Introduction: Individuals with kidney disease experience a large number of bleeding events and as such, tools that aid in identifying those at high risk may aid mitigation strategies.

Methods: Among 29,148 intermittent hemodialysis patients captured in the Dialysis Outcomes and Practice Patterns (DOPPS) from 15 countries (2002-2015), BLEED-HD was derived to distinguish the risk of an incident bleeding event. Validation was internal via bootstrap resampling and external using ICES linked databases in Ontario, Canada.

Main outcomes and measures: A bleeding event requiring hospitalization.

Results: Among the DOPPS cohort (mean age, 65.2 years; women, 40.6%), a bleeding event occurred in 2,770 patients (9.5%, crude incidence rate 61.67 per 1000 person-years) over 0.79 (IQR 0.35-1.41) median years of follow-up. BLEED-HD included age, sex, country, DOPPS phase, previous gastrointestinal bleed, cancer, stroke, diabetes, atrial fibrillation, number of hospitalizations, anticoagulant and proton pump inhibitor use. Overall, bleeding events occurred between 1.77 to 22.31% of patients across deciles of risk. Model accuracy with BLEED-HD was significantly improved compared to existing bleeding score from the non-dialysis population in the DOPPS cohort (AUC: BLEED-HD 0.66, HEMORRAGE 0.55, HAS-BLED 0.53 and ATRIA 0.53, improved calibration) with underprediction among those of highest risk (see Figure).

Conclusions: In chronic hemodialysis patients, BLEED-HD improves on existing risk tools in predicting the risk of hemorrhage.

No conflict of interest

POS-537
COVID-19 IN PATIENTS ON MAINTENANCE HEMODIALYSIS - A SINGLE CENTER EXPERIENCE

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Introduction: The current coronavirus disease (COVID-19) pandemic has caused high morbidity and mortality in chronic kidney disease stage 5 (CKD-5) patients on maintenance hemodialysis (MHD). The unique problems faced by the hemodialysis (HD) units are frequent hospital visits by patients for MHD, waiting area for dependent population due to difficulty in maintaining social distancing. Here, we present our experience on the impact of COVID-19 pandemic on patients at our maintenance HD unit in South India.

Methods: It is a retrospective study done over a period of seven months from April 2020 to October 2020 at a tertiary care institution in Hyderabad, India. We included 110 MHD patients and 45 HD staff in the study. As followed Initial screening of all the subjects with non-contrast computerised tomography (CT) chest followed by confirmation using real-time reverse transcription-polymerase chain reaction (rRT-PCR) for diagnosing COVID-19 infection. All the positive patients were dialysed in a separate isolation unit with separate HD machines and staff. Our unit strictly followed all the precautions and preventive measures for patients and staff according to the Government of India, Ministry of Health and Family Welfare Guidelines for dialysis in COVID-19 patients. Before each MHD session, patients were screened for symptoms telephonically before physical presence at the unit, and no attendants or maximum of one attendant was allowed. In the COVID-19 isolation MHD unit, strict protocols were followed. In the non-COVID-19 MHD unit, few cost-effective measures were followed, as shown in figure 1.

Results: 53 out of 110 (48%) MHD patients are tested positive for COVID-19 infection during the study period. The mean age of infected patients was 56.8 years, and 48 (90.5%) of them were males. The comorbidities and vascular access of the MHD patients did not affect the infectivity rate at our unit. The clinical presentation of most of the infected patients was asymptomatic (29, 54.7%) followed by fever (21, 39.6%). The recovery rate from infection is 81% (43 out of 53). Mortality was seen in 6 (11%) infected patients and 4 (7%) lost follow-up by shifting to other MHD units due to travel constraints during the lockdown period. The baseline and clinical characteristics of the patients are given in table 1 and 2 in a study by Ibernon et al from Spain, the incidence rate of COVID-19 in their HD unit was 9.5% to 19.9% and the death rate of 25 to 30.5%. (2) In the study by Corbett et al from the United Kingdom, the COVID-19 incidence rate at their HD unit was 19.2%. (3) In our study, the incidence of COVID-19 infection was quite high (48%), but the mortality rate was low (11%).

6 out of 45 (13%) staff members are tested positive for COVID-19. All of them recovered without any complications. The low infectivity rate among our staff members was probably due to strict and cost-effective protocols followed for prevention in the COVID isolation and non-isolation MHD units.

Conclusions: The incidence of COVID-19 infection was 48% in our MHD unit. The mean age of the infected subjects was 56.8 years, and most of them were males. Comorbidities and vascular access did not affect the infectivity rate at our patients. Most of the infected patients are asymptomatic. The positivity rate in our dialysis staff is 13% which is quite low probably due to the strict and cost-effective preventive measures at our MHD unit.

No conflict of interest

POS-538
MOTIVATIONAL INTERVENTION TO IMPROVE DIETARY AND FLUID NON-ADHERENCE AMONG DIALYSIS PATIENTS: A MIDDLE EASTERN PERSPECTIVE

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Introduction: Renal diet is arguably one of the most restrictive dietary regimes, hence, compliance to dietary and fluid restrictions are consistently low among dialysis patients. Patients also report confusion owing to often conflicting instructions given by healthcare professionals (HCP) in a didactic style leading to passivity from the patients. Could the way we talk influence and motivate our patients to change their non-adherent (NA) behavior?

Motivational Interviewing (MI) has been identified as a promising and effective strategy to improve dietary NA. Although it has been tried in various healthcare settings, it has not been evaluated among dialysis patients. The objective of this cross-sectional prospective single-center observational study was to ascertain whether MI could substantiably influence patients’ personal motivation towards making health and treatment choices as well as behavioral changes towards better adherence.

Methods: A total of 90 hemodialysis patients attended one to one MI sessions lasting 30 to 45 minutes. Discussions focused mainly on eliciting patients’ own good motivations to bring about behavioral changes in their diet. Acceptance of these motivations was essential for the best interest of the patient.

The study was conducted using a pre-to-post intervention design. Pre-dialysis serum potassium level, serum phosphate level, and midweek inter-dialytic weight gain (IDWG) were considered to be surrogate markers for NA. Mean pre and post-intervention values for these markers were compared for three consecutive months to elicit the effect of this intervention.

Results: All participants reported acceptability and satisfaction with the meeting. Some even reported perceived improvement in their commitment to adherence. However, 30% found it time consuming.

The mean age of the participants was 52.5 years (range 22 to 82 years). 43% were males. Mean time on dialysis was 4.2 years (range 0.5 – 12 years). 24% were university level educated while 28% had reached the high school level.

Self-reported cumulative NA was more common among younger patients and in the male gender. The higher the level of education better was the serum potassium levels, however, this correlation was not observed with other markers of NA. There were visible cumulative improvements in mean values of potassium, phosphate, and IDWG over three month period following the intervention as illustrated by the graphs below. However, they were not consistent. Statistical analysis could not be done due to the cohort being small. Overall, the outcome of the intervention had been very encouraging with substantial improvement in individual patients’ surrogate markers and commitment to adherence as reported by the patients.
Conclusions: Short-term results of this intervention are encouraging, however, without follow-up at regular intervals, it is difficult to reach definitive conclusions. Nevertheless, based upon our positive experience in applying this MI model, we would encourage further development and testing of this tool to improve NA among dialysis patients.

No conflict of interest.

POS-539

PREVIOUS SELF-CARE KIDNEY FAILURE TREATMENT AND HOME HEMODIALYSIS TRAINING LENGTH

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Introduction: Optimal training is of utmost importance for successful home hemodialysis (HHD) and a key component of its cost-effectiveness. Training pattern varies depending of patient-, center- and modality-related factors. This study aimed to evaluate predictors of training duration, postulating that previous peritoneal dialysis (PD) patients and kidney transplant recipient (KTR) may have shorter HHD training duration.

Methods: All successfully trained HHD patients from a single academic dialysis center between January 2005 and July 2017 were included. Training duration was evaluated, from the first training session to the first independent home treatment, in a multivariable linear regression, with pre-specified adjustment for previous self-care kidney failure treatment (defined as kidney transplantation and/or PD exposure), demographic (age, sex), diabetes and year of training start.

Results: Forty-eight patients were included in this study. Of them, 17 (35%) had previous self-care kidney failure treatment including 8 (17%) with PD, 3 (6%) KTR and 6 (13%) having both previous PD and KTR. Median training time was 10.8 (8.7-13.0) weeks in patients with previous self-care treatment and 13.7 (10.7-18.9) weeks in patients without. There were no statistically significant differences in baseline characteristics, with the exception of kidney failure duration, which was longer in patients with previous self-care treatment (6.7 years, interquartile range [IQR] 3.0-13.1) than those without (0.9 years, IQR 0.30-1.76; p<0.001). In a multivariable adjusted linear regression, previous self-care kidney failure treatment was the only statistically significant predictor of shorter training duration (B coefficient -4.8, 95% CI -8.7; -0.89; p=0.02).

Conclusions: In this study, previous self-care kidney failure treatment was associated with shorter HHD training. This study enhances the need to maximize independent kidney failure therapy transitions, such as suggested in the Integrated home dialysis model.

No conflict of interest

POS-540

COVID-19 IN ESRD PATIENTS WITH RENAL REPLACEMENT THERAPIES: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction: Since the emergence of the COVID-19 pandemic, patients with SARS-CoV-2 infection have been seen to have various presentations and outcomes. Several recent studies had explored the differences in characteristics and outcomes of COVID-19 in the different patient population, and some with renal complications. There is, however, no systematic review of ESRD patients with renal replacement therapies who are infected with SARS-CoV-2. We performed a...