PO0801
Fatigue Prevalence and Associations with Non-Diuretic Anti-Hypertensive Medications in the Maintenance Hemodialysis Population

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Background: It is well known that dialysis patients suffer from fatigue post dialysis. It is possible that fatigue is exacerbated by antihypertensive medications. We hypothesized that post-dialysis fatigue (PDF) duration was positively correlated with the number of antihypertensive medications.

Methods: We conducted cross sectional survey and 6 month retrospective medical record chart review at three privately owned dialysis clinics in Illinois. The survey consisted of 50 questions related to fluid and blood pressure management, and validated Post-Dialysis Fatigue and Time to Recover from Dialysis Survey (PDF TIRD), and the validated National Institute of Health Patient Reported Outcomes Measurement System fatigue short form. A random mixed effect model was created through a reverse stepwise process in order to assess associations. Chi-squared analysis was performed with categorical symptom data.

Results: One hundred and two patients consented to the study, 96 had complete medical records with all research variables and survey values captured. The average number of dialysis sessions per patient was 50.0 +/- 19. The average time on maintenance hemodialysis was 5.06 +/- 4.93 years with a range of 0.2 to 28 years. Seventy six percent (73/96) of dialysis patients suffered from post-dialysis fatigue. Most patients 53/96 reported that their fatigue was the worst after dialysis. On average patients required 462.67 +/- 655.18 minutes (7.7 +/- 10.92 hours) to recover after dialysis. In our random mixed effect model, the time required to recover post-dialysis was positively associated with the number of non-diuretic antihypertensive medications: For every anti-hypertensive medication, patients experienced an additional 210 minutes (3.5 hrs) of fatigue post dialysis fatigue.

Conclusions: Post-dialysis fatigue is a pervasive problem in the dialysis population that has significant consequences on patients’ quality of life. While fatigue has several important contributing factors, the number of non-diuretic blood pressure medications appears to exacerbate patient fatigue. Further investigation on the survival and quality of life benefits, including fatigue, of patients maintained on antihypertensive medications versus volume control strategies is needed.

PO0802
Dialysis Adequacy and Risk of Dementia in Elderly Hemodialysis Patients

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Background: Dementia is prevalent among elderly patients undergoing hemodialysis. However, the association between dialysis adequacy and the risk of dementia is uncertain.

Methods: A total of 10,567 patients aged >65 years undergoing maintenance hemodialysis who participated in a national hemodialysis quality assessment program were analyzed. The patients were classified into quartile groups based on single-pool Kt/V levels. The associations between single-pool Kt/V and the development of dementia, Alzheimer’s disease (AD), and vascular dementia (VD) were examined.

Results: The mean age of the patients was 72.9 years, and 43.4% were female. The median Kt/V level was 1.6 ± 0.3. During a median follow-up of 45.6 (45.6–69.9) months, there were 27,6, 23.9, and 2.8 events/1000 person-years of overall dementia, AD, and VD, respectively. The incidences of overall dementia, AD, and VD were lowest in the highest single-pool Kt/V quartile group. Compared with the lowest single-pool Kt/V quartile, the risks of incident dementia and AD were significantly lower in the highest quartile (sub-distribution hazard ratio [shR]: 0.69, 95% CI: 0.57–0.84 for AD). Inverse relationships were found between the risks of developing overall dementia and AD, and single-pool Kt/V. However, no significant relationship was observed between single-pool Kt/V levels and VD development.

Conclusions: Increased dialysis clearance was associated with a lower risk of developing dementia in elderly hemodialysis patients.

PO0803
Risk of 30-Day Hospital Readmission in Patients with ESKD with and Without Autosomal Dominant Polycystic Kidney Disease

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Background: Among end stage kidney disease (ESKD) patients with autosomal dominant polycystic kidney disease (ADPKD), relatively little is known about the epidemiology and risk factors for 30-day readmissions in the US. Therefore, we evaluated the 30-day unplanned readmission rates and predictors, and inpatient care costs among ESKD with and without ADPKD patients using a nationally representative, all-payer database.

Methods: We utilized the Nationwide Readmission Database from 2016-2018 to identify patients admitted for ESKD with and without ADPKD using ICD-10 codes. We used a propensity scoring method assigned to each hospitalization computed by multivariate logistic regression model to establish matched cohorts to reduce bias due to confounding covariates (age, gender, patients’ insurance type, quartile classification of median household income extrapolated from zip code, Elixhauser comorbidity index (ECI), hospital location and teaching status) between the 2 groups. We used survey logistic regression to evaluate the association of ADPKD with 30-day hospital readmissions.

Results: From 2016-2018, after propensity matching, there were 11,578 index admissions for ESKD patients with ADPKD and 11,422 index admissions for ESKD patients without ADPKD. Those who had ADPKD during index admissions had fewer 30 days readmissions (12.8% vs 15.3%, p<0.001). The cost of hospitalizations and readmissions in ESKD patients with ADPKD were higher than non-ADPKD patients (Figure 1A). Patients who were readmitted were more likely to have kidney transplant, non-routine discharges, and have non-elective index admissions. Longer length of stay, Medicaid insurance, discharge to short term hospital, specialized care, home health care and against medical advice were associated with increased odds of readmission, and higher ECI score and ADPKD was associated with decreased odds of readmission(aOR 0.85, 95% CI 0.80 – 0.91) (Figure 1B).

Conclusions: ESRD patients with ADPKD were less likely to have 30 day readmission than patients without ADPKD.