



São Paulo - Brazil

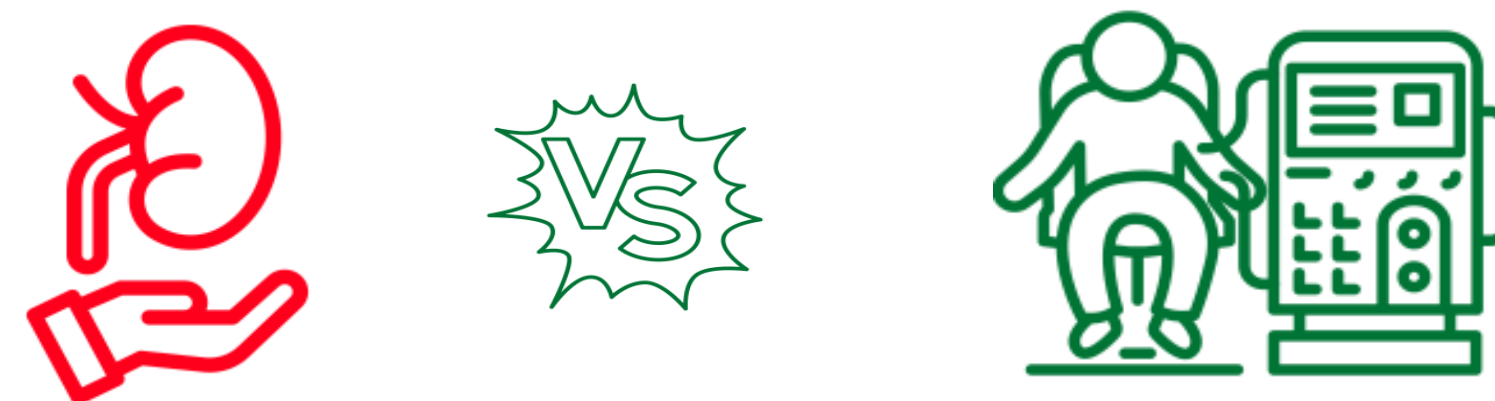
Longitudinal SARS-CoV-2 Antibody and T-Cell Immune Responses in Vaccinated Kidney Transplant Recipients and Patients on Dialysis

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INTRODUCTION

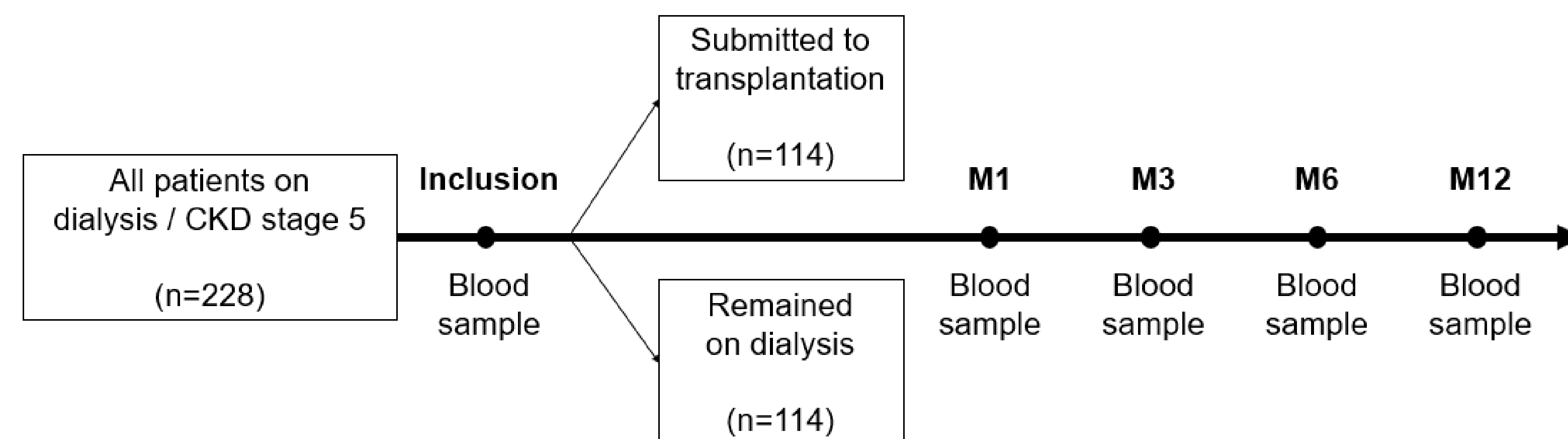
Kidney transplant recipients (KTRs) and patients on dialysis were vulnerable groups and were prioritized for SARS-CoV-2 vaccination, but long-term immunosuppression reduced its immunogenicity.



Here, we compared the kinetics of humoral and cellular response after SARS-CoV-2 vaccination in patients undergoing kidney transplantation and patients on dialysis.

METHODS

This prospective, non-randomized, **real-world** study included **113** de novo KTRs and **108** patients on dialysis, followed by 12 months.



Humoral response: SARS-CoV-2 IgG (Abbott) and Neutralizing Antibodies (GenScript).

Cellular response: QuantiFERON (IFN- γ release).

Vaccines: BNT162b2; ChAdOx1, Ad26.COVS.2, and CoronaVac.

Exclusion criteria were previous COVID-19 and SARS-CoV-2 IgG negative at screening.

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RESULTS

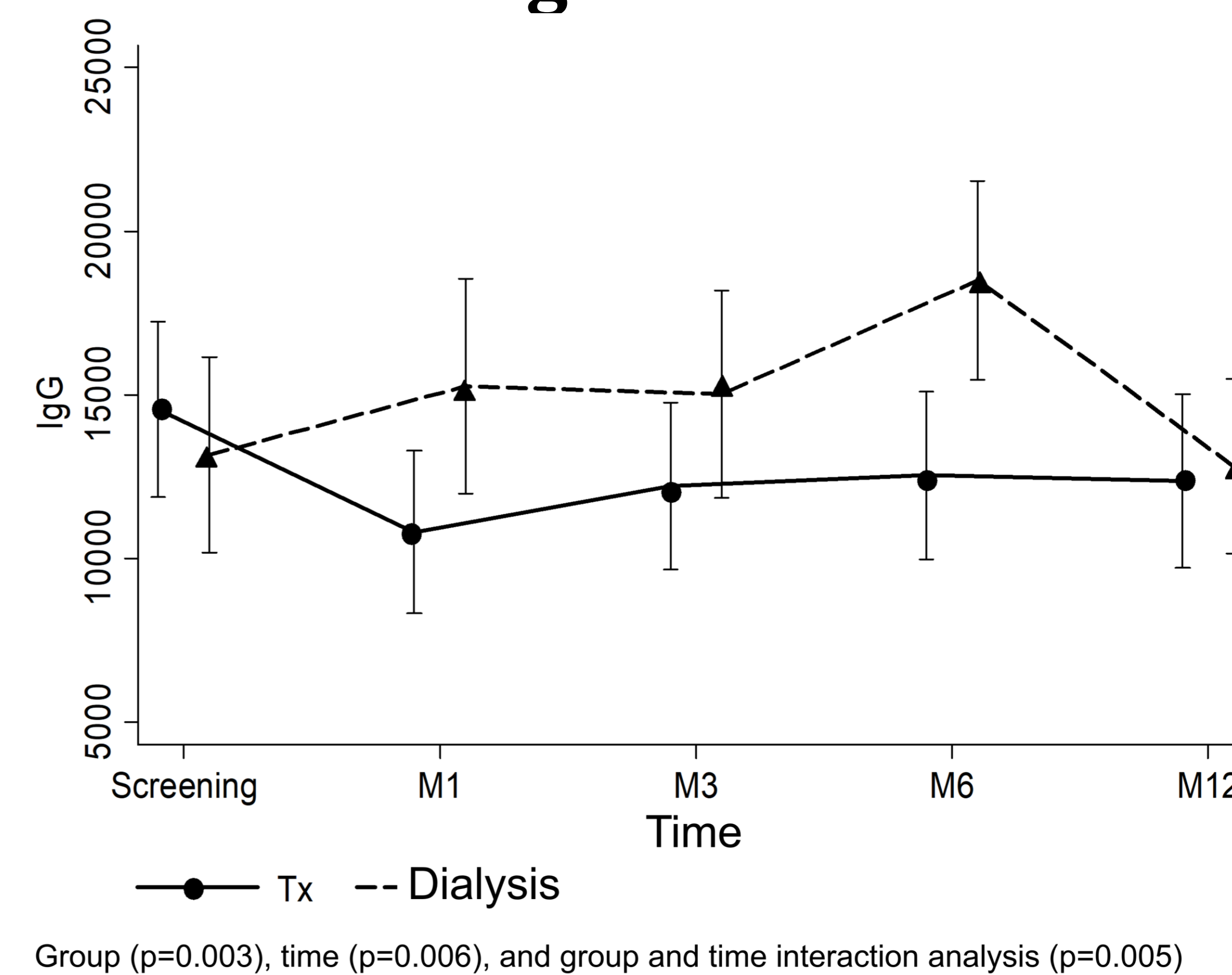
Demographics

45.4 vs. 54 years; $p < 0.001$

25.1 vs. 51.9 months; $p < 0.001$

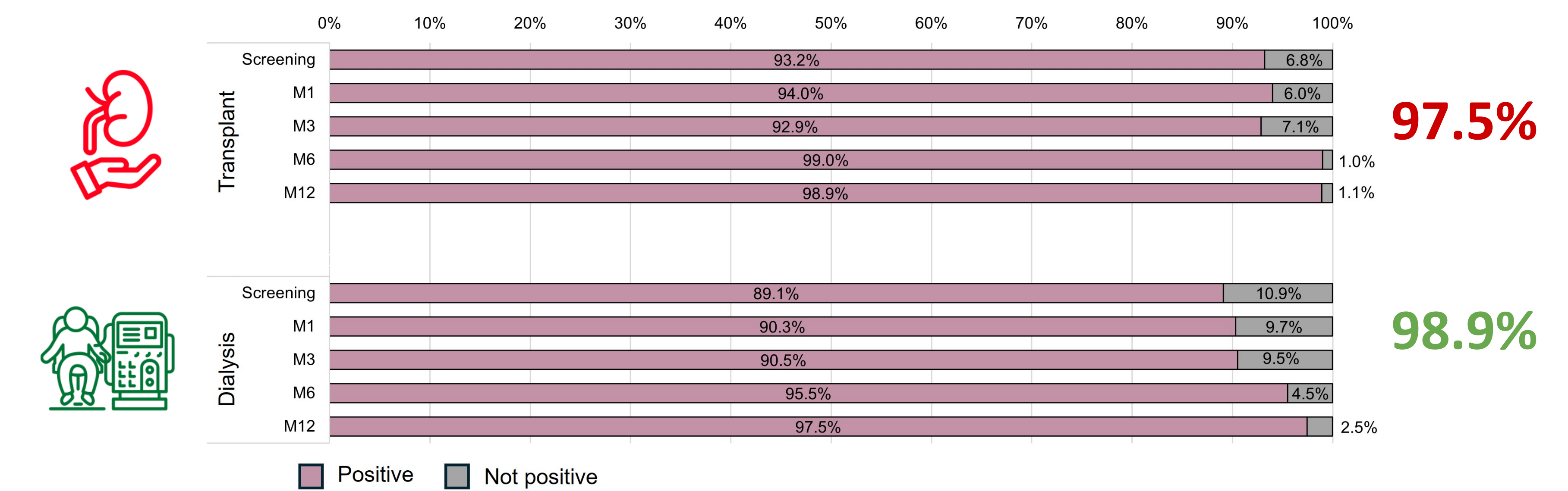
Seroconversion: 1 (M1) vs. 3 (M1; M3; M6)

IgG titers

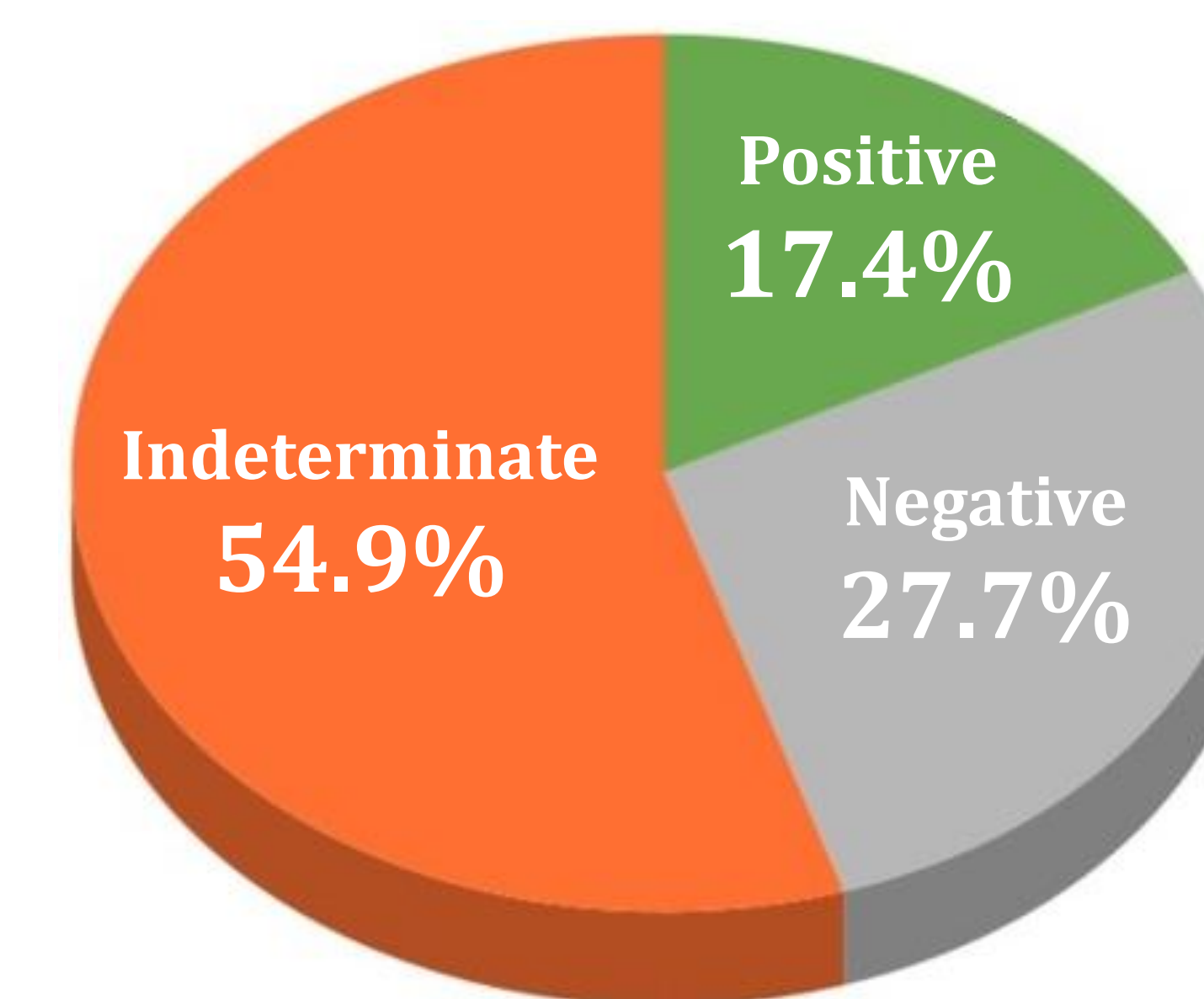


Group ($p=0.003$), time ($p=0.006$), and group and time interaction analysis ($p=0.005$)

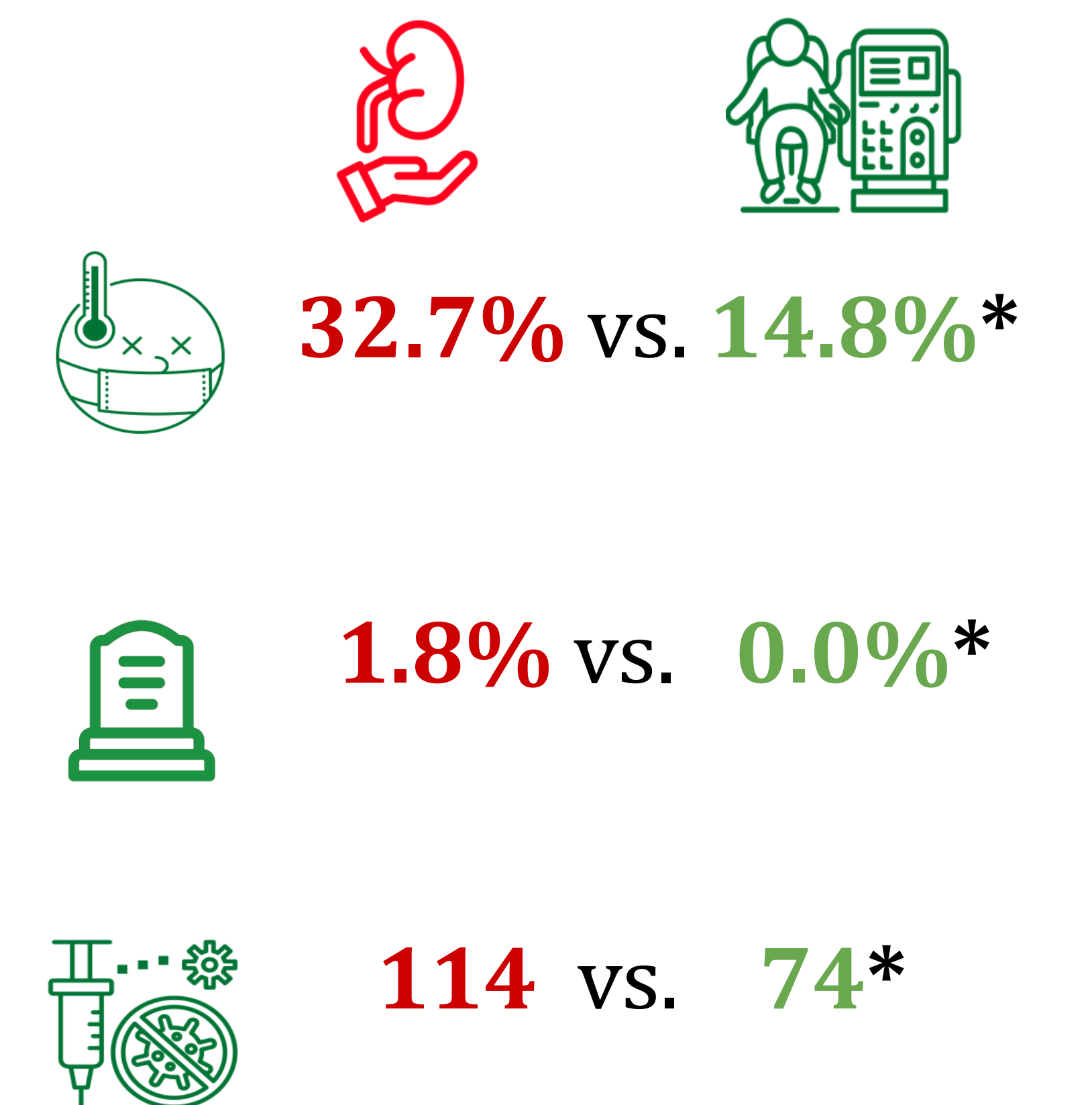
Neutralizing Antibody rates



Cellular immunity Assessed by IFN- γ



Clinical outcomes



* $p < 0.05$

CONCLUSION

Seroconversion was rare and similar between the groups. *De novo* KTRs presented lower SARS-CoV-2 IgG titers but similar neutralizing antibodies during the study, even though they received more boosters and had a higher incidence of COVID-19 than dialysis patients.