baseline and at 6, 12, 18 and 24 months following enrollment, in 101 prevalent hemodialysis patients (37% women) with a mean age of 64.6 ± 11.5 years. Observation of this cohort was continued over 3 additional years.

Longitudinally, 11 increase in PA over time, controlling for demographic and clinical parameters, was associated with a delay in longitudinal elevation of IL-6 (linear estimate: -2.11 (95% CI: -3.47; -0.75) pg/ml/mo; p = 0.002 for PA X Time interaction). A decrease or increase in PA over time was associated with inverse linear changes in IL-6 levels (adjusted r = -0.305, p = 0.005) and correspondingly with higher or lower death risk.

For each 11 increase in PA, the crude and adjusted mortality hazard ratios using Cox models with effect of time varying risk were 0.62 (95% CI: 0.54; 0.71) and 0.61 (95% CI: 0.53; 0.71), respectively.

In conclusion, longitudinal changes in PA appeared to be reliable in detecting changes in nutritional and inflammatory parameters over time - combination that may contribute to understanding of its prognostic bearing.


16 PILOT STUDY TO EVALUATE THE EFFECT OF PHOSPHORUSBINDERS ON FGF23
A.Bouma de Krijger, P.M. ter Wee, F.J. van Ittersum, M.G. Vervloet
Dept. of Nephrology, VU University Medical Centre, Amsterdam

The Netherlands Fibroblast growth factor 23 (FGF23) is independently associated with cardiovascular outcome. A reduction of dietary phosphorus intake in healthy individuals leads to a decrease of FGF23. Data on the potency of phosphate binders to lower FGF23 in CKD stage 3 are conflicting. We treated 18 normophosphatemic CKD stage 3 patients with a fixed dose of sevelamer-carbonate (Renvela®) 2.4 g powder for suspension, before breakfast and dinner. Patients remained on their usual diet. Laboratory data were collected 2 weeks prior to baseline, at start of sevelamer, at week 8 following sevelamer treatment and after a wash-out of 2 weeks. We measured serum phosphorus, PTH, FGF23, estimated GFR (by the MDRD formula) and 24-h urinary phosphate excretion. General Estimated Equation was used to evaluate the effect of phosphorus binding on 24-h urinary phosphate excretion and on FGF23.

patient characteristics
n 18
Age/year 54 (46.1-62.2)
Sex (m/f) 7 / 11
race (% caucasian) 66
eGFR (ml/min/1.73m2) 41.2 ± 9.6
FGF23 (U/l) 158 (116-216)
PTH (pmol/l) 7.5(5.4-11.8)
Phosphate (mmol/l) 1.09 ± 0.10
Proteinuria (g/24h) 0.7 (0.2-1.6)

Results are as follows; phosphorus binding by sevelamer significantly lowered urinary phosphate excretion, from a median of 26.25 mmol/24 h to 17.5 mmol/l. Other parameters showed no significant association with urinary phosphate excretion. The serum phosphate was unchanged during treatment. Creatinin clearance was significantly associated with FGF23 (p=0.03), FGF23 did not change significant following phosphorus binding therapy. In conclusion; although 8 weeks sevelamer treatment significantly lowered 24 h urinary phosphate excretion, there was no reduction in FGF23 levels in this group of CKD stage 3 patients.

http://dx.doi.org/10.1016/j.krcp.2012.04.340

17 NUTRITION AND HEMODIALYSIS: THE ASSOCIATION OF DIETITIAN INTERVENTION TOWARDS ACHIEVING QUALITY PATIENT DIALYSIS OUTCOMES
archied bunani ali mohammed lehbi

The National Kidney Foundation has recognized nutritional interventions as building blocks of better dialysis outcomes. This study investigated the influence of Dietitian Intervention on mortality, adherence to dialysis prescriptions, and Quality Patient Dialysis Outcomes. The Subjective Global Assessment (SGA) tool was used to identify ratings and these ratings were associated to the tendency of risk towards mortality using a hazard ratio of 95% confidence interval in cox regression using SPSS v.19. Results revealed that respondents who marked significantly as C (1) in the Functional Capacity Items – Dysfunction (sp = 1.45) showed highest risk (17.5% risk) towards mortality. This implied that these individuals despite of Dietitian Interventions, mortality were increased related to co-morbidities. Respondents who had changes on eating habits in a typical breakfast, lunch, dinner compared from the last 6 months and those who, during physical examination, had ankle edema showed higher risk (sp = 1.40) towards mortality at 3.44%. Respondents who showed a B (2) on metabolic demand (stress) and those with muscle wasting (quadriiceps, deltoids) showed a 2.14% mortality risk (sp = 1.57); lower than those with dysfunction. Results further indicated that respondents who have higher spKt/V (sp = 1.58) showed an SGA rating of A (3) and noted to have lowest risks towards mortality and other co-morbidities.

In conclusion, an influence of Dietitian Intervention was notable to all patients receiving dialysis treatments. The Clinical Dietitian’s facility in assisting dialysis patients on the proper diet to be taken associated to condition will enable the individual to lower mortality risk ratio.

http://dx.doi.org/10.1016/j.krcp.2012.04.341

18 NUTRITION-RELATED PREDICTORS OF SLEEP DURATION IN HEMODIALYSIS PATIENTS
Jerriynn Burrowes 1, Greg Russell 1, Mark Unruh 3, Michael Rocco 2

1 Long Island University (LIU) Post, Brooklyn, NY
2 Wake Forest School of Medicine, Winston-Salem, NC
3 U of Pittsburgh, Pittsburgh, PA, USA

We have previously shown that poorer appetite was a significant predictor of decreased sleep quality (SQ) among maintenance hemodialysis (MHD) patients. There is a gap in the literature when examining sleep duration (SD) in MHD patients and the variables that may predict SD. Using data from the HEMO Study, demographic, case mix, nutrition-related and quality of life (QOL) variables were explored as predictors of SD in 1805 MHD patients. Self-reported SD (in hrs) in the last 24 hrs was assessed annually using questions from the KDQOL instrument. A multinominal logistic regression analysis was conducted to determine whether SD (short 0–6; medium 7–9; or long 10+) was associated with the selected variables and Kt/V and flux randomized assignments in a longitudinal (repeated measures) model.

At baseline, mean SD was 7.8 ± 2.4 hrs; 33%, 43% and 24% of subjects were in the short, medium and long sleep groups, respectively. In univariate analysis, dietary protein intake, serum albumin, appetite, and QOL measures (mental component score [MCS] and physical component score [PCS]) were significant predictors of SD. In multivariate analysis, age (P=0.008), race (White vs. Black) (P=0.001), appetite on dialysis days (DD) (P=0.0001), MCS and PCS (P < 0.0001, respectively) were also significant predictors of SD. Younger patients and those with good appetite on DD were more likely to sleep less, whereas Blacks and those with higher MCS and PCS were more likely to sleep more. Of the nutrition variables, higher protein intake and better appetite were associated with long vs. short SD in univariate analysis. In multivariate analysis, appetite on DD was the only variable predictive of SD. The odds ratio (95% CI) of having a good appetite for those in the short SD group compared to the medium and long SD groups was 0.81 (0.72, 0.92) and 0.86 (0.78, 0.95), respectively. Further research on SD and appetite and the potential effects of short sleep on inflammation needs to be done in MHD patients.

http://dx.doi.org/10.1016/j.krcp.2012.04.342