

Supplementary Table 1: Univariate logistic regression analysis

Factor	SARS-CoV-2 IgG cut off 1 U/ml		SARS-CoV-2 IgG cut off 7 U/ml		SARS-CoV-2 IgG cut off 25 U/ml	
	Post First Vaccination (OR 95% CI)	Post Second Vaccination (OR 95% CI)	Post First Vaccination (OR 95% CI)	Post Second Vaccination (OR 95% CI)	Post First Vaccination (OR 95% CI)	Post Second Vaccination (OR 95% CI)
Age*	0.956 (0.931-0.979)	0.958(0.912-1.004)	0.936 (0.910-0.964)	0.936 (0.909-0.963)	0.956 (0.91-1.00)	0.911 (0.884-0.938)
BMI	0.965 (0.920-1.013)	0.931 (0.851-1.018)	0.966 (0.907-1.03)	0.962 (0.914-1.01)	0.875 (0.739-1.04)	0.982 (0.938-1.03)
Lymphocyte count*	3.40 (1.88-6.14)	1.63 (0.647-4.10)	2.25 (1.27-3.98)	2.84 (1.51-5.34)	3.56 (1.17-10.9)	2.05 (1.25-3.36)
Gender						
Female	Ref	Ref	Ref	Ref	Ref	Ref
Male	1.03 (0.556-1.92)	1.45 (0.381-5.56)	0.673 (0.322-1.41)	0.768 (0.396-1.49)	1.02 (0.248-4.22)	0.991 (0.552-1.78)
eGFR						
Normal (eGFR≥90)	Ref	Ref	Ref	Ref	Ref	Ref
Mild impairment (60≤eGFR<89)	0.61 (0.30-1.21)	1.26 (0.20-7.76)	0.356 (0.161-0.972)	0.501 (0.222-1.129)	N/A	0.630 (0.321-1.239)
Moderate impairment* (30≤eGFR<59)	0.29 (0.06-1.30)	0.06 (0.011-0.34)	N/A	0.105 (0.023-0.474)	N/A	0.158 (0.031-0.795)
Smoking status						
Non-Smoker	Ref	Ref	Ref	Ref	Ref	Ref
Current smoker	0.614 (0.22-1.71)	N/A	0.649 (0.177-2.38)	1.61 (0.439-5.917)	1 (0.119-8.411)	1.61 (0.439-5.92)
Ex-smoker	0.516 (0.24-1.11)	0.687 (0.18-2.68)	0.699 (0.267-1.83)	0.898 (0.397-2.03)	N/A	0.735 (0.355-1.52)
Type 2 Diabetes Mellitus	0.638 (0.16-2.57)	0.244 (0.034-1.73)	N/A	0.163 (0.03-0.882)	N/A	0.277 (0.032-2.43)
Vaccine Type *						
Astra Zeneca	Ref	Ref	Ref	Ref	Ref	Ref
Pfizer	3.72 (2.023-6.832)	7.012 (1.497-32.85)	4.811 (2.109-10.978)	12.96-(29.71)	1.787 (0.449-7.11)	16.24 (8.18- 32.25)
IMID						
Healthy Control	Ref	Ref	Ref	Ref	Ref	Ref
Rheumatoid arthritis	0.115 (0.044-0.230)	0.620 (0.120-3.21)	0.178(0.067-0.471) p=0.001	0.525 (0.221-1.249)	N/A	0.532 (0.261-1.085)
Ankylosing Spon	0.933 (0.169-5.155)	0.791 (0.067-9.304)	1.64 (0.510-5.321)	1.8 (0.350-9.262)	N/A	3.218 (0.817-12.677)
Psoriatic arthritis	0.314 (0.109-0.904)	N/A	0.645 (0.267-1.557)	0.498 (0.191-1.300)	0.698 (0.184-2.644)	0.944 (0.415-2.145)
Time between 1 st and 2 nd vaccination dose *	N/A	0.962 (0.937-0.987)	N/A	0.960 (0.947-0.973)	N/A	0.952 (0.941-0.964)
Intervention group*						
Continue	Ref	Ref	Ref	Ref	Ref	Ref
Withhold	2.84 (1.46-5.54)	4.02 (0.85-19.0)	1.47 (0.65-3.32)	2.03 (0.961-4.31)	1.07 (0.146 – 7.78)	2.55 (1.33-4.90)
Immunosuppression*						
csDMARD	Ref	Ref	Ref	Ref	Ref	Ref
bDMARD	2.90 (1.202-6.975)	0.377 (0.0699-2.033)	2.776 (1.031-7.471)	0.788 (0.310-2.003)	0.865 (0.117-6.3395)	1.166 (0.541-2.513)
tsDMARD	0.509 (0.230-1.123)	0.362 (0.067-1.953)	0.595 (0.175-2.020)	0.375 (0.153-0.917)	N/A	0.455 (0.207-0.997)

Supplementary Table 2: Multivariate logistic regression analysis

Factor	SARS-CoV-2 IgG cut off 1 U/ml		SARS-CoV-2 IgG cut off 7 U/ml		SARS-CoV-2 IgG cut off 25 U/ml	
	Post First Vaccination (OR 95% CI)	Post Second Vaccination (OR 95% CI)	Post First Vaccination (OR 95% CI)	Post Second Vaccination (OR 95% CI)	Post First Vaccination (OR 95% CI)	Post Second Vaccination (OR 95% CI)
Age	0.986 (0.940-1.034)	1.061 (0.963-1.169)	0.941 (0.891-0.994)	1.028 (0.969-1.089)	0.859 (0.723-1.020)	0.958 (0.914-1.006)
Lymphocyte count	2.694 (1.328-5.466)	0.779 (0.241-2.520)	1.812 (0.871-3.770)	2.303 (1.025-5.178)	12.865 (0.339-488.1)	1.548 (0.786-3.045)
eGFR						
Normal	Ref	Ref	Ref	Ref	Ref	Ref
Mild impairment	0.765 (0.304-1.928)	1.375 (0.158-11.922)	0.859 (0.286-2.583)	0.587 (0.199-1.735)	N/A	1.252 (0.482-3.251)
Moderate impairment	0.841 (0.134-5.294)	0.066 (0.004-0.943)	N/A	0.172 (0.021-1.395)	N/A	1.843 (0.254-13.381)
Vaccine						
Astra Zeneca	Ref	Ref	Ref	Ref	Ref	Ref
Pfizer	2.549 (0.826-7.865)	8.430 (0.062-114.2)	2.176 (0.426-11.108)	2.771 (0.319-24.054)	N/A	1.416 (0.205-9.779)
Time between 1 st and 2 nd vaccination dose	N/A	0.980 (0.912-1.054)	N/A	0.971 (0.940-1.004)	N/A	0.974 (0.944-1.004)
Intervention group*						
Continue	Ref	Ref	Ref	Ref	Ref	Ref
Withhold	4.711 (1.965-11.294)	1.946 (0.274-13.815)	3.541 (1.214-10.329)	1.357 (0.496-3.713)	3.015 (0.165-55.231)	3.590 (1.441-8.943)
Immunosuppression						
csDMARD	Ref	Ref	Ref	Ref	Ref	Ref
bdMARD	2.668 (0.890-7.998)	0.480 (0.048-4.785)	2.791 (0.850-9.168)	0.507 (0.136-1.887)	0.102 (0.001-9.484)	0.970 (0.333-2.826)
tsDMARD	0.397 (0.152-1.038)	0.292 (0.036-2.368)	0.731 (0.186-2.877)	0.229 (0.070-0.743)	N/A	0.409 (0.146-1.144)