

SUPPLEMENTARY TABLES

Supplementary table 1. SARS-CoV-2 infections after vaccination, flares and adverse events in patients with inflammatory RMDs, stratified by vaccine						
		All patients	Pfizer-BioNTech	Oxford/Astra-Zeneca	Moderna	Other
Vaccine doses	One	1149 (25)	510 (16)	449 (59)	93 (23)	97 (42)
	Two	3406 (74)	2672 (83)	310 (41)	298 (75)	126 (55)
	Three	46 (1)	36 (1)		6 (2)	4 (2)
	Unknown/missing	3 (<1)			1 (<1)	2 (1)
SARS-CoV-2 infection after vaccination	Yes	42 (1)	30 (1)	6 (1)	3 (1)	3 (1)
	No	4380 (95)	3065 (95)	716 (94)	375 (94)	224 (98)
	Unknown/missing	182 (4)	123 (4)	37 (5)	20 (5)	2 (1)
Vaccination status	Fully vaccinated cases	2622 (57)	2068 (64)	199 (26)	234 (59)	121 (53)
	Partially vaccinated cases	1982 (43)	1150 (36)	560 (74)	164 (41)	108 (47)
SARS-CoV-2 infection after vaccination, according to vaccination status	Fully vaccinated cases	18/2622 (1)	14/2068 (1)		2/234 (1)	2/121 (2)
	Partially vaccinated cases	24/1982 (1)	16/1150 (1)	6/560 (1)	1/164 (1)	1/108 (1)
Flare following vaccination (only applicable to patients with inflammatory RMD; N=4605)	Yes	204 (4)	145 (5)	41 (5)	14 (4)	4 (2)
	No	3706 (81)	2712 (84)	559 (74)	319 (80)	116 (51)
	Unknown/missing	694 (15)	361 (11)	159 (21)	65 (16)	109 (48)
Type of flare (only applicable to patients with inflammatory RMD; N=4605)	Fever	18 (<1)	10 (<1)	6 (1)	2 (1)	
	Weight loss	1 (<1)	1 (<1)			
	Increase in fatigue	30 (1)	23 (1)	5 (1)	1 (<1)	1 (<1)
	Increase in dryness	4 (<1)	4 (<1)			
	Enlarged lymph nodes	4 (<1)	3 (<1)		1 (<1)	
	Polyarthralgia	83 (2)	61 (2)	17 (2)	3 (1)	2 (1)
	Arthritis flare	95 (2)	66 (2)	18 (2)	9 (2)	2 (1)
	Cutaneous flare	16 (<1)	14 (<1)	1 (<1)	1 (<1)	
	Pulmonary flare	3 (<1)	3 (<1)			
	Renal flare	1 (<1)	1 (<1)			
	Neurological flare	2 (<1)	1 (<1)	1 (<1)		

	Muscular flare	15 (<1)	9 (<1)	5 (1)	1 (<1)	
	Cardiac flare	3 (<1)	3 (<1)			
	Gastro-intestinal flare	1 (<1)	1 (<1)			
	Haematological flare	3 (<1)	3 (<1)			
	Other	17 (<1)	8 (<1)	4 (1)	4 (1)	1 (<1)
	Unknown/missing	7 (<1)	5 (<1)	2 (<1)		
Severity of flare (only applicable to patients with inflammatory RMD; N=4605)	Mild/Minor	69 (2)	50 (2)	11 (1)	6 (2)	2 (1)
	Moderate	98 (2)	72 (2)	18 (2)	6 (2)	2 (1)
	Severe/Major without hospitalisation	20 (<1)	12 (<1)	6 (1)	2 (1)	
	Severe/Major with hospitalisation	9 (<1)	7 (<1)	1 (<1)	1 (<1)	
	Unknown/missing	4409 (96)	3078 (96)	723 (95)	383 (96)	225 (98)
	New medication or dosage increase due to flare	68 (1)	48 (1)	15 (2)	5 (1)	
Vaccine related adverse events	Yes	1688 (37)	1176 (37)	273 (36)	166 (42)	73 (32)
	No	2916 (63)	2042 (63)	486 (64)	232 (58)	156 (68)
Early adverse events	Pain at injection site	881 (19)	654 (20)	89 (12)	103 (26)	35 (15)
	Redness at injection site	70 (2)	49 (2)	7 (1)	9 (2)	5 (2)
	Swelling at injection site	75 (2)	50 (2)	10 (1)	11 (3)	4 (2)
	Generalized muscle pain	302 (7)	182 (6)	76 (10)	30 (8)	14 (6)
	Generalized joint pain	163 (4)	103 (3)	30 (4)	20 (5)	10 (4)
	Headache	293 (6)	189 (6)	65 (9)	23 (6)	16 (7)
	Fever	331 (7)	183 (6)	90 (12)	44 (11)	14 (6)
	Chills	130 (3)	72 (2)	42 (6)	9 (2)	7 (3)
	Fatigue	531 (12)	376 (12)	94 (12)	43 (11)	18 (8)
	Vomiting	58 (1)	35 (1)	14 (2)	7 (2)	2 (1)
	Diarrhoea	38 (1)	29 (1)	5 (1)	4 (1)	
	Unknown	5 (<1)	2 (<1)	1 (<1)	2 (1)	
Adverse events of special interest	Cardiovascular - arterial hypertension	4 (<1)	2 (<1)	1 (<1)	1 (<1)	
	Cardiovascular - arrhythmia	3 (<1)	3 (<1)			
	Cardiovascular - coronary artery disease	2 (<1)	2 (<1)			
	Cardiovascular - myocarditis, pericarditis	1 (<1)	1 (<1)			

	Dermatologic – eczema, nodes, plaques	4 (<1)	2 (<1)	1 (<1)	1 (<1)	
	Dermatologic – pruritus, injection site reaction, redness, burning	3 (<1)	3 (<1)			
	Gastrointestinal - liver injury	3 (<1)	3 (<1)			
	General conditions – hot flush, anxiety, lowered body temperature, loss and lack of appetite, night sweats	8 (<1)	4 (<1)	3 (<1)	1 (<1)	
	Haematologic - peripheral deep vein thrombosis	2 (<1)	2 (<1)			
	Haematologic - hemorrhagic disease	1 (<1)		1 (<1)		
	Haematologic - thrombocytopenia	1 (<1)		1 (<1)		
	Haematologic - stroke	1 (<1)	1 (<1)			
	Immunologic - anaphylaxis	3 (<1)	2 (<1)	1 (<1)		
	Immunologic - arthritis	4 (<1)	2 (<1)	2 (<1)		
	Immunologic – skin and mucosal	8 (<1)	6 (<1)	1 (<1)	1 (<1)	
	Immunologic - vasculitides	1 (<1)	1 (<1)			
	Lymphadenopathy – lymph node swelling, axillary lymphadenopathy	4 (<1)	3 (<1)		1 (<1)	
	Malaise, fatigue, insomnia	5 (<1)	3 (<1)	2 (<1)		
	Neurologic - anosmia, ageusia	1 (<1)	1 (<1)			
	Neurologic – drowsiness, vertigo, dizziness, nausea, tinnitus, migraine, hallucination	21 (<1)	15 (<1)	3 (<1)	2 (1)	1 (<1)
	Other possible cardiac symptoms – ankle oedema, dyspnoea, dry cough	7 (<1)	5 (<1)		2 (1)	
	Pain/pain syndromes	2 (<1)	2 (<1)			
	Tendons and joints – tendinopathy, frozen shoulder, carpal tunnel syndrome	4 (<1)	2 (<1)	1 (<1)	1 (<1)	
	Viral infection – herpes, herpes zoster, shingles	9 (<1)	7 (<1)	1 (<1)	1 (<1)	
	Viral infection – flu, flu-like episode, rhinitis, cough, cold	7 (<1)	6 (<1)			1 (<1)
	Other	3 (<1)	3 (<1)			
	Total of adverse events of special interest	112 (2)	81 (3)	18 (2)	11 (3)	2 (1)
AE seriousness	Non-serious	90 (2)	62 (2)	15 (2)	11 (3)	2 (1)
	Serious - Important medical event	8 (<1)	7 (<1)	1 (<1)		
	Serious - Hospitalisation (or prolongation of existing hospitalisation)	6 (<1)	6 (<1)			

	Serious - Life-threatening	3 (<1)	2 (<1)			
	Unknown/Missing	4 (<1)	3 (<1)	1 (<1)		
AE outcome	Ongoing/Continuing	21 (<1)	14 (<1)	3 (<1)	4 (1)	
	Recovered/resolved without sequelae	75 (1)	55 (1)	11 (2)	7 (2)	2 (1)
	Recovered/resolved with sequelae	6 (<1)	4 (<1)	2 (<1)		
	Unknown/Missing	9 (<1)	8 (<1)	1 (<1)		
All values are N (%) unless stated otherwise. COVID-19, coronavirus disease 2019; RMD, rheumatic and musculoskeletal disease.						

Supplementary table 2. SARS-CoV-2 infections and adverse events in patients with non-inflammatory RMDs, stratified by vaccine		All patients	Pfizer-BioNTech	Oxford/Astra-Zeneca	Moderna	Other
Vaccine doses	One	132 (26)	70 (18)	47 (49)	10 (33)	5 (56)
	Two	384 (74)	311 (81)	49 (51)	20 (67)	4 (44)
	Three	1 (<1)	1 (<1)			
SARS-CoV-2 infection after vaccination	Yes	4 (1)	2 (1)			2 (22)
	No	490 (95)	360 (94)	93 (97)	30 (100)	7 (78)
	Unknown/missing	3 (1)	20 (6)	3 (3)		
Vaccination status	Fully vaccinated cases	270 (52)	229 (60)	26 (27)	12 (40)	3 (33)
	Partially vaccinated cases	247 (48)	153 (40)	70 (73)	18 (60)	6 (67)
SARS-CoV-2 infection after vaccination, according to vaccination status	Fully vaccinated cases	3/270 (1)	1/229 (<1)			2/3 (67)
	Partially vaccinated cases	1/247 (<1)	1/153 (1)			
Vaccine related adverse events	Yes	206 (40)	131 (34)	51 (53)	22 (73)	2 (22)
	No	311 (60)	251 (66)	45 (47)	8 (27)	7 (78)
Early adverse events	Pain at injection site	75 (15)	50 (13)	10 (10)	15 (50)	
	Redness at injection site	4 (1)	3 (1)		1 (3)	
	Swelling at injection site	1 (<1)	1 (<1)			
	Generalized muscle pain	41 (8)	23 (6)	13 (14)	5 (17)	
	Generalized joint pain	26 (5)	15 (4)	9 (9)	2 (7)	
	Headache	36 (7)	21 (6)	11 (11)	4 (13)	
	Fever	44 (9)	21 (6)	18 (19)	4 (13)	1 (11)
	Chills	16 (3)	6 (2)	7 (7)	3 (10)	
	Fatigue	65 (13)	39 (10)	20 (21)	5 (17)	1 (11)
	Vomiting	4 (1)	3 (1)	1 (1)		
	Diarrhoea	4 (1)	2 (1)	2 (2)		
	Total of early adverse events	316 (61)	184 (48)	91 (95)	39 (130)	2 (22)
Adverse events of special interest	Cardiovascular - arterial hypertension	2 (<1)	2 (1)			
	Dermatologic – pruritus, injection site reaction, redness, burning	2 (<1)	1 (<1)		1 (3)	
	Gastrointestinal - Liver injury	3 (1)	1 (<1)	1 (1)	1 (3)	

	General condition - hot flush, anxiety, lowered body temperature, loss and lack of appetite, night sweats	1 (<1)		1 (1)		
	Immunologic - arthritis	5 (1)	3 (1)	1 (1)	1 (1)	
	Immunologic - skin and mucosal	1 (<1)		1 (1)		
	Immunologic - vasculitides	2 (<1)	1 (<1)		1 (3)	
	Lymphadenopathy – lymph node swelling, axillary lymphadenopathy	2 (<1)	2 (1)			
	Malaise, fatigue, insomnia	1 (<1)	1 (<1)			
	Neurologic – drowsiness, vertigo, dizziness, nausea, tinnitus, migraine, hallucination	7 (1)	4 (1)	1 (1)	2 (7)	
	Other possible cardiac symptoms – ankle oedema, dyspnoea, dry cough	2 (<1)	2 (1)			
	Pain/pain syndromes	2 (<1)		1 (1)		
	Tendons and joints – tendinopathy, frozen shoulder, carpal tunnel syndrome	2 (<1)		2 (2)		
	Viral infections – herpes, herpes zoster, shingles	1 (<1)	1 (<1)			
	Viral infections – flu, flu-like episodes, rhinitis, cough, cold	1 (<1)		1 (1)		
	Other	3 (1)	1 (<1)	1 (1)	1 (3)	
	Total of adverse events of special interest	37 (7)	20 (5)	10 (10)	7 (23)	
AE seriousness	Non-serious	25 (5)	14 (4)	7 (7)	6 (20)	
	Serious - Important medical event	8 (2)	5 (2)	3 (3)		
	Serious - Hospitalisation (or prolongation of existing hospitalisation)	2 (<1)	1 (<1)		1 (<1)	
AE outcome	Ongoing/Continuing	6 (1)	2 (1)	3 (3)	1 (3)	
	Recovered/resolved without sequelae	25 (5)	16 (4)	7 (7)	4 (13)	
	Recovered/resolved with sequelae	2 (<1)	2 (1)			
	Unknown/Missing	1 (<1)			1 (3)	
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