



haemodynamic support (OR 4.37, 95% CI 2.14–8.92;  $P < .01$ ). Otherwise, lower SCr at admission (OR 0.82, 95% CI 0.71–0.93;  $P < .01$ ) and at instauration of RRT (OR 0.75, 95% CI 0.065–0.88;  $P < .01$ ) were associated to lower mortality. In COVID patients, fluid overload at RRT initiation (OR 10.83, 95% CI 1.37–85.36;  $P = .02$ ), age  $> 65$  year old (OR 8.85, 95% CI 2.68–29.1;  $P < .01$ ) and FiO<sub>2</sub>  $> 50\%$  at RRT start (OR 2.77, 95% CI 1.02–7.50;  $P = .04$ ) were associated to higher mortality. **CONCLUSION:** In ICU patients with AKI-RRT dependence, negative fluid balance at 48 h after RRT onset and in COVID patients, age  $< 65$  year old, negative fluid balance at 48 h after RRT onset and non-urgent onset of RRT were related with renal recovery.

**MO337 HIGHER ANTIBODY RESPONSE AFTER 2 VACCINATIONS WITH MRNA-1273 AS COMPARED WITH BNT162B2 AND AZD1222 IN HIGH-RISK KIDNEY PATIENTS**

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**BACKGROUND AND AIMS:** Lower antibody responses after SARS-Cov-2 vaccination have been reported in patients with severely impaired kidney function or patients with kidney replacement treatment. We compared humoral responses and reported adverse events of three vaccines (mRNA-1273, BNT162b2 and AZD1222) in kidney transplant recipients (KTRs), dialysis patients, patients with CKD stages G4–G5 and control subjects without kidney disease.

**METHOD:** KTRs, dialysis patients and patients with CKD stages G4–G5 were vaccinated with either mRNA-1273, BNT162b2 or AZD1222 during the Dutch SARS-CoV-2 vaccination program. Control subjects were all vaccinated with mRNA-1273. Blood samples were obtained at 1 month after two vaccinations by home-based finger prick tests and were analysed for the presence of IgG antibodies against the receptor-binding domain of the spike protein of SARS-CoV-2 using the Sanquin anti-SARS-CoV-2 RBD IgG ELISA assay. Primary endpoints were the antibody titer and reported

systemic adverse events (AEs) at 1 month after the second vaccination. Multivariate regression analysis was performed on the difference between vaccines with respect to antibody titer and AEs after correction for sex, ethnicity, BMI, eGFR, dialysis vintage, transplantation characteristics and use of immunosuppressive drugs.

**RESULTS:** A total of 2468 KTRs, 480 dialysis patients, 400 patients with CKD stages G4–G5 and 186 control subjects were enrolled. KTRs had lower antibody titers (66 [8–573] BAU/mL) in comparison to dialysis patients [1375 (431–2896) BAU/mL], patients with CKD stages G4–G5 [2097 (828–4077) BAU/mL] and control subjects [3713 (2291–6451) BAU/mL]. mRNA-1273 demonstrated a higher antibody titer compared with BNT162b2 in KTR [72 (9–638) versus 21 (6–128) BAU/mL;  $P < .001$ ], dialysis patients [1675 (573–3031) versus 636 (216–1416) BAU/mL;  $P < .001$ ] and patients with CKD stages G4–G5 [2879 (1425–5311) versus 1063 (389–1939) BAU/mL;  $P < .001$ ]. In a similar pattern, mRNA-1273 demonstrated a higher antibody titer compared with AZD1222 ( $P < .001$  in all groups). Multivariate analysis revealed that BNT162b2 and AZD1222 were significantly associated with lower antibody levels compared with mRNA-1273 in all 3 patient groups. BNT162b2 demonstrated less frequently systemic AEs compared with mRNA-1273 in KTRs (12% versus 27%;  $P < .001$ ), dialysis patients (12% versus 29%;  $P = .007$ ) and in patients with CKD G4–G5 (18% versus 67%,  $P < .001$ ). AZD1222 demonstrated less systemic AEs compared with mRNA-1273 only in patients with CKD stages G4–G5 (39% versus 67%;  $P = .03$ ). Multivariate analysis revealed that BNT162b2 was associated with fewer systemic AEs in only dialysis patients ( $P = .04$ ) and patients with CKD stages G4–G5 ( $P = .02$ ). **CONCLUSION:** mRNA-1273 demonstrated significantly higher antibody levels at 1 month after 2 vaccinations as compared with BNT162b2 and AZD1222 in high-risk patients with kidney disease. BNT162b2 was associated with a fewer systemic AEs in dialysis patients and patients with CKD stages G4–G5, although these AEs were mild and self-limiting. mRNA-1273 may therefore be considered as the preferred SARS-CoV-2 vaccine in high-risk patients with kidney disease. Whether the higher antibody response following vaccination with mRNA-1273 sustains and results in a better protection against COVID-19 is yet to be analysed.

**MO338 LONG-TERM KIDNEY OUTCOMES AFTER ACUTE KIDNEY INJURY IN PATIENTS WITH COVID-19**

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**BACKGROUND AND AIMS:** The acute effects of the novel coronavirus infection (COVID-19) on short-term kidney outcomes have been studied, the long-term kidney outcomes after COVID-19-associated acute kidney injury (AKI) in comparison with hospitalized patients without AKI are insufficiently researched. Our aim was to evaluate the impact of AKI in acute COVID-19 on long-term kidney outcomes in hospitalized patients with COVID-19.

**METHOD:** We performed a cohort study on 1000 patients hospitalized from April to July 2020 with laboratory-confirmed COVID-19 and lung injury by computer tomography (CT). We excluded patients with re-hospitalization, acute surgical pathology and a single serum creatinine measurement during hospitalization. In the prospective part, patients with serum creatinine measurement within 180 days after discharge were included. Definition of AKI and chronic kidney disease (CKD) were based on KDIGO criteria.  $P$ -value  $< 0.05$  was considered statistically significant.

**RESULTS:** The prospective part included 446/792 (56%) surviving patients [47% males, mean age 66 (57;74) years, mean Charlson index 3 (2;5), 74% with hypertension (HTN), 51% with obesity, 28% with diabetes mellitus (DM), 17% with coronary artery