Poster Presentations

Organisation (1)

EP01 HEART DONOR MANAGEMENT AND THE TRANSPLANT ACTIVITY – EXPERIENCE HEART TRANSPLANT CENTER IN POLAND

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Background: Purpose: The aim of the study was showing the transplant activity in aspect local donors and donors received from Center of Coordination Poltransplant. We showed the aspects of utilization donors, reason for refusal, educational program. We analyzed 8 years of activity.
Educational program: *From June 2005 to December 2006 we want to win people over transplantation and donation. We would specifically cover procurement promotions including the production and distribution of brochures, advertising, public education programs.*

Donors & Utilization

Years	2000	2001	2002	2003	2004	2005	2006
Poltransplant %	92	87	91,9	85,9	82,5	78	78,7
Local Donors %	8	13	8,1	14,1	17,5	12	21,3
Heart Transplantation %	30	22	18	15,7	18,4	12,3	16,3
Homografts	3	5	2	8	4	3	3
Together	144	122	99	114	103	105	61

Reason for refusal

Years	2000	2001	2002	2003	2004	2005	2006
Together	101	95	81	88	80	89	48
Bad condition %	36	43	39	38,3	26,4	34,8	22,9
Age of donors %	20	29	13	17	13,7	10,1	14,5
Lack of patients %	11	5	12	4,5	13,7	12,3	18,7
Logistic %	11	5	12	4,5	13,7	12,3	18,7
Other	0,9	6	11	10,1	16,2	5,8	21

Conclusions:
– Local donors established 12,7% all of received donors. It is gradually grows
– We utilized average 20,8% organ donors for transplantation
– The most essential reason for refusal were bad condition and age of donors, which established about 50% all of refusal
– New problem is the lack of suitable recipients
– During our educational campaign we observe increasing of acceptation to donation.

EP02 THE IMPACT OF THE CZECH LUNG TRANSPLANT WAITING LIST SIZE ON THE POOL OF POTENTIAL DONORS UTILIZATION

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The lung transplantation (LuTx) was launched in the Czech Republic in 1997. It became the routine procedure and the aim of the program was to maximize the availability of that treatment modality to as many patients as possible. In general, limiting factors of organ transplants activity are the availability of suitable organ donors and the waiting list (WL) size. It is believed, the bigger WL the larger chance to find acceptable donor/recipient match, e.g. to offer the transplant to more WL patients. The aim of the study was to evaluate if that assumption works in our region as well.
Methods: Retrospective analysis of the statistical figures on cadaveric donors available, lung graft offers, and lung graft rejections for the size mismatch was performed.
Results: Statistic data from 1st May 1997 to 31st December 2006 were evaluated: 1771 potential cadaveric donors for the lung grafts harvesting were offered, but only 93 of them were utilized for LuTx – Table 1. Higher numbers of offers and WL patients did not increase the percentage of realized LuTx.
Conclusions: Strict lung graft accepting criteria (including the donor/recipient size match) resulted in fact that only 93 (11.6%) offers were accepted. This statistics stresses the importance and requirements of LuTx program coordination. The comparison of offers frequency with the numbers of WL patients did not comply with the original assumption. Augmentation of the WL size did not increase the LuTx activity. Small numbers error and the different indication criteria in donors and recipients might be hypothetized.

	97–98	99–00	01–02	03–04	05–06	Total
Number of cadaveric donors	310	339	318	402	402	1771
Number of lung graft offers	90	143	146	184	236	799
Rejection for size mismatch	27	43	40	48	59	217
Percentage of LuTx acceptance	10	14.6	13.01	9.78	11.01	11.6
LuTx realized	9	21	19	18	26	93
Mean numer of WL patiens at 31st December	7.5	6	11.5	19.5	34	

EP03 TIME FACTORS DURING THE ORGAN DONATION PROCESS 2003-2006

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For efficient transplant coordination it is important to identify and analyse the main phases of the organ donation process. These results can be beneficial information to donor hospitals, transplant centres and also the coordination office.
Method: We have measured the average total organizing time, time of donor care, time of brain dead care and the time interval between recognition of brain death and donor referral. Hungarotransplant has been collected the above mentioned data of time intervals since 2003 and analysed the outcomes yearly.
Results: In the study we present the changes of these variables during the last four years from different aspects.

	Total organizing time	Time of donor care	Time of brain dead care	Recognition of brain death-donor referral
2003.	16h 23min	20h 38min	7h 33min	4h 12min
2004.	17h 04min	22h 45min	6h 46min	5h 41min
2005.	16h 02min	18h 40min	6h 20min	2h 38min
2006.	17h 24min	18h 37min	6h 9min	1h 27min

Conclusion: The total organizing time longer in multiorgan donations, there is no significant difference between the abdominal or thoracic harvesting. The time interval of donor care can decrease in two ways:
– elimination of brain death observation period by instrumental tests
– donor referral performed as soon as possible after recognition the first signs of brain death.
These facts has no effect on the length of the organizing process, it is beneficial primarily for ICUs.

EP04 IS IT POSSIBLE TO ARRIVE AT 0% AVOIDABLE LOSSES IN ORGAN DONATION?

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Background: Donation rates have not kept pace with demand, resulting in a critical deficit of available healthy organs. Donor detection is influenced by the legal system, family refusal and underreporting caused by erroneous knowledge of donation criteria and lack of familiarity with the procedure.
Objective: To evaluate possible donor losses in the Vall d'Hebron University Hospital during 2002-2006) and compare two detection systems (Using GSC detection follow-up and Spanish Quality Guarantee Program) introduced in our hospital
Methods: All deaths in critical care units (ICU) were reviewed, with emphasis on neurological cases. We contrasted this deaths with pre-existing coordination registers to ascertain discrepancies in protocols (donor maintenance, brain death diagnosis (BDD), family information).
Results: 1928 deaths were included. Neurological cases 482, of which 250 were brain deaths. 99% were detected by the Transplant Coordinator (CT). 145 (58%) became real donors. 50 (20%) were rejected due to medical contraindications, 40 (16%) because of family refusal. 5 (2%) maintenance problems and 5 (2%) other. Only in 9 (3.6%) cases did we find discrepancies in protocols which led to the losses of donors (2 delay in donor maintenance, 2 erroneous medical contraindications, 1 BDD and 4 cases in family information)
Conclusion: 1. It is indispensable for all clinicians involved in the process to know and carry out the protocols.
2. In spite of having two excellent protocols in place avoidable losses still exist.

EP05 *CARREL+*, INTELLIGENT ELECTRONIC SUPPORT FOR DISTRIBUTION AND ALLOCATION OF ORGANS FOR TRANSPLANTATION

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Introduction: The distribution and allocation of cadaveric organs for transplantation is performed worldwide through professionals, by a manual system using phone and fax. *CARREL+* is an electronic system whose main goal is to guarantee that organs are not discarded unnecessarily.
Material and methods: An agent-based software application, named *CARREL*, was developed to support the management of information related to organ distribution and allocation processes. Simultaneously, an Artificial Intelligence-based theoretical model, *ProCLAIM*, was developed to reduce the number of organs for transplantation that are discarded unnecessarily. *CARREL* and *ProCLAIM* have now been integrated to form *CARREL+*.
Carrel+ integrates reliable technologies and Artificial Intelligence techniques, and advanced and extended procurement and transplantation guidelines. At present, organ viability is determined in Spain by in-house transplant coordinator alone, while with CARREL+ this decision is also based on the opinion of transplant teams and transplant organizations and on recorded validated experience. As a result, an available organ will only be discarded if none of the sources of decision can provide a good argument for deeming the organ as viable.
Conclusions: *CARREL+* provides an alternative organ distribution procedure determined by artificial intelligence. An intelligent support system implies useful, non-disruptive and flexible support. *CARREL+* can thus ease the tasks of transplant professionals by automating many of the routine processes involved in donor evaluation and organ distribution.

EP06 A NOVEL ORGAN SELECTION PROCEDURE THAT USES ARTIFICIAL INTELLIGENCE TO INCREASE THE ORGAN POOL FOR TRANSPLANT

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Introduction: Despite the shortage of organs for transplantation, a significant number of available organs are considered unsuitable for this purpose. We propose an artificial intelligence selection system that can prevent organs being discarded as the result of variability among transplant professionals concerning acceptance criteria.
Material and Methods: Our project is based both on the most advanced procurement and transplantation guidelines and on *ProCLAIM*, an artificial intelligence-based model developed to mediate collaborative decision-making in safety critical domains, such as the transplant domain. At present, organ viability is decided by the organ procurement team alone. *ProCLAIM*, however, provides an electronic environment in which transplant professionals at different centers and organizations can effectively discuss the viability of available organs, taking into account that decision-makers may disagree on the suitability for transplant.
Conclusions: Viability of each organ available for transplantation should be evaluated using the most advanced acceptance criteria, and the *ProCLAIM* model could guarantee that no organ be discarded unnecessarily.

EP07 MANAGING PRE TRANSPLANTS PATIENTS – ROLE OF TRANSPLANT COORDINATOR

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Purpose: The aim of this study was showing the management of the patients with the end stage heart failure who are referred to transplantation and the role the transplant coordinator in this process.
Methods: During Jan 2003 to Dec 2006 in we diagnosed 239 pts with the end stage heart failure. The age of the pts was 40,7 (±10,5), 26 F, 213 M. After examination we qualified to the waiting list 86 pts (35,9%); 90(37,6%)pts were qualified to observation group and 63 (26,3%) were disqualified. We analyzed the heart failure survival score to qualification.
Results: Ischaemic heart disease was the predominant cause of heart failure (67,9%); idiopatic cardiomiopaty established 32,1%. In group which we qualified to heart transplantation we observed a decrease in ventricular function -EF of 0,19±0,04, a peak of VO2 of 12,8±2,89 mL/kg/min., in observation group the EF evaluated of 0,25±0,07, a peak of VO2 of 20,1±3,5 mL/kg/min.
Number of pts transplanted – 59 (68,6%), pts died on the waiting list – 15 (17,4%), annually 4-5. They were awaiting average 364 days. Based on a peak of VO2 and clinical symptoms during observation we change the status to urgent one– 16(18,6%). In urgent one they were awaiting 16 days. From observation group to active list we moved 6 pts and disqualified 4 pts. 25% of pts needed rehospitalization.
We keep in touch with this pts by phone once a week asking them about generally their health. Pts are instructed to call promptly with any change and their symptomatic status.
Conclusions: The evaluation on the waiting list is very important to reduce mortality.
The shortage of the donors demands from us the selection the most needy pts.
The contacts with pts can evaluate their status in waiting list.

ELBP01 THE EVALUATION OF ORGAN PROCUREMENT IN A SPECIFIC AREA OF CATALONIA (FOLLOWING THE INTRODUCTION OF A PILOT COORDINATION PROGRAM)

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Purpose: The introduction of a local coordinator in Catalonia (Tarragona. Population: 704.907) has led to unified donation promotion, together with on-going training schemes for hospital staff involved in donor detection and coordination (hospital Transplant Coordinators, Intensive Care and Emergency Department). An OCATT (Catalan Transplants Organisation)- dependent quality control study has been implemented to evaluate this pilot program which introduced a regional coordinator during the period July 2006-June 2007.
Methods/Materials: This area was chosen for study by the OCATT as it is home to 10% of the population of Catalonia and has 5 hospitals authorized for organ extraction (one of these providing neurosurgery for the area) but without a transplant program.
The results obtained were analysed following the study period and compared with those from the inter-annual period the previous year. We studied the number of brain deaths detected, medical contraindications, family refusal, number of valid donors and organs extracted.
Results: We observe an increase of 133% (36 vs 15) in the number of brain deaths detected, 90% (21 vs 11) in valid donors and 112% (68 vs 32) in organs extracted during the period analysed following the introduction of a regional coordinator as compared with the previous period.

Brain death cases, medical contraindications rate, family refusal rate, organ donors and organs obtained

	Brain death cases	Medical Contraindications	Family Refusal	Donors	Organs Obtained
July 05 – June 06	15	0	4	11	32
July 06 – June 07	36	8	7	21	68

Conclusions: The introduction of a regional transplant coordinator has led to double the number of extracted organs for transplant in the area studied.
Bringing transplant organizations to the extracting hospitals undoubtedly helps to close the gap between supply and demand, in terms of organs available for transplant.

Organisation (2)

EP08 DONOR ACTION PROGRAM IN THE EMILIA-ROMAGNA REGION: RESULTS AFTER 9 YEARS OF ACTIVITY

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The Emilia - Romagna Region (ERR) since 1998 supported the “Donor Action” program (D.A.). ERR Transplant Reference Centre (CRT-ER) decided to apply D.A. in order to constantly check whether all brain deaths are diagnosed and referred.
Methods: The program started in July 1998 in 23 ER ICUs, 6 belonging to hospitals with neurosurgical departments.
D.A. program analyzes the potential donor identification through deceased pa-

tient charts. The program is used by transplant coordinators through the regional computer network, whose data are analyzed by the CRT-ER.
Results: Over the years the proportion of severe brain damage decreased, but brain death assessments increased (Chart 1).

Chart 1. D.A. results

	2000	2001	2002	2003	2004	2005	2006
ICUs Total Deaths	1179	1369	1438	1530	1442	1481	1418
Severe Brain Damage (SBD)	484	486	336	416	398	362	321
SBD/Total Deaths	41.4%	35.5%	23.4%	27.2%	27.6%	24.4%	22.6%
Brain Death assessments	243	252	218	231	214	229	207
Organ Donors	116	136	134	137	120	145	118
Refusals	86	82	46	65	65	59	61

Organ transplantation has kept an increasing trend from the 2nd half of 1988 (Chart 2). Finally, transplant centres achieved high level activity standards (Chart 3).

Chart 2. Activity results

	2000	2001	2002	2003	2004	2005	2006
Organs donor p.m.p.	29.9	34.5	33.8	34.7	30.1	36.4	29.6
Kidney transplantations	157	169	151	167	143	200	146
Heart transplantations	25	35	41	33	43	42	28
Liver transplantations	95	115	114	115	106	156	137

Chart 3: Organ transplantation efficiency
Conclusions: This data shows that in EER (about 4 million inhabitants), D.A. program contributed to improve the regional transplantation system efficiency and it represents a valuable tool for CR-TER to undertake corrective and improving actions into the system.

EP09 NATIONAL BLOOD TRANSFUSION SERVICE FOR DONOR COORDINATION IN HUNGARY

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While a decision was made about wind up of Hungarotransplant Psc the government delegated all coordination tasks in connection with organ donation to the *National Blood Transfusion Service Centre* (NBTSC) from 2007. At the same time the legal status, the structure of organization, functions and responsibilities of the NBTS has been described in a governmental decree. According to the new legislation, the NBTSC is responsible for coordination of organ donations, and maintains the National waiting lists. To monitor all transplant related activities, NBTSC operates a Monitoring Committee (MC). The members of the MC have to have 5 years of organ transplantation experience and will be appointed by the Minister of Health based on the recommendation of the Hungarian Transplant Society.
By all above mentioned decisions, it is possible and necessary to operate the one independent organisation for donor coordination. This new network is a 2 level system divided by the involvement in different tasks. The 1st level is the *Organ Coordination Office* with a chief coordinator and 4 *national coordinator*s. They are responsible for coordination from donor report till organ harvesting. National coordinators are contact persons for donor hospitals to collect all relevant data about the potential donor and transfer them to the decision makers. This support activity helps to avoid losing information among involved parties. They also operate some more nationwide work as donation promotion program, like hospital visiting, organisation of further educations for donor managers and transplant coordinators. And of course they collect and analyse all data about donations. *Regional coordinator*s work for NBTSC in part time job, but in all transplant centres in the 2nd level. They receive the donor information form from the national coordinators. They are responsible for transplant hospital organisation and they assist during the donation.

EP10 ORGAN DONATION FROM ELDER DONORS IN THE REGION GERMANY EAST IN 2006

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Background: In Germany is a scarcity of organ donation and the number of donors older than 65 years rises. In follow the limits of acceptance are more and more enlarged. Our aim now is to find out, which problems appear in this group and must be accurately elaborated. We analyzed the donations in 2006 in our region (Germany-East) from donors over 65 years.
Findings: Totally we had 354 advices in Germany East. 118 (33%) were older than 65 years. The number of agrement in older donors were 58, after exclusion of medical contraindications, 40 (33,4%) resulted in an organ donation.
Furthermore we divided the donors in 5-years intervall-groups and demonstrated the transplanted organs. The number of realized transplantations due to the advices over 65-years is reduced (57% vs. 33%), from 80 years on the number declines even more (15% of the advices lead to an organ donation).
Results: We got 1 transplanted heart and 1 lung in the group 65-70 years. In kidney there was no significant difference up to 80 years, above there was an obvious decline. Concerning liver the number of organs was fom 65 years on a bit lower, from 80 years on because of the small number (2) statistically not utilizable.
Conclusion: With increasing age medical problems and contraindications are rising. In our (small) collective no significant difference between the age of 65-79 years could be found, from 80 years on we noticed an obvious decline of number and quality of donated organs. Also the number of rejected/not transplantated organs rose. Concerning these elder group it is necessary to establish an accurate screening and an intensive conditioning to improve the reduced organ function and protect the recipients.

EP11 ORGANIZATIONAL INCIDENTS: A DIFFICULT PROBLEM TO SOLVE

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Organizational problems in coordination often cause delays or obstacles which are usually faced by professionals without consequences for recipients. Less often real organizational incidents cause unexpected events which could be very difficult to solve especially if a long distance from procurement and transplant centres reduce the time useful for reaction.
Objective: to understand methodologies in order to put in evidence organizational weaknesses and to correct them and improve safety.
Methods: from 2002 to 2006 all coordination processes in OCST area have been yearly analysed, including activities from new international exchanges in 2006. The uncompleted processes have been studied regarding on organizational data, number of different organs retrieved, regional organs exchange flows, differences in activity of the transplant centres. The different causes of process fails have been also studied at three different steps: offer, retrieval and transplant.
Results: 1397 organs have not been offered of which 540 for technical problems no better reported and 15 for organizational incidents; 702 organs have been not retrieved (296 techn. problems and 40 incidents); 324 not transplanted (35 techn. problems and 3 incidents).
Conclusions: quality management systems focused on more accurate coordination process analysis and definition togheter with a better data-entry control have to be developed and standardized in order to improve safety in organs procurement.

EP12 MULTI-TISSUE DONATION: SUITABILITY CRITERIA AND EXPERIENCE OF THE EMILIA-ROMAGNA REGION (EER)

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Introduction: Tissue transplantation is a therapy that improve the patients quality of life. Since one single donor may donate many tissues and tissue transplantation is not a life saving treatment, it becomes more and more important to ensure quality and safety of donated tissues.
EER counts four tissue establishments 2 eye banks, musculoskeletal, skin, heart valves and blood vessels bank.
Methods: In the framework of the Directives 2004/23/CE and daughters, the ERR issued a protocol applying the requirements for donor suitability, and customizing the principles according to the regional model. The protocol fixed all mandatory tests for donor suitability and recommended to apply restrictive criteria (i.e. autopsy in all cases).
A donor Biobank was set up to store all donors' biological samples for a minimum of 30 years and EER decided to enhance further tissue donation through the recognition of economical benefits to all staff involved in the multi-tissue donation process. The regional hospitals decided to create local program for tissue donation.
Results: Some cases of multi-tissue donation were registered during the year 2005, but a dedicated program officially started on January 2006. This first year of activity showed very positive and encouraging results: 21 tissue NHBD (Table 1).

Table 1. NHB Tissue donors in ERR, 2006

	Cornea	Heart valves	Blood vessels	Skin	Bone
Tissue NHBD	21	10	12	12	13

The autopsy showed the presence of a neoplasia in two of the 21 donors, therefore respective tissues were disposed.

Conclusions: The multi-tissue program promoted by the ERR clearly showed positive results. This achievement is due to 3 key aspects: the complete definition of donor and tissue suitability standards, the establishment of local program for multi-tissue donation, the recognition of benefits to the staff involved in the multi-tissue donation process.

EP13 NATIONAL HEART VALVE HARVESTING STRATEGY – ADVANTAGE OF AN ALLOGRAFT HEART VALVE BANK INTEGRATION INTO DONATION/TRANSPLANTATION PROGRAM

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Allograft heart valve (AHV) banking & transplantation was launched in the Czech Republic, University Hospital Motol (UHM) in 1983. Hearts were collected from post-mortem, antibiotic cocktail - sterilized, stored at 4°C, and implanted if suitable recipient was found within 6 weeks. Between 1983 and 1990 only 3 - 15 hearts were harvested annually and only 46 AHV were transplanted. In 1991 the TC was instituted at UHM, and the allograft heart valve bank (AHVB) became a part of it. The cryopreservation (programmed cooling & liquid nitrogen storage) was introduced.
Objective: To look into the relation between cadaveric donor numbers and tissue availability for AHV banking.
Design/methods: Retrospective study of Czech Republic and Allograft Heart Valve Bank (AHVB) statistics with the aim to evaluate the effect of that particular tissue bank integration into the donation/transplantation program of the country.
Results: Since 1991, all nontransplantable hearts from the Czech pool of cadaveric organ donors became available for AHV processing through network of TCs of the country. During that period of time the number of cadaveric organ donors increased reasonably. The availability of hearts for transplantation, hearts for AHV harvesting, as well as of cryopreserved AHV (AHV – stored) rose dramatically - Table 1.

Table 1. The availability of hearts for transplantation, hearts for AHV harvesting, as well as of cryopreserved AHV in the Czech Republic

Years	1983–90	1991–2000	2001–2005	2006	TOTAL
Cadaveric Donors in CZ (N)	706	1556	927	195	3 384
Donors in CZ (pmp, annually)	8.5	19.3	18.1	18	–
Heart transplants (pmp, annually)	0.6	5.3	5.1	5.5	–
Hearts for AHV processing collected	64	590	373	66	1 093
AHV – stored	50	955	678	121	1 804
AHV – used	46	493	302	50	891

Conclusions: The advantage of an AHVB direct access into the national pool of cadaveric organ donors is stressed. The integration of the AHVB into the national organ donation/transplantation program proved to be an effective organizational tool to cover the need of AHV (AHV - used) on national level.

EP14 THE SAUDI EXPERIENCE IN INCREASING ORGAN DONATION FROM CADAVERIC DONORS

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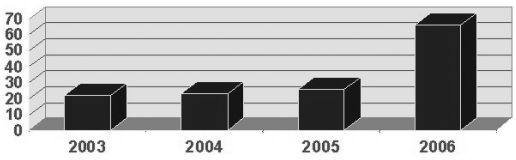
Aim: Since 1985 the Saudi Center for Organ Transplantation (SCOT) is working 24/7 to increase the cadaveric organ donation in the Kingdom of Saudi Arabia (KSA). In other hand, the waiting list for organ transplantation is dramatically increasing year after year. Although the Living Related Transplantation has clearly saved lives and reduced recipients waiting times but it is absolutely not the best solution. Therefore, SCOT has created a Mobile Donor Action Team for Riyadh city, the capital of KSA, as trial that its mission is to promote organ donation in Riyadh region.
Materials and Methods: The first step was frequent visits to Riyadh hospitals (Public & Private) Intensive Care Units. The aim of these frequent visits was the following: (a) to do donor detection; (b) to have good medical management for the donors; & (c) to expedite the donor process from reporting to harvesting. Moreover, to establish a good relationship with the ICUs staff and always emphasize on the importance of their role in saving patients life and noting that each cadaveric donor will save the life of minimum of *four patients*.
Results: The table shows significant differences in increasing the number of harvested donors in Riyadh region (4-5 millions population) between 2003 and 2006.



Conclusion: What conclusions can we take away from the Saudi's experience? It is clear that one of the most efficient ways to detect a possible donor is a frequent visit to all Intensive Care units and to establish good relationship with the ICUs staff and taking into consideration that each hospital need a different approach.
The Saudi Center for Organ Transplantation is currently trying to implement this successful experience in all KSA regions.

ELBP02 PUBLIC ADMINISTRATION RELATED TRANSPLANT ORGANIZATIONS: THE CLOSER, THE BETTER

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Purpose: To present the latest data of the Catalan Model of Organ Procurement Organization
Methods: The OCATT is the oldest organization of organ procurement and transplantation in Spain (1984) and is part of the Catalan Health Service. It covers a 7M population area and its objectives are to plan, order and coordinate all related activities. The network consists of 23 organ extracting hospitals, 8 transplanting hospitals and 22 transplant programs. There is also a tissue donation and transplant network involving 135 centres. Data source: OCATT registries.
Results: The OCATT monitors the situation in its area through its 24/365 service and collects and elaborates data involved in donation, waiting lists and transplantation. We had observed an increasing trend in the donation rate pmp and the total number of deceased valid donors during recent years, with a maximum in 2005 (35 pmp). Implementation of three new estrategies in 2007 have led to increased number of donors, organs and transplants: NHBD program, live kidney donors promotion and the professional role of the territorial transplant coordinator in addition to existing hospital transplant coordinators.

Table I

	Valid Donors	Organs				
		Kidney	Liver	Heart	Lung	Pancreas
2007 Jan-May	102	195	88	23	19	8
2006 Jan-May	92	168	79	17	16	12
Δ %	+11%	+16%	+11%	+35%	+18%	-33%

Table 2

	Transplants				
	Kidney	Liver	Heart	Lung	Pancreas
2007 Jan-May	210	93	17	17	13
2006 Jan-May	168	82	15	13	20
Δ %	+25%	+13%	+13%	+31%	-35%

Conclusions: The possibility for instant response when faced with negative data is closely related to organization size in terms of population covered, professionals coordinated and close work with them. The real power to implement new strategies is equally important and also is the availability of fresh data to introduce new measures with minimum delay.

Donor

EP15 LIVER TRANSPLANT UTILIZING MARGINAL DONORS

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Introduction: From July 1999 to November 2006 312 liver transplants were performed from 289 cadaveric donors. Marginal donors defined by age >70 years, positive viral markers and other laboratory anomalies such as PSA. In our experience we utilized 48 donors that could be defined as marginal.
Methods: 21 liver transplants were performed utilizing donors with age >70 years, 2 donors had high PSA level, 28 donors were positive for viral hepatitis. Recipients UNOS status was: status 1: 9 patients, status 2A: 1 patient, status 2B or 3: 38 patients. Median follow up was 23.88 months. Mean recipients' age was 53.5 years.
Recipients' primary disease was: HCV 9 pts, HBV 3, HCV-HBV 1, FHF 3, graft

failure 5, hepatic artery thrombosis 1, alcohol 1, Wilson in 1, PBC in 1, 23 pts had HCC.
19 donors were older than 70 years and negative for viral markers whereas, 26 donors were positive for viral markers but younger than 70 years. Two patients were older than 70 and positive for viral markers.
Results: Overall morbidity and mortality was 37% and 23% respectively.
13 patients out of 19 (68%) that received a liver from an aged donor are still alive with a mean follow up of 28.03 months.
22 patients out of 26 (84%) receiving a viral positive liver are still alive with a mean follow up of 23.02 months.
2 recipients transplanted with high PSA donors are alive with a median follow up of 39.9 months, and experience normal liver function without any evidence of metastatic prostatic disease.
Conclusions: Extreme marginal donors can be successfully utilized for liver transplantation increasing our donor pool of 16%. We found no significant difference between liver over 70 years and liver with positive viral markers (p= 0.19).

EP16 HOW TO EXPAND THE DONOR POOL IN LIVER TRANSPLANTATION: SINGLE CENTER EXPERIENCE

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Purpose: because of the shortage of donor organs, clinicians are continually modifying criteria to accept organs, particularly the so called "marginal" donor.
Methods: we performed an analysis of cadaveric adult allograft used for adult from June 2003 to June 2006. According to the guidelines of Italy's National Transplant Center the following were the indicating criteria for defining a marginal donor: age >60 years; macrovescicular steatosis >30%; prolonged stay in intensive care unit (>7 days); prolonged hypotension (SBP < 60 mmHg >1 hour); requirement for 2 inotropic drugs; cold ischemia time >12 hours; hypernatremia; abnormal values of extra hepatic tumor markers; positive seroligic markers for viral hepatitis (B & C). 125 liver transplants were divided in two groups: S (standard) and M (marginal). Group S (58 pt) received a liver from a donor ideal, while in group M (67 pt) received an organ from a marginal donor. Group M is divided into two subgroups: M1 group with (44 pt) receiving a graft with 1 or 2 risk factors; and M2 group (23 pt) receiving a graft with between 2 and 5 risk factors.
Results: Patient survival was 91.95% in group S and 79.88% in group M; graft survival 90.40% in S and 71.19% in M. Comparing the three groups we found: no statistically significant difference between group S and M1 in patient and graft survival; different graft survival in favor of group M1 when compared with M2, patient survival is not significant; different patient and graft survival both in favor of group S when compared with M2.
Discussion: The concept and definition of marginal donors continues to evolve, and the impact of their use is the result of a combination of donor factors as well as recipient factors.

EP17 DONOR POTENTIAL OF MAJOR CLINICS IN GEORGIA

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Among the factors impacting on donation rates are: potential for donation (number of brain death or NHBD), legal environment, organizational measures, professional education, cultural and religion barriers etc.
The objective of this study was the assessment of donor potential in major clinics of Georgia.
Materials/Methods: Total of 727 cerebro-vascular deaths (100%) where evaluated in four major clinics of Georgia (ICU of Gudushauri National Medical Center, ICU of Tbilisi city hospital #1, ICU of Kipshidze Central University Clinic and ICU of Neurosurgery Center. The reasons of death were divided into four groups: cerebral trauma, ruptured aneurism, primary cerebral tumors and other cerebro-vascular reasons. 2004-2006 cases where evaluated. Age range was 18-65. 75% was male and 25% - female.
Results: Number of cerebral trauma out of total cerebro-vascular deaths was 144 (19,8%), ruptured aneurism – 26 (3,6%), primary cerebral tumors – 16 (2,2%) and other cerebro-vascular reasons were 541 (74,4%). Total of 186 (25,6%) cases where adopted as maximal organ donor potential. 50 cases out of them where determined as minimal potential, where brain death was suspected either on the bases of clinical signs (76%), or – EEG, held in 12% - once and in 10% - twice.
Conclusion: Organ donor potential in Georgia is sufficient to meet financial coverage from health care budget on organ transplantation. Maximal attention must be paid to potential organ donor detection in selected major ICU's. Potential donor maintenance is major issue in cases where brain death is suspected.

EP18 QUALITY MARKERS AND PERFORMANCE OF THE ORGAN PROCUREMENT ORGANIZATION AT THE PUBLIC UNIVERSITY HOSPITAL, BRAZIL

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Introduction: Our procurement organization (OPO) cover a population over 7 million people. Our donation rate is around 3.9 ppm.
Aim: To find the quality markers and to evaluate its efficiency to improve organ donation.
Methods: Information of potential donors' records was analyzed retrospectively from April 2006 to December 2006. The indices studied were: familiar refuse rate, notification rate, effective donation rate, cardiac arrest after donation, time from brain death diagnosis to organ withdraw, time of brain death protocol obeying Brazilian public health laws.
Results: We detected 162 potential donors. There was an 58 (35.8%) familiar refuse, notification rate increased 50%, effective donation was 4.5 per million people (pmp) cardiac arrest after donation rate was 19%, time from brain death to withdraw was 34 hours and time of brain death protocol was 9 hours.
Conclusion: There was an increase in familiar refusal rate and in the cardiac arrest post donation. It is possible to improve these results by proper training of the social workers and nurses to interview donor's relatives and parents and also to improve the donor maintenance and to try decreased the brain death protocol time.

EP19 BRAIN DEATH AND TRANSCRANIAL DOPPLER ULTRASOUND AS EXAM FOR CONFIRMING TEST AND ITS APPLICABILITY IN POTENTIAL DONORS

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Introduction: Diagnosis of brain death requires confirmation of the clinical diagnosis by appropriate tests. The results obtained with transcranial Doppler (TCD) led us to conduct this retrospective study of TCD recording in brain death patients.
Methods: 150 patients were diagnosed as brain death between January 2000 and December 2005. After the clinical exam, was necessary the exame confirming the donation. Three different physicians, one neurologist and two neurosurgeons carried out this to the diagnosis. Intracranial anterior circulation was examined via temporal window, and the posterior circulation was studied in transoccipital window.
Results: The patients displayed typical ultrasound patterns of cerebral circulation arrest: an oscillating signal, a systolic spike, an there was only one patient had a false negative result, who had an extended skull defect.
Conclusion: This retrospective study indicates that TCD is a very sensitive and safe method for diagnosing cerebral circulatory arrest. TCD may be used a confirmatory test being cheaper and faster at bedside exam.

ELBP03 TO ACCEPT OR NOT TO ACCEPT: ARE CURRENT CRITERIA FOR LUNG DONATION STILL OPTIMAL OR SHOULD THEY BE REVISED?

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Background: 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.
Methods: 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 pO_2 was 450 mmHG (±35), mean time on ventilation was 130 h (±40). Microbiological analyses of the bronchioalveolar 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%).
Discussion: 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.

ELBP04 LOST THORACIC ORGANS – NOT TRANSPLANTED THORACIC ORGANS IN BAVARIA IN 2006

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Background: 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 procured 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 procured such as 40 lungs. Transplanted were 39 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 availbility. 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 criterias - for example establishing an “old- for- old”- program for hearts and lungs like the existing “old- for- old” for kidneys at ET.

ELBP05 EMERGENCY AND PRIMARY CARE DOCTORS OPINIONS ON ORGAN AND TISSUE PROCUREMENT AND TRANSPLANTATION IN SPAIN

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Purpose: To discover the attitudes and beliefs held by emergency and primary care doctors in relation to organ and tissue procurement and transplantation.
Methods/Materials: Cross-sectional study. We collected information from 902 subjects, a representative sample of Spanish emergency and primary care doctors. A self-administered questionnaire (38 items) was produced to obtain information dealing with attitudes and beliefs, knowledge of the organ and tissue procurement/transplantation process, together with the perception of personal awareness/information requirements. Diferent socio-demographic variables were also included.
Results: Overall, 96% of the subjects interviewed would donate their organs and 95% would donate that of a deceased relative. Only 20% carry a donor card, but 85% said they would be willing to do so. In 69% of cases, the family of the doctor interviewed knew his decision about the donation of his organs, with 68% stating that their relative was in favour of organ donation. Regarding knowledge, 47% of doctors knew the consequences of the specific Spanish donation law. 85% stated in Spain all kinds of transplants are performed, with 35% answering that non heart beating donors were the most frequent type. Concerning information, 24% of doctors considered that they had scarce or non-existent information, and 93% wished to receive more. The majority of the sample felt the informative campaigns run by their centres were insufficient (77%) Finally, 89% of the doctors believed they could collaborate with the organ donation area, and that the best option for this, would be providing information to centre users (87%).
Conclusions: This study shows doctors are sensitive to the subject of organ and tissue donation and transplantation. Nevertheless, they consider they need further and wider information, believing this to be an interesting field where their collaboration could be valuable.