

SERA frailty index deficits

Deficit	Source	Coding
Alcohol problems	Medical history	Present = 1, absent = 0
Anxiety	Medical history	Present = 1, absent = 0
Asthma	Medical history	Present = 1, absent = 0
Atrial fibrillation	Medical history	Present = 1, absent = 0
Bronchiectasis	Medical history	Present = 1, absent = 0
Cancer	Medical history	Present = 1, absent = 0
Coronary heart disease	Medical history	Present = 1, absent = 0
Chronic kidney disease	Medical history	Present = 1, absent = 0
Chronic liver disease	Medical history	Present = 1, absent = 0
COPD	Medical history	Present = 1, absent = 0
Depression	Medical history	Present = 1, absent = 0
Diabetes	Medical history	Present = 1, absent = 0
Diverticular disease	Medical history	Present = 1, absent = 0
Dyspepsia	Medical history	Present = 1, absent = 0
Epilepsy	Medical history	Present = 1, absent = 0
Glaucoma	Medical history	Present = 1, absent = 0
Heart failure	Medical history	Present = 1, absent = 0
Hypertension	Medical history	Present = 1, absent = 0
Osteoporosis	Medical history	Present = 1, absent = 0
Chronic pain	Medical history	Present = 1, absent = 0
Parkinson's disease	Medical history	Present = 1, absent = 0
Pernicious anaemia	Medical history	Present = 1, absent = 0
Peripheral vascular disease	Medical history	Present = 1, absent = 0
Schizophrenia	Medical history	Present = 1, absent = 0
Stroke or TIA	Medical history	Present = 1, absent = 0
Thyroid disease	Medical history	Present = 1, absent = 0
Difficulty getting out of bed	HAQ-DI	Severe difficulty/unable = 1, some difficulty = 0.5, no difficulty = 0
Difficulty with household chores	HAQ-DI	Severe difficulty/unable = 1, some difficulty = 0.5, no difficulty = 0
Difficulty climbing stairs	HAQ-DI	Severe difficulty/unable = 1, some difficulty = 0.5, no difficulty = 0
Difficulty with shopping (groceries)	HAQ-DI	Severe difficulty/unable = 1, some difficulty = 0.5, no difficulty = 0
Difficult standing	HAQ-DI	Severe difficulty/unable = 1, some difficulty = 0.5, no difficulty = 0
Difficulty with toilet	HAQ-DI	Severe difficulty/unable = 1, some difficulty = 0.5, no difficulty = 0

Limited mobility	EQ5D-1	Severe difficulty/unable = 1, some difficulty = 0.5, no difficulty = 0
Difficulty with self-care	EQ5D-2	Severe difficulty/unable = 1, some difficulty = 0.5, no difficulty = 0
Limited in usual activities	EQ5D-3	Severe difficulty/unable = 1, some difficulty = 0.5, no difficulty = 0
Pain	EQ5D-4	Severe difficulty/unable = 1, some difficulty = 0.5, no difficulty = 0
Anxiety	EQ5D-5	Severe difficulty/unable = 1, some difficulty = 0.5, no difficulty = 0
eGFR	baseline laboratory measures	<30 = 1, <60 = 0.5, >60 = 0
Haemoglobin	baseline laboratory measures	<115 = 1 (men), <110 = 1 (women)
Platelets	baseline laboratory measures	<150 = 1, >150 = 0

UK Biobank frailty index deficits

Deficit	Coding
Glaucoma	Categorised 0/1
Cataracts	Categorised 0/1
Hearing difficulty	Categorised 0/1
Migraine	Categorised 0/1
Dental problems	Categorised 0/1 for none vs. any
Self-rated health	0 – excellent; 0.25 – good; 0.5 - fair, 1 - poor
Fatigue: frequency of tiredness / lethargy in last two weeks	0, 0.25, 0.5, 1, respectively
Sleep: experience of sleeplessness/insomnia	Categorised 0, 0.5, 1, respectively
Depressed feelings: frequency in last two weeks	0 – not at all, 0.5 – several days, 0.75 -- more than half, 1 – nearly every day
Self-described nervous personality	Categorised 0/1
Severe anxiety/ panic attacks	Categorised 0/1
Common to feel loneliness	Categorised 0/1
Sense of misery (ever/never)	Categorised 0/1
Infirmity: long-standing illness or disability	Categorised 0/1
Falls in last year	0 - no fall, 0.5 - one fall, 1 - more than one fall
Fractures/broken bones in last five years	Categorised 0/1
Diabetes	Categorised 0/1
Myocardial infarction	Categorised 0/1
Angina	Categorised 0/1
Stroke	Categorised 0/1

High blood pressure	Categorised 0/1
Hypothyroidism	Categorised 0/1
Deep-vein thrombosis	Categorised 0/1
High cholesterol	Categorised 0/1
Breathing: wheeze in last year	Categorised 0/1
Pneumonia	Categorised 0/1
Chronic bronchitis/emphysema	Categorised 0/1
Asthma	Categorised 0/1
Rheumatoid arthritis	Categorised 0/1
Osteoarthritis	Categorised 0/1
Gout	Categorised 0/1
Osteoporosis	Categorised 0/1
Hayfever, allergic rhinitis or eczema	Categorised 0/1
Psoriasis	Categorised 0/1
Any cancer diagnosis	Categorised 0/1
Multiple cancers diagnosed (number reported)	Categorised 0/1
Chest pain	Categorised 0/1
Head and/or neck pain	Categorised 0/1
Back pain	Categorised 0/1
Stomach/abdominal pain	Categorised 0/1
Hip pain	Categorised 0/1
Knee pain	Categorised 0/1
Whole-body pain	Categorised 0/1
Facial pain	Categorised 0/1
Sciatica	Categorised 0/1
Gastric reflux	Categorised 0/1
Hiatus hernia	Categorised 0/1
Gall stones	Categorised 0/1
Diverticulitis	Categorised 0/1

UK Biobank frailty phenotype – comparison of participants with and without missing data

	Complete data (frailty phenotype)	Missing data (frailty phenotype)
Total	3344	262
Mean age (sd)	59.4 (7.1)	60.4 (6.7)
Male (%)	998 (29.8%)	65 (24.8%)
Female (%)	2346 (70.2%)	196 (74.8%)
Mean frailty index (sd)	0.18 (0.08)	0.20 (0.08)