Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Executive Leadership Team endorsed a policy working group to develop a wage replacement policy. The AHS Living Organ Donor Wage Replacement Policy became effective January 21, 2019, which provides full wage replacement for eligible AHS employees during post-procedure recovery of 12 weeks (organ donation) or 7 days (surgical bone marrow donation).

Results: Based on the 2018 average AHS annual salary of $90,000 and assuming a 12-week convalescence, estimates predicted wage replacement costs of $20,769 per living organ donated by an employee. Based on the living kidney donation rate in Alberta (2011-2016) and the number of eligible AHS Employees (2018), it was predicted 3 of AHS' 100,000 employees would serve as living organ donors per year. Predicted annual organizational cost: $62,307.

Between January 19, 2019 and November 1, 2020, the number of employees accessing the policy exceeded the initial predictions of 3 AHS staff (unable to report specific dollar savings vs. number of staff given N<10), even in light of the COVID-19 pandemic where most LDKTs were postponed for several months ending June 2020.

Conclusions: This policy was successfully implemented to limit AHS employees' loss of income during post-operative recovery from living organ and surgical bone marrow donation, and uptake exceeded initial projections without putting significant financial strain on AHS.

Conflict of Interest: All funding provided as in-kind support through Alberta Health Services

POS-533

ASSOCIATION OF END-STAGE RENAL DISEASE WITH MORTALITY IN COVID-19 POSITIVE PATIENTS- A SYSTEMATIC REVIEW AND META-ANALYSIS

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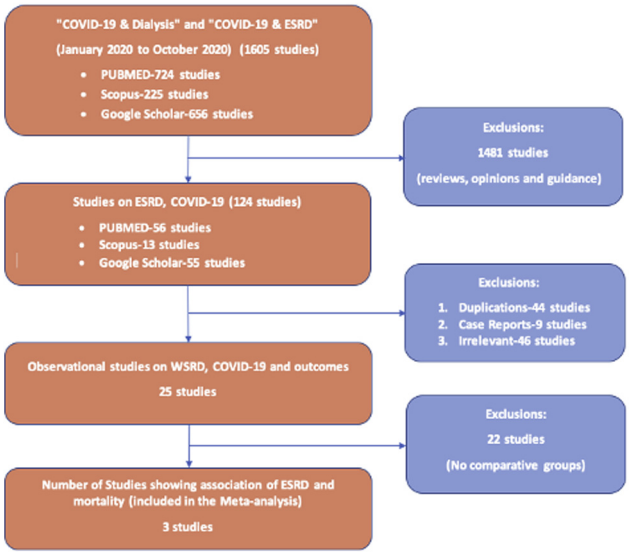
Introduction: End-stage renal disease (ESRD) patients are a high-risk group in the COVID-19 pandemic due to their associated comorbidities. Several observational studies have highlighted a higher mortality rate in COVID-19 positive patients with ESRD. We conducted a systematic review and meta-analysis on studies comparing the association of ESRD on mortality in COVID-19 positive patients.

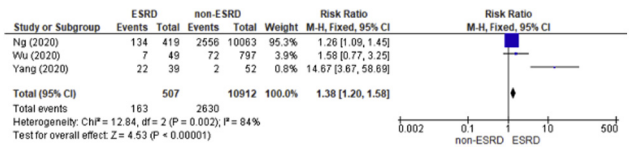
Methods: Two authors (AK & RC) independently conducted a systematic literature search from three major electronic databases (PUBMED, Scopus and Google Scholar) on all observational studies on COVID-19 infection and mortality in ESRD patients using PRISMA guidelines. The search criteria used included "COVID-19 + dialysis" and "COVID-19 + ESRD" (figure 1). The meta-analysis was conducted on studies showing an association of ESRD with mortality using Review Manager 5.4 software (Cochrane collaboration).

Figure-1 PRISMA flowchart of study selection for meta-analysis



Results: From a total of 1605 studies published between January 2020 and October 2020, three observational studies investigating the association of ESRD on mortality were identified to be suitable for inclusion in the meta-analysis (1–3). The three studies included has a total of 11,419 patients (ESRD-507 and non–ESRD-10,912). The mean age of the total population included was 65 years, with a predominance of males (57%). Meta-analysis showed a strong association of ESRD with mortality in hospitalized COVID-19 positive patients (RR 1.38 [1.20, 1.53], p = 0.002; I2: 84%).

Figure-2 Association of ESRD with mortality



Conclusions: This meta-analysis shows ESRD as a strong risk factor associated with mortality in hospitalized COVID-19 positive patients. Further studies are warranted to conduct a meta-regression analysis and tease out the independent association of ESRD with mortality.References:1. D Yang, Y Xiao, J Chen, et al. COVID-19 & Chronic Renal Disease: Clinical characteristics & prognosis. Qjm AnInt J Med. 2020 2. Ng JH, Hirsch JS, Wanchoo R, Sachdeva M, Sakhiya V, Hong S, et al. Outcomes of patients with end-stagekidney disease hospitalized with COVID-19. Kidney Int. 2020 3. N Keller, F Chantrel, T Krummel, et al. Impact of first-wave COronaVIrus disease 2019 infection in patients on haemoDIALysis in Alsace: the observational COVIDIAL study. Nephrol Dial Transplant. 2020;35(8).

No conflict of interest

POS-534

TRAJECTORIES OF CLINICAL AND LABORATORY CHARACTERISTICS ASSOCIATED WITH COVID-19 IN HEMODIALYSIS PATIENTS BY SURVIVAL

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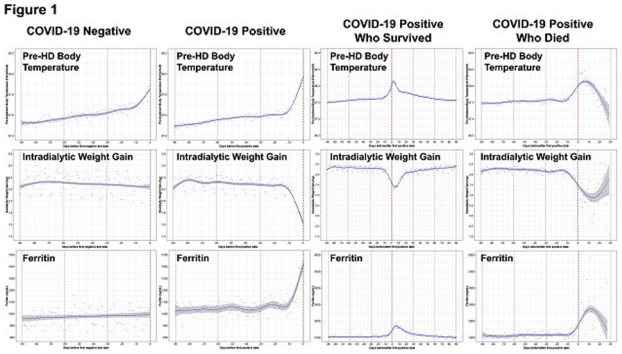
Introduction: We evaluated the trajectories of clinical and laboratory assessments associated with COVID-19 in hemodialysis (HD) patients who survived or died within 30 days after suspicion. For comparison, we also evaluated consistent trajectories before suspicion in patients tested for SARS CoV-2 who were found to be COVID-19 negative.

Methods: We used data from adult (age ≥18 years) HD patients treated at a national dialysis network (Fresenius Kidney Care, Waltham, MA) in the United States who received RT-PCR testing to investigate suspicion of a SARS-CoV-2 infection between 01 May and 01 Sep 2020. Suspicion of SARS-CoV-2 infection was determined at presentation by active signs and symptoms of a flu-like illness. We excluded data from patients under investigation for SARS-CoV-2 who did not have a documented RT-PCR result, which included asymptomatic patients who were exposed to someone with known COVID-19 and were monitored for symptoms. Using an exploratory analysis design, we computed mean daily values for an array of variables 90 days before the first date of suspicion. Nonparametric smoothing splines were used to fit data for individual trajectories and estimate the mean change over time since suspicion of SARS-CoV-2 in patients who were confirmed by RT-PCR test to be positive or negative for COVID-19. Among COVID-19 positive patients, we stratified data for those who survived or died within 30 days of suspicion; trajectories were plotted 90 days after suspicion in

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 alternations 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).

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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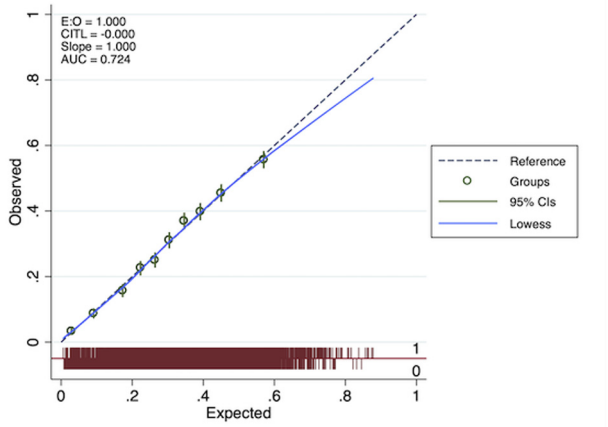
Introduction: End stage kidney disease (ESKD) is a major global problem and the incidence is increasing worldwide. Patients receiving dialysis have a lower quality of life, require frequent medical interventions and have high mortality rates. Accurate and reliable prognostic information among patients 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). Multivariable 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 3.12, 95% CI 2.43-4.14), 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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