

SUPPLEMENTARY

Supplementary 1: Disease-Modifying Antirheumatic Drug (DMARD) Therapy

AZ											
csDMARD				bDMARD				tsDMARD			
Withhold (n)		Continue (n)		Withhold(n)		Continue (n)		Withhold (n)		Continue (n)	
MTX	7	MTX	9	ADA	3	ADA	2	BARI	3	BARI	1
MTX + HCQ	2	MTX + HCQ	3	ETA	2	ETA	1	TOF	4	TOF	3
	2		1		1		2	TOF +	3	TOF +	3
MTX + SSZ		SSZ		GOL		GOL		MTX		MTX	
MTX + IXE	0	MTX + IXE	1	IXE	2	IXE	3	UPA	5	UPA	8
MTX + SEC	0	MTX + SEC	1	SEC	2	SEC	3				
MTX + TOC	1	MTX + TOC	1	TOC	1	TOC	4				
				UST	0	UST	2				
TOTAL	12		16		11		17		15		15
Pfizer											
csDMARD				bDMARD				tsDMARD			
Withhold (n)		Continue (n)		Withhold (n)		Continue (n)		Withhold (n)		Continue (n)	
LEF	1	LEF	1	ADA	4	ADA	5	BARI	4	BARI	4
	7		8				2	BARI +	1	BARI +	1
MTX		MTX		CTZ		CTZ		MTX		MTX	
MTX + HCQ	4	MTX + HCQ	3	ETA	1	ETA	1	TOF	3	TOF	2
	1		3		0		1	TOF +	0	TOF +	0
MTX + SSZ		MTX + SSZ		GOL		GOL		MTX		MTX	
MTX + ETA	0	MTX + ETA	1	GUS	1	GUS	0	UPA	7	UPA	7
	1		0		1		1	UPA +	0	UPA +	1
MTX + SEC		MTX + SEC		INF		INF		MTX		MTX	
MTX + TOC	0	MTX + TOC	0	IXE	4	IXE	5				
				SEC	2	SEC	1				
				TOC	2	TOC	2				
				UST	0	UST	1				
TOTAL	14		16		15		20		15		15

MTX, methotrexate; HCQ, hydroxychloroquine; SSZ, sulfasalazine; LEF, leflunamide; ADA, adalimumab; CTZ, certolizumab; ETA, etanercept; GOL, golimumab; GUS, guselkumab; INF, infliximab; IXE, ixekizumab; SEC, secukinumab; TOC, tocilizumab, UST, ustekinumab; BARI, baricitinib; TOF, tofacitinib; UPA, upadacitinib.

Supplementary Table 2: Comparing withhold versus continue therapy within DMARD classes

	csDMARD			bDMARD			tsDMARD		
	Withhold	Continue	p-value	Withhold	Continue	p value	Withhold	Continue	p value
Detectable SARS-CoV2 IgG Antibodies †									
6-month blood test	13/13 (100)	21/22 (95.5)	1.00	18/21 (85.7)	26/27 (96.3)	0.306	22/25 (88.0)	22/26 (84.6)	1.00
Post booster blood test	15/15 (100)	28/28 (100)		19/19 (100)	25/25 (100)		24/24 (100)	25/25 (100)	
Mean SARS-CoV2 IgG Ab Titre ‡									
6-month blood test	10.1 (6.5-12.9)	5.8 (2.3-13)	0.260	7.7 (1.5-19)	2.6 (1.4-9.4)	0.205	3.9 (2.2-14.7)	2.1 (1.0-4.1)	0.024
Post booster blood test	196.8 (88.5-426.4)	129.5 (75.4-289.4)	0.240	96.1 (55.0-145.6)	93.2 (55.7-241.8)	0.639	97.8 (72.5-197.3)	74.7 (36.7-156.5)	0.307

† Using Fisher's exact test with significance cut off 5%.

‡ Using Wilcoxon-Mann-Whitney Test with significance cut off 5%.

Data are presented as proportions (%) or Median (IQR)

***Everyone seroconverted on the post booster bloods (reason for no p values here)**

Supplementary Table 3: Factors influencing serum SARS-Cov2 IgG Antibody Titres at 6 months post vaccination*

Variable	Unadjusted		Adjusted	
	OR (95% CI)	p value	OR (95% CI)	p value
Age	0.95 (0.93-0.97)	0.000	1.02 (0.96-1.09)	0.523
Sex:				
<i>Male</i>	Ref			
<i>Female</i>	1.66 (0.88-3.15)	0.118		
Smoking Status:				
<i>Non smoker</i>	Ref			
<i>Current smoker</i>	0.56 (0.16-1.97)	0.369		
<i>Ex-smoker</i>	0.65 (0.29-1.48)	0.308		
Immunosuppression:				
<i>bDMARD</i>	Ref		Ref	
<i>cDMARD</i>	0.97 (0.41-2.33)	0.953	4.12 (0.94-17.98)	0.06
<i>tsDMARD</i>	0.38 (0.17-0.88)	0.023	0.72 (0.15-3.37)	0.672
Trial arm:				
<i>Continue</i>	Ref		Ref	
<i>Withhold</i>	2.89 (1.42-5.87)	0.003	1.84 (0.58-5.88)	0.303
Vaccine received				
<i>Astra Zeneca</i>	Ref		Ref	
<i>Pfizer</i>	3.43 (1.84-6.41)	0.000	0.23 (0.04-1.30)	0.096
Total IgG Antibody titre post second vaccine dose	1.05 (1.04-1.07)	0.000	1.07 (1.04-1.10)	0.000
IMID				
<i>Ankylosing Spondylitis</i>	Ref			
<i>Psoriatic Arthritis</i>	0.66 (0.18-2.40)	0.527		
<i>Rheumatoid Arthritis</i>	0.35 (0.10-1.17)	0.089		
<i>SLE/Sjogren's/CTD</i>	1.87 (0.15-23.40)	0.625		

*Using logistic regression analysis with outcomes based on serum IgG titre cut point 7 U/ml. Significance cut off 5%.

Supplementary Figure 1



