

**SUPPLEMENTARY Table S1. Correlation between continuous parameters and anti-spike immunoglobulin G antibody levels 3 months or 4.5 months after the second dose of BNT162b2.**

	Patients on HD (3M)		Healthcare Workers (4.5M)	
	<i>ρ</i>	<i>p</i> -Value	<i>ρ</i>	<i>p</i> -Value
Age	−0.099	0.10	−0.403	<0.001
Dialysis vintage (months)	0.144	0.02	NA	
Body mass index	−0.075	0.21	0.040	0.64
White blood cell count	−0.001	0.98	−0.029	0.74
Hemoglobin	−0.065	0.28	−0.076	0.38
Albumin	0.105	0.08	NA	
KT/V	0.062	0.30	NA	

HD: hemodialysis, NA: not available

Spearman analysis was used

**Supplementary Table S2. The effect of sex on anti-spike immunoglobulin G antibody levels at the follow-up of the second dose.**

	<b>Male</b>	<b>Female</b>	<b><i>p</i>-Value</b>
<b><u>(1) Measurement in October 2021</u></b>			
<b>Patients on hemodialysis (U/mL)</b>	220 (107–363)	200 (91–408)	0.97
<b>Healthcare workers (U/mL)</b>	464 (274–772)	649 (435–861)	0.02
<b><u>(2) Measurement 3 weeks after the third dose of BNT162b2</u></b>			
<b>Patients on hemodialysis (U/mL)</b>	19000 (11750–61000)	19000 (12000–59000)	0.85
<b>Healthcare workers (U/mL)</b>	20000 (16000–36500)	21000 (14000–36750)	0.68
<b><u>Increasing rate (2)/(1)</u></b>			
<b>Patients on hemodialysis</b>	126 (68–218)	91 (56–209)	0.19
<b>Healthcare workers</b>	45 (26–93)	35 (25–56)	0.02

Wilcoxon rank-sum tests were used.

Supplementary Table S3. The effect of diabetes on anti-spike immunoglobulin G antibody levels at the follow-up of the second dose.

	Diabetes	Non-Diabetes	<i>p</i> -Value
<b><u>(1) Measurement in October 2021</u></b>			
Patients on hemodialysis (U/mL)	220 (121–414)	202 (88–359)	0.14
Healthcare workers (U/mL)	564 (237–818)	609 (433–880)	0.63
<b><u>(2) Measurement 3 weeks after the third dose of BNT162b2</u></b>			
Patients on hemodialysis (U/mL)	21500 (12000–64000)	18000 (11000–57000)	0.20
Healthcare workers (U/mL)	19000 (16000–22000)	21000 (15000–36000)	0.58
<b><u>Increasing rate (2)/(1)</u></b>			
Patients on hemodialysis	124 (67–209)	121 (57–218)	0.90
Healthcare workers	39 (23–76)	35 (24–62)	0.93

Wilcoxon rank-sum tests were used.

**Supplementary Table S4. Effect of glucocorticoids on anti-spike immunoglobulin G antibody levels at the follow-up of the second dose in patients undergoing hemodialysis.**

	<b>Glucocorticoid Users</b>	<b>Non-Users</b>	<b><i>p</i>-Value</b>
<b><u>(1) Measurement in October 2021</u></b>			
<b>Patients on hemodialysis (U/mL)</b>	135 (61–187)	220 (104–393)	0.10
<b><u>(2) Measurement 3 weeks after the third dose of BNT162b2</u></b>			
<b>Patients on hemodialysis (U/mL)</b>	23000 (13000–87250)	19000 (12000–61000)	0.63
<b><u>Increasing rate (2)/(1)</u></b>			
<b>Patients on hemodialysis</b>	163 (81–1419)	122 (59–211)	0.22

Wilcoxon rank-sum tests were used.