

**CNSW ABSTRACTS FROM THE NATIONAL KIDNEY FOUNDATION  
2009 SPRING CLINICAL MEETINGS**

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**1. “KIDNEY MATTERS” PRE-DIALYSIS EDUCATION PROGRAM PARTICIPANTS EXPRESS INCREASED KNOWLEDGE ABOUT, AND COMPETENCE IN, MANAGING CKD AND CHOOSING RENAL REPLACEMENT THERAPY MODALITY; COMPARISON DATA SUGGEST MODEST PARTICIPANT GAIN IN SOME CKD MANAGEMENT BEHAVIOR INDICATORS**

Eunice C. Banks Atlanta, Georgia USA

Kidney Matters (KM) pre-dialysis education program is being developed. Kidney Matters partnered with the Southwest Atlanta Nephrology (SWAN) physicians to initiate the referral of pre-dialysis participants. The SWAN nephrologists agreed to invite their patients in stages 3 and 4 of renal failure to attend the Kidney Matters classes. Each physician was asked to complete an order for education. There were 162 referrals of patients to the Kidney Matters program during the investigation period (July, 2006-April, 2008). In order to compare the CKD management behaviors of patients who attended the Kidney Matters program to those of patients who did not, hospitalizations and missed treatments during the first 3 months of dialysis were counted, and dialysis adequacy was examined during the third, fourth and fifth months of dialysis. Comparison between KM patients and No KM patients; fewer Kidney Matters patients missed treatments during the first 3 months of dialysis, and they achieved adequate dialysis more often during months 3-5 of dialysis, than did patients who did not attend the program. Comparison between KM HD patients and No KM HD patients; fewer KM HD patients missed treatments during the first 3 months of dialysis and achieved adequate dialysis more often during months 3-5 of dialysis, than did patients who did not attend. Comparison between PD and HD patients; fewer PD patients missed treatments during the first 3 months of dialysis than did HD patients. Fewer PD patients were hospitalized during the first 3 months of dialysis, and they spent less time in the hospital than did HD patients. PD patients achieved adequate dialysis more often than did HD patients. Kidney Matters, supports the notion that education programs can play a critical role in preparing newly diagnosed CKD patients for renal replacement therapy.

**2. HOW INTERDISCIPLINARY TEAMS CAN HELP BLACK HEMODIALYSIS PATIENTS GET KIDNEY TRANSPLANTS**

Teri Browne, University of South Carolina College of Social Work, Columbia, SC

Research has shown that black dialysis patients are significantly less likely than their white peers to be evaluated and listed for a kidney transplant. Surveying 228 black hemodialysis patients in Illinois, the following research questions were addressed using an original survey: (1) What is the role of social networks in providing information about kidney transplantation to black hemodialysis patients? (2) What is the relationship between social networks and a patient’s likelihood of being seen at a kidney transplant center?

94% of patients surveyed were interested in a kidney transplant, and 98% percent had insurance that would pay for a kidney transplant, but only 9% were active on a transplant waiting list. Black hemodialysis patients with lower incomes were less likely to be seen at a kidney transplant center (OR 1.38, 95%CI: 1.09-1.76,  $p < .01$ ), and patients who have people in their social network with information about kidney transplant are significantly more likely to be seen at a kidney transplant center. Specifically, black dialysis patients who get informational social support from their dialysis team (OR 1.76, 95%CI: 1.5-2.1,  $p < .001$ ) and social networks (OR 1.63, 95%CI: 1.2-2.3,  $p < .001$ ) are significantly more likely to be seen at a kidney transplant center.

This study compliments other research about black dialysis patients and their success on the pathway to kidney transplantation. Kidney transplant disparity is a multifaceted social problem, and considering black dialysis patients’ social milieu can be complimentary to the important existing research regarding this public health crisis. The logistic regression models imply that correct information about a kidney transplant and success of being seen at a kidney transplant center can be differentiated on the basis of considering social network informational attributes and income. Dialysis health teams can augment patients’ social networks through their own interventions or by linking patients with mentors or patient navigators.

**3. PATIENT CALENDAR OFFERS “EVERYDAY ENLIGHTENMENTS”**

Kim Dowdle and Joni-Jill Tobrocke, CVPH Medical Center, Plattsburgh, NY, USA.

Patient education in the dialysis unit is an on-going process. Our staff identified alternative educational strategies to reinforce what is covered in our formal patient education program, as well as a fun and creative way to disseminate new information. By consensus, we developed a calendar that had a full page of information each month. Staff was asked to volunteer, research, and create their page of the calendar. They enthusiastically joined and the months filled up quickly. Our 2009 calendar covers a spectrum of topics including:

Jan.	Emergency Meal Plan	July	Medication Reconciliation
Feb.	Heart Health	Aug.	Hand Washing/Infection Control
Mar.	Vascular Access	Sept.	Dialysis Diet Snapshot
April	Options	Oct.	Bones/Osteodystrophy
May	Exercise	Nov.	Advanced Directives
June	Anemia	Dec.	Disaster Prep/Emergency Kit

We incorporated color, easy to read fonts, pictures, etc. to make each page concise and eye catching as well as informative. We call our calendar “Everyday Enlightenments”. Another opportunity for education will be to post bulletin boards in patient areas with corresponding information related to the calendar each month throughout the year. Calendars will be printed, bound and given to each patient in December as their annual holiday gift. Each year it can be updated with new information and/or topics. This project was a collaborative effort from several members of the team, including RN’s, LPN’s, SW, RD, and Techs. The staff enthusiastically tackled developing this new strategy of learning as part of an ongoing quest to improve patient compliance.

**4. FRAMING THE GIFT OF LIFE: AN EMPIRICAL EXAMINATION OF ALTRUISM, SOCIAL DISTANCE AND MATERIALS IN NON-DIRECTED KIDNEY DONOR MOTIVATION**

Harry L. Humphries, Brownyn K. Conrad, Shelli Reed, Rimal Reed, Clara Michelle Jennings, Pittsburg State University, Pittsburg, Kansas USA

This research utilizes frame analysis to examine the persuasiveness of the National Kidney Foundation’s (NKF) altruistic “gift of life” frame in promoting recruitment among live kidney donors. We surveyed a sample of 73 individuals to assess the relationship between social distance, increasing material incentives, and donor motivation. Our results show that altruism is not a strong factor in donor motivation and that limited material incentives as well as strategic “re-framings” that address the social distance between donor and receiver are important to enhancing donor motivation among individuals un-related to kidney transplant recipients.

**BINDER CONSUMPTION AS A FUNCTION OF TIME: A  
LINEAR MODEL FOR LOWERING ELEVATED  
PHOSPHORUS LEVELS BY IMPROVING BINDER TIMING**

Mark A. Livingston, Davita Inc., Warren, MI, USA

Failure to properly time binders to “catch” phosphorus-laden foods can cause patients to experience hyperphosphatemia and the complications that accompany it. Proper binder timing is often left out of conversations with non-adherent patients when discussing elevated phosphorus and subsequent binder dosing. Based on gastric emptying research of patients with and without dyspeptic symptoms typically associated with gastroparesis, two [linear] mathematical models were developed for properly timing binder consumption. Our center (Downriver Kidney Center in Allen Park, MI) emphasized the need for a strict regimen to time binder consumption during each meal. The purpose was to maximize per-pill binder potential. The [linear] dosing models account for marginal phosphorus binder consumption during meals/snacks to ensure a continuous supply of phosphate binders throughout meals/snacks to properly time phosphate binding. Using the time (t) interval of 20 minutes as the standard significant emptying time interval, binders might be taken at time  $t_0$ ,  $t_0+20$ ,  $t_0+40$ , ...  $t_0+20n$ , where  $t_0$  represents the time immediately following the first bite of food and 20 minute intervals are added to the time  $t_0$  at which time an additional binder would be consumed.

Our results showed that structured education based on our mathematical models of proper per meal binder timing resulted in an approximate 40% reduction in the phosphorus levels for the non-adherent patients. These models are not meant to imply that a patient ought to take a pill every 20 minutes without limit. Rather, the models are meant to illustrate that timing binder consumption appropriately is the missing variable when making decisions related to dosing. The variable of “time” must be added to the discussion of conventional dosing variables such as height, weight, present phosphorus level, and anticipated phosphorus consumed. Implementing an educational lesson plan for patients related to properly timing their binders may affect the phosphorus levels of chronically non-adherent patients. Further research is recommended.