METHODS: An alliance of 60 transplant centers partnered with a large Midwestern transplant program to pool incompatible donor and KTC pairs to create a common database. The blood type, PRA, race, sex, age, and reason for incompatibility were tallied for KTC and donors according to the reason for incompatibility.
RESULTS: Information was collected on 373 incompatible pairs. Overall 58% of KTC were blood type (BT) O; 66% of ABO incompatible (ABOi) KTC had BT O compared with 50% of crossmatch incompatible (XMi) KTC. Similar information was collected for BTs A, B, and AB. Overall donors' BTs were 36% O, 41% A, 13% B and 6% AB. No ABOi donors had BT O, while 62% had BT type A. The BT of XMi donors was 56% O and 28% A. The PRA of KTC overall was < 10% in 29%, 10-79% in 33%, and ≥80% in 36%. The PRA was <10% for 59% of ABOi KTC, but <10% for only 3% of XMi KTC. The PRA was ≥80% in 56% of XMi KTC. Overall 73% of XMi KTC were Caucasian, 17% African American, and 5% Hispanic. Male KTC represented 42% overall, 52% of ABOi and only 33% of XMi. Donors overall were 42% male. In general, ABOi KTC were older than XMi KTC, e.g., age 50-64 51% vs. 29%. Likewise, ABOi donors were older than XMi donors, e.g., age 50-64 36% vs. 20%.
CONCLUSION: These data are substantially different from publicly available US data on living donor transplantation. For example, 44% of US compatible recipients had BT O while 72% of unrelated donors had BT O, and the PRA was <10% for 85% of unrelated recipients. In addition, paired donation ABOi donors and KTC have important differences compared with XMi pairs. Careful evaluation of the actual characteristics of incompatible pairs has important implications for developing theoretical pools of patients from which to model paired donation allocation strategies.

Abstract# 1327 Poster Board #-Session: P171-III

Delayed Graft Function Has an Equally Bad Impact on Deceased Donor Renal Graft Survival in Both Standard Criteria Donors and Expanded Criteria Donors. Jean Tchervenkov, Marcelo Cantarovich, Peter Metrakos, Steve Paraskevas, Douglas Keith, Dana Baran, Myriam Fernandez, Proshanto Chaudary. *Surgery, McGill University, Montreal, QC, Canada; Medicine, McGill University, Montreal, QC, Canada.*

Introduction: Renal Transplant waiting lists continue to grow. The use of expanded criteria donors (ECD) will increase the donor pool, but their use is still limited because of poorer graft survival compared to standard criteria donors (SCD). We assessed the impact of immediate renal function on renal graft survival in recipients of SCD and ECD.
Methods: All Cadaveric renal transplants (n=335) performed at our center between 1990 and 2002 were included. Immunosuppression included induction with Thymoglobulin(83%), Mycophenolate Mofetil (51%), Azathioprin(47%), Tacrolimus (55%), or Cyclosporine Neoral (45%) and Methylprednisolone. ECD was defined according to UNOS criteria. All other donors were considered as SCD. Delayed graft function (DGF) was defined as anyone who required a form of dialysis immediately after the kidney transplant. Slow graft function (SGF) was defined as a functioning kidney with the serum creatinine drop of <20% in the first 24hrs after the transplant. Imediate graft function (IGF) was defined as a functioning kidney with a serum creatinine drop >20% in the first 24hrs after the transplant. Data for graft survival is **Non-Death Censored Actual Graft Survival**.
Results: Seventy two of the 335 pts (21.5%) were ECD. IGF was present in 54.7% of pts vs SGF 16.2% and DGF 29.1%. In SCD, the SGF and DGF rates were 15.3% and 23.4% respectively. In ECD, the SGF and DGF rates were 19.4 and 50% ($p<0.02$). Actual graft survivals at 1 and 5yrs was 86.3% and 70.4% respectively and although ECD pts had a slightly lower 5year graft survival (72.6% vs 62.5%) this was not significant ($p=0.13$). Pts with IGF had a much better actual graft survival at 5yrs compared to SGF and DGF (83.5%vs74.1% vs 45.4%). DGF had an equally bad impact on actual 5yr graft survival in SCD and ECD (42.6%vs 50%). Donor age or cold ischemia time had no effect on 5year actual graft survival in SCD or ECD except for cold ischemia >18hrs in ECD recipients.
Conclusion: DGF has a strong detrimental impact on 5year graft survival. There is a higher rate of DGF in ECD vs SCD kidneys. The detrimental impact on 5year actual graft survival is equal in SCD and ECD kidneys. Minimizing DGF should be our goal in deceased donor kidney recipients.

Abstract# 1328 Poster Board #-Session: P172-III

Predonation Effective Renal Plasma Flow and Short-Term Graft Function Following Living Donor Kidney Transplantation. Shen-Shin Chang,[1] Chung-Jye Hung,[1] Yih-Jyh Lin,[1] Tsung-Ching Chou,[1] Jen-Pin Chuang,[2] Po-Chang Lee.[1] *[1]Department of Surgery, National Cheng-Kung University Hospital, Tainan, Taiwan; [2]Department of Surgery, Tainan Hospital.*

Objectives: There is little published information about the influence of predonation ERPF on graft outcome. Controversial evidence suggests that higher pre-donation glomerular filtration rate (GFR) positively correlates with post-transplant graft outcome. The aim of this study was to evaluate the effective renal plasma flow (ERPF) of transplanted kidney and its relationship to short-term graft function.
Methods: A total of 45 recipients of renal transplantation from living donors at our institution between 2001 and 2007 were evaluated. The ERPF of the donor kidneys had been measured by isotope clearance (Tc-99m MAG) before laparoscopic nephrectomy. The absolute ERPF– recipient body surface area (F/BSA) ratio and absolute ERPF–recipient body weight (F/Wt) ratio were determined for each donor-recipient pair. Post-transplant graft function was estimated by the equation of Chinese MDRD(Modification of Diet in Renal Disease). The Pearson's correlation coefficient was used to evaluate the strength of the association between these two ratios and estimated GFR at 3th, 6th months. Both univariate and multivariate analysis were performed by using linear regression between all variables and post-transplant graft function.
Results: Five patients were excluded because of acute rejection, incomplete data, or sepsis. Estimated GFR correlated with F/BSA ratio at 3 months and 6 months (Pearson $r=0.495$; $P=0.001$ and $r=0.441$; $P=0.012$). Estimated GFR correlated with F/Wt ratio at 3 months and 6 months ($r=0.567$; $P<0.001$ and $r=0.453$; $P=0.009$). There were significant linear correlations between these two ratios and eGFR..A cutoff value was apparent when F/BSA ratio greater than 109.68 (ml/min per m^2) was associated with a eGFR greater than 59 ml/min/ 1.73 m^2, whereas F/Wt ratio greater than 2.97 ml/min/kg was associated with a eGFR greater than 59 mL/min/ 1.73 m2.On the final multivariate model, F/BSA ratio and F/Wt ratio were the independent predictor of graft function.
Conclusions: Preoperative absolute ERPF can be used to calculate F/BSA and F/Wt ratios before living donor kidney transplantation.Our preliminary data suggested that both F/BSA ratio and F/BW ratio may be considered as predictive indexes for short-term outcome. Extreme discrepancy between preoperative allograft function (ERPF) and recipient body surface area or body weight should be avoided.

Abstract# 1329 Poster Board #-Session: P173-III

Allocation of Non-ECD Renal Grafts to Older Patients Results in Loss of Functioning Graft-Years Secondary to Recipients' Lower Life Expectancy. Dionisios Vrochides,[1] Mazen Hassanain,[1] Peter Metrakos,[1] Jean Tchervenkov,[1] Prosanto Chaudhury,[1] Marcelo Cantarovich,[2] Steve Paraskevas.[1] *[1]Department of Surgery, Multi-Organ Transplant Program, McGill University, Montreal, QC, Canada; [2]Department of Medicine, Multi-Organ Transplant Program, McGill University, Montreal, QC, Canada.*

Introduction: Patient's age is not considered a selection criterion for the allocation of renal grafts in North America.
Purpose: To investigate whether allocation of non-ECD grafts to older patients results in loss of 'graft-years'.
Methods: Of 640 patients with a kidney transplant, 414 received a non-ECD, whereas 226 received an ECD graft. Patients were divided into four groups; group 1: < 41 yo, group 2: 41- 50 yo, group 3: 51 – 60 yo and group 4: > 60 yo.
Results: 35.3% of patients received an ECD graft. 17.3% of patients received graft from an over 60-years old donor. Non-ECD grafts were uniformely allocated among the study cohorts. The 10-year graft survival was 75%, 72%, 60% and 55% for groups 1, 2 ,3 and 4 respectively ($p = .003$). Group 1 and 2 superior graft survival was still present when graft ECD status was considered ($p = .017$). One out of five patients older than 60 years, compared to one out of forty patients younger than 41 years, died with a functioning graft.

Graft/Patient Status, n (%)

	Functional/Deceased	Functional/Alive	Dialysis	Total
< 41 years old	4 (2.4)	123 (74.5)	36 (21.8)	165
41-50 years old	14 (9.7)	112 (77.2)	16 (11.0)	145
51-60 years old	16 (9.8)	115 (70.1)	33 (20.1)	165
> 60 years old	32 (19.4)	113 (68.5)	19 (11.5)	165
Total	66 (10.3)	463 (72.5)	104 (16.3)	640

Table1

Conclusions: Allocation of non-ECD renal grafts to older patients results in loss of functioning graft-years secondary to recipients' lower life expectancy.

Abstract# 1330 Poster Board #-Session: P174-III

Influence of Donor Type on Elderly Kidney Transplant Survival and Allograft Function. L. Y. Shen,[1] S. Kuppachi,[1] A. Agarwal,[1] N. A. Turgeon,[1] T. C. Pearson,[1] C. P. Larsen,[1] A. D. Kirk.[1] *[1]Emory Transplant Center, Emory University, Atlanta, GA.*

Background: Patients aged 60 years and older account for more than 50% of the people with end stage renal disease in the US. Use of living donor (LD) and expanded criteria donor (ECD) kidneys has progressively increased to assist with the growing demand for kidney transplants. Value of transplanting ECD kidneys continues to be questioned due to concerns regarding decreased patient survival and outcomes.
Methods: We performed a retrospective review to evaluate and compare the patient and graft outcomes of kidney transplant recipients aged >60 years stratified by donor type (LD, standard criteria donor (SCD), and ECD).
Results: Between January 2002 and November 2007, 195 living and deceased donor elderly kidney transplants were performed. Median follow-up was 2.0 years. Most (89%) were on renal replacement therapy (RRT) at the time of transplant. Length of RRT prior to transplant was significantly shorter ($p<0.01$) in the LD (1.5 years) when compared to SCD (3.6) and ECD (3.0). Length of hospital stay was shortest in the LD (6.3±5.0 days), followed by SCD (7.1±4.0) and ECD (9.2±8.5, $p=0.001$).
Donor type is a significant factor in patient survival. The survival rate at 1 month, 1 year, and 3 years for LD was 100%, 94.3%, and 80.0%, for SCD 98.4%, 90.5%, and 76.7%, and for ECD 85.2%, 64.0%, and 44.8% respectively. Compared to the ECD, both SCD ($p=0.012$) and LD ($p=0.05$) recipients had significantly higher survival rates. Delayed graft function was highest in the ECD (20.7%) followed by the SCD (16.8%) and LD (7.3%, $p=0.15$). Acute rejection occurred in 6 (20.7%) ECD, 5 (12.2%) LD, and 9 (7.2%) SCD ($p=0.15$).