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.

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lower risk of death. After adjustment for covariates, the hazard ratio was 0.919 (95% CI: 0.882-0.957; P<0.0001).

In a real-world population of 1,915 kidney transplant recipients in US, our findings demonstrate that a within-patient increase in serum bicarbonate was associated with a lower risk of all-cause mortality. Each 1-mEq/L increase in serum bicarbonate over time was associated with an 8% decrease in mortality risk. Interventions to increase serum bicarbonate in kidney transplant recipients with metabolic acidosis should be tested.

185 LOW SERUM BICARBONATE IS ASSOCIATED WITH GRAFT FAILURE IN KIDNEY TRANSPLANT RECIPIENTS:

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Chronic allograft nephropathy is a major cause of graft loss. Since metabolic acidosis is a risk factor for CKD progression, we examined its role in predicting long-term graft loss in kidney transplant recipients in a large US community-based cohort.

We analyzed data from Optum® EHR-Integrated dataset of US patients (2007-2019) with kidney transplant preceded by ≥1 year of data and no graft loss in the first year post-transplant. The primary outcome was graft failure (i.e., earliest occurrence of return to chronic dialysis, re-transplantation, kidney transplant failure diagnosis or death). The outcome period was >1-year post-transplant to end of the data period.

The primary predictor was the time-dependent change in serum bicarbonate from baseline at each outcome period observation pre-outcome. Other covariates included demographics, comorbidities, medications, donor type, BMI, smoking status, baseline serum bicarbonate and eGFR. Adjusted Cox PH and Fine and Gray competing risk models were constructed to assess the risk of graft failure over the outcome period (≤10 years; median, 2.6 years) with death as a competing risk.

1,722 patients met inclusion criteria. Donor type was deceased (53%)/living (25%)/unknown (22%), and 27% had a prior transplant. Baseline eGFR and serum bicarbonate, defined as means during second 6 months post-transplant, were 63.4 ml/min/1.73m² and 24.6 mEq/L. 674 (39%) patients had graft failure during the outcome period. An increase in within-patient serum bicarbonate over time was associated with lower risk of graft failure. After adjustment, the hazard ratio per 1-mEq/L increase in serum bicarbonate was 0.899 (95% CI: 0.874-0.924; P<0.0001), with similar hazard ratio for the competing risk model.

In 1,722 US kidney transplant recipients with a functioning graft at 1 year, a within-patient increase in serum bicarbonate was associated with a lower risk of long-term graft failure. Each 1 mEq/L increase in serum bicarbonate over time was associated with a 10% reduction in graft failure risk. The role of metabolic acidosis as a modifiable risk factor for chronic allograft nephropathy deserves further examination.

186 ACYCLOVIR INDUCED ENCEPHALOPATHY IN A PATIENT ON PERITONEAL DIALYSIS:

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Acyclovir is an antiviral agent used for treatment of diverse viral pathologies. The regular pharmacokinetics for acyclovir is altered with kidney dysfunction. At present, our knowledge regarding treatment of acyclovir neurotoxicity in patients undergoing peritoneal dialysis (PD) is limited, as only few case reports have been published. We describe a case of acyclovir induced encephalopathy in a PD patient that was successfully treated with hemodialysis (HD). 34F with a history of systemic erythematous lupus (on prednisone, cellcept and plaquenil), she was on PD subclinical hypothyroidism, anemia and hypertension was admitted for herpetic lesions of her lips and eyelid. She was initiated on IV acyclovir at a dose of 500mg daily. 24 hours later, she developed acute confusion which progressed to myoclonus, lethargy and coma. Labs on admission revealed hb 10, Na 137, K 4.6, Cl 92, CO2 22, BUN 64, Cr 20.85. CT head was negative. EEG did not reveal any epileptiform activity. Lumbar puncture and brain MRI did not show any evidence of viral encephalitis. Acyclovir neurotoxicity was considered as the etiology for her encephalopathy. Acyclovir was held and her CCPD prescription was increased but she continued to remain encephalopathic. Decision was made to initiated hemodialysis. After the first HD session, her mnetation slightly improved. She received a total of 3 HD sessions, after which her mnetation completely returned to baseline. Given that she improved after discontinuation of acyclovir and with HD confirmed her diagnosis of acyclovir induced neurotoxicity. PD was resumed after recovery.

Dose adjustment for acyclovir is recommended in patients with ESKD. Despite acyclovir dose being adjusted for these patients, it can still cause neurotoxicity. This complication seems to be more common in those on PD likely due to the slower removal of the medication with PD. Clinicians need to be aware of this potential adverse event, as this diagnosis needs prompt recognition and treatment. Clearance of acyclovir with PD is not completely understood and in fact PD was not adequate to help with clearance in our patient despite increasing her prescription.

The modality of choice for clearance of acyclovir in toxicity is HD

187 ACUTE KIDNEY INJURY IN COVID-19 PEDIATRIC PATIENTS: ANALYSIS OF THE VIRTUAL PEDIATRIC SYSTEMS DATA:

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Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is responsible for the 2019 novel coronavirus disease pandemic (COVID-19). Despite vast research about the adult population, there has been little data collected on acute kidney injury (AKI) epidemiology, associated risk factors, treatments, and mortality in pediatric COVID-19 patients admitted to the ICU. AKI is a severe complication of COVID-19 among children and adolescents. Therefore, understanding all aspects of the disease is crucial to further developing treatment and preventative care strategies to reduce morbidity and mortality.

This study aims to assess AKI incidence among COVID-19 pediatric patients in the pediatric intensive care unit (ICU) within North America using the Virtual Pediatric Systems (VPS) database. Additionally, this study assesses AKI associated risk factors, treatments such as kidney replacement therapy (KRT) and associated mortality rates among COVID-19 pediatric patients within North America using VPS data.

This is a retrospective study of COVID-19 pediatric patients (age ≤ 24 years) in the pediatric ICU within North America using the VPS COVID-19 database between January 1, 2020 and June 30, 2020. Currently, there is limited data regarding pediatric COVID-19 patients who has been analyzed. 172 of these patients had renal/urinary system involvement. Of the 172 patients with renal involvement, there were 19 confirmed deaths. This means that 45% of all confirmed pediatric COVID-19 deaths were associated with renal involvement. 36 patients received KRT and there are 2 confirmed deaths in this group. Additionally, 264 (24.67%) patients were diagnosed with Multi system Inflammatory Syndrome in Children (MIS-C).

Although COVID-19 in the pediatric population tends to present more favorably, renal involvement among the pediatric COVID-19 patient population may be considered a negative prognostic factor with respect to patient outcomes.

188 COVID-19 AND KIDNEY TRANSPLANT RECIPIENTS: IMMUNOSUPPRESSION MANAGEMENT AND OUTCOMES:

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As the COVID-19 pandemic raises important questions about immunosuppression management and outcomes in kidney transplant recipients.