is associated with increased risk of DGF. Therefore we recruited 526 deceased donor kidney transplant recipients enrolled in a prospective cohort study in the Delaware Valley Region, to examine the impact of donor genotypes of inflammatory response genes, TNF-alpha (TNFA), IL-10 and TGF-beta (TGBF1) on DGF. The outcome in the second recipient of the deceased donor kidney, if not part of the cohort, was determined through the USRDS registry.
METHOD: Besides genotyping at least 1 functional SNP, 2, 5 and an additional functional SNP were genotyped for TNFA, IL-10 and TGBF1, respectively. DGF was defined as need for dialysis in the first week post-transplant. Dialysis treatments post-transplantation were determined by reviewing medical records for recipients in the Delaware Valley Cohort. For other recipients, Medicare claims data was utilized and if not available, then UNOS form data was utilized.
RESULTS: 965 recipients from 512 donors were included in the analysis. 30% of recipients were African-American, 61% male, 15% experienced DGF. The IL-10 and TGBF1 genotypes were not associated with DGF. The G allele of TNFA polymorphism rs3093662 was associated with DGF after adjusting for cold ischemia time, recipient race, extended criteria donor, donor cause of death, donor race, donor age and source of DGF information (OR= 1.87 compared to A allele, 95% C.I.=1.16-3.0, p=0.010)
CONCLUSION: The G allele of the promoter SNP in TNFA, is associated with increased risk of DGF, thereby allowing us to predict DGF based on donor genotype.

Abstract# 109
STANDARDIZATION OF HORMONAL RESUSCITATION TO ENTIRE POOL OF BRAIN DEAD DONORS INCREASES ORGANS TRANSPLANTED PER DONOR. Tina M. Abdelnour, Steve Rieke. Procurement, LifeSource, St. Paul, MN, USA.
PURPOSE: Hormonal Resuscitation Therapy (HRT) for brain dead donors has been shown to increase hemodynamic stability, decrease vasopressor requirements, and increase organs, specifically hearts recovered for transplant. HRT use varies widely among Organ Procurement Organizations (OPOs), and is often applied in a non-standardized method. The goal of this study is to examine the effects of standardized HRT on all brain dead donors and its impact on Organs Transplanted per Donor (OTPD) overall, and in Standard Criteria and Extended Criteria Donor subsets.
METHOD: OPO Donor Management Guidelines were standardized to include a HRT Protocol including L-thyroxine, methylprednisolone, and regular insulin in all brain dead donors regardless of age, sex, race, diagnosis or degree of hemodynamic stability. Arginine vasopressin was utilized as indicated for the treatment of diabetes insipidous. An insulin drip was initiated in donors with blood glucose greater than 120. Arginine vasopressin was utilized as indicated for the treatment of diabetes insipidous. Protocol including L-thyroxine, methylprednisolone, and regular insulin in all brain dead donors regardless of age, sex, race, diagnosis or degree of hemodynamic stability.
RESULTS: An increase in pancreata, and 100% increase in intestines transplanted. Liver rates were essentially unchanged, but lung rates were down 29%.
CONCLUSION: Standardization of HRT across the entire consortium of brain dead donors increases overall OTPD, specifically hearts, kidneys, and pancreata. We plan a statistical analysis on a two-fold sample size to validate our findings. We will examine Standard Criteria Donor and Extended Criteria Donor cohorts to compare the impact on both groups to the previous 2-year donor pool. The largest impact thus far has been realized in Standard Criteria Donor OTPD, which is highly promising, as this represents the largest percentage of the donor pool with proven superior outcomes.
Effects of HRT on Organs Transplanted

<table>
<thead>
<tr>
<th></th>
<th>Nov05-May06</th>
<th>Nov06-May07</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID Donors</td>
<td>100</td>
<td>75</td>
</tr>
<tr>
<td>OTPD</td>
<td>1.67</td>
<td>1.30</td>
</tr>
<tr>
<td>Hrt Tx / Donor</td>
<td>8.4</td>
<td>8.51</td>
</tr>
<tr>
<td>Kid Tx / Donor</td>
<td>1.61</td>
<td>1.71</td>
</tr>
<tr>
<td>Panc Tx / Donor</td>
<td>12.0</td>
<td>8.36</td>
</tr>
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</table>
Abstract# 110
IMPLEMENTATION OF DRIVER’S LICENSE DONOR REGISTRIES ENHANCES ORGAN DONATION. John Green, Jan Weinstock, Rick Hasz, Sharon West, Howard Nathan. Gift of Life Donor Program, Philadelphia, PA, USA.

PURPOSE: To demonstrate how effective state DMV donor consent registries positively impact the organ donation process and outcomes.

METHOD: Model legislation for a "yes" only state-wide driver’s license donor registry was implemented in two 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 data base 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 donor designation rates in the service area. Only those cases above age 16 were evaluated.

RESULTS:

Donors in Registry 2004-2006

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referrer Potential Donors (POD)</td>
<td>247</td>
<td>457</td>
<td>569</td>
<td>1439</td>
</tr>
<tr>
<td>POD in Registry (%)</td>
<td>142 (30%)</td>
<td>131 (29%)</td>
<td>166 (33%)</td>
<td>439 (90%)</td>
</tr>
<tr>
<td>Organ Donors Recovered</td>
<td>4077</td>
<td>1269</td>
<td>1380</td>
<td>6606</td>
</tr>
<tr>
<td>Organ Donors in Registry (%)</td>
<td>139 (46%)</td>
<td>125 (45%)</td>
<td>140 (47%)</td>
<td>404 (46%)</td>
</tr>
</tbody>
</table>

The number of potential donors who were registered as donors was about 30% and the number of actual donors recovered who were registered as donors was about 46%. Interestingly, overall donor registry designations was 43% of all drivers in one state and almost 39% in the other state by the end of 2006. Whenever a suitable potential donor had a donor designation, the process was reported by OPO coordinators as more efficacious. When the OPO provided the donor designation information, not only did families support their loved ones’ 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.

CONCLUSION: An effective DMV donor registry can positively impact the organ donation process and ultimately result in more organ donors recovered.

Abstract# 111
FINANCIAL INCENTIVES: THE OPO COORDINATOR’S PERSPECTIVE. Shirley Schlessinger,1 Kevin Stump.2 1Graduate Medical Education, University of Mississippi Medical Center, Jackson, MS, USA; 2Administration, Mississippi Organ Recovery Agency, Jackson, MS, USA.

PURPOSE: A burgeoning demand for organ transplants continues to out-pace growth in deceased organ donation. Despite the Uniform Anatomical Gift Act prohibition of valuable consideration for donors, the AMA is calling for re-consideration of financial incentives. Surveys of the public and opinion pieces from transplant professionals and ethicists demonstrate mixed emotions and conflicting predictions regarding the impact of rewarding gifting on the current altruism-rooted donation process. Organ Recovery Coordinators and Designated Requestors (ORCs) are front-line in the consent for donation. ORC ambivalence or opposition toward financial incentives could compromise any potential positive impact of changes to the current system.

METHOD: A Financial Incentives Opinion Survey was distributed electronically via the AOPO list serve to OPO Executive Directors and Directors of Procurement at 59 CMS approved OPO’s in January 2004. Surveys were distributed to requestors in each OPO and returned by FAX, e-mail, or post. 213 responses were received from at least 43 OPO’s and all areas of the US. Responding requestors varied in age from 24-59, had varying levels of experience (50% <3 yrs; 15% >10 years), and were 55% female, and 80% Caucasian.

RESULTS: 90% of ORC’s opposed incentives >$5000 whether funeral home payment, charitable contribution, direct family compensation or donor estate contribution. Incentives of <$1000 were considered acceptable by a majority of ORC’s when in the form of funeral home payment or only in the donation. 83% opposed direct family compensation or donor estate contributions of any amount. 66% felt financial incentives would likely increase organ donation, but 58% felt many families would find incentives distasteful. 40% agreed they would like to be able to offer modest incentives.

CONCLUSION: No clear consensus exists among ORC’s on the appropriateness or likely acceptability of financial incentives. Large incentives and payment directly to families is not favored. Rewarded gifting should be subjected to small carefully controlled pilot studies.

Abstract# 112
ALTRUISM AND FINANCIAL INCENTIVES: FAMILY EXPERIENCES OF DECEASED DONORS. Bartrina de Aguiar Roza,1 Janine Schirmer,2 1Organ Transplantation Program/Quality and Patient Care Office, Albert Einstein Hospital, Sao Paulo, Brazil; 2Nursing Department, Federal University of Sao Paulo, Sao Paulo, Brazil.

PURPOSE: Organ donation is a complex and multifactorial question that has impact not only on donors, but also on their family, the recipient’s family and the society. The families for the organ and tissues donation after the diagnostic of brain death, can represent or not the living will of the deceased donor. To identify the moral value that stimulates the organ and tissue donation for transplantation.

METHOD: Transversal Survey, carried out with 69 family members of deceased donors from the Organ Procurement Organization (OPO)- Federal University of Sao Paulo (UNIFESP).

RESULTS: 63.2% from donor’s families used funeral aid benefit, that exempts expenditures of families of deceased donors, according to legislation of the city of Sao Paulo - Brazil. Of the family members, 92.5% considered it important and 97% agreed with the concession of this benefit (p=0,002), both, respectively would donate again. It was observed an association trend between the family that used the benefit and the city zones, suggesting that individual of the zones east and south of the city had used more the benefit.

CONCLUSION: The indirect benefits as the funeral aid or other forms to compensate the loss of their loved ones in the continuity of the life in one another. This interrogation gets stronger, when we verify that the family members had revealed the desire to know if the recipients had improved their health, as if they could have a compensation for the loss of their loved ones in the continuity of the life in one another. It seems that the argument for the act of altruism for the organ and tissues donation is a referential for the professionals, as for the families there is the pain of the loss.

Abstract# 113
ATTITUDE AND AWARENESS TO ORGAN DONATION IN SCHOOL CHILDREN – A CRITICAL ANALYSIS. Thomas Winston Athiysayraj,1 Neil Frude,2 Jill Fitzgibbon,3 Alex Faulknor,1 Nagappan Kumar.1 1Transplant Unit, University Hospital of Wales, Cardiff, Wales, United Kingdom; 2Psychology, Cardiff and Vale NHS Trust, Cardiff, South Wales, United Kingdom; 3School of Social Sciences, Cardiff University, Cardiff, South Wales, United Kingdom.

PURPOSE: Organ donation rates in the UK are inferior to Europe and could be improved. The current awareness and attitude of ‘A’ level students where intervention may prove useful is not known. The aim of our study was to systematically analyse this aspect.

METHOD: We developed, validated and administered a questionnaire exploring the knowledge and attitude to organ donation of 16 to 18 year old students in a single city. A clinical Organ Donation Scale (CODAS) was developed in association with clinical psychologists to test attitude. The questionnaire was distributed to all schools and administered by the teachers during class hours. Using the data, we developed a knowledge score (KS) and attitude score. We compared various demographic factors and the deprivation index of areas where schools are located to assess the differences.

RESULTS: Ten comprehensive (CS) and 4 independent schools (IS) were approached of which 10 participated (7) CS, 3 (IS) in the study. There were 871 responses. The KS was significantly better in independent schools (P=0.001), girls (P=0.04), better parents occupation (P=0.006) Caucasians and Indians (P=0.035) and those who had a driving licence (P=0.003). Among the comprehensive schools KS was lower in schools with a higher deprivation index and to independent schools. There was a significant correlation between KS and attitude scores (P=0.0001)

CONCLUSION: We conclude that deprivation is an important predictor of poor knowledge and attitude to organ donation. As there is a significant correlation between knowledge and attitude, targeted teaching of young adults could improve organ donation rates.

Abstract# 114
SCHOOL EDUCATION ON ORGAN TRANSPLANTATION. Felix Cantarovich,1 Marcelo Cantarovich,1 Ruben Revello,1 Lyz Falco,2 Christoph Legemde.1 1Hospital Neckar; Paris, France; 2“UCA, Buenos Aires, Argentina; McGill University, Montreal, Canada; 3The Study, Montreal, Canada.

PURPOSE: Education on organ transplantation might be a path to improve organ donation. This study seeks to test young student’s response to new viewpoints.

METHOD: Similar lectures on transplantation were given in 2 countries. Ideas as during life we may be more organ recipients than donors; The dead body is a source of health; Donation means to share a chance for life has been remarked. Thereafter, this questionnaire were fulfilled: 1)Before this class what did you know about organ transplantation? 2)Did you enjoy the class? 3)Did you understand all the subjects? 4)Which one did you not 5)Which is the information you find more interesting 6)Which are your conclusions after this lecture 7)With whom will you discuss this topic.

31
RESULTS: 352 pupils participated, 44 were uncompleted. Argentina: 108 primary; sex: F: 56%, M: 44%; 110 secondary; sex: F: 63%, M: 37%. Age: 12.9 yrs (11-14); 16 (14-19) respectively. Canada (girl's school): 55 primary; 45 secondary. Age: 11 yrs (10-12); 14 yrs (13-16) respectively.

Table 1

<table>
<thead>
<tr>
<th>Question %</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>1-2-3</td>
<td>1-2-3</td>
<td>1-2-3</td>
<td>1-2-3</td>
<td>1-2-3-4-5-6</td>
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<td>89-8-3</td>
<td>82-13-5</td>
<td>78-14-4</td>
<td>80-14-4</td>
<td>80-14-4</td>
</tr>
<tr>
<td>Secondary</td>
<td>80-20-0</td>
<td>84-33-3</td>
<td>80-20-0</td>
<td>55-44-1</td>
<td>74-14-2</td>
<td>62-9-7-4</td>
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<td>Isolated</td>
<td>66-52-2</td>
<td>89-74-1</td>
<td>66-52-2</td>
<td>27-44-1</td>
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<td>10-60-4</td>
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<td>Primary</td>
<td>89-7-4</td>
<td>90-8-4</td>
<td>89-7-4</td>
<td>90-8-4</td>
<td>90-8-4</td>
<td>90-8-4</td>
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<tr>
<td>Isolated</td>
<td>89-7-4</td>
<td>90-8-4</td>
<td>89-7-4</td>
<td>90-8-4</td>
<td>90-8-4</td>
<td>90-8-4</td>
</tr>
</tbody>
</table>

(Questions: 1, 2. 3 = Yes; 2, No: 3 = No answer (NA); 4 = 1 = Technical; 2 = Pedagogical; 3 = NA; 5 = 1 = no one (NO); 2 = Scientific; 3 = History; 4 = Religion; 5 = Waiting lists; 6 = NA; Q: 6 = 1 = NO; 2 = Agreement; 3 = Disagreement; 4 = NA; Q: 7 = 1 = NO; 2 = Parents; 3 = Friends; 4 = Both; 5 = NA)

Concurrent Oral Abstract Presentations IV: Pancreas & Small Bowel

Abstract# 115 LONG TERM OUTCOMES OF INTESTINAL TRANSPLANTATION FROM DONORS UNDER AGE 1. Zurab Machaidze, Geoffrey Bond, Kyle Solty, Rakesh Sindhi, Dolly Martin, Graciela Perez, Kareem Abu Elmagd, George Mazariogies. Transplant Surgery, Children's Hospital of Pittsburgh of UPMC. Pittsburgh, PA, USA.

PURPOSE: Outcomes of deceased intestinal donors under the age of 1 were compared to older pediatric deceased donors age 1-18.

METHOD: All intestinal transplant recipients between 11/1990-03/2006 receiving a deceased donor organ from donors age <1 year were compared to older donors for patient and graft survival, cause of graft loss or death, and technical complications.

RESULTS: 157 children received primary intestinal grafts. Of these, 42 donors (26.7%) were aged < 12 months. Children received isolated intestinal transplants (4, 9.5%), liver-bowel (36, 85.7%), and multivisceral (2, 4.8%) grafts. Overall patient and graft survival is 61.9% and 57.1% respectively in patients transplanted with donors < 1 year age. Survival data compares favorably to the older donor cohort, in whom overall patient and graft survival rate is 58.3% and 47.0% respectively.

Table 1 presents the demographic data and outcome of these recipients by donor age group at an average current follow-up of 66.7 months (12-199 m).

<table>
<thead>
<tr>
<th>Donor Age</th>
<th>Total</th>
<th>1 yr patient and graft survival (%)</th>
<th>3 yr patient and graft survival (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3 Mo</td>
<td>16</td>
<td>88.8 / 68.8</td>
<td>83.8 / 43.8</td>
</tr>
<tr>
<td>3-6 Mo</td>
<td>17</td>
<td>78.5 / 75</td>
<td>82.9 / 52.9</td>
</tr>
<tr>
<td>6-12 Mo</td>
<td>9</td>
<td>77.8 / 77.8</td>
<td>85.6 / 55.6</td>
</tr>
<tr>
<td>1-6 Y</td>
<td>27</td>
<td>85.7 / 77.9</td>
<td>84.5 / 48.1</td>
</tr>
<tr>
<td>6-10 Y</td>
<td>17</td>
<td>88.2 / 82.4</td>
<td>88.8 / 58.8</td>
</tr>
<tr>
<td>10-18 Y</td>
<td>4</td>
<td>100 / 75</td>
<td>95 / 50</td>
</tr>
</tbody>
</table>

1 and 3 year patient and graft survival were not statistically different between donors age < 1 and age > 1. Technical complications potentially related to younger donor age were seen only in 4 (9.5%) patients (ischemic injury in 1, bowel perforation in 1, and graft thrombosis in 2). All donors in these cases were less than 3 months old (5, 5, 45, and 68 days, respectively).

CONCLUSION: The transplantation from carefully selected pediatric intestinal donor under age 1 has acceptable outcomes. Technical complications may be more frequent in the cohort of donors < 3 months and close follow-up will be required for guiding diagnosis and management to allow for acceptable outcomes.

Abstract# 116 COMPARISON OF HISTIDINE-TRYPTOPHAN-KETOGLOMATRATE (HTK) AND UNIVERSITY OF WISCONSIN (UW) SOLUTIONS IN BOWEL TRANSPLANTATION. Richard S. Mangu,4 Rodrigo M. Villan,4 A. Joseph Tector,3 Sam Popa,2 Jonathan A. Fridell.1 Transplant Division, Department of Surgery, Indiana University, School of Medicine, Indianapolis, IN, USA; 2Indiana Organ Procurement Organization, Indianapolis, IN, USA.

PURPOSE: Our center has previously demonstrated that organs preserved in histidine-tryptophan-ketoglutarate (HTK) and University of Wisconsin (UW) solutions have similar clinical outcomes in kidney, pancreas, and liver transplantation. This study compares these two preservation solutions in intestinal transplantation.

METHOD: We reviewed the records of all adult and pediatric intestinal graft recipients, transplanted as both isolated intestinal and multivisceral grafts. Organ procurement and transplantation were performed according to standard techniques. Intestinal graft function was evaluated by frequent magnification endoscopy and biopsy, episodes of rejection, tolerance to enteral feedings, and graft survival. Transplants were performed between 2003 and 2007 and there were no exclusions.

RESULTS: Intestinal grafts preserved in HTK (n=29) and UW (n=22) did not differ in initial or late endoscopic appearance, risk of rejection, tolerance to feeding or one-year graft survival.

CONCLUSION: HTK and UW have previously been shown to be clinically equivalent in kidney, pancreas, and liver transplantation. This study demonstrates equivalence between the solutions in both immediate function and long-term survival in small bowel transplantation.

Abstract# 117 PANCREAS DONORS: UNDERUTILIZATION OR POTENTIAL OVERESTIMATION? Carl-Ludwig Fischer-Fröhlich,1 Werner Lauchter,2 Wolfgang Steurer.3 Region Baden-Württemberg, Deutsche Stiftung Organ Transplantation, Stuttgart, Germany; 1Dept. of General-, Visceral- and Transplantation Surgery, University Hospital Tuebingen, Tuebingen, Germany.

PURPOSE: Today pancreas transplantation is a therapeutic option for type 1 diabetic patients with secondary complications. While expanded donor criteria were discussed some pancreata suitable for transplantation could not be allocated. Is the donor potential not utilized or overestimated? Pancreas donors were retrospectively reviewed according to the judgement of the retrieving surgeon at donor operation.

METHOD: In 501 consecutive potential pancreatic donors (1992-2005) utilization of the graft was reviewed according to the assessment of the retrieving surgeon. Suitable pancreata were offered and allocated via Eurotransplant.

RESULTS: 156 of 501 pancreata were judged suitable for transplantation (31%): 89 grafts were transplanted either as whole pancreas (79) or after islet isolation (10), 30 grafts were used for islet isolation but not transplanted finally and 37 pancreata could not be allocated. Reasons for judging pancreata as unsuitable for transplantation were pancreatitis or confirmed diabetes (n=123), lipomatosis (n=79), advanced age (n=51), trauma (n=32), unstable donor or pancreas edema (n=41) and other reasons (n=19).

CONCLUSION: The donor potential for pancreata suitable for transplantation is limited. Pre-existing damage does not allow to procure the pancreas in every donor. Still several pancreas grafts are finally not used for various reasons despite the increasing organ shortage.

Abstract# 118 PANCREATIC TRANSPLANTATION USING EXTENDED CRITERIA DONORS. Rajinder P. Singh, Jeffrey Rogers, Alan Farney, Philip S. Moore, Erica L. Hartmann, Amber Reeves-Daniel, Patricia L. Adams, Michael Gauthreaux, Robert J. Stratta. General Surgery and Nephrology, Wake Forest University Baptist Medical Center, Winston-Salem, NC, USA.

PURPOSE: Analyze outcomes of extended (EX) criteria donors in simultaneous kidney-pancreas transplantation (SKPT).

METHOD: A single center retrospective experience, comparing outcomes of SKPTs from EX donors (aged <10 yrs, 245 yrs, or donation after cardiac death [DCD]) with conventional (CONV) donors from 02/02 thru 4/07. All patients underwent SKPT with enteric drainage and received either RATG or alitinumab induction with FK, MMF, and steroids.

RESULTS: The 79 SKPTs included 19 (24%) from EX donors [12 donors aged< 45 (mean 50.2 yrs), 3 pediatric donors <10 (youngest age 7, 28 kg), and 4 DCD donors]. The remaining 60 SKPTs from CONV donors. All but one of the older EX pancreas donors were female, and 9 experienced cerebrovascular brain death. DCD donors received extracorporeal support. Mean recipient age and pancreas cold ischemia times did not differ between groups, but mean donor age was higher in EX donors (38 vs 25 yrs in CONV donors, p<0.05). No other differences between groups were noted. With a mean follow-up of 27 months, pt survival was 95%, kidney graft survival 89%, and pancreas graft survival 84% in the EX group donor. The corresponding figures for the CONV donor group were 93%, 88%, and 80% (all p<NS), respectively, with a mean follow-up of 30 months. There were no differences in the incidences of delayed kidney graft function (in each group), early pancreas graft loss due to thrombosis (5% EX vs 8% CONV donors), acute rejection (16% EX vs 18% CONV donors), surgical complications, or infection between groups. Also, no differences were seen in 1 year mean serum creatinine (1.4 mg/dl in each group), calculated MDRD GFR (57±16 vs 54±15, 1.6-2.0).
Abstract# 119
REGRESSION ANALYSIS OF PANCREAS ALLOGRAFT SURVIVAL AT A SINGLE CENTER. Richard S. Mangus, John A. Powelson, Elaine Mohler, Jonathan A. Fridell. Transplant Division, Department of Surgery, Indiana University, School of Medicine, Indianapolis, IN, USA.

PURPOSE: Pancreas allografts have their highest risk of graft failure in the perioperative period. Predictors of pancreas graft failure have not been conclusively determined. This study uses a retrospective review of all pancreas transplants performed over 4-years’ time frame to construct a logistic regression model to predict pancreas graft survival.

METHOD: The records of all pancreas transplants performed between 2003 and 2006 at Indiana University hospital were reviewed. Recipient and transplant information were extracted from the transplant center registry. Donor data were reviewed from the records of the on-site organ procurement coordinator. Transplants included in the analysis were simultaneous kidney and pancreas transplant, pancreas transplant alone, or pancreas after kidney transplant. A direct entry method was used. Minimum follow up was six months.

RESULTS: There were 179 pancreas transplants included in the analysis. One-year graft and patient survival were 89.4% and 97.5%. Graft loss within 7 days of transplant was 3.9%. Factors found to significantly increase post-transplant graft survival included: 1) Recipient age greater than 50 years (p=0.08), 2) lower donor peak serum blood glucose level (p=0.03), and 3) lower donor days in the hospital prior to organ procurement (p=0.02).

CONCLUSION: Peak serum blood glucose level and total hospital days are two donor factors which impact on risk of pancreas graft loss post-transplant. Older pancreas transplant recipients have a lower risk of graft loss when compared to younger recipients.

Poster Session

Abstract# 120
A SINGLE CENTER EXPERIENCE WITH DONATION AFTER CARDIAC DEATH DONORS. Rajinder P. Singh, Alan Farney, Michael J. Hines, Philip S. Moore, Jeffrey Rogers, Erica L. Hartmann, Michael D. Gautreau, Samy L. Iskandar, Patricia L. Adams, Robert J. Stratta. General Surgery, Nephrology & Pathology, Wake Forest University Baptist Medical Center, Winston-Salem, NC, USA.

PURPOSE: Donation after cardiac death (DCD) donors offer an option to increase donor pool for either kidney (KT) or simultaneous kidney-pancreas transplantation (SKPT). METHOD: From 4/1/03 to 5/1/07, we performed 40 KT’s and 4 SKPT’s from DCD donors at our center. Kidneys were placed on pulsatile perfusion (PP) before transplantation. Extracorporeal support (ES) after cardiac arrest was used in all SKPT’s.

RESULTS: Mean donor age and terminal serum creatinine (SCR) were 48.4 ± 14.8 years and 1.0 mg/dl, respectively. Patient (p) demographics were: mean p age 51 years; 48% females, 61% African Americans and 14% retransplants. KIT included 32 (80%) from standard criteria donors (SCD) and 8 (20%) from extended criteria donors (ECD). In the SKPT group, pt and graft survival (GS) rates were 100% and no DGF was seen. In the KT group, pt and kidney GS rates were 95% and 89%, respectively, after a mean follow-up of 16 months. Mean 1 yr SCR and GFR values were 1.8 mg/dl and 48 ml/min, respectively. Comparison of 40 DKT’s with 261 concurrent donation after brain death (DBD) KTs revealed no differences in pt demographics except for fewer ECDs (20% DCVs vs 41% DBD, p=0.01), fewer 0-antigen mismatches (10% DCVS vs 20% DBD, p=0.16) and more PP (100% DCV vs 40% DBD, p=0.0001) in the DCD group. No differences were seen in pt or GS, readmissions, reoperations, infections, or 1 yr kidney function.

The incidences of DGF (55% DCVS vs 20% DBD, p=0.0001), acute rejection (20% DCVS vs 9% DBD, p=0.039) and initial length of stay (mean 10.3 DCD vs 8.0 DBD days, p=0.027) were higher in DCD group. However, in DCD kidneys the 1 yr SCR was higher in DGF pts compared to non-DGF pts (2.3 vs 1.6 mg/dl, p=0.0001); this difference was not seen in DCD pts (1.9 vs 1.6 mg/dl, p=ns). Also, DGF was less of a risk factor for graft loss in DCD KTs (8% DCVS vs 34% DBD, p=0.06).

CONCLUSION: Despite a higher incidence of DGF and greater initial resource utilization, outcomes of DCD are comparable to DBD donor KTs.

Abstract# 121
EXPANDING THE DONOR POOL: DCD EVALUATION AND FIRST PERSON FROM A PATIENT ON BIPAP. Wanda H. Jones,1 Melissa Friedman.21 Clinical, CAOP, LA, CA, USA; 2Clinical, CAOP, LA, CA, USA.

PURPOSE: A 50-year old male with pneumonia was admitted to the hospital. The patient complained of cough and SOB for over 48 hours. Past medical history included a C-4 cervical fracture with resulting quadriplegia and recurrent pneumonia treated with therapeutic bronchoscopy. Patient was admitted to the sub-acute care unit and placed on Bipap.

METHOD: It is unusual for OPOs to evaluate for DCD a patient who is alert and talking. However, given the patient’s declining respiratory status and at the request of the patient; a procurement transplant coordinator (PTC) was sent onsite to evaluate the patient and to discuss the potential donation options.

Based on the clinical findings and the likelihood of cardiac arrest within 60 minutes, the PTC partnered with the attending physician and spoke to the patient. Confirming that the patient did not wish to be maintained on Bipap, the PTC explained DCD, specifically referencing what organs and tissues were suitable for transplantation. The patient verbalized his decision to become a DCD donor, and verbal consent was obtained from the patient, with his brother as witness.

RESULTS: The patient’s respiratory status continued to decline- an ABG resulted in PO2 of 44% and he began to show increasing signs of respiratory distress. The pulmonologist suggested bronchoscopy to clear secretions, but voiced concerns that the patient would not survive the procedure. The PTC and the pulmonologist discussed various options, with the elective intubation being the best suggestion to improve oxygenation and to support the patient’s wish to become an organ donor. The pulmonologist presented this option to the patient; he consented and the patient was intubated. Extubation occurred in the OR. There were 20 minutes of warm ischemic time. Unfortunately the biopsies obtained in the OR showed that the kidneys were unsuitable for transplant, however the patient became a tissue donor.

CONCLUSION: Generally patients that are not intubated are not considered for organ donation. This case study demonstrates how DCD donation is a viable option for patients who have decided to be withdrawn from life support.

Abstract# 122

PURPOSE: The objective of the present study was to analyze liver mitochondrial function in patients submitted to orthotopic transplantation with the liver of a dead donor by the Piggyback technique.

METHOD: From February 2005 to May 2007, eight (8) patients with FAP, males (N=5) ranging in age from 34 to 41 years , with MELD ranging from 24 to 49, were submitted to orthotopic transplantation of a liver from a dead donor by the Piggyback method. Immediately before the beginning of recipient hepatectomy (patient with FAP) a biopsy was obtained for analysis of mitochondrial function (FAP Group). The control group consisted of 15 patients submitted to hepatic segmentectomies for the treatment of tumors of the liver. The mitochondrial respiration was determined on the basis of oxygen consumption by energized mitochondria using a polarographic method. The procedure was monitored with an oxigraph equipped with a Clark-type electrode (IFSC-USP) which determined the rates of state 3 and 4 mitochondrial respiration, as well as the respiratory control ratio (RCR). The membrane potential of the mitochondria was determined spectrophotometrically (SLM-Aminco fluorescence spectrophotometer) at 495 and 586 nm wavelength.Data were analyzed statistically by the Mann-Whitney test, with the level of significance set at 5%.

RESULTS: State 3 and 4 values, RCR and membrane potential were 474± 8 x 28 ± 10 norm/mmprot. mit. (p<0.05), 14 ± 3 x 17 ± 7 norm/mm prot.mit. (p<0.05), 3.6 ± 5 x 1.7 ± 0.7 (p<0.05) and 135 ± 5 ± 3 x 135 ± 5 mV (p<0.05) for control and FAP patients, respectively.

CONCLUSION: There was a significant reduction of ADP-activated mitochondrial respiration with a consequent significant reduction of the respiratory control ratio of hepatic mitochondria, demonstrating a decreased energy status of the liver in FAP which may be related to an alteration of liver oxidase stress.

Abstract# 123

PURPOSE: Evaluate the deceased donor characteristics in Delayed Graft Function (DGF) and its impact on renal transplantation outcome in Saudi Arabia.

METHOD: We retrospectively reviewed the data of 210 deceased donors for 398 renal transplant recipients during the year 2003 to 2006 from the Saudi Center for Organ Transplantation National Registry. Furthermore, this group was subdivided to DGF and the Non Delayed Graft Function (NDGF) donor/recipient group for analysis of different variables such as age, cause of brain death, etc., cold ischemia time (CIT) for donor characteristics, while the recipient data includes time from transplant to discharge from hospital, incidence of DGF, episodes of acute rejection, graft loss and patient survival.
Abstract# 124
OUTCOME OF LIVING KIDNEY TRANSPLANTATION USING LAPARoscopic NECPHRECTOMY IN SAUDI ARABIA. Issa A. Kawalit,1 Husain A. Hayati,2 Adnan Sadeq,3 Sameh A. Mourad,1 Saif ElDeen S. Al-Horani,1 Hani Haider,2 Said A. Yusuf,2 Khadija A. Abudayya.4
1Nephrology, Saad Specialist Hospital, Al-Khobar, Saudi Arabia; 2Surgery, Saad Specialist Hospital, Al-Khobar, Saudi Arabia; 3Transplant Coordinator, Saad Specialist Hospital, Al-Khobar, Saudi Arabia.

PURPOSE: Laparoscopic living related donor nephrectomy is becoming increasingly popular as it has been shown to minimize donor morbidity, length of hospital stay and length of time to return to work. Initial reports suggested that kidneys procured laparoscopically had higher rates of delayed graft function and uretic complications but with increasing experience, these complications have become less common.

METHOD: Retrospective chart review of all the patients who underwent living donor kidney transplant using kidneys procured laparoscopically at Saad Specialist Hospital (Saudi Arabia) was performed. From the initiation of the kidney Transplant program at our institute in June 2005 until February 2007, we performed 32 living Related donor kidney transplants. Donor left kidney was used in all except Seven patients. Mean duration of warm ischemia time was 150 seconds.

RESULTS: The mean age of the recipients was between 11-59 Years with an average of 34.56 ± 15 years, including 4 pediatric recipients (age < 18 years). There were 21 males and 12 females. All recipients are still alive with functioning grafts. One recipient developed urine leak, two ATN with delay graft function, one surgical wound hematoma and two lymphocele. Patient and graft survival rates at one year were 100% and 100%, respectively. Mean length of hospital stay was 6 ± 2 days for recipient and 3 ± 1 for donors.

CONCLUSION: Recipient outcome is not compromised and excellent results can be achieved with living donor kidney transplantation using laparoscopically procured kidneys.

Abstract# 125
INSIGHTS INTO THE MOLECULAR MECHANISMS BEHIND THE TACROLIMUS-MEDIATED ISCHEMIC PROTECTION. Mihai Oltean,1 Liliana Haversen,2 Michael Olavsson.1 The Transplant Institute, Sahlgrenska University Hospital, Gothenburg, Sweden; 2Wallenberg Laboratory, Goeteborg University, Gothenburg, Sweden.

PURPOSE: Ischemia/reperfusion initiates many signaling pathways including Mitogen-Activated Protein Kinases (MAPKs) and Stress Activated Protein Kinases (SAPKs) and the activation of various transcription factors. We previously showed improved morphology, Hsp72 induction, less inflammation and blunted NF-xB activation in the intestinal grafts from FK506-pretreated donors. We investigated if the NF-xB inhibition was due to decreased phosphorylation of IkB-α or inhibited proteasomal degradation of IkB. We also studied if the differences between the tacrolimus-pretreated and control grafts could be also due to modulation of MAPKs and SAPKs.

METHOD: SD donor rats received FK506 (controls-saline) iv. 6h prior intestinal graft harvest. Grafts were preserved for 3h, then transplanted. Intestinal grafts were sampled at 20 mins, 6h, 12h and 24h postreperfusion (postR). Using Western blot we analysed the phosphorylation and degradation of IkBα, two critical and prerequisite steps for the activation of NF-xB. We also studied MAPKs and JNK1/SAPK activation (phosphorylation).

RESULTS: NF-xB activation peaked at 20 mins and 12h postR. Less phosphorylated IkBα was found in pre-treated kidneys at 12h but the total IkBα was similar between groups at both time-points. Between these points phosphorylated IkBα transiently decreased. At 20 mins postR, both phosphorylated MAPKs and JNK were low or absent while at later time-points both were similarly increased in both groups.

CONCLUSION: FK506 pretreatment differentially affects IkBα phosphorylation, particularly when used late after reperfusion. Hsp upregulation did not protect IkBα from ubiquitination but it is possible that increased Hsp72 could have masked the phosphorylation sites of IkBα, prevent its ultimate dissociation from the NF-xB and its early activation postR. The differential NF-xB activation is independent of MAPK/SAPK signalling and the pretreatment did not influence either p38 or JNK activation.

Abstract# 126
IMPACT OF DONOR KIDNEY RECOVERY METHOD ON LYMPHATIC COMPLICATIONS IN KIDNEY TRANSPLANTATION. Reza F. Saidi, Jason A. Wertheim, Dicken S.C. Ko, Nahel Elias, Hertl Martin, Francis L. Delmonico, A. Benedikt Cosimi, Tatsuo Kawai. Transplant Center, Abdominal Transplant Surgery, Massachusetts General Hospital, Boston, MA, USA.

PURPOSE: Prolonged lymphatic drainage and lymphocele are undesirable complications of kidney transplantation. We evaluate the impact of kidney recovery methods (laparoscopic living donor nephrectomy vs deceased donor) on the lymphatic complications.

METHOD: Incidence of lymphatic complications were retrospectively analyzed in 62 kidney transplant recipients from deceased donor (DD group) vs. 61 recipients of laparoscopically procured kidneys from living donors (LP group). A drain was placed in the retroperitoneal space in all transplant recipients. The drain was maintained until the drain output became less than 30 cc/day with no evidence of fluid collection by ultrasound examination.

RESULTS: There was no statistical difference in the patient demographics (age, gender, original disease and procedure time) between DD and LP groups. The incidence of lymphocele which required therapeutic interventions was 3.2% in both groups. However, the average length of drain placement was significantly longer in LP group, 8.6 days (5-16 days, 95% confidence interval) compared to 5.4 days (5-10 days, 95% confidence interval) in DD group (p<0.05).

CONCLUSION: The origin of lymphatic leakage after kidney transplantation has been controversial and it can be either from severed lymphatic channels around the recipient iliac vessels or the hilum of the kidney graft. In DD group, more meticulous ligation of the lymphatics was performed in the back table, compared to LP group where the lymphatics were severed by the ultrasound dissector. These observations may indicate that lymphatic leakage originated from the kidney graft rather than lymphatics in the recipient iliac fossa. More meticulous ligation of severed lymphatics of the kidney graft, especially in the laparoscopically procured kidneys, may decrease the lymphatic complications in the recipient after kidney transplantation.
METHOD: Retrospective analysis of the follow-up of 470 kidney donors in our hospital from 1977 to 1997. The minimum time of post-donation follow-up was 10 years and the mean time was 17.4 years. The donors files were evaluated looking for alterations of blood pressure, serum creatinine, and proteinuria levels and the presence of risk factors.

RESULTS: The number of cases with ESRD among living kidney donors was 5 (1.1%), the incidence was 610 pmp/yr. The mean age at donation was 37.4 years and they started dialysis in a mean time of 15.2 years. One donor 54 years old presented unilateral kidney function decreased before donation and 25 years later developed uremia. The second, 37 years old, obese and a smoker, developed nephrotic proteinuria after five years post-donation (renal biopsy: FSGS) and uremia after ten years. The other three, with ages of 22, 32 and 42 years developed hypertension followed by uremia seven, thirteen and twenty-one years after nephrectomy. These donors did not carry out the annual regular follow-up recommended and returned with ESRD. The expected incidence for development of ESRD according to incidence in the general population (120 pmp/yr) would have been one donor but we found five. However, this correlation was not adjusted for age.

CONCLUSION: In this study the incidence of ESRD in kidney donors was higher than expected in the general population in the State. These results demonstrate the need for rigorous evaluation of the potential donor without liberalizing the criteria of exclusion, as well as an adequate donor follow up and the need for a donor national registry.

Abstract# 129

EPIDEMIOLOGIC PROFILE OF ORGAN DONORS AT RIO DE JANEIRO STATE. Andre G. Albuquerque, Priscila Paura, Sandro Montezano, Rafael R. Costa, Jose Eduardo S. Machado. Rio Transplante, Transplant State Center; Rio de Janeiro, Brazil.

PURPOSE: The transplants are today an important therapeutic resource used in patients with organ insufficiency in one or more organs, making possible the improvement of the quality and life expectancy. The Rio Transplant (CNCDO-RJ) is a organ-procurement organization and is responsible to distribute the organs to the listed receptors inside its state. To define epidemiologic profile of the organs donors of the State of Rio de Janeiro in the period of January 2003 to June 2007.

METHOD: Data was collected through register books of brain death Rio Transplante. For all calculations, the Q square test was used to contrast both groups and when applicable, T student test (Epi Info 2000, version 1.0).

RESULTS: In this period, 378 organs were obtained, being 195 (51.6%) male. The donors had been distributed in age range from 1 to 10 years n=28 (7.5%), 11 to 19 years n=41 (10.8%), 20 to 60 years n=272 (71.8%) and above 60 years n=370 (9.8%). The main injury that culminated in brain death was stroke n=229 (60.56%) followed by the majority of organs donors met in public institution n=286 (76.0%). A total of 326 lives, 616 kidneys, 19 lungen, 32 pancreas and 15 hearts had been captured. Blood group O n=200 (53.0%), A n=127 (33.8%), B n=39 (10,3%) and AB n=10(2.8%).

CONCLUSION: The analysis of the data shows the great concentration of donors in the public hospital of the State of Rio de Janeiro disclosing the value of these institutions in the process of organs donation. Adult is the predominant age with stroke and head injuries by automobile accidents. The Rio Transplant has made investments in the formation of health professionals who act in emergencies and ICU of these hospitals, also giving periodic courses for development of procurement coordinators of transplant. The donation of liver and kidney predominates because these organs shows more resistance to the hemodynamic instability of the donors than other organs. In all potential donors an evaluation of the thresholds of stability is necessary, which is difficult in our crowded emergencies rooms.

Abstract# 130

Abstract Withdrawn by Author

Abstract# 131

LIMITATIONS IN ORGAN EXCHANGE IN EUROPE. Dariusz J. Patrzalek, Zbigniew Sycz, Tadeusz Perkowski, Dariusz A. Janczak. Dept. of Vascular, General and Transplant Surgery, Medical University of Wroclaw, Wroclaw, Lower Silesia, Poland; Dept. of Anesthesiology and Intensive Care, 4th Military Hospital, Wroclaw, Lower Silesia, Poland; Dept. of Anesthesiology and Intensive Care, Regional Hospital WCM Opole, Opole, Opole Region, Poland.

PURPOSE: Among many solutions directed to solve insufficient number of organs for transplantation is exchange between regions and even countries, in cases when available organ cannot be transplanted locally. Such exchange is possible and proved to be efficient in many instances.In Europe cooperation of this kind in well known and effective, especially in the Eurotransplant and France-Swiss agreement models. Despite high donation potential in Central and East Europe, many efforts in enabling organs exchange proved to be only minimally effective. Therefore we gathered the facts, question points and possible solutions in this domain.

METHOD: We revised all attempts directed to make possible organ exchange in this region of Europe made in the last 15 years. We also revised all our own attempts of international cooperation and analysed problems that arise.

RESULTS: The most positive was the period from 1990 till 2004 when certain Czech, Polish and Hungarian centers started organ exchange programs (mostly for liver, hearts and lungs) with Eurotransplant and other national organisations in Europe. Those first attempts were positive but in the last 4 years we observe cessation of this activity. The reasons were:

- development of own extraregional transplant programs in Central Europe
- lack of financial regulations between partners
- negative attitude of national OPO and politicians in Central Europe towards international organ exchange
- some Western Europe OPO become reluctant for such offers.

CONCLUSION: Current data showed that due to lack of international organ exchange an important number of organs, available for transplantation, is wasted. An pan europenan consensus in this matter is urgently needed before we will repeat once more that there is not enough organs to be transplanted.

Abstract# 132


PURPOSE: IRODAT was created in 2001 by Transplant Procurement Management-TPM to collate the representative donation-transplantation activity values around the world. In a few years it has become a powerful tool that allows consulting the values collected and updated by IRODAT reporters, in most cases board members of donation and transplantation national organizations. The aim of this abstract is to show the methodology of managing an international database that is constantly updated and available in the Internet.

METHOD: Each early January, TPM contacts the IRODAT reporters from different countries and requests the preliminary data of the past year donation and transplantation activity. They report on-line in the TPM website by means of a username and password. The information is automatically added and displayed in tables without delay. The information can be always updated, reviewed and corrected by the reporter, who is only allowed to modify his own country data. The reliability of values is guaranteed by including the name and contact details of the reporters so users can contact them if any clarification is required.

The information is compiled in absolute numbers and pmp rates, and displays the organ and tissue donation-transplantation activity from living and cadaveric donors, considering each organ and tissue and the most common combinations.

RESULTS: IRODAT started the annual call in 2001 requesting available previous rates. Nowadays the database shows information since 1984 and from more than 70 countries, which represents more than 40.000 entries.

CONCLUSION: IRODAT provides useful data for medical studies covering a consistent up-to-date global situation on organ and tissue donation. Moreover it helps to increase public awareness, thanks to its easy and free access at www.tpm.org.

Abstract# 133

QUALITY OF CARE PROVIDED TO DONOR FAMILIES IN INTENSIVE CARE BEFORE AND DURING ORGAN DONATION: ATCA 4TH NATIONAL DONOR FAMILY STUDY. Jennifer Gillott, Geoff White. &, Australasian Donor Awareness Programme, Australian Red Cross Blood Service, Sydney, New South Wales, Australia; ‘Centre for Medical, Nursing & Health Sciences Education, Monash University, Melbourne, Victoria, Australia.

PURPOSE: To investigate Australian donor families’ experiences and perceptions of the service provided by intensive care health professionals before and during the organ donation process.

METHOD: A descriptive study with closed and open-ended questions, self-administered and anonymous, was distributed by mail. 193 families of organ donors from 2002 were asked to recall events and experiences from between 16 and 28 months prior to the study.
RESULTS: 131 families responded, representing a 68% response rate. Over 90% of the respondents were at the hospital from before death of their relative, through confirmation of death and the explanation of the organ donation process. 97% of families regarded their treatment by hospital staff as considerate and sensitive. More than 90% understood the explanation of brain death, and had enough opportunities to ask questions about brain death. 90% of families felt they were approached about organ donation in a sensitive manner, had enough time to ask questions and to make a decision. 78% were offered in-hospital support from a social worker or bereavement counselor, and 88% met the organ donor coordinator.

CONCLUSION: More than 90% of families involved in the organ donation process recalled that they were treated with care and consideration in intensive care. Qualitative data highlighted the importance of sensitive and consistent communication from intensive care staff, respectful of both family and donor, and the critical importance of providing multiple opportunities for families to develop and check their understanding of the death of their relative and the options available to them.

Abstract@ 134
PATIENTS’ PERCEPTIONS TOWARDS SHIFTING FROM DIALYSIS TO RENAL TRANSPLANT AS RENAL REPLACEMENT THERAPY: A PILOT STUDY. Sail ElDdeen S. Al-Horani. Surgery, Saad Specialist Hospital, Al Khobar, Saudi Arabia.

PURPOSE: There has been rapid growth in end stage renal disease (ESRD) that make the need of organs for transplant continues to be grater than the number donated. Since ESRD therapies consist of renal transplantation, peritoneal dialysis and hemodialysis, it is very important at the time of discussion about renal replacement option to be clear to the patient to play the role as a main partner for the decision that he/she make. The pilot study was conducted among those patients who have received either peritoneal dialysis or hemodialysis in the past and ended by performed the renal transplant.

Purpose: The purposes of this study were to determine and explore the patients’ main perception that shifted him/her from Dialysis to renal transplant as a renal replacement therapy.

Method: This pilot study is an exploratory, descriptive study using phenomenological approach.

Results: Four themes were derived: (1) to be away from dialysis, dialysis pain and prolong time waist in the dialysis centers, (2) to enjoy our life, work, travel, bitter quality of life, (3) renal transplant was not one of the options that offered to us when we start dialysis, and (4) the need for child bearing in the future.

Conclusion: Majority of participants start working to undergo for renal transplant just to be away from the dialysis session its pain and the inconvenient time consumed in the hospital at dialysis centers that interrupt their quality of life includes the need of child bearing for some of them. No participant remembered actually making a choice regarding their renal transplant therapies, their physicians made that choice for them.

Abstract@ 135
IMPROVING CONSENT VIA PATIENT SUPPORT GROUPS. Yaser M. Kattoha. Dialysis Unit, King Faisal Specialist Hospital & Research Center, Jeddah, Saudi Arabia.

Purpose: Consent for organ donation is a significant challenge in Saudi Arabia with families reluctant to agree to cadaveric or living donation, preferring to obtain kidneys abroad. The rate of Saudis leaving the country to obtain organs has increased significantly and in 2006, 646 unrelated living kidney transplants were performed outside the Kingdom while only 220 living related and 151 cadaveric transplants were performed inside the country.

Method: A qualitative approach was used, consisting of personal interviews to survey potential donors and families before and after attending a support group. Many factors influence decision making, including fear of effects of donation on the living donor, and lack of understanding about the process. To address this, our program provides an avenue for mutual support and exchange of information between those closest to the problem. Scheduling former donors and their families to speak at support groups provides an opportunity for patients and family members to learn complex and challenging information regarding the donation process through the first hand experiences of other Saudis who have gone through the process.

Results: By allowing potential donors & families the opportunity to address their concerns on an informal basis in a support group, we are improving perceptions and practice regarding organ donation.

Conclusion: While the program is still relatively new, notable progress has been made and combined with a coordinated multidisciplinary approach committed to promoting living organ donation within the Kingdom, has seen positive results with more families appearing receptive to the possibility of living donation after meeting with prior donors and their families in these patient support groups.


Abstract@ 136
DOES FAMILY DISAGREEMENT AFFECT DONATION DECISIONS BY NEXT-OF-KIN? James R. Rodrigue,1 Danielle L. Cornell,2 Richard J. Howard.1 1The Transplant Center, Beth Israel Deaconess Medical Center, Boston, MA, USA; 2LifeQuest Organ Recovery Services, Gainesville, FL, USA; 3Department of Surgery, University of Florida, Gainesville, FL, USA.

Purpose: To examine how family interactions at the time of donation request influence the final donation decision.

Method: Next-of-kin of donor-eligible individuals (147 donors, 138 non-donors) at one OPO participated in a semi-structured telephone interview. As part of the study, participants answered questions about the presence and influence of others in the decision-making process.

Results: When others were actively involved in the donation decision (69%), there was disagreement about the donation decision in 34% of cases. Disagreements were resolved in many different ways (discussed until everyone agreed on decision, 33%; legal next-of-kin asserted final authority, 23%; followed another family member’s strong opinion, 24%; resolved by majority vote, 9%; unresolved conflict but followed deceased’s wishes, 6%; allowed someone else to make final decision, 5%). Compared to those who were initially in agreement, families not in agreement took longer to make a decision ($\chi^2=25.7, P<0.0001$), were less likely to donate (61% vs. 29%, $\chi^2=18.3, P<0.0001$), and were less likely to make the same decision in the future (89% vs. 65%, $\chi^2=28.1, P<0.0001$). When the deceased’s donation intentions were unknown, families in agreement were more likely to donate than those not in agreement (OR=3.34, CI=2.0, 6.1), even when controlling for known donation decision predictors (donor age, race, donation beliefs, requestor characteristics, request timing).

Conclusion: Family disagreement can be expected in about one-third of donation approaches and to most likely contribute to donation refusal when the deceased’s donation intention is unknown. Recognizing and assessing the nature of the disagreement and providing counseling to resolve conflict (regardless of donation decision) may attenuate family stress.

Abstract@ 137
DONATION SAVES LIVES FLAG CEREMONIES. Patty Sills,1 Holly A. Bair,1 Randy J. Jancyzk,2 Elizabeth Gates,3 1Trauma Services, Beaumont Hospital, Royal Oak, MI, USA; 2Hospital Development, Gift of Life Michigan, Ann Arbor, MI, USA.

Purpose: An effort to honor patients and families who make the generous decisions of organ donation as well as provide public awareness regarding organ donation, our hospital hosts a memorial ceremony for donor families by raising the Donation Saves Lives Flag after a donation.

Method: The ceremony consists of an introduction of the family, followed by words from Medical Administration and spiritual care. If letters from the recipients are available, the family has the opportunity to share them. The security staff then raises the Donation Saves Lives Flag, as an employee provides a song reflecting the donors’ legacy. A moment of silence follows, and balloons are released.

The flagpoles are located at a setting where staff can view the waving of the flag for three days. A second Donation Saves Liver flag is raised simultaneously on a flagpole that can be readily observed by the community.

Results: All families who attended have expressed their appreciation for the ceremony. Some families initially stated that they felt it would be difficult to return to the hospital, however, after the ceremony they stated that they were pleased to see the hospital staff that cared for their loved one and were deeply touched by the flag raising ceremony. Hospital administration and staff feedback includes staff requesting to be invited to more ceremonies and statements such as “this gives us a more positive closure with these families”.

Conclusion: Our hospital has had 16 organ donors in the first 6 months of 2007, demonstrating an increase over the previous 2006 total of 14 organ donors for the year. Although this cannot be specifically attributed to the flag ceremonies, the culture of support for donation has grown throughout the hospital and community allowing increased opportunities to provide awareness as well as education on evidenced based practices.
Abstract# 138

FAMILY, PATIENT AND ORGANS AND TISSUES DONATION: WHO DECIDES IT? Janine Schirmer,1 Barrita de Aguirar Roza.2 1Nursing Department, Federal University of Sao Paulo, Sao Paulo, Brazil; 2Organ Transplantation Program - Quality and Patient Care Office, Albert Einstein Hospital, Sao Paulo, Brazil.

PURPOSE: To identify who is responsible by the decision of donating organs and tissues of a deceased donor. The organ donation and transplantation has been enclosed among the subjects that had stimulated bioethics, for involving the questions of reciprocity, terminality of the life, autonomy, among others moral values and virtues. In Brazil, the Law nº 10,211/2001 that deals with the organ and tissue donation and transplantation for therapeutic goals defines that: “the withdrawal of tissues, organs and parts of the body of deceased people for transplantation or another therapeutic purpose, will depend on the authorization of the spouse or relative, full legal age, in the succession line, straight or collateral, until second degree, in a document signed by two witnesses to the verification of the death.”

METHOD: Transversal Survey, carried out with 69 family members of deceased donors, identified at the Organ Procurement Organization (OPO) from Federal University of Sao Paulo (UNIFESP).

RESULTS: The decision making of the family regarding to the request for donation was carried out after they have time enough to think about it (81.8%). Such decision was taken by the families (43.5%), the families and the donors (76.8%) or family with previous knowledge of the living will (63.2%) and only of the donor (11.6%). There was familiar conflict, after the decision in about 7.2% of the donations; 63.2% of the families knew the living will of their relatives and that the living will helped in the decision (90.5%).

CONCLUSION: The donation process is lived by all the family, it doesn’t matter who will sign the consent form. And sometimes, is exactly the discussion of the conflict that will make possible the family decision. The donor’s autonomy, separately, revealed a weak pointer, as who decides the donation is the family. Therefore, legitimizing the alteration made in the Law nº 9.434/97 that gives to family members the responsibility for the decision on the organs and tissues donation of their deceased relatives.

Abstract# 139

EFFECTIVE DONATION AT PRIVATE AND PUBLIC HOSPITALS. Andre G. Albuquerque, Sandro Montezano, Priscilla Paua. Rio Transplante, Transplantation Unit, Rio de Janeiro, Brazil.

PURPOSE: The potential supply of donor organs isn’t adequate to meet the society needs. The number of patients dying waiting an organ increases every year because the length of stay on waiting list become longer as the population become older and the success of transplant become evident. The transplantation proceedings are very well legislated in Brazil and, at Rio de Janeiro (RJ), most of them done at public hospitals. We have 17 municipal hospitals, 7 state hospital and 3 federal hospital, 10 others (university and military) counting more than 1000 public ICU and emergency room(E.R.) beds. On the other hand, although there are more than 100 private hospital, they amount to fewer ICU and ER beds. The processes of referral to organ-procurement organizations and the request of donations is the same at public and private hospitals. We compared the number of notification with the number of donation in both groups of hospitals.

METHOD: We direct consulted our register books of brain death for demographic data taking into account gender, age and cause of death during the period 2002 to 2007 at Rio Transplante. For all calculations, the Q square test was used to contrast both groups and when applicable, T student test (Epi Info 2000, version 1.0).

RESULTS: We identified a total of 1896 brain death potential organ donors at public and 416 at private hospitals during this period of 4,5 years. The annual number of notification of brain death isn’t growing at public hospital - 389 patients/year - but the overall conversion rate to donation from notification of brain death isn’t growing at public hospital - 389 patients/year neither at private hospital - 97 patients/year - but the overall conversion rate to donation from notification of brain death isn’t growing at public hospital - 389 patients/year neither at private hospital - 97 patients/year - but the overall conversion rate to donation from notification of brain death isn’t growing at public hospital - 389 patients/year neither at private hospital - 97 patients/year.

CONCLUSION: The availability of an alternative root for kidney transplantation abroad resulted in a shorter wait for transplant with reduced mortality rate on the waiting list. The waiting time for patients who stayed in Israel for transplant has been shortened.

Abstract# 140

Abstract Withdrawn by Author

Abstract# 141

TRANSPLANT TOURISM: EFFECT ON KIDNEY TRANSPLANTATION CANDIDATE LIST WAITING TIME AND MORTALITY RATE. Eytan Mor,1 Rachel Michowiz,2 Zehava Romano.2 1Department of Transplantation, Rabin Medical Center, Beilinson Hospital, Petah-Tiqwa; Israel; 2Israel Transplant Center; Tel-Aviv; Israel.

PURPOSE: In recent years there is a growing number of patients who underwent kidney transplantation abroad. The patients are reimbursed for hospital charges when they return home. In this study we examined the effect of transplant tourism on waiting time and mortality rate on the list.

METHOD: We reviewed charts of adult patients (> 18 y/o) who were on dialysis and listed for kidney transplantation in 2001-2005. All patients were on dialysis at the time of listing. Patients characteristics including age and waiting time from listing until transplant was recorded. The number of patients listed, transplanted in Israel, transplanted abroad, died after listing or removed from the list for co-morbidity was counted. Recipient age and waiting time were compared between patients transplanted in Israel and abroad.

RESULTS: Of the 675 patients who were listed for transplant 190 patients underwent transplant in Israel, 160 were transplanted abroad, 63 died, 75 were either removed from the list or put on hold and 176 patients remained listed (table). There was no difference in mean age between patients transplanted in Israel (46.8) or abroad (49.8), but patients in the first group waited more time from listing to transplant (522 days vs. 364 days). Over time there was a trend towards a shorter waiting time resulting in reduced mortality rate (table).

CONCLUSION: The availability of an alternative root for kidney transplantation abroad resulted in a shorter wait for transplant with reduced mortality rate on the waiting list. The waiting time for patients who stayed in Israel for transplant has been shortened.

Abstract# 142

ETHICAL CONSIDERATIONS ON KIDNEY TRANSPLANTATION FROM LIVING DONORS. Paolo Bruzzone. Paride Stefanini, University of Rome La Sapienza, Rome, Italy.

PURPOSE: Kidney transplantation from living donors is widely performed all over the world. Living nephrectomy for transplantation has no direct advantages for the donor other than an increased self-esteem, but at least remains an extremely safe procedure, with a worldwide overall mortality of 0.03%.

METHOD: This theoretical risk for the donor seems to be justified by the socioeconomic advantages and increased quality of life of the recipient, especially in selected cases, such as paediatric patients, when living donor kidney transplantation can be performed in a pre-uremic phase, avoiding the psychological and physical stress of dialysis, which in children is not well tolerated and cannot prevent the retarded growth.

RESULTS: Some forms of psychological conditioning are difficult to be recognised in a family setting, while economic dealings may be on purpose concealed even by the donor. According to the Ethical Council of the Transplantation Society, commercialism must be effectively prevented, not only for ethical but also medical reasons. The risks are too high not only for the donors, but also for the recipients, as a consequence of poor donor screening and evaluation with consequent transmission of HIV or other infective agents, as well as inappropriate medical and surgical management of donors and also of recipients, who are often discharged too early.

CONCLUSION: Most public or private insurance companies are considering kidney donation a safe procedure without long-term impairment and therefore do not increase the premium, while recipients’ insurances of course should cover hospital fees for the donors. “Rewarded gifting” or other financial incentives to compensate for the inconvenience and loss of income related to the donation are not advisable, at least in our opinion.

Abstract# 143

PRESUMED CONSENT: THE OPO COORDINATOR’S PERSPECTIVE. Shirley Schlessinger,1 Kevin Stump.2 1Graduate Medical Education, University of Mississippi Medical Center, Jackson, MS, USA; 2Administration, Mississippi Organ Recovery Agency, Jackson, MS, USA.

PURPOSE: Hospitals in the US operate under a required request model, offering all potential donor families the option of organ donation before withdrawal of ventilator support. Some other countries operate under a presumed consent model: solid organs are routinely recovered from brain dead donors unless previous opposition to donation has been registered by the donor. The US transplant community continues to debate the potential benefit of US presumed consent. Organ Recovery Coordinators / Designated Requestors (ORCs) are front-line in the consent for donation process.

METHOD: A Presumed Consent Opinion Survey was distributed electronically via the AOPO list serve to OPO Executive Directors and Directors of Procurement at 59 CMS approved OPO’s in January 2004. Surveys were distributed to requestors in each
METHOD: The aim of this report is to present successful transplantation of cadaveric kidney grafts from 61-year-old female donor with left atrial cardiac myxoma initially appeared as embolic cerebral infaracts, causing suddenly brain death. The kidneys graft recipients were: 51-year-old woman and 57-year-old man with 18-month and 50-month respectively lasting history of a chronic renal failure both treated with long-term hemodialysis programme (15 months and 10 months respectively).

RESULTS: There were no postoperative complications; the transplant function in both kidney recipients has been satisfactory in a follow-up of five years. For the present, apart from single event of acute rejection in male recipient, patients have maintained stable renal function. Routine accessory examinations did not reveal any changes within kidney and other organs. Up to date renal biopsy was not taken. Both recipients are in the special, careful follow-up.

CONCLUSION: Our conclusion is that patients with myxomas should be accepted as donors as long as the risk of dying on the waiting list is higher than the tumor transference risk. Exclusion of these potential donors could lead to a decrease in the donor pool and unnecessarily waste valuable organs.

Abstract# 147
HAND ASSISTED NEPHRECTOMY IN A SUPER OBESE DONOR;
CASE REPORT. Adnan Sadeq, Hani Haider, Hussein Hayati, Haitham Al-Khayat, Yousif Akkash, Hisham Ak-khayat, Anas Zarqa. Surgery, Saad Specialist Hospital, Al-Khobar, Saudi Arabia.

PURPOSE: Shortage of cadaveric donors combined with high incidence of obesity in Saudi Arabia have forced the re-examination of living donor selection to include obese donors who are otherwise healthy. Open nephrectomy in obese donors carries higher risk of surgical complications in the peri-operative period. Even in the era of laparoscopic surgery, obesity is still a challenge due to intra operative technical difficulties. We present a case of a super obese donor who underwent hand assisted donor nephrectomy (HADN).

METHOD: A case report of a 33-year-old super obese donor with body mass index (BMI) of 55 kg/m², who was interested in donating a kidney to his cousin. His history and physical examination were completely normal except for the obesity. The laboratory investigations included normal glucose tolerance test, lipid profile, creatinine clearance, and absence of proteinuria.

RESULTS: Due to the patient’s body habitus, we modified our surgical port sites (Figure). His surgery took a longer period of time (205 minutes) with higher than our average blood loss (250 milliliters) due to presence of retroperitoneal aberrant blood vessels. His postoperative course was uneventful and he was discharged home on postoperative day 4. Six months after surgery, his blood pressure and creatinine level were normal, with no proteinuria. The recipient renal function remained within normal values.

CONCLUSION: Accepting healthy otherwise obese donors can increase the pool of living donation. HADN is feasible in obese donors with modification of surgical port sites and is superior to open nephrectomy with less hospital stay and wound complications. It is also superior to pure laparoscopic nephrectomy in dissection and control of bleeding as obese donors have more retroperitoneal fat and aberrant blood vessel.
The active promotion of organ and tissue donation by faith communities is a topic of interest. Daniela Norba and Guenter Kirste from Isneburg, Hessen, Germany, explore this in their abstract titled "FAITH PERSPECTIVES ON ORGAN AND TISSUE DONATION AND TRANSPLANTATION." They focus on the role of faith communities in promoting organ and tissue donation and transplantation, particularly how those meanings can support people in a variety of ways and circumstances. They note that the majority of faith traditions support donation and transplantation, providing an additional benefit to the law.

**Abstract# 149**

**A FORMULA FOR PROJECTING STATE BUDGETARY IMPACT OF LIVING DONATION TAX BENEFITS.** Amy Olzewszi, Johana Tima. Gift of Life Michigan, Ann Arbor, MI, USA.

**PURPOSE:** Twelve states provide tax benefits (SwTB) for living donors (LD). A review of state agency fiscal analyses of pending legislation (25 states) revealed a gross overestimate of the cost of this tax benefit, often causing bills to not move through committee. This research provides a formula for estimating the budgetary impact of LD tax benefits and is intended to assist organizations with creating testimony in support of these laws.

**METHOD:** To assess fiscal impact, the tax data by year (TY) was requested from revenue departments of SwTB. The two types of LDs who may make a claim were researched. OPTN provides actual LD-organ (donor home state-SwTB). Resident allogeneic bone marrow/peripheral blood stem cell (LD-BM) data were collected from Michigan centers (related) and the National Marrow Donor Program (unrelated). The Michigan LD-BM was calculated in LDs per million (LPM), applied to each SwTB, and added to the LD-organ to produce a total pool of potential LD claimants.

**RESULTS:** LD Estimates: Estimates for Michigan LD-BM showed an average of 15 LPM/year (4 related, 11 unrelated). A projected total of 303 LD-BM in TY2005 for SwTB was added to LD-organ to create a potential pool of LD tax claimants. Avg. Claim: Of the nine SwTB where the laws were effective during TY2004 & 2005, only six revenue departments could provide specific data. The average claim made by a living donor was $1,795/TY (excluding North Dakota due to extraordinary donor travel). In TY2005, 472 claims were filed (42% of the potential LD tax claimants in SwTB).

**CONCLUSION:** Testimony in support of tax benefits for LD can project budgetary impact with this formula:
1) estimate #LD: LD-organ + LD-BM (15 LPM);
2) calculate the 42% of LD who would actually become claimants; and,
3) budget a claim of $1,795/claimant.

In Michigan, the projected impact is $353,517/year as opposed to the fiscal agency estimate of $4,620,000 (LD × $10,000 per claimant). The budgetary impact is significantly lower using realistic estimates.

**Abstract# 150**

**FAITH PERSPECTIVES ON ORGAN AND TISSUE DONATION AND TRANSPLANTATION.** Kimberly Young, Reuven Bulka, Canadian Council for Donation and Transplantation (CCDT), Edmonton, AB, Canada.

**PURPOSE:** The Canadian Council for Donation and Transplantation explored what organ and tissue donation and transplantation means for members of faith traditions, and how those meanings can support people in a variety of ways and circumstances. They discuss how faith communities can promote organ and tissue donation and transplantation.

**METHOD:** A survey of the literature and faith leaders’ perspectives was conducted to understand the role of faith communities in promoting organ and tissue donation and transplantation.

**RESULTS:** The survey revealed that the majority of faith traditions support donation and transplantation. There is an opportunity for faith communities to be more actively involved in promoting organ and tissue donation.

**CONCLUSION:** Faith communities play a significant role in promoting organ and tissue donation, and their involvement can help to overcome individual doubt, a factor which may cost many life-saving organs.

**Abstract# 151**

**ACCESS OF NON RESIDENTS TO TRANSPLANTATION MEDICINE.** Daniela Norba, Guenter Kirste. Deutsche Stiftung Organtransplantation, Deutsche Stiftung Organtransplantation, Neu-Isenburg, Hessen, Germany.

**PURPOSE:** The evaluation of legal problems regarding the access of “Non-resident-patients” to transplantation medicine and their role in the allocation system.

**METHOD:** Analysis of legal texts, guidelines, recommendations regulating the access of non resident patients in the Eurotransplant countries (Germany, Austria, Belgium, Netherlands, Luxembourg, Slovenia), Scandinatransplant (Norway, Sweden, Finland, Denmark, Island) Switzerland, United Kingdom, France, Italy, Hungary, Spain and Portugal and the Czech Republic and the United states.

**RESULTS:** There exist few data about the access of non residents to transplantation medicine. A lot of countries decide on a case by case basis when faced with the question whether to transplant a non resident patient or not. In countries with existing regulations two general approaches can be distinguished:
1) Limiting the access for non-resident patients to the waiting list and
2) Considering them only subordinately in the concrete allocation process.

The question to be answered is: Is the national state obliged to protect its own citizens and hence to ensure that the treatment of its residents is paramount? In particular one could argue that it is the residents, which thanks to their willingness to donate, facilitate transplantations in the first place and therefore should benefit from it before all others. Proponents of a preference of resident over non-resident patients furthermore point out the negative impact it might have on the donation rate, if more and more foreigners profit equally from transplantation, while the own nationals die on the waiting list.

**CONCLUSION:** Taking into consideration that human rights such as the right to life, to physical integrity and the right to equal treatment are at stake when it comes to depriving someone from a lifesaving standard medical treatment it needs to be thoroughly evaluated who has the legislative competence to pass a regulation limiting the access of non residents to transplantation medicine and how to design a rule that is in accordance with the principle of commensurability. Most of the existing regulations would not stand the legal proof.

**Abstract# 152**

**LOST THORACIC ORGANS – NOT TRANSPLANTED THORACIC ORGANS IN BAVARIA IN 2001.** Andreas Reit, Mirjan Oppenorth, Detlef Boesbeck. Bavaria, Deutsche Stiftung Organ Transplantation, Munich, Germany.

**PURPOSE:** Only about 30% of the hearts and 20% of the lungs from all in Germany reported organ donors were transplanted per year.

**METHOD:** In Bavaria we analysed for the year 2006 the reasons why thoracic organs were not reported, not allocated, not harvested or not transplanted.

**RESULTS:** There was a total of 184 organ donors in Bavaria in 2006. 132 permissions existed for a heart donation, 144 for the lungs. To Eurotransplant (ET) we reported 72 hearts and 55 lungs. 59 hearts and 47 lungs were allocated. 51 hearts were harvested such as 40 lungs. Transplanted were 40 lungs to 41 recipients and 48 hearts. Main reasons for withdrawal before reporting to ET were age of 65 or higher, pre-existing cardiac diseases, noticeable findings in echocardiography and longer resuscitation for the heart and just like age about 65, pulmonary infection, lower index of oxygenation, thoracic trauma and noticeable findings in thoracic x-ray for the lungs. Mostly multiple reasons existed.

**CONCLUSION:** Increasing the number of suitable thoracic organs is important to close the gap between demand and availability. So we have to assess carefully, if there is a chance to get more thoracic organs for transplantation by using all therapeutic possibilities. On the other side we should try to find new ways for accepting more thoracic organs with extended donor criteria - for example we could establish an “old-for-old” program for hearts and lungs like the existing “European Senior Program” for kidneys at ET.

**Abstract# 153**

**CASE REVIEW: SUCCESSFUL MULTI-ORGAN DONATION AND TRANSPLANTATION FROM A DONOR WITH IDIOPATHIC THROMBOCYTOPENIC PURPURA.** Tania Houle, Anthony Paquette, Chad Ezzell. LifeChoice Donor Services, Windsor, CT, USA.

**PURPOSE:** In October of 2006, LifeChoice Donor Services (LCDS) received a referral on a 13 year old female with ITP who had suffered a catastrophic intracranial event and progressed to brain death. Six organs were recovered and transplanted. The donor was declined for tissue recovery because of the history of ITP.

**Objective:** To conduct a case review relating the pathogenesis and physiology of ITP to the organ and tissue donation process; specifically related to donor assessment and management, organ and tissue allocation, risk of transmission from donor to recipient, and recipient outcomes.

**METHOD:** Existing literature was searched for data pertaining to the current understanding and treatment of ITP, transmission of ITP or autoimmune disease in the setting of organ and tissue transplantation. Results are discussed as they apply to this case.

**RESULTS:** Of the six solid-organ recipients in this case, five were reported as well six months post transplant with no indication of ITP associated illness or graft function problems. One recipient (lung) succumbed to viral infection five months after transplant. Initial post-transplant biopsy revealed histologic changes that could have been related
to ITP, but those changes were noted to not progress and the relative contribution of this finding to the patient’s death is unclear.

At least two cases have previously been reported where transmission of ITP has been associated with solid organ transplant. In both of these cases, transmission was associated with abdominal organs, which are thought to carry more stowaway lymphocytes than extra-abdominal organs. Literature does exist that shows the recovery of tissue damaged by autoimmune disease (in the donor) after transplantation to a recipient without the disease.

CONCLUSION: This report describes the successful recovery and transplantation of six solid organs from a donor with ITP. There is no evidence to suggest transmission of ITP to the recipients. 5 of 6 grafts continue to function well in recipients. One recipient has died, the contribution of the donor’s ITP to this death remains unclear.

Abstract@ 154

Abstract Withdrawn by Author

Abstract@ 155

FLUORESCENCE SPECTROSCOPY FOR PATIENTS SUBMITTED TO LIVER TRANSPLANTATION. ANALYSIS OF THE LIVER FROM THE DONOR TO THE RECIPIENT. Rodrigo B. Correia,1 Orlando Castro-e-Silva,1 Ajith K. Sankaranikutty,1 Enio D. Mente,1 Daniel Cagnolatti,1 Luciana Z. Rondon,1 Sergio Zucoloto,1 Juliana Ferreira,1 Jose Dirceu Dirceu Vollet-Filho,2 Vanderlei S. Bagnoto.2 1Liver Transplantation Division, FMRP-USP, Ribeirao Preto, Sao Paulo, Brazil; 2IFSC-USP, USP, Sao Carlos, Sao Paulo, Brazil.

PURPOSE: To use autofluorescence for the evaluation of the hepatic graft at several times during orthotopic liver transplantation.

METHOD: A doubled Nd3+:YAG laser with excitation at 532 nm, coupled to a fiber optic cable was used. The cable consisting of seven individual fibers, a central one conducting the laser to the tissue and six additional ones surrounding it for fluorescence collection is introduced into a monochromator for spectrum recording. Autofluorescence spectra were collected in six orthotopic liver transplants in the hepatic segments and during five stages: donor, after cold perfusion, on the backtable; after 5 min and 1 hour after warm perfusion in the recipient. All measurements obtained were accompanied by a biopsy from one lobe at one of the sites of fluorescence collection.

RESULTS: During cold perfusion the fluorescence spectra tended to increase in intensity. The intensity continued to increase during the backtable phase. With time after warm perfusion the fluorescence spectra tended to return to the initial condition. Part of the increased intensity of the fluorescence spectrum was due to the absence of blood in tissue after cold perfusion. This is due to the fact that the chromophores present in blood, and hemoglobin in particular, intensely absorb the light in the wavelength region used for excitation, so that little fluorescence is generated. In addition, the accumulation of toxins and the alteration of the metabolic rhythm in tissue due to hypoxia are also factors that may represent changes in tissue fluorescence.

CONCLUSION: Fluorescence spectroscopy proved to be a potentially useful auxiliary technique for the evaluation of the conditions of the hepatic tissue to be transplanted by permitting to monitor the tissue conditions during the various stages of the transplant procedure without tissue invasion in real time.

Abstract@ 156

THE JOINT COMMISSION’S TRANSPANT CENTER CERTIFICATION PROGRAM. Darlene Christiansen.1 The Joint Commission, Oakbrook Terrace, IL, USA.

PURPOSE: The need for strengthened quality oversight for transplants has grown as the number of people receiving transplants has increased. Currently, more than 94,000 people are known to be awaiting a transplant. The Joint Commission’s certification program for transplant centers is currently under development. This new program, which is expected to launch soon, will provide an independent, comprehensive evaluation of an organization’s transplant program.

CONCLUSION: Development of the Joint Commission’s transplant center certification program began after the stated intent of the Centers for Medicare and Medicaid Services (CMS) to establish quality standards for transplant centers that seek to participate in the Medicare program. The new requirements address heart, heart-lung, intestine, kidney, liver, lung, and pancreas transplant programs. Current CMS eligibility and reimbursement requirements for heart, liver and lung transplant centers do not include an assessment of compliance with quality standards. CMS has indicated that accrediting bodies may apply for and receive deeming authority for its proposed Conditions of Participation for transplant centers. The new CMS rules will apply to the nearly 700 Medicare-approved transplant centers currently functioning in 257 transplant hospitals.

Abstract@ 157

THE USE OF OXYGENATED PERFLUOROCARBONIC EMULSION FOR INITIAL PERFUSION KIDNEYS IN SITU. Oleg Reznik,1 Sergey Bagtenko,1 Yan Moisiek,2 Igor Loginov,1 Sergey Eremich,1 Alexey Ananyev,1,3 Victoria Iljina,1,3 Organ Procurement & Kidney Transplantation Center, State Research Institute for Emergency, Saint-Petersburg, Russian Federation; 2Liver&Kidney Transplantation Department, National Research Institute of Transplantology and Artificial Organs, Moscow, Russian Federation; 3‘Association of Transplant Coordinators, Saint-Petersburg, Russian Federation.

PURPOSE: Most of donors kidney in our practice are uncontrolled donors after cardiac death(DCD). It makes to find the ways to minimize ischemic injury of transplants. This study was undertaken to determine optimal type of initial perfusion kidneys in situ for the category donors.

METHOD: From 2004 till 2006 for improving results of transplantations kidneys from DCDs is performed the protocol initial perfusion kidneys in situ with using oxygenated Perfloran (perfluorocarbonic emulsion) through DBTL-catheter.

RESULTS: All donors (61) were II and IV category (Maastricht class, 1995). The kidneys transplants and recipients were divided according to the type of the initial perfusion control group -59 recipients, who were obtained kidneys transplants initially perfused HTK-solution, -other group -58 recipients-received transplants were procured by the use initial perfusion in situoxygenated Perfloran with subsequent traditional conservation. The results is shown in the table.

CONCLUSION: Initial perfusion with oxygenated perfluorocarbonic emulsion by conservation in situ (by oxygenation) may improve the ischemic injury of the kidneys in uncontrolled DCDs.

Abstract@ 158

ANY ADVANTAGE IN TRANSPORTING KIDNEYS TO THE RECIPIENT OPERATING ROOM ON THE PUMP? Ron B. Skolek, Michael P. Harmon, Matin F. Mozes. Organ Recovery Services, Gift of Hope Organ and Tissue Donor Network, Elmhurst, IL, USA.

PURPOSE: The purpose of using Machine Preservation (MP) for ECD, DCD or ATN kidneys is to increase kidney utilization and decrease the rate of post transplant delayed function (DGF).

METHOD: We examined the effect of keeping kidneys on the MP during the recipient operating room (OR) on the rate of delayed graft function (DGF).

RESULTS: In our OPO, the indications for MP are: ECD kidneys, DCD kidneys, Kidneys with ATN (doubling of s. creatinine), less than extra-abdominal organs. Literature does exist that shows the recovery of tissue after cold perfusion. This is due to the fact that the chromophores present in blood, and hemoglobin in particular, intensely absorb the light in the wavelength region used for excitation, so that little fluorescence is generated. In addition, the accumulation of toxins and the alteration of the metabolic rhythm in tissue due to hypoxia are also factors that may represent changes in tissue fluorescence.

CONCLUSION: Fluorescence spectroscopy proved to be a potentially useful auxiliary technique for the evaluation of the conditions of the hepatic tissue to be transplanted by permitting to monitor the tissue conditions during the various stages of the transplant procedure without tissue invasion in real time.
TO PUMP OR NOT TO PUMP? A RETROSPECTIVE ANALYSIS OF THE EXPERIENCES AT ONE CENTER. Geoffrey J. Roelant, 1 Matthew Cooper, 1 John L. Miller. 1 1University of Maryland School of Medicine, Baltimore, MD, USA; 1Transplant Surgery, University of Maryland Medical System, Baltimore, MD, USA; 1Living Legacy Foundation of Maryland, Baltimore, MD, USA.

PURPOSE: No clear consensus has been established on the use of pulsatile perfusion (PP) versus cold storage (CS) in the preservation of DDTx (deceased donor transplantation) kidneys. Here we examine the experience at our hospital, retrospectively examining the results from use of PP vs. CS from 2000 to 2004. Our goals were to answer four questions: Does PP have a benefit in rate of transplantation, or delayed graft function (DGF) for any group (SCD, ECD,DCD)? Does DGF function vary on PP vs. CS as the length of the cold ischemia increases? Are the pre-implantation pathology results indicative of final creatinine clearance and DGF? If so does PP vs. CS effect the outcome?

METHOD: From 2000-2004, all machine perfused kidneys at one institution underwent a standard protocol at the organ procurement office (OPO) prior to transplantation. During this time period approximately 25% of DDTx kidneys underwent PP, with the remainder utilizing CS. This retrospective study examines the results on DGF, and final creatinine clearance by comparing PP and CS. The effects of pre-implantation pathology and length on cold ischemia times are also reported.

RESULTS: Statistical analysis not completed at time of abstract submission.

CONCLUSION: Pending.

AN APPROACH TO RENAL NEEDLE BIOPSY TO IMPROVE GLOMERULUS YIELD. Yurii Yushkov, Kidney-Pancreas Committee. Preservation, New York Organ Donor Network, New York, NY, USA.

PURPOSE: Recent literature has indicated that greater than 25 glomeruli need to be visualized for accurate and reproducible assessment of kidney allograft pathology. Concern was raised by the Kidney Pancreas (KP) Committee of a large, urban Organ Procurement Organization (OPO) about the high variability of glomerulus yield and the increased propensity for cortical damage from wedge biopsies as compared to core biopsies. However, as of August of 2006, mean glomerulus yield using the needle technique failed to yield more than the suggested 25 glomeruli. The OPO instituted a process that would increase glomerulus yield while continuing to utilize the needle biopsy technique.

METHOD: The OPO undertook an internal training program with its staff to improve biopsy technique. At the end of July, staff were re-trained in the correct approach angle of the tru-cut needle, opening the stylet, and when the appropriate time was to trigger the needle. In the beginning of November, the needle size was increased from 16 gauge to 14 gauge. When the number of individuals able to benefit from transplantation increases with technological development, donation rates remain insufficient. Public and health professionals’ education, aiming to increase their knowledge about donation and transplantation and to qualify them to disseminate information has given a broad response to increase the insufficient number of donors. The purpose is to supply basic knowledge about organ donation and transplantation and to enhance commitment of health students with the process of organ donation.

METHOD: In order to supply the necessary information about the process of donation – transplantation, a Medical School in association with the Hospital Transplant Coordination Department has created a discipline of Organ Donation and Transplantation. This course is intended for medical, biomedical and nutrition students. Each semester 50 to 90 students are enrolled in the discipline, which involves a total of 25 hours. Various aspects are approached such as eutopic death diagnosis, donor management, political and legal aspects of donation, and all types of transplantation.

RESULTS: Between March 2006 and June 2007 3 courses were carried out and 200 students were trained. The students evaluated the discipline and rated it as excellent, concluding that it contributed for their education. Their attitude toward organ donation and transplantation was strongly positive at the end of the course.

CONCLUSION: A favorable attitude of health professionals to organ donation can positively influence the decision of families of potential donors, educating physicians early in their careers may become crucial in this setting. This project aims to educate and stimulate students in the process of organ donation-transplantation, and should be implemented in other Medical Schools.
Abstract# 163
TRANSPLANT, ORGAN AND TISSUE DONATION: QUESTIONNAIRE.
Nephrology, Fundacao Faculdade Federal Ciencias Medicas Porto Alegre, Porto Alegre, RS, Brazil; Transplant Coordinator, Complexo Hospitalar Santa Casa, Porto Alegre, Brazil.
PURPOSE: A Medical School elaborated a project teaching medical students basic knowledge about the process of organ donation – transplant. With the objective of increase organ donation, this group of students elaborated a questionnaire about this subject to know what the population think about that, and depending the answer it was explained individually the correct information. We want to show and discuss our pilot results.
METHOD: The study was performed in schools from a poor borrow of Porto Alegre- Brazil, during the period of August 2006 and June 2007. 243 participants agreed to be interviewed, the mean age was 34.5±16 years old , and median age was 30 (range from 11 and 80 years old); 2.2% was illiterate, 46.7% didn’t complete basic school; 65.4% were parents.
RESULTS: 77.8% of the interviewed knew about transplants, but only 39.2 knew about encephalitic death, 82% had declared spontaneously that they would like to be donors, though only 48.1% of these, informed this desire to their family. It is a critical point for the good course of the donation process, because, according to the effective Brazilian Legislation, only the family can authorize the transplant effectuation. Besides, it was verified that the tendency to become a donor can be related with the level of information about the donation process and its legislation. 92% would like to receive an organ for transplant if needed
CONCLUSION: It was observed that most of the interviewed ones lacked of information on the organs and tissues donation process. However, nobody was completely lay in the subject We evaluated this project as significant, because using questionnaire as instrument is possible to give correct orientation about organs and tissues donation and transplantation. It also demonstrates the population lack of information, showing in which points we must be more insistent. Also, this project educates and stimulates medical students in the process of organ donation-transplantation.

Abstract# 164
A STUDY OF KNOWLEDGE, ATTITUDE AND PRACTICE OF CADAVER ORGAN DONATION AND ITS PROBLEM IN A METROPOLITAN CITY. Aarti Vij, J.P. Mishra, R.K. Saras, Mukesh Kumar, Rajeev Maikhaun,
Organ Retrieval & Banking Organisation, All India Institute of Medical Sciences, New Delhi, India; Sahara India Medical Institute Ltd., India; North-Eastern Indira Gandhi Regional Institute of Medical Sciences, India; Organ Retrieval & Banking Organisation, All India Institute of Medical Sciences, New Delhi, India;
Organ Retrieval & Banking Organisation, All India Institute of Medical Sciences, New Delhi, India.
PURPOSE: The Transplantation of Human Organ Act was enacted in 1994 paving the path for Organ Tissue Transplantation which also facilitated Liver and Heart Transplantation in India. However, due to acute shortage of donor organs there is a huge gap between demand & supply. The aim of study was to assess the cause of shortage of cadaver organ donors in a metropolitan city.
METHOD: A study was conducted in major public and private hospitals. Structured questionnaire was used to study the knowledge, attitude and practice by Doctors, Nurses, Students and General Public.
RESULTS: Adequacy of knowledge: Despite 75% of the respondents being medical professionals, only 25% of the respondents had adequate knowledge about organ donation. Whereas 53.04% respondents had partial knowledge of organ donation.
Attitude: The study also indicated that higher education (post-graduate) does not necessarily improves the attitude towards organ donation. Practice: The study showed that 78.2% respondents were aware of the practice however 40% of the doctors admitted that they don’t know how to make a request for organ donation. This indicates that there is an urgent need for training of medical professionals to increase organ donation.
CONCLUSION: The study concluded that shortage of donor organs exists primarily due to lack of awareness among general public and lack of knowledge, positive attitude and motivation amongst medical professionals.

Abstract# 165
RELIGIOUS ASPECTS OF ORGAN TRANSPLANTATION. Paolo Bruzzone, Paride Stefanini, Rome, Italy.
PURPOSE: No religion formally forbids to donate or receive organs or is against transplantation from living or deceased donors.
METHOD: The different approaches of main religions to organ donation will be discussed.
RESULTS: Only some Orthodox Jews may have religious objections to “Opting In”. However transplantation from deceased donors may be discouraged by Native Americans, some Confucians, Shintoists, some Orthodox rabbis. Some South Asia Muslim Ulemas (scholars) and Muftis (jurists) oppose donation from human living and deceased donors because human body is an “amanat”(trusteeship) from God and must not be desecrated following death, but encourages xenotransplantation research
No religion formally obliges to donate or refuse organs
No religion formally obliges to consider cadaveric organs “a societal resource” or considers organ donation “a religious duty” (except some rabbis and isolated Muslim and Christian scholars)
No religion has a formal position on “bonus points”
Living organ donation is strongly encouraged only between Jesus Christians (15 out of 28 Jesus Christians worldwide have donated a kidney)
No religion forbids this practice directed organ donation to people of the same religion has been proposed only by some Orthodox Jews and some Islamic Ulemas/Muftis
Only some Muslim Ulemas/Muftis and some Oriental religions may prefer living donation over cadaveric donation
No religion prefer cadaveric over living donation
No religion formally forbids non heart beating donors (NHBD) cadaveric donation or cross-over donation
Due to sacrality of human life, the Catholic Church is against donation from anencephalic donors or after active euthanasia
No religion formally forbids xenotransplantation
CONCLUSION: To conclude according to Catechism of the Catholic Church. Compendium. Signed by Pope Benedict XVI on June 28, 2005
CONCLUSION: Are allowed transplantation and organ donation, before and after death? Organ transplantation is morally acceptable with the consent of the donor and without excessive risks for him/her. For the noble act of organ donation after death the real death of the donor must be fully ascertained.

Abstract# 166
TPM TISSUE TRAINING: THE POLISH EXPERIENCE. Gloria Paez, Ariadna Sanz, Aurora Navarro, Esteve Trias, Artur Kamiński, Marti Manyalich.
Transplant Procurement Management, IL3 - Universitat de Barcelona, Barcelona, Spain; Transplant Services Foundation, Barcelona, Spain; National Centre of Tissue and Cell Banking, Warsaw, Poland.
PURPOSE: Technical and biomedical advances have promoted the tissue bank activity growth around the world, leading to a pressing need for the consolidation of concepts and its regulation. Transplant Procurement Management (TPM) is an international organization to train health professionals in all the steps of human organ and tissue procurement. Its evolution reaches the development of a training program in tissue bank activity.
SINCE 2004 Poland aims to create a National Centre for Tissue and Cell Banking (NCTCB), an organization to coordinate and promote the tissue bank activity including the professional training.
METHOD: TPM and NCTCB have designed and implemented a full training program addressed to four health professional different profiles involved in tissue banking practice: Tissue procurers, technical staff, managers and main tissue graft clinical users.
Courses were structured in theoretical and practical sessions, including simulations and clinical cases debate. According to the TPM methodology all the educational material was delivered in Polish and thanks to high qualified interpreters, the rate of participation and interaction became one of the key points of these training programs. Courses were carried out by International faculty members.
RESULTS: Four specific courses have been developed in Poland according to the profiles defined: Donor Screening and Classification Training (2 courses, 50 participants), Tissue Bank Technical Training (2 courses, 50 participants), Tissue Bank Management Training (25 participants) and Tissue Graft Users Training (82 participants).
CONCLUSION: The analysis of the course evaluations and the assessment questionaries have shown a high impact score concerning the contents, faculty skills and applicability. Nevertheless, further studies have to be done in order to determine the long-term impact in Poland.

Abstract# 167
Transplant Unit, University Hospital of Wales, Cardiff, South Wales, United Kingdom; Psychology, Cardiffandvale NHS trust, Cardiff, South Wales, United Kingdom; School of Social Sciences, Cardiff University, Cardiff, South Wales, United Kingdom.
PURPOSE: A new measure of attitude to organ donation “Cardiff Organ Donation Attitude Scale” (CODAS) was constructed by psychologists and transplant team. This was validated and validated in a questionnaire based survey among school children.
METHOD: The target population was 16 to 18 years old school children in 10 willing schools in Cardiff United Kingdom. The questionnaire contained knowledge, attitude and demographic sections and CODAS. In CODAS each (yes or no) answer was given a specific positive or negative score and a over all CODAS score was calculated for each participant. This score was compared with various demographic variables.
RESULTS: Results showed the measure to be reliable and revealed, overall, a marked skew towards a highly favourable attitude to donation. There were a number of interesting demographic patterns. There was a significant overall gender difference, with females being more positive towards transplantation than males. However this pattern was not replicated across all ethnic and religious groups. There are significant differences between ethnic groups, with black, Asian and Chinese adolescents being less favourable in their attitudes than those of white or mixed race. Significant differences were also found between different religious groups, with Muslim adolescents being much less favourable in their attitudes than those of other religious beliefs. Some interesting gender differences were found between different ethnic and religious groups. There was a significant social class effect, with better attitude among the higher socioeconomic class.

CONCLUSION: CODAS appears to be a reliable and valid measure of attitude to transplantation in adolescents and it could now be applied to other age groups, to other national groups, and to special groups (for example, people with a relative currently awaiting transplant).

Abstract #168
TURNING POSITIVE ORGAN DONATION ATTITUDES INTO ORGAN DONATION BEHAVIOR: SUCCESSES AND CHALLENGES.
Sara Pace Jones,¹Eusebio Alvaro,²Jason Siegel,²¹Donor Network of Arizona, Phoenix, AZ, USA;²Claremont Graduate University, Claremont, CA, USA.
PURPOSE: Survey results reveal a majority of people have favorable attitudes about organ donation after death. Evidently organ donation behaviors do not match attitudes even for those who states they are actually registered as donors. We propose this attitude-behavior inconsistency is due to three basic factors: lack of registration opportunity, unanswered questions about donation, and social norms. A study was tested the proposition that these deficits could overcome via gatherings of organ donation experts interacting with individuals supportive of organ donation.

METHOD: The study consisted of two phases in 4 USA states: Phoenix, Chicago, Seattle, and Miami. Phase 1 consisted of 12 focus groups. Participants had positive organ donation attitudes but were not registered and groups provided opportunities to: make comments, have questions answered, and register. Phase 2 expanded the focus group process and tested the proposition that an immediate opportunity for registration is a required in donation education. Two one-hour community forums were conducted in 4 sites (8 forums total) with participants hearing presentations by panel and asking questions of panel members. Panels were composed of: an organ procurement organization representative, a transplant surgeon, a donor family member, and a transplant recipient. One of the forums (“ideal”) provided a registration opportunity at the end and a second forum (“ideal minus immediacy”) omitted this opportunity.

RESULTS: Phase 1: Results support the potential of interactive groups to promote registration: Phoenix - 30/59 = 51.0%, Chicago - 12/26 = 46.2%, Seattle - 9/22 = 40.9%, Miami - 17/59 = 29%. Phase 2: Registration rates support theoretical considerations (data for the “ideal” forums: Phoenix – 10/15 = 67%, Chicago – 5/7 = 71%, Seattle – 0/1 = 0%, and Miami – 24/59 = 41%; “ideal minus immediacy” forums = zero registrations). Results also reflect recruitment difficulties.

CONCLUSION: Both phases show that organ donation attitude-behavior consistency may be increased; however, community participation is difficult to obtain.

Abstract #169
BENEFICIAL EFFECT OF U-74389G (21-LAZAROID) ON LIVER RECOVERY AFTER ACUTE HEPATIC ISCHEMIA AND REPERFUSION IN RATS.
Apostolos Papalois,¹ Ioannis Kappas,² Constantine Birbas,³ Ioannis Kaklamanos,² Dimitrios Vlachodimitropoulos,² Eleftheria Karampela,¹ Kalliopi Tsareas,¹ Gerasimos Bonatsos,²¹ Experimental Research Center, ELVEN Pharma, Pireumi, Athens, Greece;¹Department of Surgery, University of Athens, School of Nursing, Athens, Greece;²Department of Forensic Medicine, University of Athens, School of Medicine, Athens, Greece.

PURPOSE: The aim of this study was to investigate the effect of U-74389G on rat liver after acute hepatic ischemia (i) and reperfusion (r) injury. This molecule may play a very important role in the liver protection during organ harvesting as well as in the preservation solutions.

METHOD: Totaly 60 male Wistar rats were used (Pasteur Institute, Athens, 220-290g) and divided into 6 groups with 10 animals in each group. Group 1: Control group, 30 min of i and 60 min r. Group 2: Control group, 30 min of i and 120 min r. Group 3: 30 min, administration of ascorbic acid (a.a) and 60 min r. Group 4: 30 min, administration of a.a and 120 min r. Group 5: 30 min, administration of U-74389G and 60 min r. Group 6: 30 min, administration of U-74389G and 120 min r. Hepatic i was produced by occluding the portal vein and the hepatic artery. At the end of i.a.a. or U-74389G was administered IV and the clamp was removed allowing r. The effect of the molecules was evaluated by histopathological examination, plasma levels of liver enzymes, biochemical parameters and tissue malondialdehyde levels.

RESULTS: 1. followed by 60 or 120 min of r promoted an increase of liver tissue injury and in lipid peroxidation. This increase was attenuated in the groups 5 and 6 (statistically significant) compared with the control groups as well as with the groups of ascorbic acid.

CONCLUSION: In conclusion, when U-74389G was administered just before r (a setting closer to real clinical conditions), it inhibited lipid peroxidation in liver tissue thus preventing the oxidative damage of i / r injury. Thus U-74389G can be recommended as a powerful antioxidant agent.

Abstract #170
IS IT POSSIBLE TO DESTROY NATIONAL ORGAN DONATION PROGRAM?
A LESSON FROM POLAND, Dariusz J. Patrzalek,¹ Dariusz A. Janczak,³ Pawel Chudoba,¹ Zbigniew Sycz,² Tadeusz Perkowski,²¹ Dept. of Vascular, General and Transplant Surgery, Medical University of Wroclaw, Wroclaw, Lower Slesia, Poland;³Dept. of Anesthesiology and Intensive Care, 4Th Military Hospital, Wroclaw, Wroclaw, Lower Slesia, Poland, ¹Dept. of Anesthesiology and Intensive Care, Regional Hospital WCM Opole, Opole, Opole Region, Poland.

PURPOSE: Starting from National OPO (Politransplant) construction in 1996, Poland reached in 2005 medium european level of donation near 15 donors/mln population/year. 2006 brought small decrease in this parameter, while first half of 2007 brought an catastrophic fall down. Our purpose was to analyse the causes and differences in certain regions of Poland in the donation.

METHOD: We compared the data concerning donation in our region of activity with other regions in Poland from 2005, 2006 and first half of 2007. We analysed the main reasons that provoked the current situation in the whole country and certain regions.

RESULTS: Main causes determining the fall down in donation in Poland in 2007: - huge “wash out” of intensive care specialists abroad in last 2 years - negative attitude of politicians and government toward medical staff, supported by general attorney actions and media - small society support due to lack of proper information - rise in refusals of donation consents from 10 to 80% - high level of anxiety toward donation process among medical staff - in some regions donations fall down to 0 while in some donation was decreased only by 10-20%.

CONCLUSION: Despite all negative factors we managed to maintain basic activity and step by step with the help of Catholic church authorities and part of positive media we rebuild donation in Poland. It is not clear yet when we will reach the status from 2003 year.

Abstract #171
TRANSPLANT COORDINATION IN RUSSIA. FIRST EXPERIENCE.
Oleg N. Reznik,¹ Sergey F. Baginenko,¹ Yan G. Moisisk,¹ Igor V. Loginov,¹² Sergey V. Eremich,¹¹Alexei N. Ananyev,¹¹ Igor V. Pogrebnichek,¹¹ Organ Procurement & Kidney Transplantation Center, State Research Institute for Emergency, Saint-Petersburg, Russian Federation;¹¹Kidney & Liver Transplantation Department, National Research Institute of Transplantology & Artificial Organs, Moscow, Russian Federation;¹¹Association of Transplant Coordinators, Saint-Petersburg, Russian Federation.

PURPOSE: The condition of organ donation is unsatisfactory in Russia. Like reflection of the transition from the command form of public and professional life to the civilian norms, the Soviet public attitude to the questions of a posthumous donation has become tough. There was critically reduction of transplantations and fact of necessity to prove to the public, including even medical, that operations saving life are lawful and become tough. There was critically reduction of transplantations and fact of necessity to prove to the public, including even medical, that operations saving life are lawful and become tough.

METHOD: In 2006, Saint-Petersburg, first time in Russia, was held a stately conference of hospitals involved in process of organ donation, officials, lawyers, transplantologists, anesthesiologists and speakers from foreign transplant and coordination centers. On this conference was created Association of the Transplant Coordinators(ATC)-professional organization united specialists different profiles really involved in organ donation process.

RESULTS: The main aim of ATC is effort for creating of educational programme for medical staffs, professional standards,algorithmes.Next are creating acceptable forms of hospitals and transplantations,establishing wide contacts with mass-media and educational institutes.As a tool of ATC there was created permanent acting school of transplant coordinators with certification of participants.

CONCLUSION: As first result there was increased the level of organ donation activity twice in Saint-Petersburg and Moscow.

2005/2006 organ donation Saint-Petersburg

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Abstract# 172
ENHANCING TISSUE BANKING IN CANADA: TASK FORCE RECOMMENDATIONS. Kimberly Young, Christina Rogers, Marc Germain. Canadian Council for Donation and Transplantation (CCDT), Edmonton, AB, Canada.

PURPOSE: The Canadian Tissue and Eye Banking systems are fragmented and underdeveloped despite increasing demand for allograft tissue and a substantial unrealized donor population. Policy research results by the Canadian Council for Donation and Transplantation (CCDT) suggest that the Canadian demand for allograft tissue will continue to grow; a substantial and accessible donor population is largely untapped; regional or provincial tissue procurement and processing programs are cost effective and safety and regulatory requirements are essential to ensure patient safety. The Canadian tissue system must address the issue of high demand for tissue coupled with the dependence on foreign sources, whose quality and safety practices are not within Canadian jurisdiction.

METHOD: In response to issues of access, untapped donor potential, safety and cost, the CCDT hosted a task force meeting (November 2006) of thirty two experts (orthopaedic surgery, dentistry, tissue bank, eye bank, organ and tissue procurement agencies, surgical bone bank, medical examiners, quality leaders and administrators) to advise on how to achieve a safe sustainable Canadian tissue system.

RESULTS: The Task Force proposed several recommendations that focus on increasing the supply of allograft tissue, decreasing dependence on foreign tissue sources, economic benefits through centralization and economies of scale and increasing safety of tissue through increased control on allograft production.

CONCLUSION: The CCDT has forwarded these recommendations to Canadian transplant programs and the relevant government body, the Conference of Deputy Ministers of Health, to inform current practices and relevant health policies.

Abstract# 173
DEMINERALIZED BONE MATRIX MARKET IN CANADA. Kimberly Young, James W. Mohr, Marc Germain, Christina Rogers. Canadian Council for Donation and Transplantation (CCDT), Edmonton, AB, Canada.

PURPOSE: To understand the extent of the utilization of DBM products in Canada as there is currently no Canadian manufacturing source of DBM products.

METHOD: The study methodology consisted of an end user survey of dentists, periodontists, oral and maxillofacial surgeons and hospital or operating room managers at hospitals with orthopaedic surgeons and neurosurgeons to obtain primary data on DBM utilization and purchasing.

RESULTS: Three hundred and sixty seven (367) physicians and operating room managers were contacted to participate in a DBM utilization survey conducted from November 2005 to March 2006. One hundred and eighty eight (188) responses were received.

Dentists
• Approximately 11% of dentists in Canada are using DBM products.
• Majority of DBM use is in dental implant procedures (∼80%).

Oral & Maxillofacial Surgeons
• Approximately 89% of oral and maxillofacial surgeons are using DBM products.
• Primary procedures that utilize DBM include sinus ridge augmentation, socket preservation, implant preparation and defect repair.

Periodontists
• Approximate average of 78% (59 to 96%) of periodontists are using DBM products.
• Primary procedures that utilize DBM are sinus lifts, alveolar augmentation, implant placement, socket preservation and guided tissue regeneration.

Orthopaedic Surgeons & Neurosurgeons
• 13 of 20 hospitals with orthopaedic surgeons and neurosurgeons reported purchasing DBM products.
• Major orthopaedic procedures that use DBM include revision total hip replacement, revision total knee replacement, non-union repair and ankle repair and replacements.

CONCLUSION: Looking at key market drivers of demographics, technological changes, changes in clinical practice, it is expected that the demand for bone allografts or bone substitutes will increase. Two procedures in particular, revision total hip surgery and edentulous conditions will increase with this cohort creating a higher demand for bone graft or bone graft substitute products. Given the ease of use, range of products, broad clinical applicability and relative affordability it is expected that these products will see continued increased use with the demographic group described above.
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