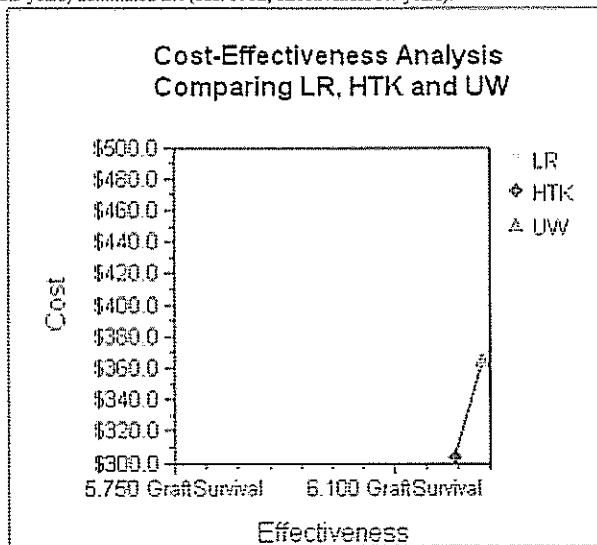


hemodialysis (HD) for several months (8-15) to reduce oxalate levels and minimize deposition in the renal graft following transplant. All organs were from deceased donors; two patients received split liver grafts. Bilateral native nephrectomies were performed in each patient to reduce the total body burden of oxalate. One patient was re-explored postoperatively for bile leak; there were no other complications. All patients had aggressive postoperative HD until oxalate levels were consistently measured at less than 30umol/L. HD was completed on average by POD 23 (7,19,44). Follow up has been complete, ranging from 1-4 years. Renal function has been excellent, with no signs of oxalate deposition in the renal grafts. We advocate aggressive pretransplant and posttransplant HD and bilateral native nephrectomies to reduce the risk of renal graft injury in patients with PH1 undergoing combined liver-kidney transplantation.

Abstract# P-40

HTK and UW Are More Cost-Effective Than LR for the Preservation of Live Donor Kidneys George Rofaief, Stephen Rayhill, Andre Dick, Ramasamy Bakthavatsalam, Jeffrey Halldorson, Jorge Reyes, James Perkins. *Division of Transplant Surgery, Department of Surgery, University of Washington Medical Center, Seattle, WA.*

LR has been flushing solution of choice for living renal donors (LRD) due to short cold ischemia times (CIT). Recent trends expanding CIT for LRD transplants question best flushing and preservation solutions. **METHODS:** After IRB approval, we retrospectively reviewed donor and recipient factors for 177 LRD transplants from 2004 through 2010. Program switched from LR to HTK in 2008. To avoid bias, we used propensity scoring (PS) to match our groups on probability of developing delayed graft function (DGF), requiring dialysis within 7 days post-transplantation. PS is based on 7 factors for developing DGF: CIT, Warm Ischemia Times, multiple renal veins, HLA, size mismatches, donor and recipient ages. We matched 57 kidneys flushed with HTK to 57 flushed with LR. **RESULTS:** DGF rate was 19% lower (P<0.01) in HTK group. Using HTK, reduced relative risk of DGF by 92%. Number to treat was 5.2 patients to be flushed with HTK, to prevent 1 case of DGF. We developed a Markov model for cost-effectiveness comparing LR, HTK, UW using probabilities of DGF from our propensity matched groups and literature review. Costs for LR, HTK, UW, in-hospital dialysis were from 2011. The model revealed that both HTK (cost \$304, effectiveness 6.2 years), and UW (cost \$363, effectiveness 6.3 years) dominated LR (cost \$502, effectiveness 5.7 years).



CONCLUSIONS: HTK is superior to LR for preventing DGF. HTK and UW are also more cost-effective.

Abstract# P-41

Living Kidney Donor Candidate Triage Using Web-Based Patient Portal Martha Ruelas, Amy Peele, Allison B. Webber, Brian Lee, Ryutaro Hirose, John P. Roberts. *Surgery- Kidney Transplant Service, University of California, San Francisco, CA; Medicine- Kidney Transplant Service, University of California, San Francisco, CA.*

A medical history is essential for establishing living kidney donation eligibility. These histories rely upon paper-based forms exchanged via U.S. mail and often result in unnecessary in-person visits of ineligible candidates. Consequently, donation is delayed and excess costs incurred. We hypothesized that a validated (1-2) web-based patient portal (BREEZE™, MedSleuth, Inc.) customized for triage of living kidney donor candidates (DCs) could help via the remote capture of DC medical histories. Over a 3 week period, DCs at UCSF were directed to a secure web-based questionnaire designed to triage for donation eligibility (e.g., BMI<35, non-smoker).

DCs not meeting criteria were informed of their ineligibility by the software. Those DCs meeting eligibility criteria continued with the web-based questionnaire and provided a complete medical history. The software employed branch chain logic and machine learning to generate "on the fly" customized questionnaires. Completed questionnaires were immediately available to clinic staff.

55 DCs (42±14 years, BMI 25.8±4) were evaluated. 11 DCs (20%) did not pass initial triage (36% smoking, 27% HTN, 18% BMI>35, 9% kidney stones/drug use). Completion rate was 96% (42/44). Median completion time equaled 9 minutes (IRQ 6-15). 91% of DCs found the questionnaire easy/very easy to complete. 97% expressed high/very high satisfaction.

A web-based patient portal can facilitate identification of eligible DCs by remotely eliciting a donor-specific medical history. This tool could expedite organ transplantations and reduce cost.

- 1. A# 851, ASA, 2011
- 2. ATO-P437, IHEA 2011

DISCLOSURE: Webber, Allison B.: Other, Medsleuth, Inc, consultant.

Abstract# P-42

Differential Outcomes of Expanded Criteria Donor Renal Allografts According to Recipient Age Chandrasekar Santhanakrishnan, John D. Pirsch, Luis A. Fernandez, David P. Foley, Janet M. Bellingham, Jon S. Odorico, Glen E. Levenson, Hans W. Sollinger, Dixon B. Kaufman, Anthony M. D'Alessandro, Joshua D. Mezrich. *Surgery, University of Wisconsin School of Medicine and Public Health, Madison, WI.*

Background: ECD kidneys are utilized to expand the number deceased donor transplants. While some have assumed the best use is for older recipients, utilization of ECD kidneys in elderly recipients may lead to reduced patient and graft survival rates.

Methods: This is a single-center, retrospective review of all primary deceased donor kidney transplants performed between 2000 and 2005 in recipients older than 40. **Group 1** consisted of patients >60 years of age (n=189) who received ECD (n=96) and standard criteria kidneys (SCD) (n=93). **Group 2** consisted of patients 40-59 years (n=370) who received ECD (n=105) and SCD (n=265) kidneys.

Results: Older recipients (Group 1) that received ECD kidneys demonstrated significantly shortened 5-year actuarial patient and graft survival compared to older recipients of SCD allografts. Younger recipients (Group 2) that received ECD and SCD kidneys demonstrated similar survivals. Group 1 ECD recipients also had significantly reduced survivals compared to younger (Group 2) ECD recipients. In multivariate analysis, ECD versus SCD donor remained an independent predictor of decreased outcome in Group 1, but was not significant in group 2. Group 1 ECD recipients with DGF had a 1 year survival of 69%, compared to 90% in Group 2 recipients.

Conclusions: Increased morbidity and mortality was observed in elderly recipients of ECD donor kidneys. Prudent patient selection may yield better outcomes of ECD kidneys. These findings have implications in allocation policy developments that encourage placement of ECD kidneys in older recipients.

Abstract# P-43

Survival Advantage of Allograft Nephrectomy Early after Transplant Failure Zachary W. Schirm,¹ Kenneth J. Woodside,¹ Joshua J. Augustine,² Edmund Q. Sanchez,¹ Apama Padiyar,² Kenneth A. Bodziak,² Donald E. Hricik,² James A. Schulak.¹ *¹Department of Surgery, Case Western Reserve University & University Hospitals Case Medical Center, Cleveland, OH; ²Department of Medicine, Case Western Reserve University & University Hospitals Case Medical Center, Cleveland, OH.*

Management of the failed renal transplant is controversial. We sought to determine the impact of nephrectomy timing on perioperative complications and survival.

Methods: After IRB approval, we retrospectively analyzed outcomes from 86 patients who underwent transplant nephrectomy for cause between 2000 and 2011. **Group 1** underwent transplant nephrectomy < 120 days after allograft failure (n=45) and **group 2** underwent transplant nephrectomy ≥ 120 days after allograft failure (n=41). **Results:** There were no significant differences between the two groups in age, gender, race, BMI, or diabetes. **Group 1** included 3 patients who also had a pancreas transplant, while **group 2** included 8 such patients. Patients in **group 2** had a longer time from transplant to allograft failure (2986 ± 1782 d, vs 1760 ± 1863 d for **group 1**, p=0.003).

Complications were not significantly different, except for superficial surgical site infection (15% in **group 1** vs 0% in **group 2**, p=0.02). Deep surgical site infection and organ space infection rates were similar.

Kaplan-Meier analysis demonstrated an early significant difference in survival favoring early transplant nephrectomy (Breslow's generalized Wilcoxon test, p=0.02). Late survival was not significantly different (Logrank test, p=0.25). Thirty day and 1 year survival were 100% and 95% for **group 1**, and 95% and 73% for **group 2**.

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