

Supplementary Material: Characterising long COVID-like COVID-19 vaccine reactions

Table S1. COVID-19 status

Question	Answer categories	Total n	n (%)
COVID status	1 infection (PCR/LFT confirmed)	230	62 (27)
	1 suspected infection		31 (13)
	> 1 confirmed infection		12 (5)
	> 1 suspected infection		8 (3)
	No known infection		114 (50)
	Not sure		3 (1)
If > 1 infection, how many?	2	20	15 (75)
	3		3 (15)
	4		1 (5)
	> 4		1 (5)
Did you get long COVID?	Yes	113	33 (29)
	No		55 (49)
	Not sure		25 (22)
Nucleocapsid antibody testing	1 positive	230	10 (4)
	1 negative		44 (19)
	> 1 all positive		1 (0)
	> 1 all negative		12 (5)
	> 1 mixed positive and negative		2 (1)
	No tests		146 (63)
Did you get COVID before or after the offending vaccination?	Not sure	113	15 (7)
	1 infection pre-vaccine		36 (32)
	1 infection post-vaccine		54 (48)
	> 1 infection post-vaccine		3 (3)
	1 infection pre- and post-vaccine		18 (16)
Did COVID worsen existing post-vaccine symptoms?	Same time as vaccine	81	2 (2)
	Better		7 (9)
	Worse		31 (38)
	No change		24 (30)
	Mixed		14 (17)
How was long COVID affected by the offending vaccine?	Not sure	31	6 (6)
	Better		-
	Worse		25 (81)
	No change		3 (10)
	Mixed		1 (3)
	Not sure		2 (6)

Table S2. Vaccination details

Question	Answer categories	Total n	n (%)		
How long has it been since the offending vaccination?	1-2 months	230	5 (2)		
	2-3 months		1 (0)		
	3-4 months		3 (1)		
	4-5 months		2 (1)		
	5-6 months		7 (3)		
	6-7 months		10 (4)		
	7-8 months		10 (4)		
	8-9 months		8 (3)		
	9-10 months		13 (6)		
	10-11 months		15 (7)		
	11-12 months		16 (7)		
	12-13 months		35 (15)		
	13-14 months		22 (10)		
	14-15 months		33 (14)		
	15-16 months		24 (10)		
	> 16 months		26 (11)		
Brand	AstraZeneca	230	80 (35)		
	Janssen		6 (3)		
	Moderna		34 (15)		
	Novavax		1 (0)		
	Pfizer		109 (47)		
How many vaccines have you had?	1	230			
	2		81 (35)		
	3		58 (25)		
	4		3 (1)		
	5		2 (1)		
If > 1 vaccine, were other vaccine different brands?	Yes	144	91 (63)		
Brands if different (optional question):	AstraZeneca		16		
	Janssen		2		
	Moderna		16		
	Novavax		1		
	Pfizer		32		
Symptoms after a repeat vaccine	Better	111	1 (1)		
	Worse		54 (49)		
	No change		25 (23)		
	Mixed		10 (9)		
	Not sure		21 (19)		
Time between vaccines		Vaccines 1-2	Vaccines 2-3	Vaccines 3-4	Vaccines 4-5
	n	144	62	5	2
	< 2 weeks	1 (1)	1 (2)	1 (20)	1 (50)
	2-4 weeks	38 (26)	-	-	1 (50)
	1-2 months	35 (24)	1 (2)	-	-
	2-3 month	43 (30)	3 (5)	1 (20)	-
	3-4 months	15 (10)	4 (6)	-	-
	4-5 months	2 (1)	4 (6)	1 (20)	-
	5-6 months	6 (4)	20 (32)	1 (20)	-
	> 6 months	3 (2)	28 (45)	-	-
	Not sure	1 (1)	1 (2)	1 (20)	-

Table S3. Symptoms and health post-vaccination

Question	Answer category	Total n	n (%)
Symptom fluctuation	Highly fluctuant	230	31 (13)
	Moderately fluctuant		78 (34)
	Mildly fluctuant		47 (20)
	Steadily improving		24 (10)
	Not changing too much		30 (13)
	Steadily getting worse		18 (8)
	Not sure		2 (1)
Do fluctuations have a pattern?	Yes	218	51 (23)
	No		65 (30)
	Unclear/sometimes		88 (40)
	Not sure		14 (6)
Have you had time off work?	Yes	230	152 (66)
	No		22 (10)
	Not sure		2 (1)
	Not applicable		54 (23)
How much time off?	≤ 1 week	152	13 (9)
	1-2 weeks		5 (3)
	2-3 weeks		14 (9)
	3-4 weeks		10 (7)
	4-6 weeks		9 (6)
	6-8 weeks		9 (6)
	2-4 months		18 (12)
	4-6 months		9 (6)
	> 6 months		24 (16)
	Had to stop working		41 (27)
Have you needed workplace adjustments?	Yes	230	108 (47)
	No		29 (13)
	Not sure		2 (1)
	Not applicable		91 (40)
Do you currently have symptoms?	Yes	230	218 (95)
	No		8 (3)
	Not sure		4 (2)
How long have you had symptoms?	1-2 months	230	1 (0)
	2-3 months		3 (1)
	3-4 months		5 (2)
	4-5 months		4 (2)
	5-6 months		10 (4)
	6-7 months		9 (4)
	7-8 months		8 (3)
	8-9 months		8 (3)
	9-10 months		15 (7)
	10-11 months		19 (8)
	11-12 months		15 (7)
	12-13 months		31 (13)
	13-14 months		23 (10)
	14-15 months		25 (11)
	> 15 months		54 (23)
Long haul symptom onset	≤ 6 hours	230	40 (17)
	6-12 hours		18 (8)
	12-24 hours		20 (9)
	1-2 days		19 (8)
	2-3 days		15 (7)
	3-4 days		17 (7)

5-7 days	27 (12)
1-2 weeks	37 (16)
2-3 weeks	14 (6)
3-4 weeks	10 (4)
4-5 weeks	3 (1)
5-6 weeks	2 (1)
> 6 weeks	5 (2)
Not sure	3 (1)

Section S1: Batch numbers

A full list of batch numbers is given below, along with how many participants reported receiving each a vaccine from each batch:

Reported by n = 6 participants: 4120Z003

Reported by n = 5 participants: 4120Z002; AB0004; ER1741; ET8885; PV46676

Reported by n = 4 participants: 4120Z001; PV46674; PW40009

Reported by n = 3 participants: 025L20A; AB0012; EM4965; EW4109; FE1510; FH3220; FK9712; PV46663; PV46673; PV46678; PV46688; PV46699; PW40008; PW40010; PW40040

Reported by n = 2 participants: 044D21A; 092D21A2; AB0001; AB0010; AB0011; AB0013; EK1768; EL8713; EN5318; EP7533; EW0153; EW0221; FC3095; FD7206; FD7218; FE3590; FK0596; FK9413; FL9994; FM3802; PV46664; PV46677; PV46679; PV46689; PV46690; PV46691; PV46693; PV46697; PW40037

Reported by n = 1 participant: 048B21A; 1821286; 3002179; 3002621; 3003651; 3004674; 3004732; 3005683; 3005688; 3005889; 3006323; 001B21A; 002M21A; 003B21A; 004C21A; 012H21B; 012M20A; 013M20A; 014M20A; 01921A; 021B21A; 021C21A; 025J20A; 027b21A; 028K21A; 032B21A; 036C21A; 040A21A; 041J21A; 041L20A; 044A21A; 045D21A; 062E21A; 076C21A; 085D21A; 093D21A; 1B002A; 1B003A; 1F1010A; 203A21A; 215VCD139W; 300157P; 33130BA; 33194TB; 4301MF004; AB0002; AB0005; ABV3025; ABV5300; CT6790; CTMAV532; EJ6790; EL1283; EL1284; EL3249; EL9265; EL9267; ELO141; EN1185; EN6202; ENG204; EP7534; EPG955; ER1749; ER7449; ER7934; ER8730; ER8731; ER8733; EW0158; EW0162; EW0169; EW0170; EW0171; EW0173; EW0216; EW1064; EWO170; EX8680; EY2172; EY4834; FA4632; FA6780; FA9094; FA9099; FC1440; FC3180; FC3182; FC3184; FC8889; FC9001; FD0168; FD5613; FD7204; FD8813; FE2083; FE6975; FF0680; FF2590; FF3319; FF8222; FF8288; FG3527; FH0114; FK9706; FK9707; FL1939; FM2952; FV8L88; MT0055; N6199; PV46669; PV46671; PV46672; PV46684; PV46685; PV46687; PV46696; PW40041; SCRM8; SCRP9; SCUE1

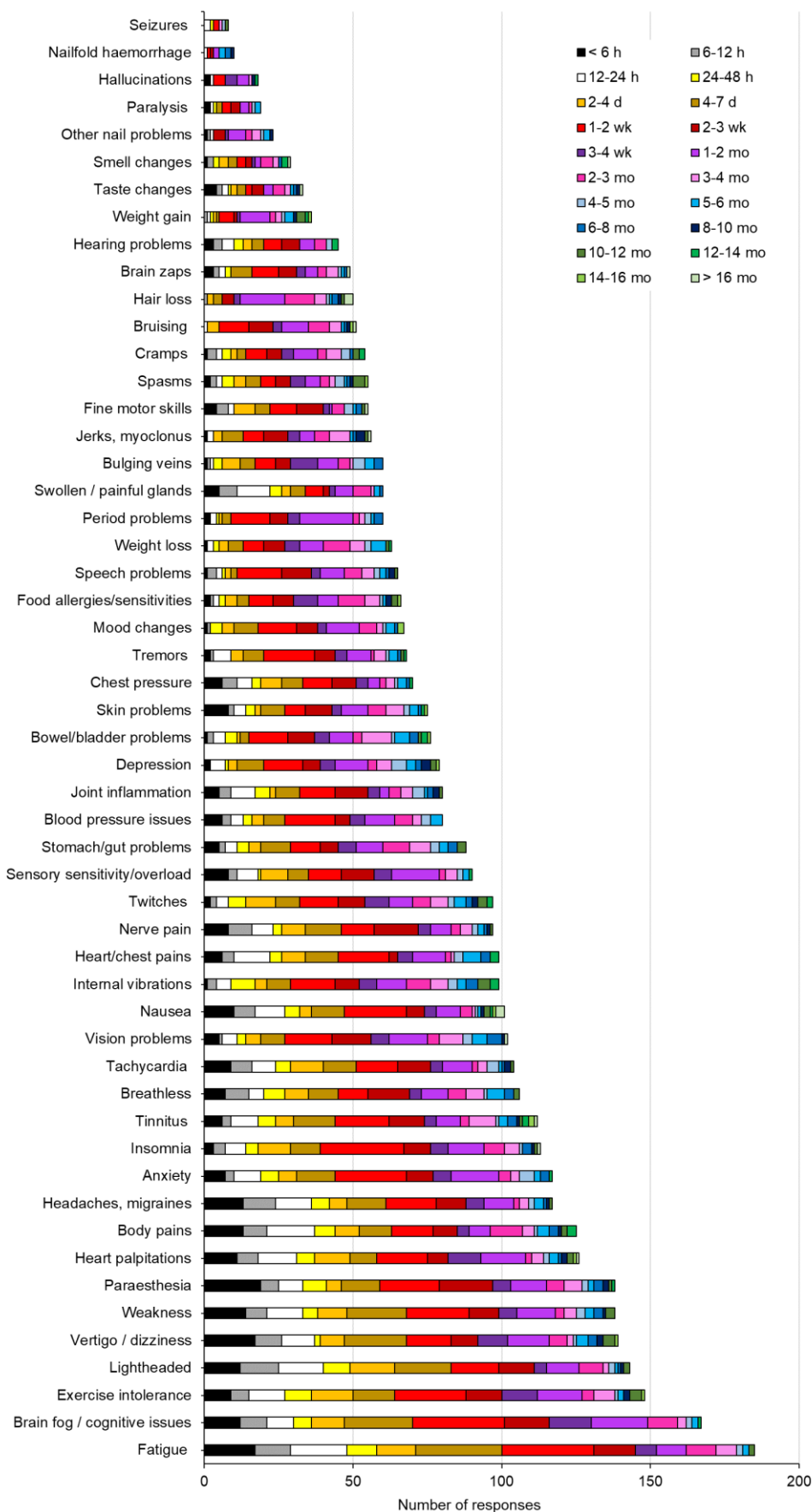


Figure S1. Time to symptom onset

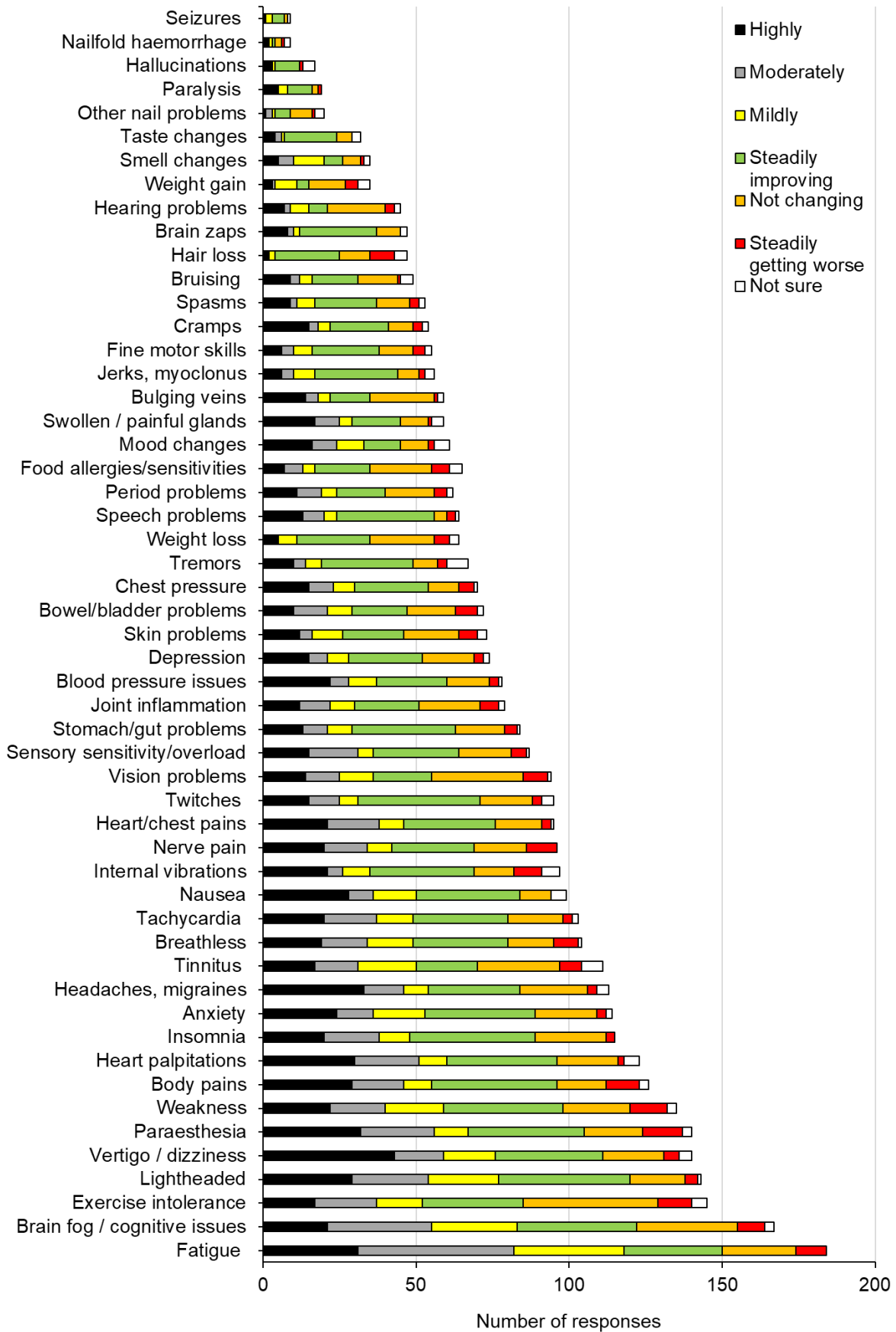


Figure S2. Symptom fluctuations

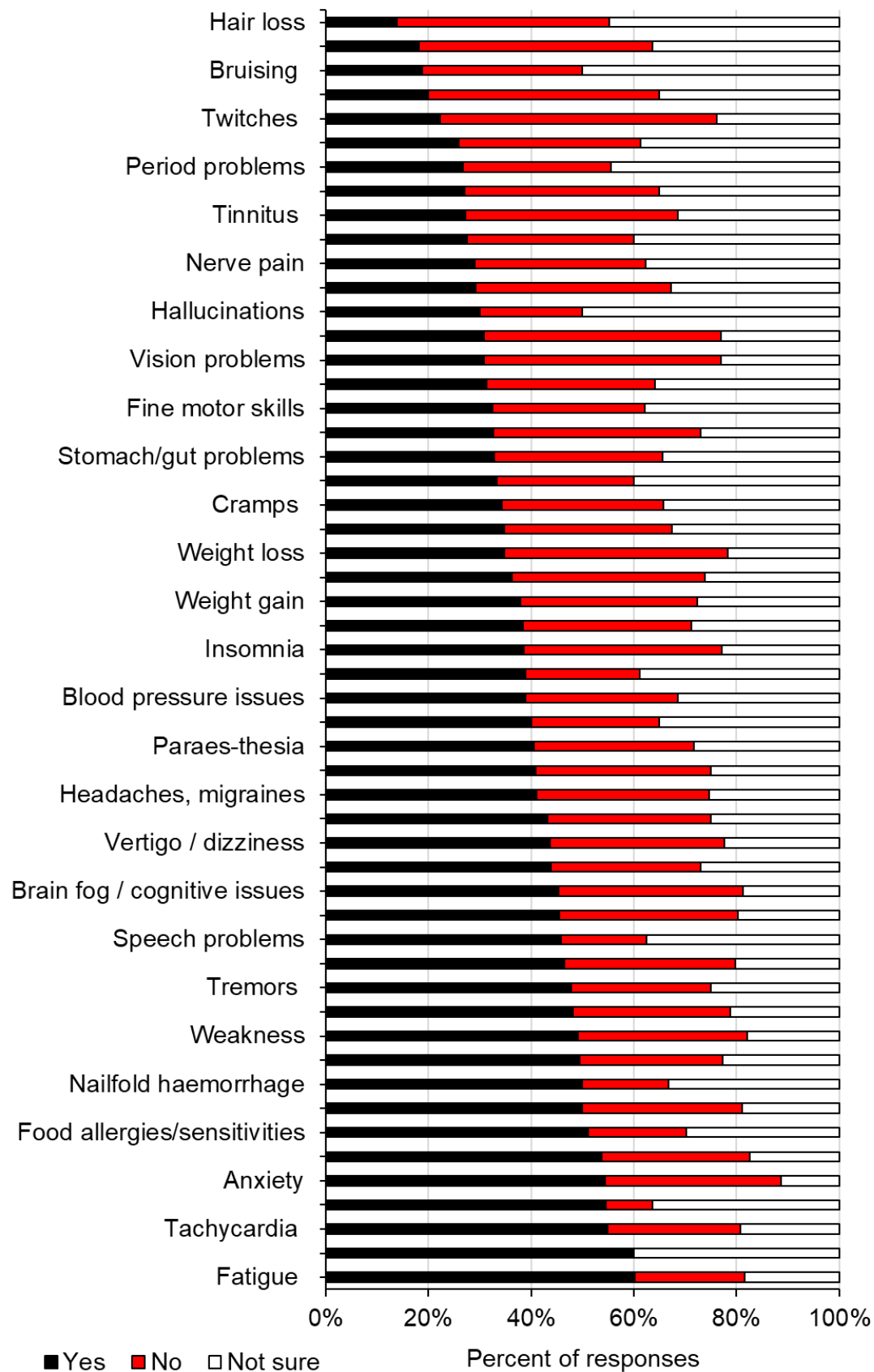


Figure S3. Percentage of respondents reporting whether a symptom has a trigger

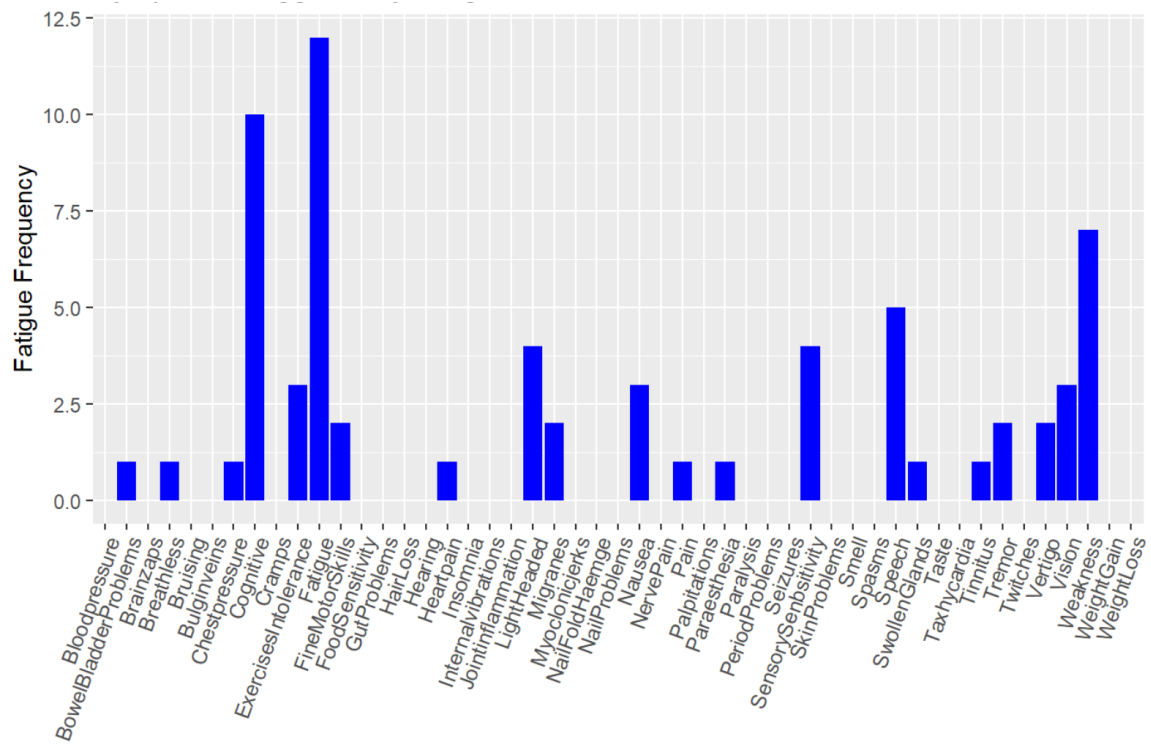


Figure S4a. Symptoms triggered by fatigue

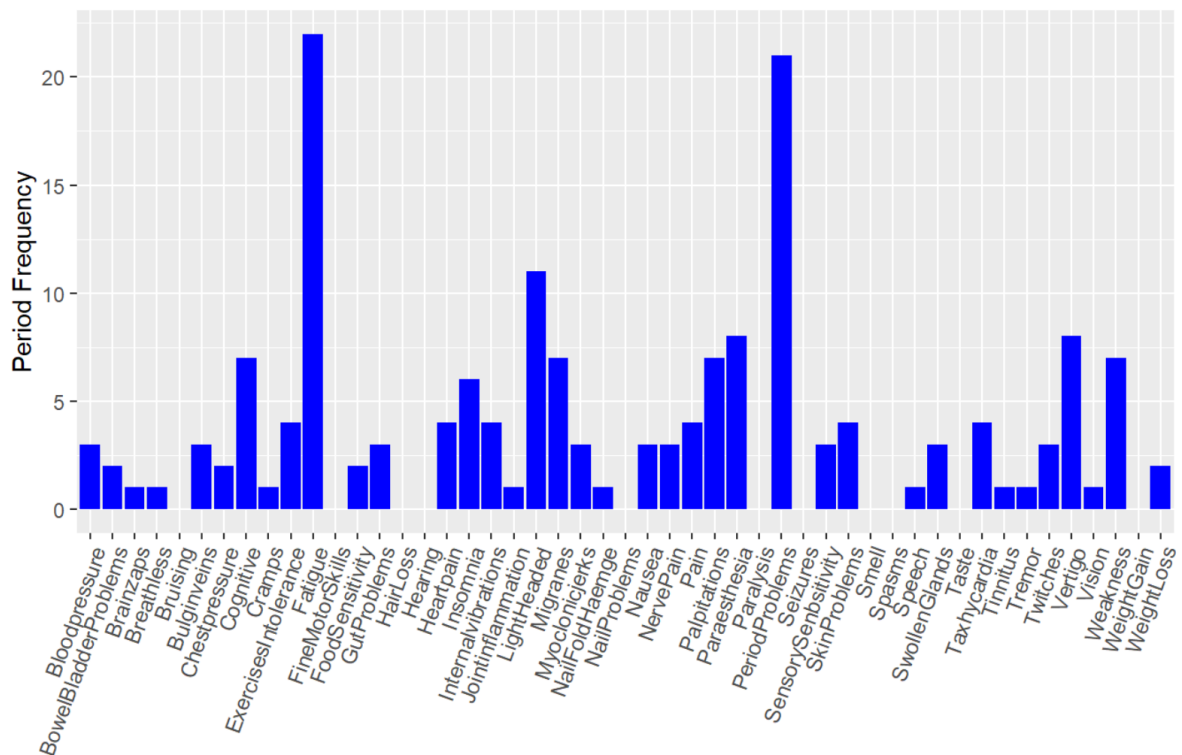


Figure S4b. Symptoms triggered by periods

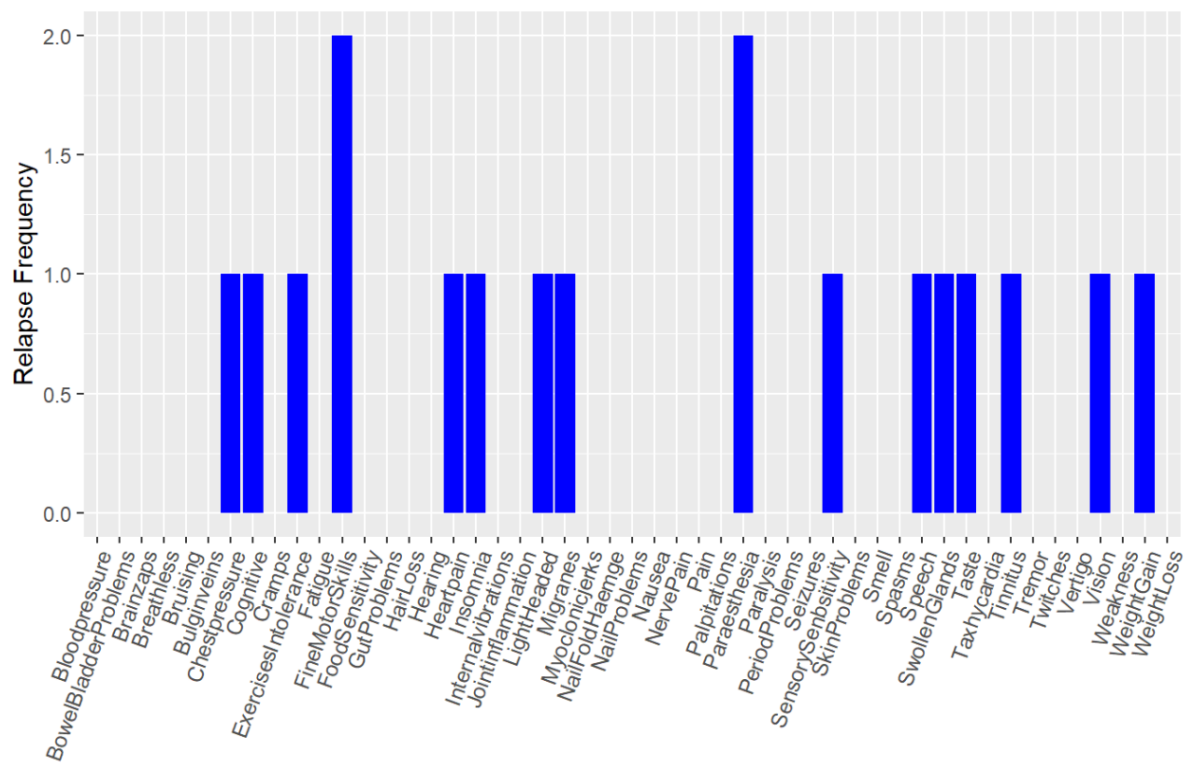


Figure S4c. Symptoms triggered by relapses

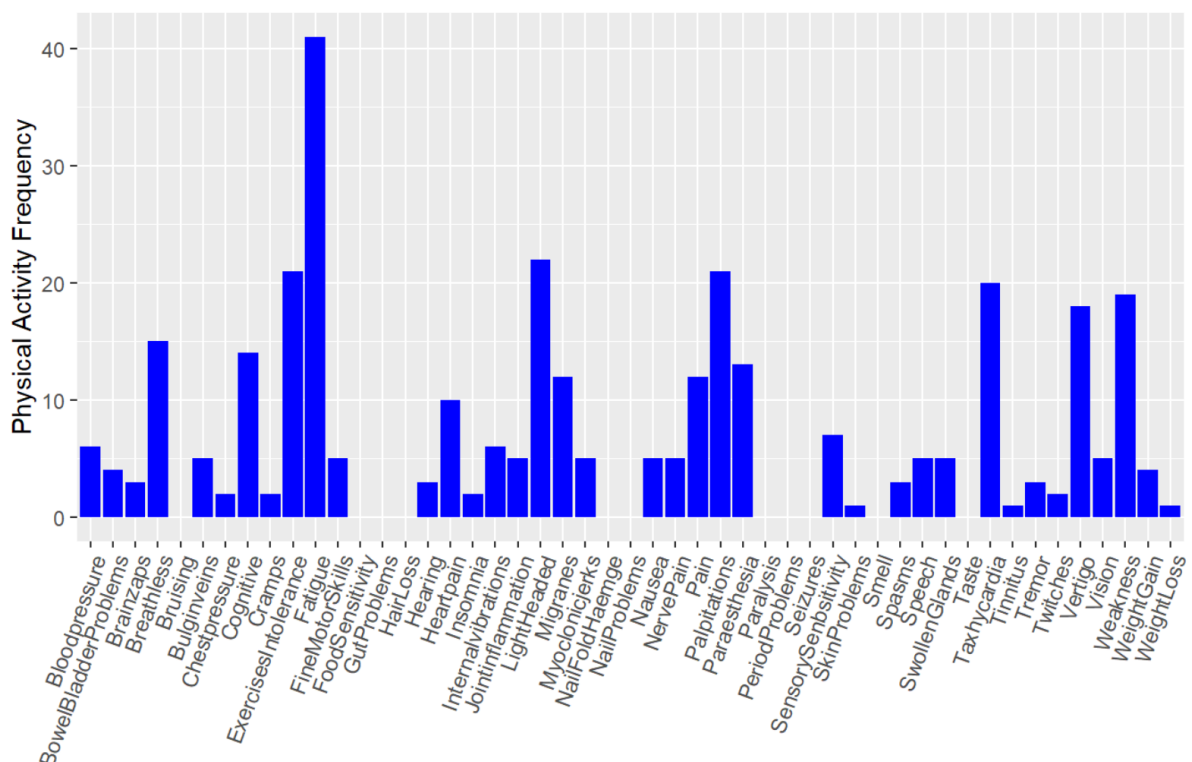


Figure S4d. Symptoms triggered by physical activity

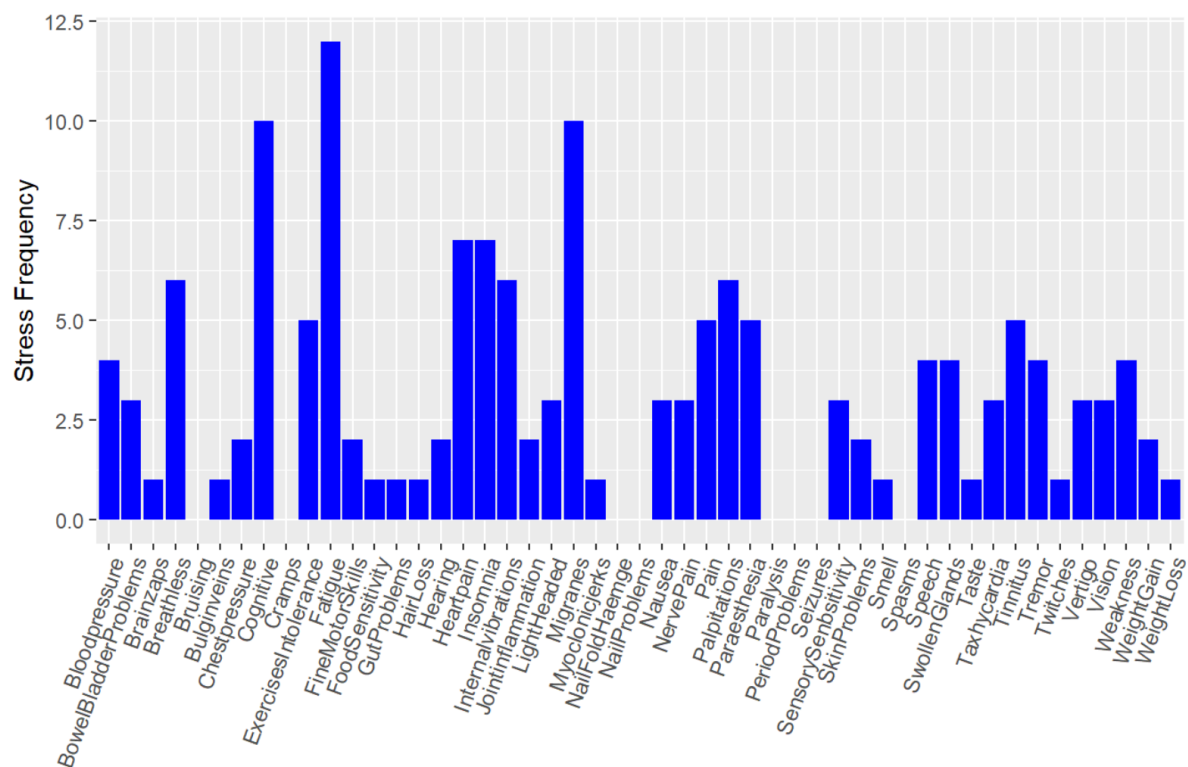


Figure S4e. Symptoms triggered by stress

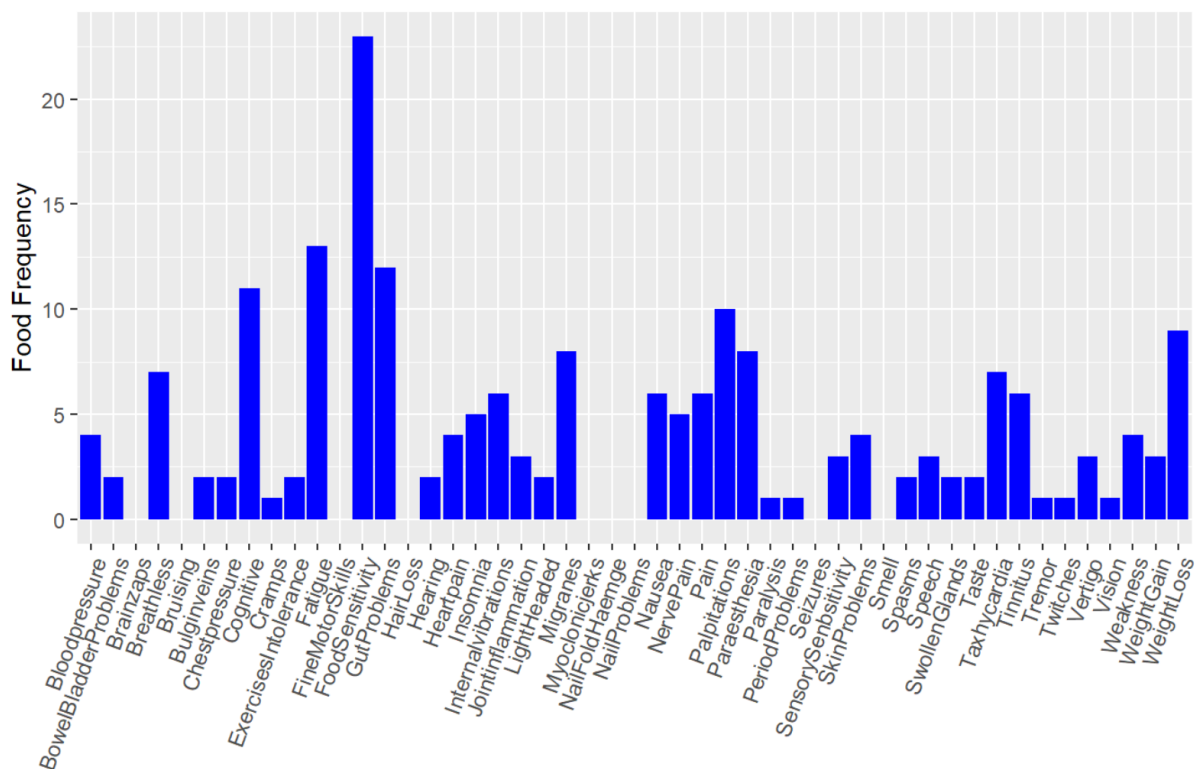


Figure S4f. Symptoms triggered by food

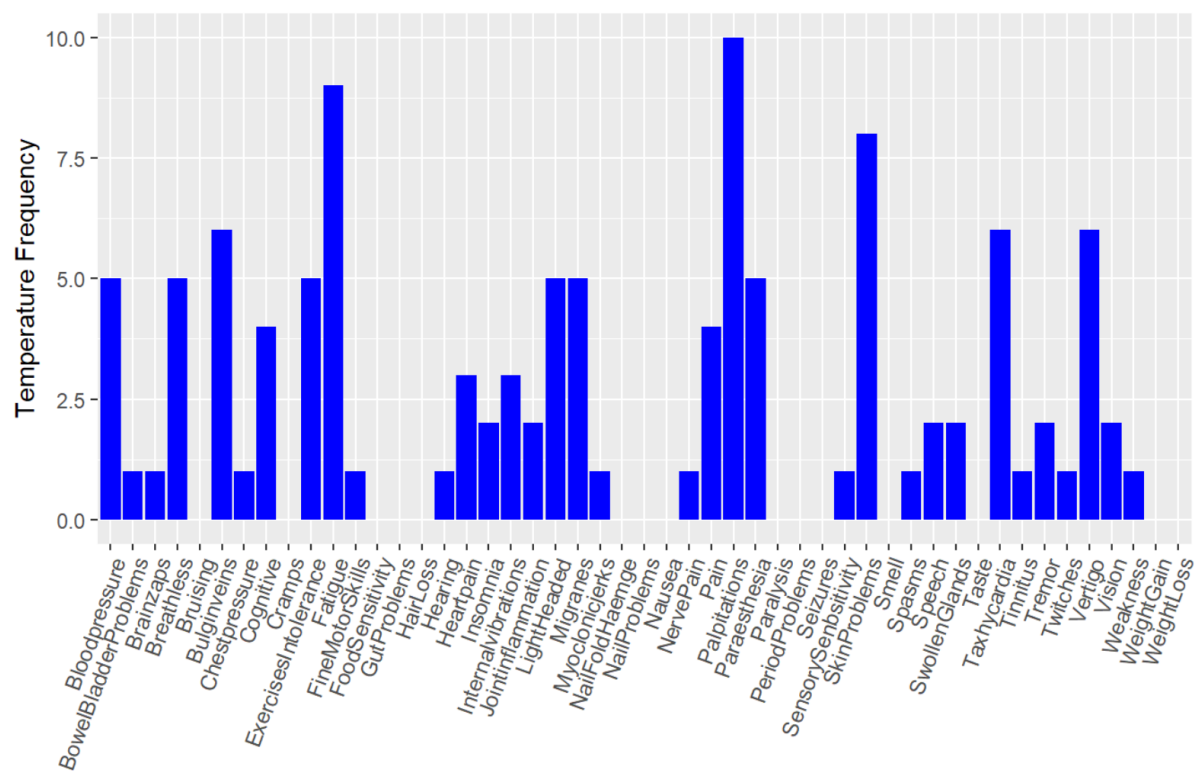


Figure S4g. Symptoms triggered by temperature

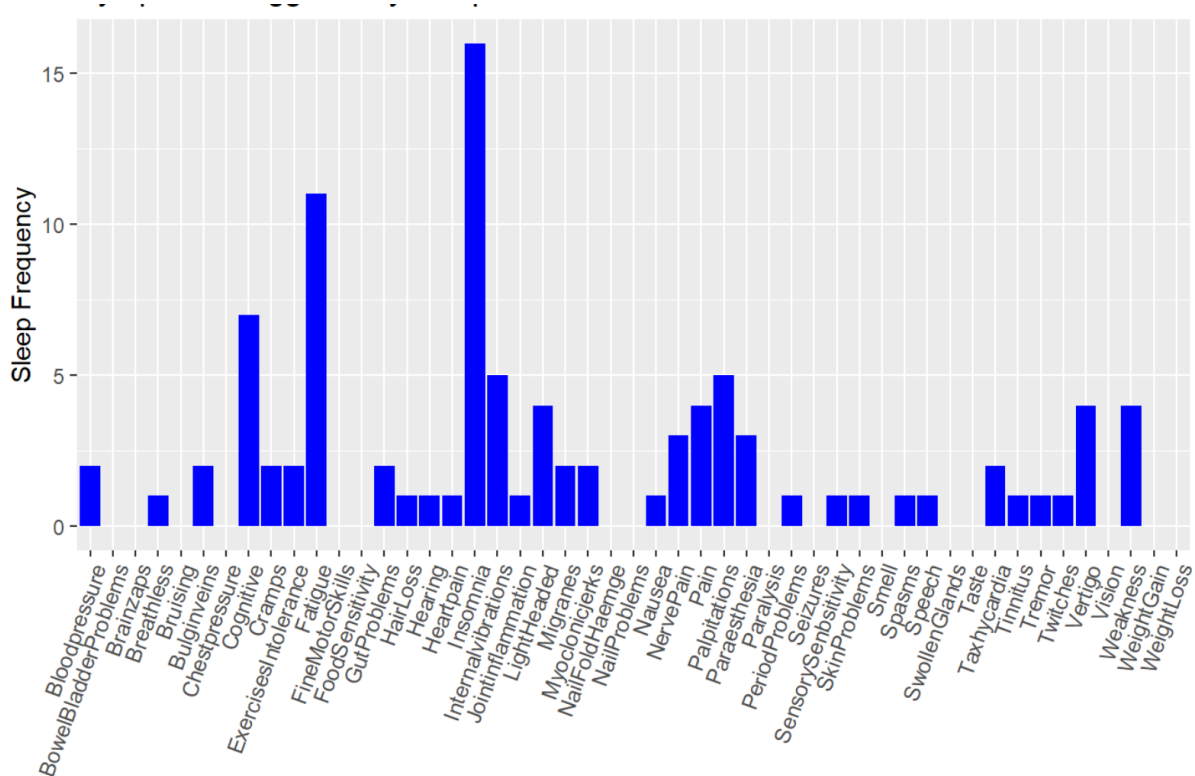


Figure S4h. Symptoms triggered by sleep

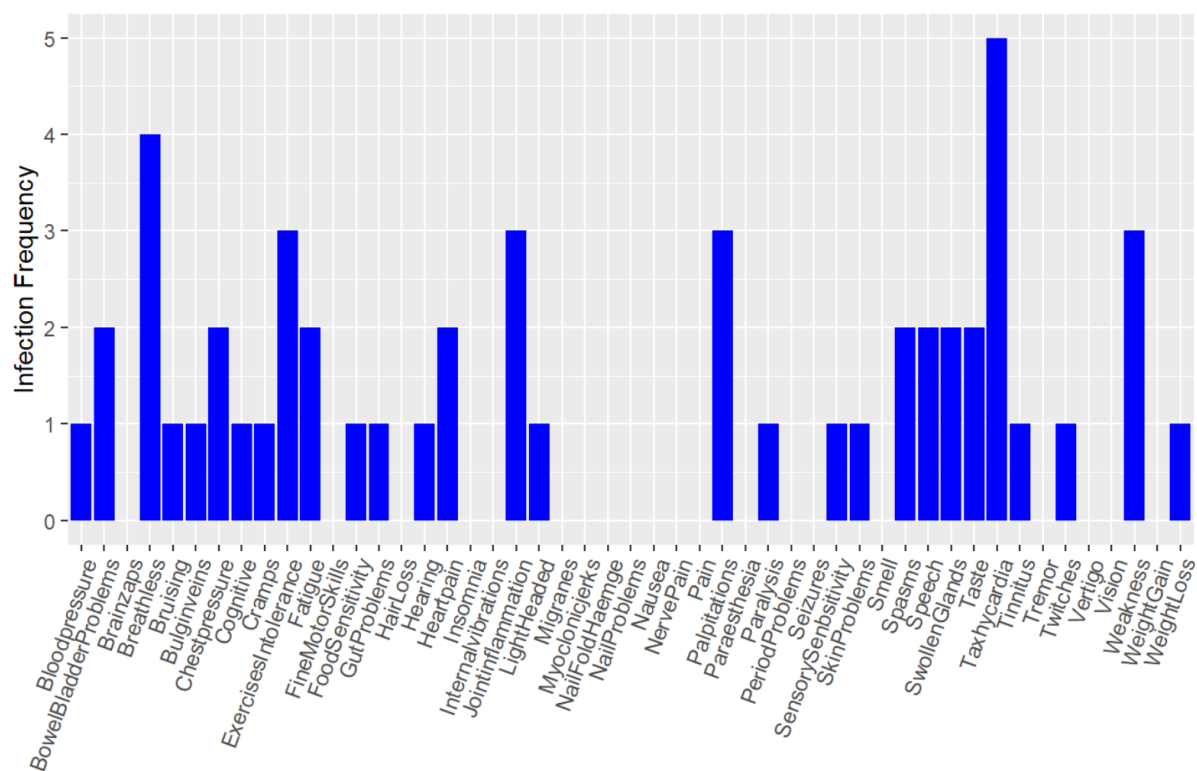


Figure S4i. Symptoms triggered by infection

Code for Figures S4a to S4i can be found here:

<https://github.com/dylanlikelihood/Vaccine/tree/main>

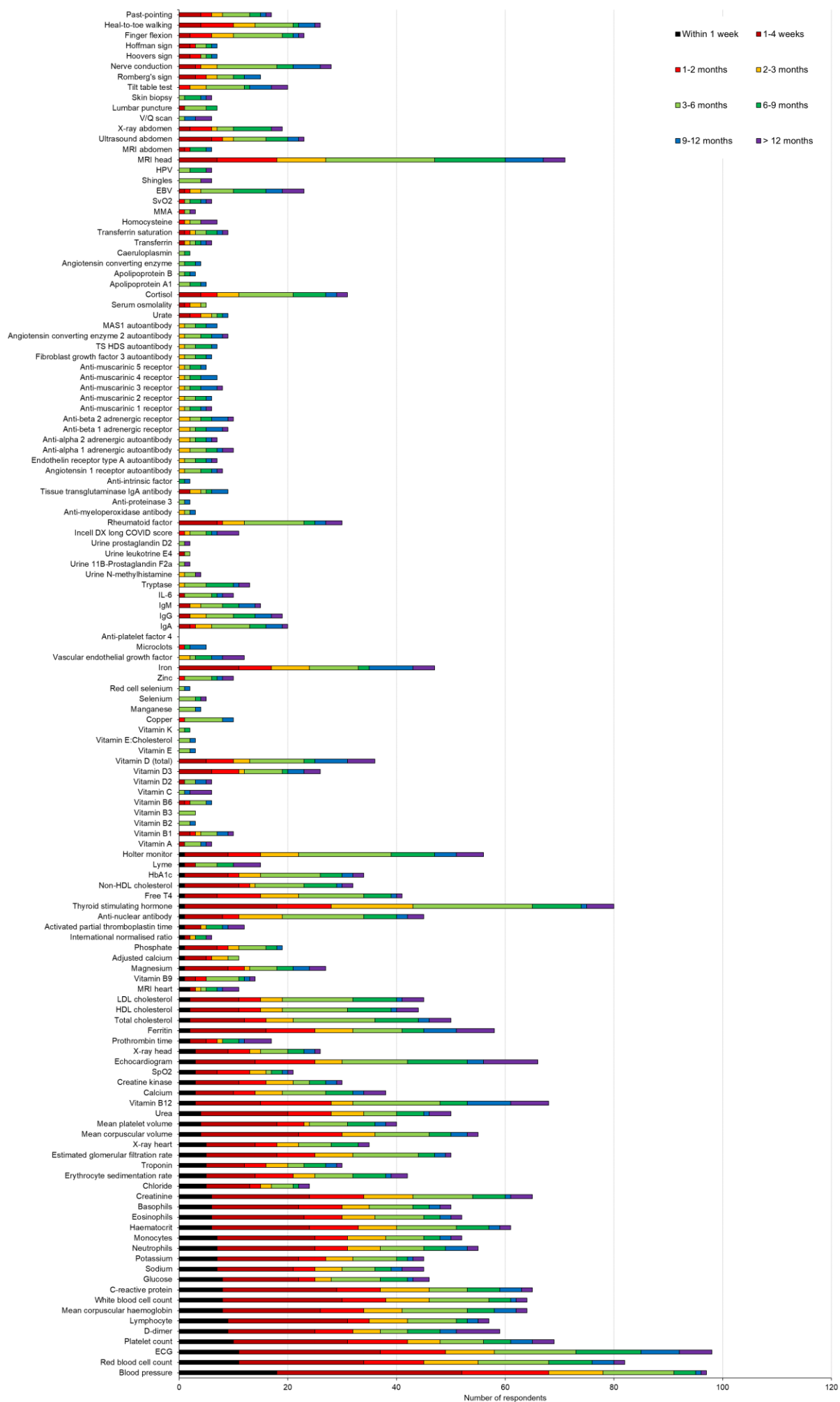


Figure S5. Timeframe within which tests were done (the first time).

Abbreviations: Abbreviations: EBV, Epstein-Barr virus; ECG, electrocardiogram; HbA1c, glycated haemoglobin; HDL, high density lipoprotein; HPV; human papillomavirus; Ig, immunoglobulin; IL, interleukin; LDL, low density lipoprotein; MMA, methylmalonic acid; SpO2, blood oxygen saturation; SvO2, venous oxygen saturation; TS HDS, trisulfated-heparin disaccharide; V/Q, ventilation/perfusion

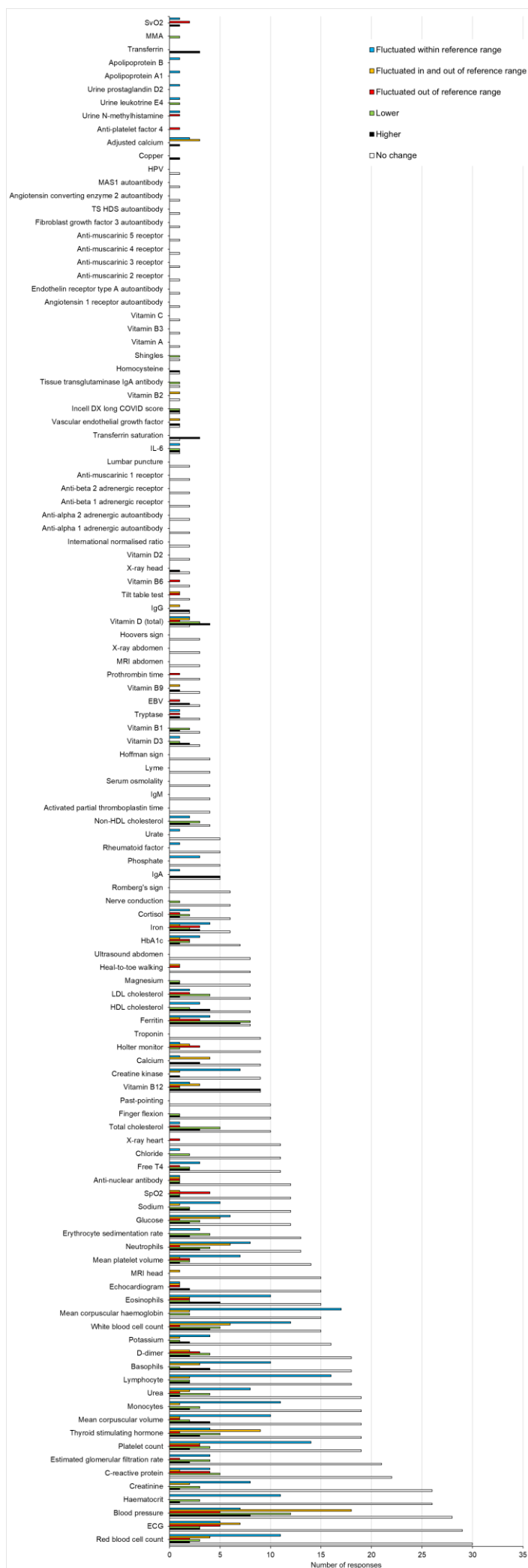


Figure S6. Test result trends on repeat testing.

Abbreviations: Abbreviations: ECG, electrocardiogram; HbA1c, glycated haemoglobin; HDL, high density lipoprotein; HPV, human papillomavirus; Ig, immunoglobulin; IL, interleukin; LDL, low density lipoprotein; MMA, methylmalonic acid; SpO2, blood oxygen saturation; SvO2, venous oxygen saturation; TS HDS, trisulfated-heparin disaccharide

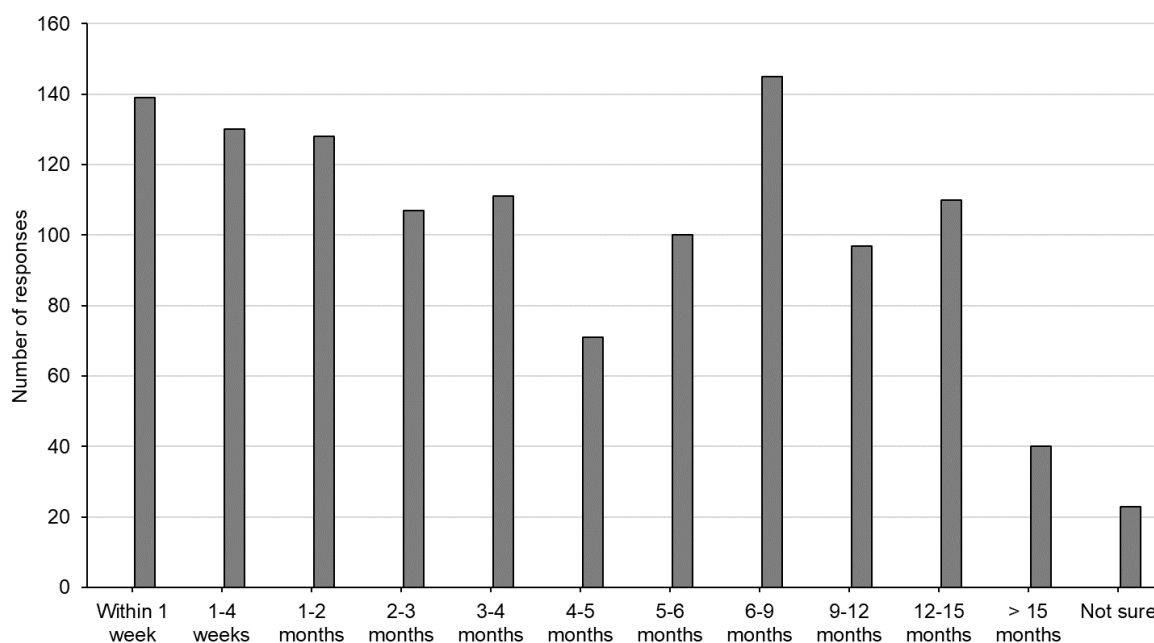


Figure S7. Time from post-vaccine symptoms starting to trying any of the pre-specified treatments

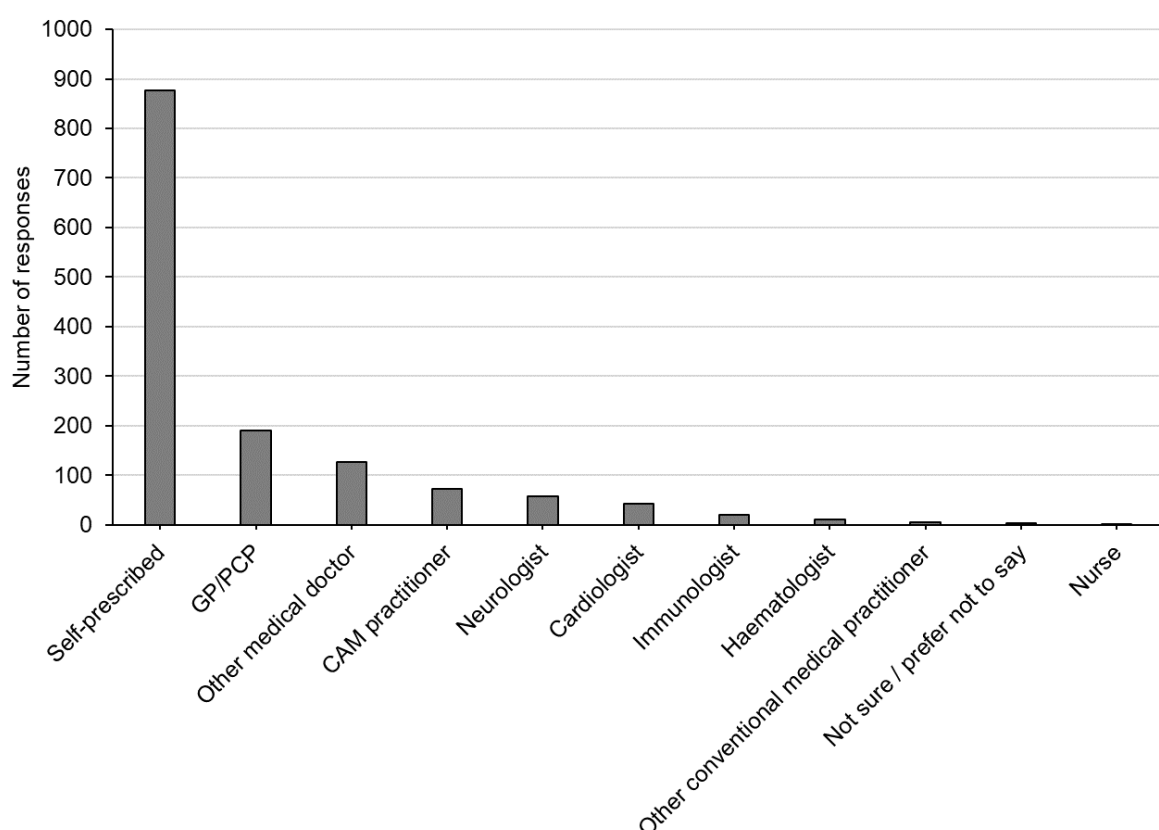


Figure S8. How treatments were obtained. Abbreviations: CAM, complementary and alternative medicine; GP, general practitioner; PCP, primary care provider

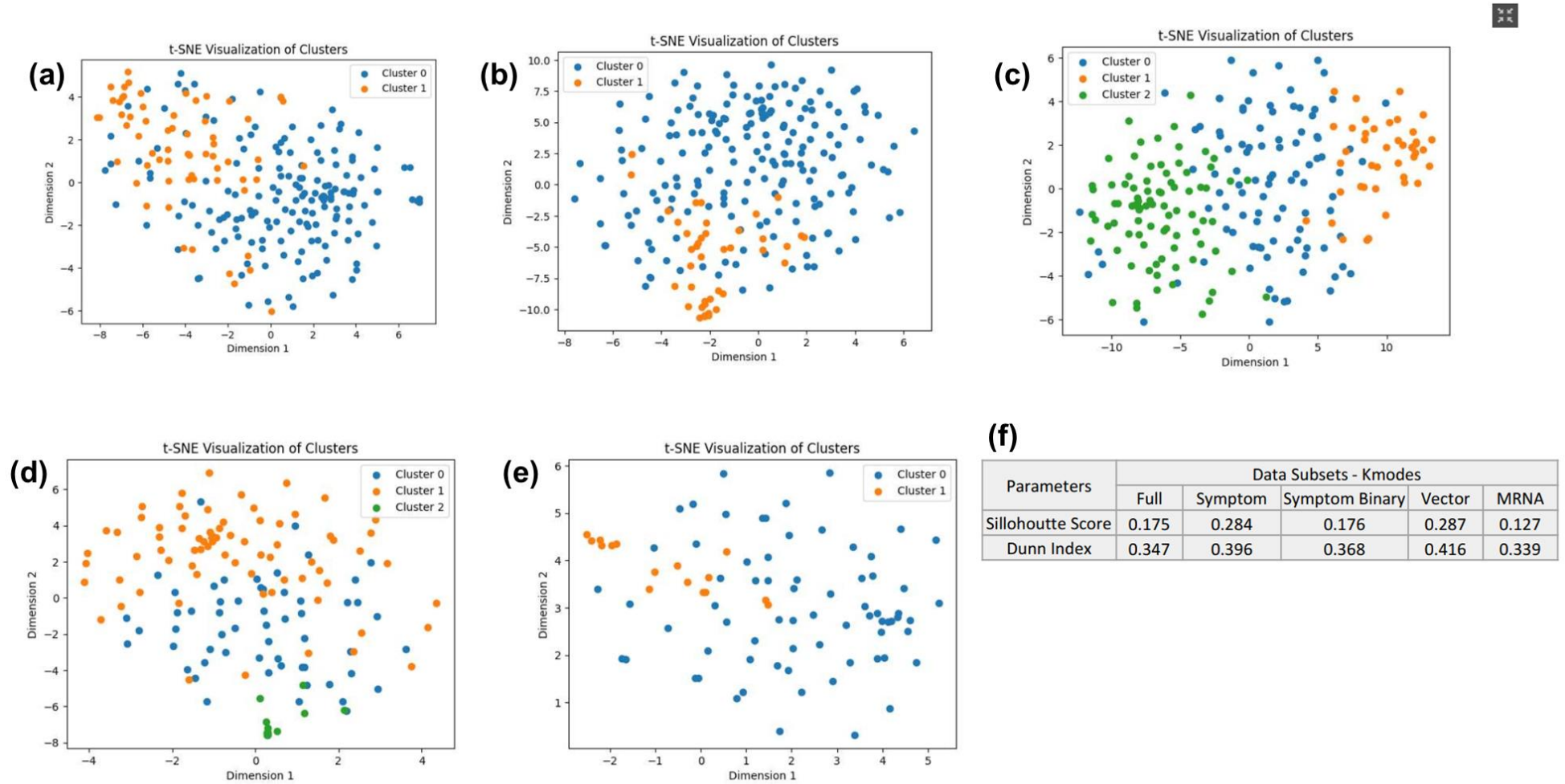


Figure 9. Clustering models: (a) full model; (b) symptoms model including severity at worst; (c) symptoms binary (have/do not have, without consideration for severity); (d) symptoms binary for mRNA vaccines; (e) symptoms binary for vector vaccines; (f) summary of model fit

Table S5a. Cluster counts for each variable included in the full model

Variable	Sub-question	Cluster 0	Cluster 1
Gender		61	169
Gender at birth		61	168
Ethnicity		61	169
Body mass index		61	169
Smoking status		61	169
Pre-vaccine autoimmunity		7	32
Vaccine brand		61	169
Pre-specified symptoms			
Fatigue	Severity	58	141
	Onset	56	129
	Fluctuations	56	128
Light-headedness	Triggers	50	113
	Severity	50	111
	Onset	47	96
	Fluctuations	47	96
Vertigo	Triggers	40	74
	Severity	49	107
	Onset	48	91
	Fluctuations	47	93
Cognitive dysfunction	Triggers	41	71
	Severity	52	133
	Onset	50	117
	Fluctuations	48	119
Tinnitus	Triggers	39	98
	Severity	41	83
	Onset	40	72
	Fluctuations	39	72
Nausea	Triggers	30	62
	Severity	39	74
	Onset	36	65
	Fluctuations	35	64
Weakness	Triggers	28	52
	Severity	48	105
	Onset	44	94
	Fluctuations	42	93
Insomnia	Triggers	36	76
	Severity	44	82
	Onset	42	71
	Fluctuations	41	74
Breathlessness	Triggers	31	52
	Severity	40	82
	Onset	35	71
	Fluctuations	35	69
Exercise intolerance	Triggers	29	51
	Severity	53	111
	Onset	49	99

	Fluctuations	46	99
	Triggers	34	74
Skin problems	Severity	26	66
	Onset	22	53
	Fluctuations	23	50
	Triggers	15	37
Weight loss	Severity	30	46
	Onset	26	37
	Fluctuations	27	37
	Triggers	18	28
Weight gain	Severity	17	36
	Onset	13	23
	Fluctuations	14	21
	Triggers	11	18
Period problems	Severity	25	51
	Onset	21	40
	Fluctuations	21	41
	Triggers	17	28
Swollen glands	Severity	27	47
	Onset	24	36
	Fluctuations	24	35
	Triggers	18	27
Hair loss	Severity	23	45
	Onset	15	35
	Fluctuations	14	33
	Triggers	9	20
Nailfold haemorrhaging	Severity	10	12
	Onset	5	5
	Fluctuations	5	4
	Triggers	2	4
Other nail problems	Severity	15	21
	Onset	9	14
	Fluctuations	8	12
	Triggers	6	7
Paraesthesia	Severity	52	104
	Onset	49	89
	Fluctuations	49	91
	Triggers	37	69
Internal vibrations	Severity	41	71
	Onset	38	61
	Fluctuations	36	61
	Triggers	21	43
Pain	Severity	46	97
	Onset	43	82
	Fluctuations	43	83
	Triggers	33	65
Migraines / headaches	Severity	44	93
	Onset	41	76

	Fluctuations	42	71
	Triggers	29	54
Nerve pain	Severity	40	72
	Onset	37	61
	Fluctuations	35	61
	Triggers	24	45
Seizures	Severity	7	10
	Onset	3	5
	Fluctuations	3	6
	Triggers	2	3
Paralysis	Severity	7	20
	Onset	3	16
	Fluctuations	4	15
	Triggers	3	8
Brain zaps	Severity	21	41
	Onset	18	31
	Fluctuations	18	29
	Triggers	12	21
Speech problems	Severity	31	48
	Onset	27	38
	Fluctuations	28	36
	Triggers	17	31
Fine motor skill problems	Severity	23	43
	Onset	19	36
	Fluctuations	20	35
	Triggers	11	26
Jerks	Severity	27	42
	Onset	22	34
	Fluctuations	23	33
	Triggers	17	23
Tremors	Severity	25	54
	Onset	21	47
	Fluctuations	22	45
	Triggers	15	29
Palpitations	Severity	45	98
	Onset	43	83
	Fluctuations	42	81
	Triggers	32	65
Tachycardia	Severity	39	80
	Onset	37	68
	Fluctuations	36	67
	Triggers	29	44
Heart/chest pain	Severity	33	79
	Onset	31	68
	Fluctuations	30	65
	Triggers	23	43
Chest pressure	Severity	28	51
	Onset	26	44

	Fluctuations	25	45
	Triggers	20	32
Blood pressure problems	Severity	38	58
	Onset	34	46
	Fluctuations	34	44
	Triggers	24	30
Bulging veins	Severity	30	40
	Onset	27	33
	Fluctuations	27	32
	Triggers	19	21
Bruising	Severity	20	39
	Onset	18	33
	Fluctuations	17	32
	Triggers	9	23
Joint inflammation	Severity	22	67
	Onset	21	59
	Fluctuations	20	59
	Triggers	14	41
Cramps	Severity	22	42
	Onset	18	36
	Fluctuations	18	36
	Triggers	11	27
Spasms	Severity	21	43
	Onset	19	36
	Fluctuations	18	35
	Triggers	14	23
Twitches	Severity	37	71
	Onset	35	62
	Fluctuations	34	61
	Triggers	24	39
Vision problems	Severity	33	81
	Onset	30	70
	Fluctuations	30	64
	Triggers	21	44
Hearing problems	Severity	21	39
	Onset	18	27
	Fluctuations	18	27
	Triggers	11	20
Taste changes	Severity	10	33
	Onset	8	25
	Fluctuations	8	24
	Triggers	5	15
Smell changes	Severity	11	26
	Onset	8	21
	Fluctuations	8	21
	Triggers	5	13
Sensory sensitivity/overload	Severity	36	68
	Onset	33	57

	Fluctuations	33	54
	Triggers	21	37
Gut problems	Severity	36	66
	Onset	33	55
	Fluctuations	33	51
	Triggers	26	32
Food allergies/sensitivities	Severity	31	53
	Onset	24	42
	Fluctuations	25	40
	Triggers	19	28
Bowel / bladder issues	Severity	31	56
	Onset	27	49
	Fluctuations	27	45
	Triggers	19	27
Anxiety	Severity	41	88
	Onset	39	78
	Fluctuations	38	76
	Triggers	25	53
Depression	Severity	24	69
	Onset	23	56
	Fluctuations	21	53
	Triggers	12	32
Hallucinations	Severity	11	16
	Onset	10	8
	Fluctuations	9	8
	Triggers	4	6
Mood changes	Severity	26	55
	Onset	24	42
	Fluctuations	23	38
	Triggers	17	27
Other symptoms		61	169
Pre-specified tests			
No tests done		0	30
Vitamin A		10	4
Vitamin B1		12	6
Vitamin B2		7	3
Vitamin B3		8	2
Vitamin B6		12	2
Vitamin B9		18	3
Vitamin B12		45	35
Vitamin C		8	5
Vitamin D2		8	3
Vitamin D3		19	19
Total vitamin D		27	25
Vitamin E		7	2
Vitamin E:cholesterol		6	2
Vitamin K		6	2
Copper		14	3

Manganese	7	3
Selenium	8	2
Red cell selenium	6	2
Zinc	13	5
Magnesium	25	9
Iron	32	26
Sodium	41	14
Potassium	42	17
Chloride	29	6
Calcium	43	12
Adjusted calcium	15	4
Phosphate	24	5
D-dimer	31	38
Red blood cell count	58	44
haematocrit	55	20
Mean corpuscular volume	49	16
Mean corpuscular haemoglobin	53	23
Platelet count	51	31
Mean platelet volume	38	11
Prothrombin time	16	9
International normalised ratio	10	3
Activated partial thromboplastin time	14	7
Erythrocyte sedimentation rate	35	17
Vascular endothelial growth factor	12	7
Microclots	5	6
Troponin	18	20
Anti-platelet factor 4	4	4
Ferritin	44	30
IgA	21	9
IgG	17	12
IgM	17	9
Neutrophil count	50	19
Eosinophil count	48	17
Basophil count	49	16
White blood cell count	56	27
Lymphocyte count	52	20
Monocyte count	48	18
C-reactive protein	48	36
IL-6	14	4
Tryptase	17	6
Urine methylhistamine	8	3
Urine prostaglandin F2 α	7	2
Urine leukotriene E4	6	4
Urine prostaglandin D2	6	1
Incell DX long COVID score	10	9
Rheumatoid factor	25	16
Anti-nuclear antibody	33	24

Anti-myeloperoxidase	6	2
Proteinase 3 antineutrophil cytoplasmic antibodies	5	2
Tissue transglutaminase IgA	12	2
Anti-intrinsic factor	6	2
Anti-angiotensin 1 receptor	7	6
Anti-endothelin type A receptor	6	6
Anti-alpha-1 adrenergic receptor	6	8
Anti-alpha-2 adrenergic receptor	6	6
Anti-beta-1 adrenergic receptor	7	6
Anti-beta-2 adrenergic receptor	7	7
Anti-muscarinic 1 receptor	6	5
Anti-muscarinic 2 receptor	6	5
Anti-muscarinic 3 receptor	7	5
Anti-muscarinic 4 receptor	7	4
Anti-muscarinic 5 receptor	6	4
Anti-fibroblast growth factor 3 result	8	5
Anti-trisulfated-heparin disaccharide	8	6
Anti-angiotensin converting enzyme 2	8	6
Anti-MAS1	7	5
Urea	42	20
Creatinine	50	29
Estimated glomerular filtration rate	44	17
Urate	15	5
Creatine kinase	32	12
Osmolality	10	3
Cortisol	29	13
Thyroid stimulating hormone	55	44
Free T4	34	19
Total cholesterol	42	21
High density lipoprotein cholesterol	41	16
Low density lipoprotein cholesterol	41	16
Non-high density lipoprotein cholesterol	31	7
Apolipoprotein A	6	1
Apolipoprotein B	7	1
Glucose	42	18
Glycated haemoglobin	29	14
Angiotensin converting enzyme	4	3
Caeruloplasm	5	1
Transferrin	9	3
Transferrin saturation	12	3
Homocysteine	11	1
Methylmalonic acid	5	1
Blood oxygen saturation	18	9
Venous oxygen saturation	5	5
Lyme disease	14	7

Epstein-Barr virus	18	10
Shingles	6	5
Human papilloma virus	7	4
Magnetic resonance imaging head	30	58
Magnetic resonance imaging heart	11	6
Magnetic resonance imaging abdomen	7	8
Echocardiogram	35	45
Ultrasound abdomen	13	18
X-ray head	14	24
X-ray heart	19	31
X-ray abdomen	14	9
Ventilation/perfusion scan	5	6
Contrast dye reaction	20	29
Lumber puncture	5	4
Skin biopsy	10	0
Holter monitor	28	42
Blood pressure	48	65
Tilt table test	17	9
electrocardiogram	46	69
Romberg's sign	15	7
Nerve conduction	19	19
Hoovers sign	10	2
Hoffman sign	8	4
Finger flexion	15	17
Heel to toe walking	19	15
Past pointing	16	6
Pre-specified diagnoses		
Had a formal diagnosis	61	169
Functional neurological disorder	7	22
Dysautonomia	33	42
Myalgic encephalomyelitis	19	32
Anxiety / mental health	19	35
Organ failure	11	18
Vaccine-induced long COVID	19	44
Post-vaccine syndrome	36	79
Postural orthostatic tachycardia syndrome	26	41
Tachycardia	20	38
Bradycardia	5	9
Unusually variable heart rate	10	23
Myocarditis	10	17
Pericarditis	6	19
Ectopic heartbeats	5	16
High blood pressure	7	24
Low blood pressure	7	9
Unusually variable blood pressure	11	19
Demyelination	10	16
Neuroinflammation	28	45

Myelitis	1	6
Small fibre neuropathy	27	41
Guillain-Barre syndrome	1	11
Chronic inflammatory demyelinating polyneuropathy	2	12
Epilepsy	0	3
Seizures (non-epileptic)	1	3
Mast cell activation syndrome	24	46
Autoimmunity	23	48
(Chronic) Inflammation	27	58
Tendonitis	3	14
Ehlers Danlos syndrome / hypermobility	9	14
Costochondritis	10	19
Cervicocranial instability	7	9
B12 deficiency	5	19
Vitamin D deficiency	7	15
Iron deficiency / anaemia	12	16
Iodine deficiency	0	1
MTHFR gene variant	9	7
Diabetes	1	4
Hashimoto's	4	5
(Early) Menopause	7	10
Other diagnosis	61	169

Pre-specified treatments

Ivermectin	12	15
Hydroxychloroquine	1	2
Paxlovid	0	1
Hyperbaric oxygen therapy	6	10
Opiates	2	14
Antidepressants	19	28
Angiotensin receptor blockers	1	3
Statins	6	9
Colchicine	6	4
Goldic	0	1
Vitamin B12	31	38
Vitamin D	40	61
Folate	17	12
Zinc	27	34
Magnesium	34	43
Hydration / electrolytes	24	15
N-acetyl cysteine	21	30
Coenzyme Q10	20	27
Anti-inflammatory supplements	29	41
Fibrinolytics (e.g. nattokinase)	15	14
Carnivore diet	2	2
Ketogenic diet	7	10
Fasting	13	15
Low histamine diet	20	22

Intravenous immunoglobulin	0	2
Monoclonal antibodies	3	0
Steroids	17	30
Non-steroidal immunosuppressants	1	1
Antihistamines	37	54
Mast cell stabiliser	16	11
Non-steroidal anti-inflammatory drugs	15	26
Low dose naltrexone	8	9
Aspirin	21	33
Clopidogrel	4	6
Direct oral anticoagulant	3	6
Warfarin	0	1
HELP apheresis	0	2
Venesection	0	4
Pregabalin	5	9
Gabapentin	10	8
Other treatment	57	149
Open-ended treatments		
Omega 3 + folate	2	4
Iron supplements	0	1
Menthol tropical cream	0	0
Red light therapy	1	1
Dark chocolate	0	1
Green tea	1	1
Niacin	2	3
Acyclovir	0	2
Ivabradine	0	1
Vitamin B1	1	0
Vitamin B2	1	0
Vitamin B3	1	1
Vitamin C	1	8
Vitamin K	2	1
Vitamin B6	1	0
Vitamin E	1	1
Quercetin	4	5
Gluten free diet	0	0
CBD oil	1	4
Amitriptyline	2	2
Triamcinolone	0	1
Beta-blockers	0	7
Glucosamine	1	0
Biotin	1	0
Black seed oil	1	1
Phenylalanine	0	1
Probiotic	1	2
Moringa	0	1
Transcutaneous vagus nerve stimulation	1	2

Ozon infusion	0	3
Nicotinamide adenine dinucleotide infusion	0	0
Glutathione	0	1
Aripiprazole	0	0
Botox	0	1
Tizanidine	0	1
Hypnosis	0	1
Physiotherapy	0	1
Acupuncture	3	3
Melatonin	2	3
Hawthorn tincture	0	1
Intestinal binders	1	1
Fennel tea	1	0
Maraviroc	2	1
Dandelion tea	1	0
Tollovid	0	1
Sudafed	1	0
Clonazepam	0	0
Fludrocortisone	2	0
Mestinon	1	0
Cold water therapy	1	1
Homeopathy	0	1
Paracetamol	0	1
Propionic acid	0	1
Herbs	1	0
Palmitoylethanolamide	2	1
Butterbur	1	0
Nortriptyline	0	1
Magnesium	0	1
Aminophylline	0	1
Selenium	0	3
Phosphate	0	1
Pine needle drops	0	1
Prebiotics	1	0
L-carnitine	0	0
Alpha lipoic acid	2	0
Beetroot extract	2	0
Lamotrigine	0	1
Anti-vertigo treatment	2	0
Antibiotics	1	0
Chiropractic treatment	0	1
Baking soda	0	1
Essential oils	1	0
Hormone replacement therapy	0	3
Midodrine	1	0
Zofran	1	0
Exogenous nitric oxide	1	0

Pyrroloquinoline quinone	0	0
Bacopa	1	0
Berberine	1	0
Ashwaganda	1	0
Leeks	1	0
Ox bile	1	0
Silymarin	1	0
Pycnogenol	1	0
Triphala	1	0
Zeolite	0	1
Meditation	1	0
Movement	1	0
Low FODMAP diet	1	0
Iodine	0	1
Levetiracetam	1	0
Manuka honey	0	1
Minerals	1	0
Dimethylsulfoxide	1	0
Molybdenum	1	0
Pseudoephedrine	1	0
Phosphatidylserine	1	0
Phosphatidylcholine	1	0
Proton pump inhibitors	0	2
Bovine supplements	1	0
Open-ended diagnoses		
Tinnitus	1	4
Hyperthyroidism	0	1
Asthma	0	1
Low testosterone	1	0
Idiopathic urticaria	0	3
Stroke	0	2
Low cortisol	1	0
Capillary leak syndrome	0	1
Migraines	0	0
Amyotrophic Lateral Sclerosis	0	1
Epstein-barr	0	2
Raynaud's syndrome	1	0
Degenerative disc disease	0	1
Osteoarthritis	0	1
Spinal stenosis	0	1
Vertigo	0	1
Immune thrombocytopenic purpura	0	1
Attenuated marfan neuropathy	1	0
Immune-mediated hyperinflammation	1	1
Slow COMT	1	0
Silent coeliac	0	1
Dyspepsia	1	0

Hypogammaglobulinemia	1	0
Endothelial vascular inflammation	1	0
Central sensitivity syndrome	0	1
Gilberts syndrome	0	1
Hernia	1	0
Gastroesophageal reflux disease	1	0
Sigmoiditis	0	0
Cerebral palsy	0	0
Chronic sinusitis	0	1
Post concussion syndrome	0	1
Tetany	1	0
Fibromyalgia	2	1
Myofascial pain syndrome	1	0
Benign fasciculation syndrome	1	0
Shingles	0	1
Low blood phosphate	0	1
Connective tissue disease	1	0
Rhabdomyolysis	0	1
Encephalitis	0	2
Left cavernous carotid artery aneurysm	0	1
Rectal bleeding	0	1
Flush	0	0
Dermographia	0	1
High prolactin levels	1	0
Breathing pattern disorder	1	0
Complete heart block	0	1
Bilateral lymphoedema	0	0
Angioedema	0	1
Cat scratch disease	1	0
Prothrombotic immune thrombocytopenia	0	1
Parasympathetic excess sympathetic withdrawal	0	0
Pulmonary microvascular embolisms	1	0
Eosinophilic esophagitis	1	0
Chronic lung inflammation	0	1
Bronchiectasis	0	1
Partial lung collapse	0	1
Chronic Alice in wonderland syndrome	0	1
Visual snow syndrome	1	1
Alopecia universalis	0	1
Autism	0	1
Kidney stones	1	0
Pericardial effusion	0	1
Gastroenteritis	0	1
Open-ended tests		
Hearing test	0	3
Computer tomograph thorax	0	1

X-ray thoracic spine	1	0
Gamma-glutamyl transferase	0	0
Haemoglobin	1	0
Red cell distribution width	1	0
X-ray chest	2	1
Needle electromyography	1	0
Reflex tests	0	3
Slit lamp inspection	0	1
Testosterone	1	0
Mammogram	0	1
Protein:creatinine	0	0
Extractable nuclear antigen	1	0
CO2	1	0
Anion gap	1	0
Cardiopulmonary exercise test	1	1
Thermal threshold test	1	0
Mast cell activation syndrome labwork	1	0
Eye test	0	3
Hereditary haemochromatosis	0	1
Magnetic resonance imaging liver	0	1
Magnetic resonance imaging lower legs	1	0
Supination upper extremity	0	1
Dix-Hallpike Maneuver	0	1
Temperature sensitivity test	1	0
Clonus reflex	0	1
Anti-myelin associated glycoprotein	0	1
C-peptide	0	0
Amylase	0	0
Computer tomography spine	0	1
Electromyography	1	1
Bone marrow biopsy	2	0
Gastrointestinal endoscopies	2	0
Pulmonary function test	0	1
Echography tendons	0	1
Eye nerve conduction	0	1
Colonoscopy	1	1
Anti-GM2	1	0
Tetany test	1	0
Gamma-globulins	0	0
Lip salivary gland	1	0
Porphyria test	1	0
Amyloidosis test	1	0
Neurological genetic panel	1	0
Computer tomography abdomen	1	0
Computer tomography pelvis	1	0
Computer tomography lung inhale exhale	0	1

Electroencephalogram	2	0
Vestibular test	0	1
Computer tomography general	0	1
B-type natriuretic peptide	1	1
Electronystagmography	0	2
Somatosensory evoked potentiation test	0	1
Computer tomography kidney	0	0
Ankle brachial index	0	0
Skin prick test	1	0
Computer tomography brain	0	1
Non-MHC restricted cytotoxic t cells	0	1
Lymph node biopsy	1	0
Ultrasound transvaginal	1	0
Ultrasound lymph node	1	0
Electrophysiology study	0	1
Ophthalmology study	0	1
Phycological study	0	1
Videonystagmography	0	1
Epley manoeuvre tests	0	1
Electromyography	1	0
Magnetic resonance imaging angiogram	0	0
Positron emission tomography scan	1	0
Live autoantibody profile	0	0
Quantitative faecal immunochemical test	1	0
Faecal calprotectin test	1	0
Ganglioside	1	0
Ultrasound neck	0	1
Ultrasound throat	0	1
Bronchoscopy	0	1
X-ray lung	1	0
Ultrasound thyroid	0	1
Metanephrines	1	0
Magnetic resonance imaging shoulder	0	1
Reverse t3	1	0
Computer tomography sinuses	1	0
Computer tomography scan	1	3
Angiogram	0	1
24-hour urine sodium	1	0
Complement	2	0
Full blood count	0	1
Paraneoplastic tests	1	0
Allergy tests	2	0
Liver function tests	5	4
Sjogren's; lupus; antiphospholipid syndrome	2	0
Eutonomic testing	1	1

Magnetic resonance imaging back & spine	1	0
Stress test	2	2
Ultrasound legs	0	1
Vascular ultrasound	2	1
Unspecified ultrasound	5	5
Pathogens	2	1
Electrophoresis	2	1
Neurocognitive tests	1	0
Open-ended symptoms		
Bleeding	1	0
Joint instability	0	1
Thirst	2	4
Vascular circulatory problems	13	4
Other psychiatric effects	6	7
Coordination movement problems	3	2
Sinus problems	2	4
Venous pain throbbing	1	2
Other ears, nose, throat problems	6	7
Libido loss	1	4
Xerostomia	4	3
Adrenaline surges	3	3
Fainting and loss of consciousness	2	3
Eye drooping	1	1
Rhabdomyolysis	0	1
Concussed feeling	0	2
Allergies	0	2
Eye pain	1	2
Head pressure	4	7
Injection site pain	0	2
Orthostatic intolerance	0	2
Dysfunctional breathing	1	3
Arrhythmia	1	0
Oral inflammation	1	1
Head face neck pain	3	2
Thermodyregulation	6	7
Swelling	2	0
Loss of appetite	0	1
Vivid dreams	0	1
Atrophy	0	1
Restless leg	0	1
Heavy painful dry bloodshot eyes	6	3
Reactivated pathogen	2	1
Facial palsy	1	0
Organ pain	0	2
Tongue pain	3	2
Atony	1	0
Pallor	2	0

Other bodily sensations	3	5
Stiff joints	0	2
Dysglycaemia	1	0
Post-exertional malaise	0	2
Spine problems	2	1
Body odour	1	0
Paranoia	0	1

Table S5b. Cluster counts for each variable included in the symptoms with severity model

Symptom	Cluster 0	Cluster 1
Fatigue	151	48
Light-headedness	115	46
Vertigo	111	45
Cognitive dysfunction	139	46
Tinnitus	80	44
Nausea	69	44
Weakness	105	48
Insomnia	84	42
Breathlessness	78	44
Exercise intolerance	116	48
Skin problems	54	38
Weight loss	47	29
Weight gain	30	23
Period problems	45	31
Swollen glands	44	30
Hair loss	39	29
Nailfold haemorrhages	9	13
Other nail problems	16	20
Paraesthesia	110	46
Internal vibrations	71	41
Pain	99	44
Migraines, headaches	92	45
Nerve pain	70	42
Seizures	3	14
Paralysis	10	17
Brain zaps	32	30
Speech problems	45	34
Fine motor skill problems	34	32
Jerks	40	29
Tremors	44	35
Palpitations	99	44
Tachycardia	79	40
Heart/chest pain	71	41
Chest pressure	42	37
Blood pressure dysregulation	59	37
Bulging veins	39	31
Bruising	34	25

Joint inflammation	59	30
Cramps	31	33
Spasms	30	34
Twitches	68	40
Vision problems	71	43
Hearing problems	31	29
Taste changes	18	25
Smell changes	12	25
Sensory sensitivity/overload	62	42
Gastrointestinal problems	65	37
Food allergies/sensitivities	52	32
Bowel / bladder problems	55	32
Anxiety	92	37
Depression	61	32
Hallucinations	7	20
Mood changes	49	32
Bleeding	0	1
Joint instability	1	0
Thirst	4	2
Vascular circulatory problems	11	6
Other psychiatric effects	8	5
Coordination movement problems	4	1
Sinus problems	5	1
Venous pain throbbing	1	2
Other ears, nose, throat problems	8	5
Libido loss	3	2
Xerostomia	5	2
Adrenaline surges	4	2
Fainting and loss of consciousness	1	4
Eye drooping	2	0
Rhabdomyolysis	1	0
Concussed feeling	1	1
Allergies	2	0
Eye pain	3	0
Head pressure	9	2
Injection site pain	1	1
Orthostatic intolerance	1	1
Dysfunctional breathing	2	2
Arrhythmia	0	1
Oral inflammation	0	2
Head face neck pain	4	1
Thermodyregulation	12	1
Swelling	1	1
Loss of appetite	1	0
Vivid dreams	1	0
Atrophy	1	0
Restless leg	1	0

Heavy painful dry bloodshot eyes	7	2
Reactivated pathogen	3	0
Facial palsy	0	1
Organ pain	1	1
Tongue pain	1	4
Atony	1	0
Pallor	0	2
Other bodily sensations	5	3
Stiff joints	2	0
Dysglycaemia	0	1
Post-exertional malaise	2	0
Spine problems	2	1
Body odour	1	0
Paranoia	1	0

Table S5c. Cluster counts for each variable included in the symptoms binary model

Symptom	Cluster 0	Cluster 1	Cluster 2
Fatigue	88	65	46
Light-headedness	87	32	42
Vertigo	78	35	43
Cognitive dysfunction	84	56	45
Tinnitus	55	31	38
Nausea	61	16	36
Weakness	80	28	45
Insomnia	64	23	39
Breathlessness	61	18	43
Exercise intolerance	82	38	44
Skin problems	38	17	37
Weight loss	32	9	35
Weight gain	24	6	23
Period problems	35	12	29
Swollen glands	30	11	33
Hair loss	24	12	32
Nailfold haemorrhages	7	0	15
Other nail problems	11	4	21
Paraesthesia	70	42	44
Internal vibrations	51	23	38
Pain	70	30	43
Migraines, headaches	67	28	42
Nerve pain	48	25	39
Seizures	2	2	13
Paralysis	6	3	18
Brain zaps	19	10	33
Speech problems	32	11	36
Fine motor skill problems	25	8	33
Jerks	27	8	34
Tremors	30	16	33

Palpitations	68	31	44
Tachycardia	59	23	37
Heart/chest pain	53	18	41
Chest pressure	29	10	40
Blood pressure dysregulation	43	15	38
Bulging veins	24	9	37
Bruising	19	8	32
Joint inflammation	30	22	37
Cramps	19	9	36
Spasms	23	8	33
Twitches	44	25	39
Vision problems	52	21	41
Hearing problems	21	6	33
Taste changes	12	7	24
Smell changes	9	3	25
Sensory sensitivity/overload	51	14	39
Gastrointestinal problems	39	23	40
Food allergies/sensitivities	29	17	38
Bowel / bladder problems	36	13	38
Anxiety	59	32	38
Depression	37	21	35
Hallucinations	9	0	18
Mood changes	35	11	35
Bleeding	0	0	1
Joint instability	1	0	0
Thirst	0	3	3
Vascular circulatory problems	5	3	9
Other psychiatric effects	5	2	6
Coordination movement problems	0	3	2
Sinus problems	3	1	2
Venous pain throbbing	0	1	2
Other ears, nose, throat problems	6	2	5
Libido loss	1	3	1
Xerostomia	1	3	3
Adrenaline surges	2	2	2
Fainting and loss of consciousness	2	0	3
Eye drooping	1	1	0
Rhabdomyolysis	1	0	0
Concussed feeling	2	0	0
Allergies	1	0	1
Eye pain	2	1	0
Head pressure	2	6	3
Injection site pain	1	0	1
Orthostatic intolerance	1	0	1
Dysfunctional breathing	1	1	2

Arrhythmia	0	0	1
Oral inflammation	1	0	1
Head face neck pain	1	1	3
Thermodyregulation	7	3	3
Swelling	1	0	1
Loss of appetite	1	0	0
Vivid dreams	1	0	0
Atrophy	0	0	1
Restless leg	0	0	1
Heavy painful dry bloodshot eyes	2	4	3
Reactivated pathogen	3	0	0
Facial palsy	0	0	1
Organ pain	1	0	1
Tongue pain	1	1	3
Atony	0	1	0
Pallor	0	0	2
Other bodily sensations	2	3	3
Stiff joints	0	2	0
Dysglycaemia	0	0	1
Post-exertional malaise	0	2	0
Spine problems	1	1	1
Body odour	0	1	0
Paranoia	0	1	0

Table S5d. Cluster counts for each variable included in the mRNA vaccines symptoms binary model

Symptom	Cluster 0	Cluster 1	Cluster 2
Fatigue	81	27	14
Light-headedness	57	25	14
Vertigo	55	24	13
Cognitive dysfunction	72	25	14
Tinnitus	41	20	14
Nausea	31	20	13
Weakness	49	25	14
Insomnia	46	20	13
Breathlessness	38	25	12
Exercise intolerance	60	25	14
Skin problems	25	20	11
Weight loss	18	17	12
Weight gain	15	9	9
Period problems	27	14	10
Swollen glands	20	10	13
Hair loss	17	11	11
Nailfold haemorrhages	6	2	9
Other nail problems	8	4	10
Paraesthesia	58	24	14
Internal vibrations	36	17	12

Pain	51	19	13
Migraines, headaches	44	21	14
Nerve pain	36	16	14
Seizures	1	0	6
Paralysis	1	2	7
Brain zaps	16	6	12
Speech problems	18	11	12
Fine motor skill problems	11	6	11
Jerks	16	8	13
Tremors	15	13	11
Palpitations	50	24	13
Tachycardia	39	24	12
Heart/chest pain	33	22	13
Chest pressure	17	19	13
Blood pressure dysregulation	26	13	13
Bulging veins	17	9	14
Bruising	11	7	13
Joint inflammation	27	5	13
Cramps	12	9	14
Spasms	10	9	13
Twitches	35	17	13
Vision problems	34	16	13
Hearing problems	11	12	11
Taste changes	9	6	9
Smell changes	5	4	9
Sensory sensitivity/overload	29	14	14
Gastrointestinal problems	35	19	14
Food allergies/sensitivities	27	11	14
Bowel / bladder problems	22	15	13
Anxiety	49	19	14
Depression	34	9	13
Hallucinations	1	4	8
Mood changes	20	13	10
Bleeding	0	0	0
Joint instability	1	0	0
Thirst	3	0	1
Vascular circulatory problems	3	5	2
Other psychiatric effects	4	3	0
Coordination movement problems	2	1	0
Sinus problems	2	1	0
Venous pain throbbing	0	1	0
Other ears, nose, throat problems	2	2	1
Libido loss	3	1	0
Xerostomia	3	2	1
Adrenaline surges	4	1	1

Fainting and loss of consciousness	0	1	1
Eye drooping	2	0	0
Rhabdomyolysis	0	0	0
Concussed feeling	1	0	0
Allergies	1	0	0
Eye pain	2	0	0
Head pressure	6	1	0
Injection site pain	0	1	0
Orthostatic intolerance	0	0	0
Dysfunctional breathing	0	0	0
Arrhythmia	0	0	0
Oral inflammation	0	0	0
Head face neck pain	1	1	0
Thermodyregulation	6	0	0
Swelling	1	0	0
Loss of appetite	0	0	0
Vivid dreams	1	0	0
Atrophy	1	0	0
Restless leg	0	0	0
Heavy painful dry bloodshot eyes	4	2	0
Reactivated pathogen	2	1	0
Facial palsy	0	1	0
Organ pain	1	0	0
Tongue pain	1	2	0
Atony	1	0	0
Pallor	0	1	0
Other bodily sensations	2	1	0
Stiff joints	0	0	0
Dysglycaemia	0	0	0
Post-exertional malaise	2	0	0
Spine problems	1	0	0
Body odour	1	0	0
Paranoia	0	0	0

Table S5d. Cluster counts for each variable included in the vector vaccines symptoms binary model

Symptom	Cluster 0	Cluster 1
Fatigue	16	60
Light-headedness	15	49
Vertigo	16	47
Cognitive dysfunction	16	57
Tinnitus	15	34
Nausea	15	34
Weakness	16	48
Insomnia	16	31
Breathlessness	16	30

Exercise intolerance	16	48
Skin problems	14	21
Weight loss	12	16
Weight gain	10	10
Period problems	11	13
Swollen glands	11	19
Hair loss	9	20
Nailfold haemorrhages	5	0
Other nail problems	8	6
Paraesthesia	15	45
Internal vibrations	15	32
Pain	16	43
Migraines, headaches	15	42
Nerve pain	15	31
Seizures	8	2
Paralysis	8	9
Brain zaps	15	13
Speech problems	14	23
Fine motor skill problems	15	22
Jerks	13	18
Tremors	13	26
Palpitations	16	39
Tachycardia	13	30
Heart/chest pain	14	29
Chest pressure	14	16
Blood pressure dysregulation	13	30
Bulging veins	13	16
Bruising	10	17
Joint inflammation	14	30
Cramps	12	17
Spasms	13	19
Twitches	15	27
Vision problems	16	35
Hearing problems	12	14
Taste changes	10	9
Smell changes	11	8
Sensory sensitivity/overload	15	32
Gastrointestinal problems	11	23
Food allergies/sensitivities	12	20
Bowel / bladder problems	11	26
Anxiety	14	33
Depression	15	22
Hallucinations	9	4
Mood changes	15	23
Bleeding	1	0
Joint instability	0	0
Thirst	1	1

Vascular circulatory problems	1	6
Other psychiatric effects	2	4
Coordination movement problems	0	2
Sinus problems	0	3
Venous pain throbbing	0	2
Other ears, nose, throat problems	2	6
Libido loss	1	0
Xerostomia	0	1
Adrenaline surges	0	0
Fainting and loss of consciousness	2	1
Eye drooping	0	0
Rhabdomyolysis	0	1
Concussed feeling	0	1
Allergies	0	1
Eye pain	0	0
Head pressure	1	3
Injection site pain	0	1
Orthostatic intolerance	1	1
Dysfunctional breathing	2	2
Arrhythmia	1	0
Oral inflammation	1	1
Head face neck pain	1	2
Thermodyregulation	1	6
Swelling	1	0
Loss of appetite	0	1
Vivid dreams	0	0
Atrophy	0	0
Restless leg	0	1
Heavy painful dry bloodshot eyes	0	3
Reactivated pathogen	0	0
Facial palsy	0	0
Organ pain	1	0
Tongue pain	1	1
Atony	0	0
Pallor	1	0
Other bodily sensations	0	5
Stiff joints	0	2
Dysglycaemia	1	0
Post-exertional malaise	0	0
Spine problems	1	1
Body odour	0	0
Paranoia	0	1

Table S6. Regression results for the binary symptom clustering model against test results

Test	Cluster 1				Cluster 2			
	95 % CI				95 % CI			
	β	Lower bound	Upper bound	p	β	Lower bound	Upper bound	p
Vitamin B12	0.73	-1.31	2.78	0.482	0.73	-1.52	2.99	0.525
Vitamin D3	-4.39	-7.41	-1.36	0.004	-0.97	-3.93	1.99	0.520
Total vitamin D	0.44	-1.57	2.45	0.667	0.09	-1.99	2.18	0.930
Magnesium	1.88	-0.79	4.56	0.167	0.22	-2.69	3.12	0.884
Iron	0.62	-1.47	2.70	0.560	0.05	-2.25	2.36	0.964
Sodium	-1.53	-4.49	1.42	0.309	-3.19	-6.72	0.34	0.077
Potassium	-4.09	-7.30	-0.88	0.012	-2.22	-5.46	1.03	0.181
Chloride	3.42	0.11	6.73	0.043	0.62	-2.60	3.83	0.707
Calcium	0.76	-1.71	3.22	0.547	0.87	-1.65	3.39	0.499
Phosphate	0.08	-2.69	2.86	0.953	2.27	-0.86	5.39	0.155
D-dimer	-0.79	-2.39	0.81	0.332	-0.72	-2.27	0.84	0.365
RBC	0.32	-1.96	2.59	0.784	-0.20	-2.49	2.09	0.865
Haematocrit	0.73	-1.66	3.13	0.547	2.10	-0.48	4.68	0.111
MCV	-6.28	-10.34	-2.21	0.002	-3.60	-7.81	0.61	0.094
MCH	4.83	1.45	8.21	0.005	1.81	-1.80	5.41	0.326
Platelet count	4.33	1.19	7.46	0.007	3.37	0.26	6.49	0.034
MPV	1.94	-1.06	4.94	0.205	0.10	-3.04	3.24	0.951
ESR	1.48	-1.46	4.42	0.324	-0.05	-3.05	2.94	0.973
Troponin	-1.49	-3.26	0.28	0.099	-0.93	-2.79	0.92	0.325
Ferritin	0.17	-2.22	2.55	0.892	0.97	-1.42	3.35	0.427
IgA	-2.51	-5.03	0.01	0.051	-5.10	-8.16	-2.05	0.001
Neutrophil count	-3.53	-6.60	-0.46	0.024	1.24	-2.48	4.97	0.513
Eosinophil count	-5.61	-10.70	-0.51	0.031	-5.26	-10.03	-0.50	0.031
Basophil count	3.22	-1.27	7.71	0.159	4.44	0.06	8.81	0.047
WBC	-1.35	-4.22	1.53	0.359	0.05	-3.01	3.11	0.976
Lymphocyte count	1.98	-2.30	6.25	0.365	0.07	-4.18	4.32	0.975
Monocyte count	0.55	-2.57	3.67	0.728	-1.26	-4.44	1.91	0.435
C-reactive protein	1.40	-0.65	3.44	0.180	1.90	-0.22	4.02	0.079
Rheumatoid factor	0.46	-2.03	2.95	0.716	2.16	-0.26	4.57	0.080
ANA	-2.17	-4.33	-0.02	0.048	-1.34	-3.65	0.98	0.258
Urea	-1.30	-3.64	1.05	0.278	0.09	-2.48	2.65	0.947
Creatinine	-0.94	-3.24	1.35	0.421	-0.81	-3.42	1.80	0.543
eGRF	0.91	-1.55	3.38	0.467	-0.58	-3.10	1.94	0.653
Creatine kinase	-0.24	-2.69	2.21	0.848	-1.22	-3.89	1.45	0.371
Cortisol	0.02	-2.10	2.14	0.987	-0.16	-2.40	2.07	0.886
TSH	0.38	-1.43	2.18	0.683	-0.53	-2.50	1.44	0.600
Free T4	0.04	-2.40	2.49	0.972	1.69	-0.82	4.20	0.187
Cholesterol	-0.61	-4.52	3.31	0.760	-3.42	-7.84	1.01	0.130
HDL cholesterol	-0.17	-2.97	2.63	0.905	-3.78	-7.61	0.04	0.053
LDL cholesterol	1.61	-2.58	5.80	0.452	5.38	0.29	10.47	0.038
Non-HDL cholesterol	-1.60	-4.60	1.40	0.295	1.62	-1.87	5.10	0.363

Glucose	1.56	-0.73	3.85	0.182	1.18	-0.96	3.32	0.28
HbA1c	2.10	-0.54	4.75	0.119	-1.85	-4.57	0.87	0.182
MRI head	0.77	-0.74	2.28	0.319	0.18	-1.35	1.72	0.815
Echocardiogram	1.55	-0.18	3.28	0.079	0.70	-0.99	2.39	0.417
Ultrasound abdomen	2.12	-0.57	4.80	0.123	1.47	-1.31	4.25	0.301
X-ray head	-0.82	-2.59	0.96	0.369	-2.13	-4.09	-0.17	0.034
X-ray heart	-0.78	-2.54	0.97	0.382	-0.40	-2.18	1.37	0.656
Holter monitor	-1.47	-3.23	0.30	0.103	-1.05	-2.82	0.72	0.246
Blood pressure	0.22	-1.14	1.58	0.755	-0.13	-1.51	1.25	0.854
Electrocardiogram	0.68	-0.77	2.13	0.356	0.62	-0.77	2.02	0.380
Nerve conduction	-3.04	-5.24	-0.84	0.007	-2.50	-4.67	-0.33	0.024
Finger flexion	0.03	-2.01	2.07	0.977	0.80	-1.12	2.72	0.413

Data were analysed using multivariate logistic regression, using Cluster 0 as the reference group. β values represent the log-odds ratio of the outcome variable (i.e. medical tests) being abnormal. Highlighted yellow are results with $p < 0.05$ for ease of viewing. Tests results were selected only if they had > 20 participants report a result for (i.e. excluding “not sure” answers). Abbreviations: ANA, anti-nuclear antibody; CI, confidence interval; eGFR, estimated glomerular filtration rate; ESR, erythrocyte sedimentation rate; HbA1c, glycated haemoglobin; HDL, high density lipoprotein; LDL, low density lipoprotein; MCH, mean corpuscular haemoglobin; MCV, mean corpuscular volume; MPV, mean platelet volume; MRI, magnetic resonance imaging; RBC, red blood cell count; TSH, thyroid stimulating hormone; WBC, white blood cell count

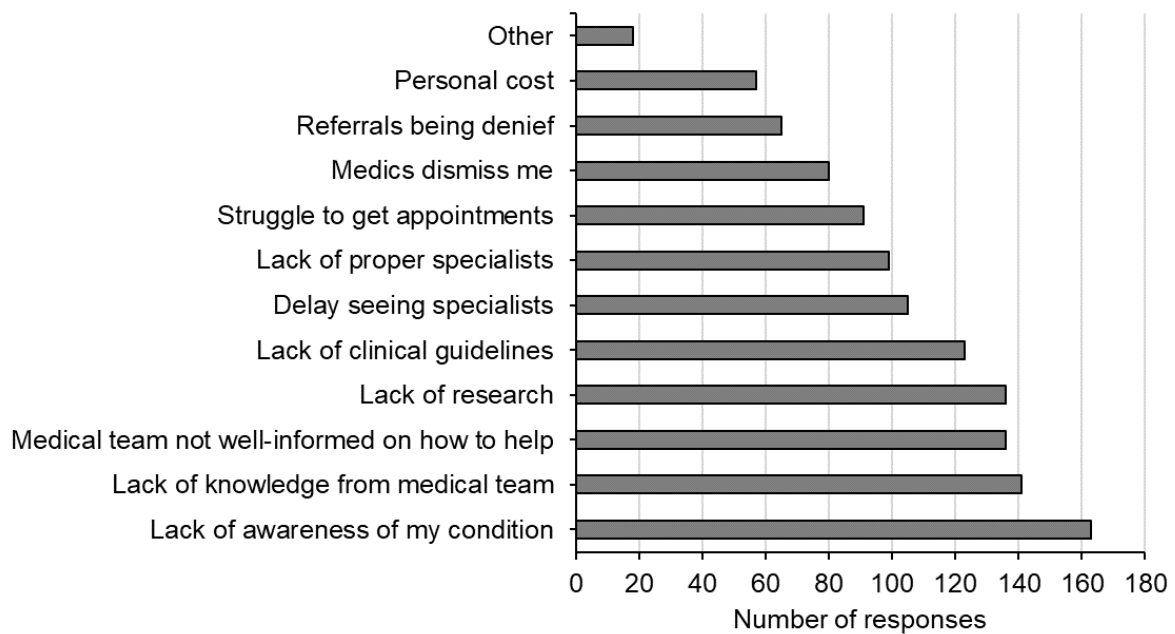


Figure S10. Patient perceptions regarding delays in diagnosis

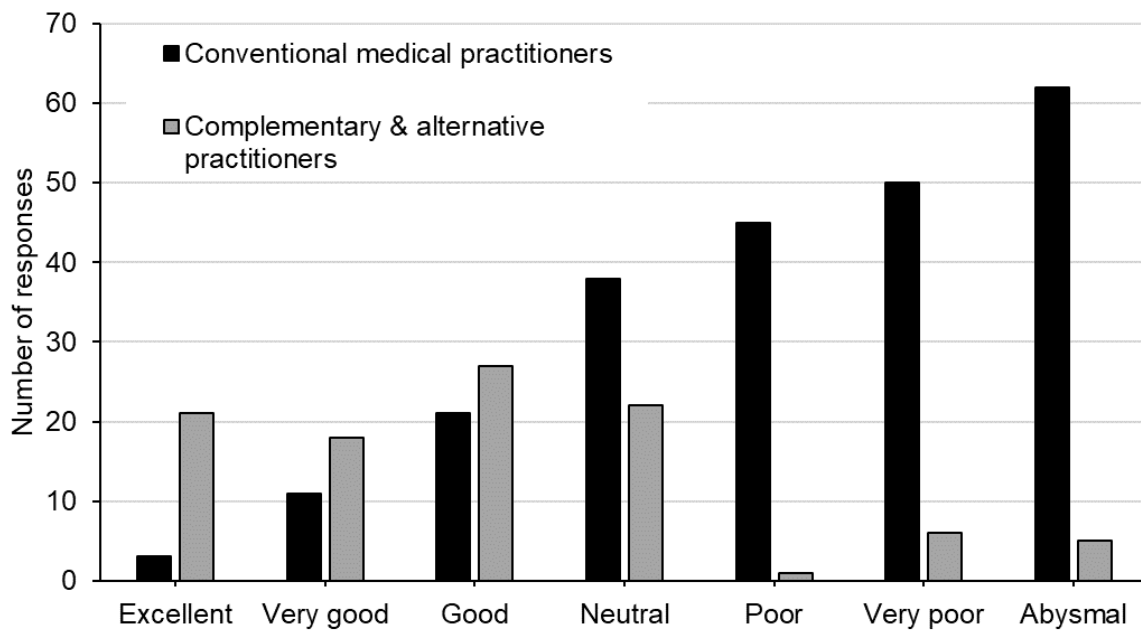


Figure S11. Patient perception of quality of care received from conventional (black) *versus* complementary and alternative (grey) medical providers

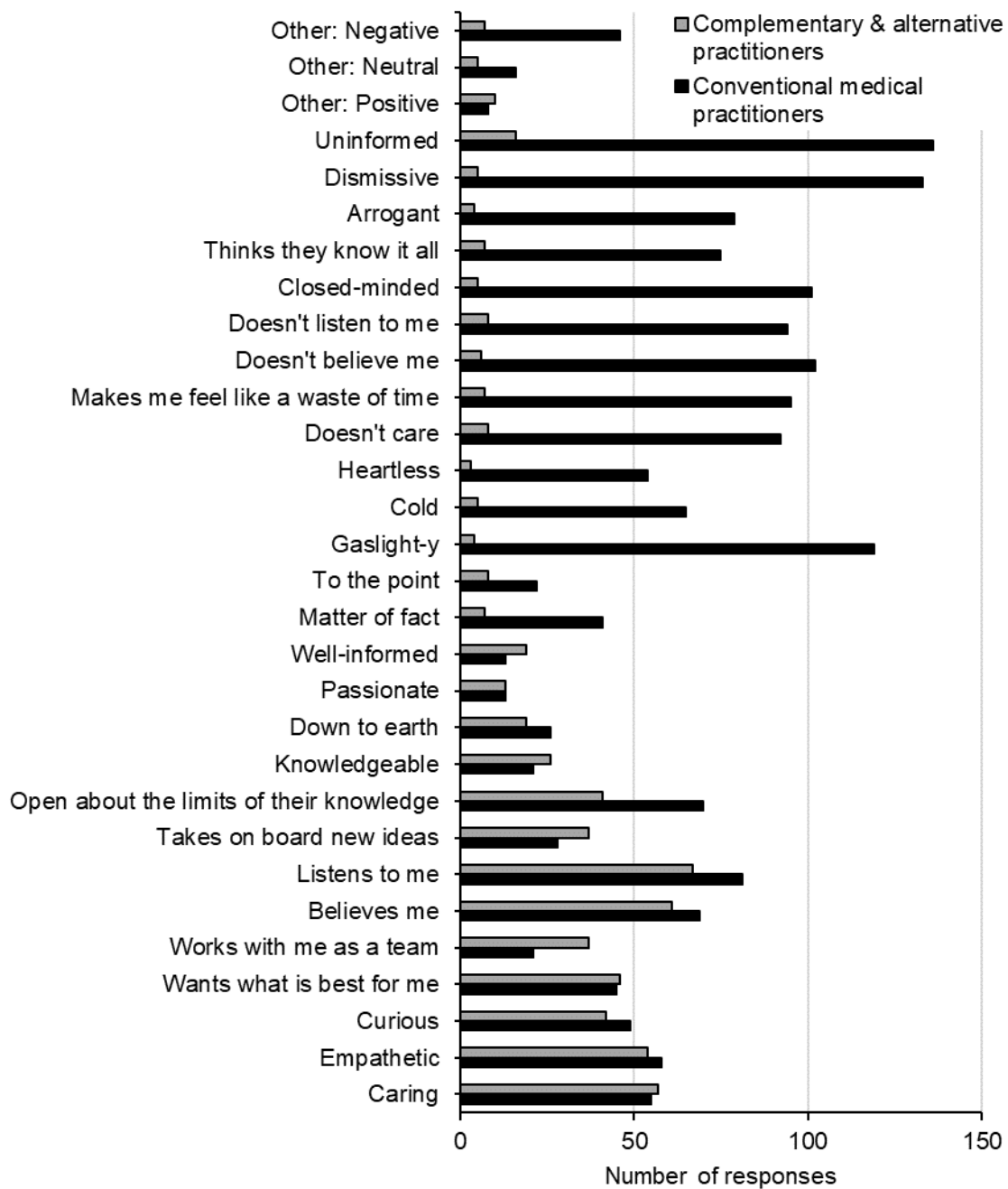


Figure S12. Patient rating of pre-specified words to describe their perception of treatment from conventional (black) *versus* complementary and alternative (grey) medical providers