**FIGURE 1:** Number of patients who clinically recovered over time was plotted against the number of patients who had negative conversion over time.

**MO919 PERSISTENCE OF ANTIBODIES AFTER SARS-COV-2 VACCINES IN HAEMODIALYSIS PATIENTS: A 6 MONTHS FOLLOW-UP**

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**BACKGROUND AND AIMS:** As COVID-19 related mortality is higher in haemodialysis patients than in the general population, proper vaccination strategies against the SARS-CoV-2 virus have utmost importance. It has been previously shown that mRNA vaccines (e.g. BNT162b2) can generate >95% of seropositivity in haemodialysis patients [1]. On the other hand, the seropositivity rate reached by the inactivated vaccine (CoronaVac®) was around 80%. In this study, we aimed to analyse the persistence of SARS-CoV-2 antibodies in haemodialysis patients for 6 months and compare it with the healthy controls.

**METHOD:** Haemodialysis patients who were vaccinated either by BNT162b2 or CoronaVac® and who continued their regular controls for 6 months were involved in the study. Those who had previous or active SARS-CoV-2 infection, who had malignancies and those who had received immunosuppressive drugs in the previous 12 month were excluded from the study. SARS-CoV-2 IgG levels were measured by a commercial test after the first doses of the vaccines and at the end of the sixth month. Healthy healthcare workers who were vaccinated with similar vaccine schemes were taken as the control group.

**RESULTS:** We recruited 85 haemodialysis patients who had received their first doses of either vaccine. Of them, 4 patients died; 3 patients were hospitalized because of COVID-19 infection during the follow-up; 9 patients missed at least one of their regular controls; and 2 patients were diagnosed with malignancy. A total of 26 patients experienced asymptomatic or mild COVID-19 infection during the follow-up period. SARS-CoV-2 IgG levels were measured at the end of the sixth month for the remaining 41 patients. Sero-positivity significantly decreased at the end of the sixth month for both vaccines, but the BNT162b2 group \((n = 22)\) still had better seropositivity than CoronaVac® \((n = 19)\) group (81% versus 50%; \(P = .03\)). In contrast, the seropositivity of healthy controls, even with the inactivated vaccine, was 96%. When one booster dose was applied, 90% of seropositivity could be maintained in the BNT162b2 group at the sixth month.

**CONCLUSION:** BNT162b2 vaccine generates more persistent antibodies than inactivated vaccines in haemodialysis patients. However, when compared with the healthy controls at the end of the sixth month, antibody titers decrease more profoundly in haemodialysis patients. The booster dose can maintain the antibody levels and should be applied at least every 6 months.

**REFERENCE**

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**MO920 SARS-COV-2 NEUTRALIZING ANTIBODY RESPONSE TO BOOSTER VACCINATION IN PATIENTS ON HEMODIALYSIS**

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**BACKGROUND AND AIMS:** SARS-CoV-2 antibody titers after two doses of vaccination decrease over time. Hemodialysis patients are especially vulnerable to COVID-19 as they are immunocompromised, putting them at higher risk of infection and poorer response to vaccines. Therefore, administrating the third dose (“booster”) in these patients is key to reduce COVID-19 infections and prevent severe illness. Dialysis patients were among the first group of patients who received booster vaccinations. To study the humoral response to the third injection in this group, we collected serum from 33 patients on hemodialysis and measured neutralizing antibody titers against SARS-CoV-2 before and after their booster doses.

**METHOD:** Patients were recruited from a dialysis center in New York City, NY from June to September 2021. Data on COVID-19 vaccination and demographics were collected upon enrollment. Blood samples were taken after enrollment. SARS-CoV-2 neutralization antibodies were assayed using the GenScript SARS-CoV-2 Surrogate Virus Neutralization Test Kit (Cat#L00847-A). Corresponding neutralizing antibody titers are presented as Unit/mL (U/mL).
RESULTS: A total of 33 in-center hemodialysis patients who had received three doses of vaccination were studied. Patients had a mean age of 61 years, 23 (70%) were male. Out of these, 31 (94%) patients received three doses of mRNA-1273 (Moderna), and two patients received the BNT162b2 (Pfizer BioNTech) vaccine. A total of 138 serum samples were analyzed (ranging from 156 days before to 85 days after the booster).

Figure 1 shows the antibody titer distribution of all samples in these 33 patients. Each color indicates an individual patient. Each patient has up to 12 data points before and after the booster. The mean neutralizing antibody titers of all 48 data points pre-booster is 29.29 U/mL (range: 228–188.600). Seven days post-booster, the mean neutralizing antibody titer is 73.088 U/mL (range: 12.401–254.504). Mean titer is 169.826 U/mL (range: 17.830–375.046) at 14–28 days post-booster. After the peak time, we observe a decline of the titers. At 72–85 days, the mean titer is 72.179 (range: 33.702–204.382).

We fitted a nonparametric mixed effects model with an adaptive spline and a random intercept for each subject to neutralizing antibody titers. The red line indicates the average titer, and the gray area indicates the 95% confidence interval. The circles are means across all data points.

CONCLUSION: Our results suggest that hemodialysis patients have a strong humoral response to booster vaccination. Neutralizing antibody titers peak at 18 days post-booster and wane to an average of 42% of peak value after 10–12 weeks.

MO921 PANDEMIC EXPERIENCES, PERCEPTIONS AND BURNOUT AMONG HAEMODIALYSIS UNITS PERSONNEL IN THE COVID-19 ERA

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BACKGROUND AND AIMS: The coronavirus disease 2019 (COVID-19) pandemic is one of the greatest challenges facing healthcare systems worldwide in recent years. Burnout was found to be an important factor in the professional landscape of nephrology already prior to the COVID-19 outbreak and is expected to worsen during the pandemic due to increased workload and changes in the work environment. As a life-saving procedure, haemodialysis (HD) delivery could not undergo profound organizational adjustments, what was the case of out-patient settings, which largely