survivors and up to 30 days after suspicion in COVID-19 in patients who died.

Results: There were 12,836 HD patients with a suspicion of COVID-19 who received RT-PCR testing (8,895 COVID-19 positive: mean age 61.8 years, 54% male, 37% white race, 69% with diabetes, 24% with ischemic heart disease (IHD); 3,941 COVID-19 negative: mean age 60.3 years, 55% male, 43% white race, 66% with diabetes, 24% with IHD). The trajectories for several clinical/laboratory parameters (vital signs, hematology, nutrition, iron indices) appeared to have changed about 10 days before suspicion among patients who were confirmed COVID-19 positive; the trends were distinct as compared to patients found to be COVID negative (select variables shown in Figure 1). Many alterations in variables before COVID-19 were subtle. HD patients with COVID-19 who died within 30 days of suspicion were more often older, male, white race, and had a higher comorbidity burden (998 died: mean age 69.1 years, 60% male, 42% white race, 80% with diabetes, 29% with IHD; 7,897 survived: mean age 60.8 years, 53% male, 37% white race, 68% with diabetes, 23% with IHD). There appeared to be unique trajectories before and after suspicion of COVID-19 in patients who died versus those who survived (select variables shown in Figure 1).

Conclusions: The trajectories of several clinical/laboratory parameters appeared to change before and after suspicion of RT-PCR confirmed COVID-19. Survivors appeared to have distinct trajectories in clinical/laboratory parameters compared to patients who died within 30 days of COVID-19. These findings appear to reveal some of the pathophysiologic trends defining the onset and course of the disease in the HD population; however, many changes were small. These insights are anticipated to be of high importance for development of predictive models for early identification and prognosis of COVID-19.

Conflict of Interest: Analysis and abstract supported by Fresenius Medical Care. RL, SC, YJ, JL, CM, AW, LN, JH, LU, FM, are full time employee of Fresenius Medical Care. JR, PK are full time employees of Renal Research Institute, a wholly owned subsidiary of Fresenius Medical Care. SC, PK, JH, FM have share options/ownership in Fresenius Medical Care. PK receives honorarium from Up-To-Date and is on the Editorial Board of Blood Purification and Kidney and Blood Pressure Research. JH has directorship in the Renal Physicians Association Board of Directors. FM has directorships in Fresenius Medical Care Management Board, Goldfinch Bio, and Vifor Fresenius Medical Care Renal Pharma.

POS-535
RISK OF DEATH AT 3 YEARS AMONG PATIENTS THAT HAVE SURVIVED THE FIRST 6 MONTHS OF DIALYSIS IN AUSTRALIA AND NEW ZEALAND

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Introduction: End stage kidney disease (ESKD) is a major global problem and the incidence is increasing worldwide. Patients receiving dialysis have a lower quality of life, require frequent medical interventions and have high mortality rates. Accurate and reliable prognostic information among patients receiving dialysis is important to facilitate shared decision making regarding burdensome investigations and treatments. The long-term risk of death among patients who survive beyond 6 months of dialysis commencement has not been explored in Australia and New Zealand. We aimed to develop a model to predict the risk of death at 3 years after commencing dialysis among patients that have survived 6 months on dialysis in Australia and New Zealand.

Methods: We used the Australian and New Zealand Dialysis and Transplant (ANZDATA) registry to follow 17,596 patients aged >15 years, who commenced haemodialysis or peritoneal dialysis between 1st January 2006 and 31st December 2011, up until 31st December 2014. Overall 1048 patients (6%) died within the first 6 months. Of the 16,548 survivors, 2542 received a kidney transplant, 89 had native renal recovery and 59 were lost to follow up before reaching 3 years of follow up, and were censored. Basic demographic data, comorbidities, clinical measurements and kidney-disease specific variables were routinely collected using a standardized electronic survey form distributed to each dialysis unit across Australia and New Zealand. Patients with missing covariate data were excluded (n=112). Multi-variable logistic regression was used to model the risk of death at 3 years. Predictor variables were selected in a stepwise fashion using backwards elimination. Area under the curve was used as a measure of discrimination of the model. Calibration was measured using a goodness of fit test.

Results: The study cohort consisted of 13,755 patients. Mean age at dialysis commencement was 62 years, 60% were male, and 69% were white. The three most common causes of ESKD were diabetes mellitus (40%), glomerulonephritis (20%), and hypertension (15%). Chronic lung disease (19%), coronary artery disease (45%), peripheral vascular disease (28%), cerebrovascular disease (16%) and type 2 diabetes (49%) were common. At 3 years, 3912 patients (28%) had died. Predictors of death included age (OR 1.14 per 5 years, 95% CI 1.12-1.16), white race (OR 1.5, 95% CI 1.31-1.79), low BMI (OR 1.45, 95% CI 1.13-1.87), ESKD caused by paraprotein or amyloid disease (OR 1.32, 95% CI 1.23-1.41), late referral to nephrology (OR 1.16, 95% CI 1.06-1.28), chronic lung disease (OR 1.31, 95% CI 1.19-1.45), coronary artery disease (OR 1.36, 95% CI 1.24-1.48), peripheral vascular disease (OR 1.26, 95% CI 1.15-1.38), cerebrovascular disease (OR 1.36, 95% CI 1.23-1.51) and type 1 diabetes mellitus (OR 1.90, 95% CI 1.45-2.51). Area under the ROC curve of the model was 0.724. Calibration was acceptable (Figure 1; Hosmer-Lemeshow statistic 10.2, p=0.25).

Conclusions: Three-year survival in patients who survived the first six months of dialysis was 72%. As expected, those with significant comorbidities had poorer survival. A risk equation will be developed to assist clinicians, patients and caregivers with discussions about prognosis.

No conflict of interest

POS-536
PREDICTING THE RISK OF BLEEDING IN HEMODIALYSIS PATIENTS IN DOPPS (BLEED-HD)

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Introduction: End stage kidney disease (ESKD) is a major global problem and the incidence is increasing worldwide. Patients receiving dialysis have a lower quality of life, require frequent medical interventions and have high mortality rates. Accurate and reliable prognostic information among patients receiving dialysis is important to facilitate shared decision making regarding burdensome investigations and treatments. The long-term risk of death among patients who survive beyond 6 months of dialysis commencement has not been explored in Australia and New Zealand. We aimed to develop a model to predict the risk of death at 3 years after commencing dialysis among patients that have survived 6 months on dialysis in Australia and New Zealand.

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Conclusions: Three-year survival in patients who survived the first six months of dialysis was 72%. As expected, those with significant comorbidities had poorer survival. A risk equation will be developed to assist clinicians, patients and caregivers with discussions about prognosis.

No conflict of interest
**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.

**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

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**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 substantially 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. The meeting comprised a 15-minute MI session, which was followed by an initial feedback session and a home-based diet evaluation for the next three months.

12 years). 24% were university level educated while 28% had a bachelor’s degree. 30% were married. A total of 48% patients self-reported their primary occupation as housewives. Median age of the participants was 48.3 years (range 12-65 years). Median duration of HD therapy was 3 years (range 1-20 years). 52% of the patients were female. 60% of the patients were on thrice weekly HD, and 40% were on five times weekly HD.

**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 females. Time spent 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.

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**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 institute 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 Ibern 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 were 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