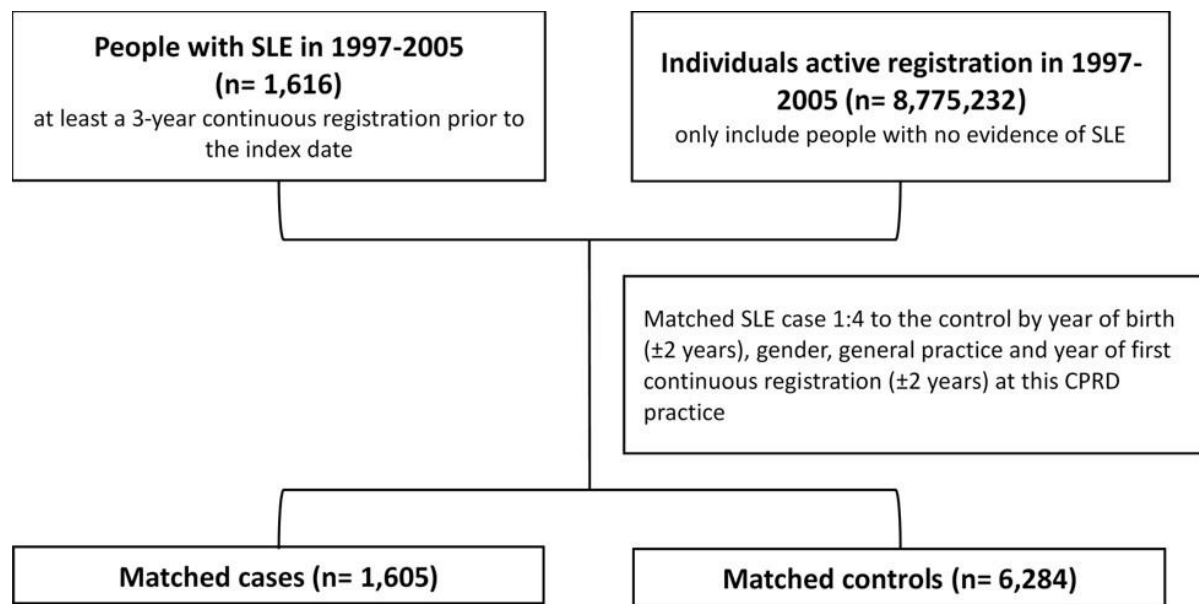


Figure 1. Flow chart of included patients for analyses



Tables

Table 1. Baseline characteristics of people with SLE and controls.

	Incident SLE (n=1,605)	Controls (n=6,284)	P value
Age (years)			
<20	43 (2.68)	180 (2.86)	N/A
20-39	374 (23.30)	1449 (23.06)	N/A
40-59	717 (44.67)	2861 (45.53)	N/A
≥60	471 (29.35)	1794 (28.55)	N/A
Gender			
Men	294 (18.32)	1145 (18.22)	N/A
Women	1311 (81.68)	5139 (81.78)	N/A
Median observation years (IQR)			
Prior to index date	14 (8-23)	13 (8-22)	N/A
After index date	9 (5-11)	9 (6-12)	N/A
BMI (kg/m²)			
<18.5	660 (41.12)	2181 (34.71)	<0.001
18.5-24.9	50 (3.12)	125 (1.99)	
25.0-29.9	468 (29.16)	1801 (28.66)	
≥30	297 (18.50)	1121 (17.84)	
Unknown	130 (8.10)	1056 (16.80)	
Smoking			
Non-smoker	450 (28.04)	1833 (29.17)	<0.001
Current smoker	352 (21.93)	957 (15.23)	
Ex-smoker	621 (38.69)	2206 (35.11)	
Unknown	182 (11.34)	1288 (20.50)	
Alcohol consumption (units/week)			
Never/Ex-drinker	245 (15.26)	825 (13.13)	<0.001
Current 1-9	850 (52.96)	3148 (50.1)	
Current ≥ 10	157 (9.78)	500 (7.96)	
Unknown	353 (21.99)	1811 (28.82)	

Abbreviation: BMI, body mass index; IQR, interquartile range; N/A, not applicable.

Table 2. Comorbidities present 10 years before index date and risk of incident comorbidity after diagnosis of SLE. For pre-existing comorbidities, figures are number, prevalence and OR (95% CI) of specific comorbidities in cases at diagnosis. For incident comorbidities, figures are number of at-risk population (percentage of at-risk population who developed incident comorbidity) and HRs (95% CIs).

	Pre-existing comorbidities at diagnosis		Incident comorbidities	
	N (%)	Adjusted OR	N (%)	Adjusted HR
Neoplasms				
Solid malignancy and leukaemia	85 (5.30)	1.66 (1.26-2.17)*	135 (8.8)	1.29 (1.04-1.61)*
Lymphoma	4 (0.25)	1.62 (0.50-5.18)	21 (1.31)	3.19 (1.54-6.64)*
Metastatic solid tumours	5 (0.31)	1.92 (0.64-5.73)	24 (1.50)	2.31 (1.33-4.00)*
Cardiovascular diseases				
Hypertension	261 (16.26)	1.13 (0.95-1.33)	292 (21.73)	1.34 (1.14-1.58)*
Cardiac arrhythmias	27 (1.68)	1.01 (0.65-1.56)	83 (5.26)	1.68 (1.25-2.27)*
Cerebrovascular disease	49 (3.05)	1.67 (1.17-2.37)*	84 (5.40)	1.53 (1.15-2.04)*
Congestive heart failure	19 (1.18)	1.30 (0.74-2.28)	48 (3.03)	2.25 (1.45-3.48)*
Myocardial infarction	36 (2.24)	2.07 (1.33-3.22)*	41 (2.61)	1.71 (1.12-2.61)*
Peripheral vascular disease	37 (2.31)	1.92 (1.27-2.91)*	38 (2.42)	1.78 (1.15-2.75)*
Valvular heart disease	22 (1.37)	2.21 (1.29-3.79)*	35 (2.21)	1.54 (0.91-2.62)
Renal diseases	49 (3.05)	8.69 (5.21-14.50)*	73 (4.69)	3.43 (2.38-4.93)*
Metabolic and endocrine diseases				
Uncomplicated diabetes mellitus	50 (3.12)	0.93 (0.67-1.29)	66 (4.24)	0.99 (0.69-1.41)
Diabetes mellitus with complications	10 (0.62)	1.05 (0.51-2.16)	70 (4.39)	1.01 (0.72-1.41)
Hyperlipidaemia	71 (4.42)	1.01 (0.76-1.33)	126 (8.21)	1.17 (0.95-1.44)
Hypothyroidism	116 (7.23)	2.12 (1.67-2.70)*	97 (6.51)	1.58 (1.22-2.03)*
Gastrointestinal and hepatic diseases				
Peptic ulcer disease	46 (2.87)	3.14 (2.10-4.69)*	17 (1.09)	1.35 (0.69-2.64)
Mild liver disease	16 (1.00)	3.73 (1.84-7.54)*	23 (1.45)	2.94 (1.61-5.39)*
Moderate to severe liver disease	4 (0.25)	8.07 (1.47-44.5)*	4 (0.25)	1.47 (0.44-4.94)
Chronic pulmonary diseases	239 (14.89)	1.37 (1.16-1.62)*	157 (11.49)	1.57 (1.28-1.93)*
Musculoskeletal and connective tissue diseases				
Osteoarthritis	131 (8.16)	1.59 (1.26-2.00)*	114 (7.73)	1.04 (0.84-1.28)
Rheumatoid Arthritis	98 (6.11)	8.95 (6.18-12.95)*	41 (2.72)	3.54 (2.16-5.82)*
Other rheumatological disease	141 (8.79)	2.90 (2.30-3.68)*	129 (8.81)	3.32 (2.43-4.53)*
Osteoporosis	98 (6.11)	2.03 (1.56-2.65)*	192 (12.74)	2.56 (2.11-3.12)*
Neurological and mental disorders				
Dementia	0 (0.00)	-	15 (0.93)	0.79 (0.42-1.48)
Hemiplegia	6 (0.37)	1.60 (0.61-4.23)	4 (0.25)	1.11 (0.25-4.90)
Multiple sclerosis	7 (0.44)	2.71 (1.04-7.07)*	1 (0.06)	0.10 (0.02-0.42)*
Other neurological diseases	73 (4.55)	2.68 (1.97-3.64)*	56 (3.66)	1.51 (1.09-2.09)*
Psychosis	15 (0.93)	1.47 (0.80-2.70)	18 (1.13)	2.61 (1.34-5.08)*
Depression	371 (23.12)	1.39 (1.20-1.60)*	233 (18.88)	1.15 (0.97-1.36)
Other comorbidities				
Anaemia	188 (11.71)	1.60 (1.33-1.94)*	211 (14.79)	2.15 (1.77-2.60)*
Psoriasis	67 (4.17)	1.82 (1.35-2.46)*	41 (2.67)	1.13 (0.74-1.74)

* p<0.05.

Table 3. Predictors for all-cause mortality and relative risk ratio attenuation

Characteristics	Adjusted hazard ratios (95%CI confidence intervals)					
	All patients		Men		Women	
Model 1: unadjusted	1.98	(1.69-2.32)*	2.31	(1.68-3.16)*	1.88	(1.56-2.27)*
Model 2: adjusted for age, sex, index year, BMI class, smoking status and alcohol consumption	1.91	(1.62-2.26)*	2.33	(1.66-3.27)*	1.81	(1.49-2.19)*
Model 3: adjusted for age, sex, index year, BMI class, smoking status and alcohol consumption and all comorbidities at index date	1.64	(1.37-1.97)*	2.06	(1.35-3.15)*	1.54	(1.25-1.91)*
Relative risk ratio attenuation	27.6%		20.6%		30.7%	

*p<0.05

Supplementary material

Supplementary table 1. Definition of systemic lupus erythematosus

Read code	Description
N000.00	Systemic lupus erythematosus
N000000	Disseminated lupus erythematosus
N000100	Libman-Sacks disease
N000300	Systemic lupus erythematosus with organ or sys involv
N000400	Systemic lupus erythematosus with pericarditis
N000600	Cerebral lupus
N000z00	Systemic lupus erythematosus NOS
Nyu4300	[X]Other forms of systemic lupus erythematosus
M154.00	Lupus erythematosus
M154000	Lupus erythematosus chronicus
M154100	Discoid lupus erythematosus
M154200	Lupus erythematosus migrans
M154300	Lupus erythematosus nodularis
M154400	Lupus erythematosus profundus
M154500	Lupus erythematosus tumidus
M154600	Lupus erythematosus unguium mutilans
M154700	Subacute cutaneous lupus erythematosus
M154z00	Lupus erythematosus NOS
Myu7800	[X]Other local lupus erythematosus
F371000	Polyneuropathy in disseminated lupus erythematosus
F4D3300	Eyelid discoid lupus erythematosus
H57y400	Lung disease with systemic lupus erythematosus
K01x400	Nephrotic syndrome in systemic lupus erythematosus
K01x411	Lupus nephritis

Supplementary Table 2. Full table for code lists of all comorbidities in this study.

Comorbidities	Read codes
Solid malignancy and leukaemia	B21..00,B34..11,BBE1.00,B49..00,B46..00,8BAD.00,B32..00,8HB6.00,B5z..00,B10..00,B13..00,BBEN.00,BB U4.11,B600.00,59...00,B4A0.00,BB2A.00,B141.00,7B27.13,BB4..00,B440.11,BB5..11,B33z.00,B22z.11,BBE F.11,B40..00,B41..00,B133.00,BBd..00,B430200,B47z.11,B430.00,B41..11,7H60z00,BBGK.12,B1...11,B48.. 00,B134.00,7130512,B22z.00,BB5R.00,7H60111,B34..00,BB9M.00,BBV9.00,PE1..12,BB5c.00,B541.00,B02 0.00,BBY0.00,B454.00,B45..00,B33..00,BBEU.00,BBW2.11,BB24.12,B10z.11,B625.11,BBEN.11,BBR5.00,B BDD.00,8BAD000,BBV1.13,BBR..00,BB53.00,B53..00,BB5y400,B141.12,1424,B6y0.00,1425,BB43.00,1428. 11,BB5M.00,BBC3.00,B12..00,BB5U.00,B131.00,BBEN.13,BB1D.00,B43..00,B141.11,BBEW.00,BB9G.00,BB Q1.00,BBE1.12,B226.00,7130,H51y700,142..11,BBE..00,B470200,1425000,BBV..00,B440.00,BBJH.00,142. .12,BBW4.00,BBMz.00,B4A0000,B161200,BB5B.00,BBF1.00,BBG3.00,BB5a.00,B17..00,BBbc.00,BB91.00, B11..00,142B.00,BBb0.11,BBB2.11,BBbB.00,B542000,BB5j.00,BB07.00,7G03J00,BBV1.00,B5...11,BB12.00 ,BB5D100,1428.12,B170.00,B15..00,BB52.00,BBH0.00,B55..00,B130.00,BBY..00,B13z.11,BB1K.00,BBmK.0 0,B21z.00,BB1J.00,7H60.00,ZV10400,BB5j200,B34z.00,B471100,B142.11,BBbL.11,B232.00,B525.00,5154, BB4A.00,ZVu6J00,BBQ1z00,B3...11,8CM0.00,B00..11,4M0..00,BB0..00,B01..00,8CL0.00,B057.00,BB6z.00, 9NX0.00,8HH8.00,8CP0.00,100..00,B222.00,7H60700,B11..11,BBm7.00,5A16.00,BBK0200,8BAV.00,BB5a 000,B450100,5A...11,B51..11,B132.00,BBR0.11,BBD0.00,B136.00,B162.00,B5...00,B1z..00,B593.00,8CL1. 00,7130300,8HKD.00,BBR0.00,BB5B011,7L1K300,B1z0.11,9h81.00,BBCG.00,1423.11,BBEG.11,B454.11,B 621.00,BBe4.00,4M1..00,BBd0.00,ZV10.00,BB9J.00,BBb..00,9h8..00,BB43.11,B4A1.00,BB9F.00,BB9K000, B550200,142..15,BB82100,Byu6.00,B3...12,BBB0.00,B224100,BB19.00,B221.00,B22..00,B4...00,B4A..00,B B36.00,4F32.00,B00..00,B05..00,B11z.00,8BA5.00,B626.00,B47..00,B31z.00,B220.00,B4A2.00,7L16100,B B5a012,B4A3.00,B204.00,B1...00,B510.00,B335z00,B16z.00,B552.00,B47z.12,B506.00,B160.00,B150000, BBB2.00,B333400,B060.00,B550400,B0z0.00,B18z.00,BBP..00,ZV10300,BB9B.00,B302.00,BB5S212,59...1 1,B4...11,BB5y000,B151.00,BB50.00,515..00,B432.00,B6y0.11,142..00,BB52.00,BB81.11,BBLH.00,BBEA.00 ,BBL7112,BBF..00,B221000,BBQ7.00,BBQ..00,B300A00,B1z0.00,B481.00,B181.00,B042.00,BB9..00,BBC7. 00,8HB7.00,1428,B540.11,B330.00,BBf0.00,7G03K00,B30..00,B33y.00,1426,4M00.00,BBJB.00,ZG42.00,B 3...00,4M01.00,B120.00,B51..00,B335300,B137.00,B135.00,BB81.12,1427,8BAK.00,B224000,BBe..00,B4A ..11,5AB..00,BBLJ.00,8BAa.00,142..13,B006.00,ZV67100,BB5..00,4M11.00,B44..00,Byu4.00,B493.00,BBQ 7100,B513.00,BB5f.00,8BC3.00,B112.00,B311300,9Ok..00,BBL9.00,B3y..00,B0...00,B35..00,B30z000,Byu4 100,8BAJ.00,B471.00,BB29.13,BBb7.00,B04..00,B50..00,B45z.00,B222.11,B02..00,BBQ4.14,ZV58100,ZV6 7200,14CB.00,BB1..00,B346.00,BB26.00,8HLD.00,BBE2.00,BBK..00,BBL5.00,BB1N.00,BBV8.11,BBe5.11,8 BA5.11,BBC0.13,B333500,B630200,B180.00,BBEU.11,BBL3.11,BBC0.12,BBV3.00,BBd7.00,BB18.00,B111.0 0,BB8..00,BB5Bz00,BBL7100,BBQ7500,B221z00,Byu5011,BBH1.00,BB5f100,BBa5.00,BBPX.00,B471000,B B91.11,BB5f111,ZLA2800,BBP8.00,BB08.00,B630000,B134.11,B150300,BB04.00,B313.00,BBX..00,ZL2280 0,8CL2.00,B212.00,59Z..00,8BAL.00,BBV4.00,BBT1.11,BBEG000,7G04y11,7130000,B06..00,B110100,BBb L.00,BBEP.00,4M...00,B340000,B200.00,B344.00,B161.00,B335900,7130.11,B551100,ZV10411,B180200, BBEH.00,B524.00,BB2B.00,BB62.00,BBf6012,B142.00,B0...11,B061.00,B201.00,BB09.00,BB9L.00,BBV2.00 ,BBE1.11,B07..00,7H60000,B016.00,BBD..00,B336400,ZV67800,B150.00,B326400,BB5D513,BBM0.00,B22 2100,7130200,BB17.00,9Ok5.00,4M02.00,BB5V.00,B064000,BBm6.00,BBb5.00,B211.00,BBHZ.00,8B3p.0 0,BB5R900,8CR8.00,B152.00,BB1A.00,B060000,B45X.00,B20..00,B21y.00,BB5D512,BB5S.00,B340.00,BB5 C.00,B670.11,BBd2.00,B333.00,BBTA.00,BB55.00,B554.00,B240.00,BBP1.00,B303.00,B4A1000,BBB1.11,B 45y000,BBbz.00,BBGE.00,BB5Y.00,B242.00,BBbQ.00,BBbB.11,BBbF.00,BB5U200,A789500,B140.00,B143. 00,B33z000,BBQ2.00,B420.00,B505.00,7L10200,B540.00,B13z.00,BBa0.00,B496.00,BB57.00,BB69.00,B41 z.00,BBK0000,BBb3.12,BBK3.00,BB5jz00,B08z.00,6862100,B32z.00,B055z00,BBJ1.00,BB71.00,BBJ3.00,BB R7.00,B07z.00,8BAM.00,BBc9.00,ZV10513,B521.00,BBQ3.00,BBaz.00,BB5W111,7H60600,B313000,B2zy. 00,ZV10112,5149,BBVA.00,BB5y.00,BBX0.11,B4Az.00,BBCA.00,5146,1422,BB2C.00,B342.00,BBR4.00,142 1,BBs4.00,B18y200,BB91000,7L19300,BBbG.00,ZV10500,B050.11,BB82111,7H60100,B54..00,9h82.00,By u5100,F373.00,BB81.14,B312300,B335200,ZV67700,B333300,B336200,D212.00,B333000,BB9L.00,B10z.00,B336. 00,9N1y800,BB1M.00,BB2G.00,BBF3.00,BBGP.00,B49z.00,BBCC.00,B224.00,B150100,B223.00,142..14,BB G1.00,B050.00,B160.11,B555.00,BBK3100,ZV58800,B341.00,ZV67600,B23..00,BBb0.00,B43y.00,BBC4.00, BBX1.12,B222000,BBbV.00,BBGM.00,BBK2.00,B110.00,B030.00,B202.00,7130500,BBQ0.00,BB0A.00,ZV1 0111,BB5B500,BBc0.00,B113.00,B302100,8BC6.00,BBW7.11,BB9H.00,BB5RA00,ZLE3.00,B325100,B41y.0 0,B332200,B071000,B221100,BB2J.00,BB0z.00,B43z.00,BBQ7200,B337400,BBK0.00,BBEz.00,BB5J.00,B30 1.00,B122.00,BB4z.00,BBa2.00,BBWz.00,B332000,BB80100,B08..00,BB5S200,BBL0.00,B2..00,BB5b.00,B B5R100,14A7.00,BBEa.00,BBb0.12,B325300,BB69100,B17z.00,BB24.00,B010000,B31..00,BB7..00,BBDF.0 0,B23z.00,BBbT.00,B308300,BB5J.11,BBF2.00,B625.00,7H60400,BB80.00,B622.00,BBGJ.11,B163.00,BBQ B.00,Byu9.00,Byu1.00,BBQ1100,ByuA.00,Byu2.00,BB5T100,B14..00,4M12.00,BB5az00,BB1C.00,B173.00, 5147,ZV66200,ZV10y15,B174.00,ZV10511,BBN..00,Bz...00,B492.00,BB5z.00,BB5D.00,BB5H.00,B153.00,B 012.00,BBD6.00,BB5S200,5A4..11,BBM7.11,ZV67B00,B470300,B225.00,B161211,BB5S211,B04z.00,B331 000,5AC..00,1423.12,BBL7111,BB5V311,BB5X.00,B327800,B49y.00,5155,ZL62800,B33..14,B015.00,B6...1 1,7L18200,BBp..00,B334000,ZV10415,B450.00,BB5X100,BBbW.00,BBe7.11,BBrA700,BBLG.00,B054.00,BB Q7300,B05z000,B007.00,B052.00,B551000,BBQ4.00,BBGF.00,BBA2.00,B056.00,67D2.00,4M4..00,B2131 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lymphoma	<p>BBg1.11,B61..00,BBg2.11,B627.00,BBn0.12,BBB1.00,B680.00,B64..11,B68z.00,B640.00,B650.00,BBr..00,B 630.00,B624.11,B620.00,BBrA400,BBr0100,B65..00,BBU4.00,ByuDF11,B641.00,ByuDF00,BBs5.00,B651.0 0,BBr2000,B6..00,B62y.00,B62x200,B62yz00,B630.12,B62y800,B30z.00,B681.00,BBg2.00,BBmD.00,1429 ,BBg..00,B627C11,B627700,B62x.00,BBmH.00,BBn0.11,B630100,B614800,B64..00,B660.00,BBk..00,B69.. 00,BBr2011,BBj..00,B602.00,BBgC.11,B627C00,7H60800,B691.00,BBr0111,BBg1000,B68..00,67G2.00,B62 4.00,B601.00,B661.00,B651z00,BBk0.12,B65y100,B641.11,BBv2.00,B675.00,B627000,B614.00,BBr2700,B 613z00,BBs..00,B67z.00,B6y..00,B626800,BBm9.00,BBj1100,B627B00,B64y100,BBn0.00,B651.11,BBgM.0 0,BBj6200,BBv0.00,BBr0300,B627W00,4M22.00,B62..00,B65z.00,BBgR.00,B62y400,BBgG.12,B68y.00,BBr 6.00,B66..00,BBg1.00,ZV10600,B63..00,B67..00,BBr2100,B64y200,B671.00,BBsZ.00,BBr6011,B64yz00,BB U3.00,B64z.00,B613.00,B631.00,BBn0.14,B627X00,BBgE.00,BBU..11,BBr0.00,BBj6000,BBkz.00,ZV10711,B yuD.00,BBm5.00,4M2..00,B60..00,BBr2300,BBr0000,BBg7.00,BBgB.00,BBj6.00,BBrz.00,B61zz00,B670.00, B62y300,BBjz.00,ByuD000,B63z.00,BBU7.00,B611.00,B62xX00,A789600,B620100,BB2M.00,B630300,BBr 2500,BBr6700,BBr4.00,BBgL.00,BBg4.00,7D02300,BBr6800,BBr2.00,BBg8.00,BBk0.13,B627200,B6z..00,B BrA500,BBmC.00,B615.00,B64y.00,B6z0.00,B627300,B627500,B62y100,BBr2600,142A.00,BBj2.00,BBgV. 00,A789X00,BBgD.00,BBgZ.00,BBgG.13,BBr6300,4C53.00,B61z.00,ZV67811,B627600,BBn0.13,BBU0.00,B 625800,BBm8.00,BBr6100,B682.00,B614100,BBj1.00,B614000,BBr6600,BBU2.00,B62y000,BBm4.00,B67 2.00,BBr8.00,7H60500,BBU1.00,B62x100,BBgQ.00,B620800,B615200,B602100,B61z200,B61z100,BBr0z0 0,B62y700,BBgJ.00,BBgC.12,4M20.00,BBmF.00,B614300,BBgN.00,B690.00,B61z000,ByuD600,BBj0.00,BB r6z00,B601200,B614z00,B62y500,ByuDE00,B652.00,BBr0113,B616400,BBk0.00,B601z00,BBgS.00,B612.0 0,ByuD300,BBj6100,B62z100,ByuDC00,BBr3.00,B601300,BBr0112,B624000,B624300,ByuD900,B627800, B62z.00,B614400,B610.00,BBj1000,B623300,B620z00,B673.00,B672.11,B65yz00,BBm..00,B620000,A789 700,BBgK.00,BBr6311,ByuD500,BBgG.11,B614200,ByuD100,B66..12,B616.00,B612400,B613100,BBgA.00,</p>

	BBrA111, BBg5.00, B623000, AyuC600, BBgC.00, B600300, B627D00, B627100, BBr4000, B600100, BBg3.00, B613000, B601100, B62y600, B602z00, BBr8000, BBU.00, B62z500, BBgT.00, B601000, BBgP.00, BBr6000, BBr0200, BBgG.00, B67y000, ZV10700, BBrA100, BBgH.00, BBr0400, BBL1.00, BBU6.00, ByuD800, B621500, B62y200, B642.00, BBrA.00, BBr9000, BBn2.12, B613300, B624z00, B624.12, BBj9.00, ByuD800, ByuD700, B62x000, B621300, B61z400, B620300, B613200, B602500, BBpz.00, B66z.00, B62z200, BBU5.00, B613500, B615z00, B67y.00, B61z700, B615100, B623100, ZV10611, 4M21.00, B620500, B621800, B616000, B613600, B62x600, B627900, B62z200, BBj4.00, B621400, BBUz.00, B602300, B61z800, BBk7.00, B615000, ByuD200, B610300, BB9D.00, B611100, BBk2.00, B61z500, B66y.00, BBj7.00, B67yz00, BBg6.00, B60y.00, B60z.00, B602200, B601500, B610100, B626500, B651000, BBr4z00, BBj0.11, B62z800, B616z00,
Metastatic solid tumours	B580.00, BB13.00, BB03.00, B570.00, B577.11, B583000, B583200, B58.00, B590.11, B57.11, B565.00, BB03.11, B585.00, B56.11, B576200, BB13.11, B582600, B590.00, B577.00, B56z.00, B572.00, B58z.00, BB14.00, B58y000, B58y.00, B562300, B585000, B582.00, B56y.00, B58y500, BB02.00, B581100, B58yz00, B57.12, B561300, B591.00, B576100, B58.11, B560600, B575000, B560200, B583.00, B58y600, B57.00, ByuC.00, B576000, B582200, B575z00, B587.00, B563000, B561000, B560700, B583100, B560500, B582300, B562000, B582000, B575.00, B586.00, B560800, B562z00, B58y900, B563300, B565300, B59.00, B582500, 5136, B58y700, B560.00, B563.00, B563200, B592.00, B571.00, B561900, B562.00, B581200, B584.00, ByuC700, B59z.00, B564000, B594.00, B58y100, B582z00, B561400, B574000, B57y.00, ByuC300, B561500, B583z00, B581000, B58y400, B564100, B562200, B561800, B573.00, B581z00, B575100, B582400, B564.00, B561.00, B574.00, 4M14.00, B560000, B560300, B592X00, B58y411, B57z.00, ByuC200, B560100, B560z00, 5A12.00, B576.00, B561600, ByuC600, B560900, B562400, B561700, B574z00, B58y300, B564z00, 4M23.00, B562100, B565z00, B581.00, B563z00, B58y200, B565000, ByuC400, B560400, B561z00, B561200, ByuC500, B576z00, B58y211, B563100, B574200, BB03.13, B582100, BB03.12,
Hypertension	G20.11, G20.00, 68B1.00, G201.00, 6620.00, G20z.11, G672.00, 9N03.00, G202.00, 662.12, 68B4.00, G22.00, 2466, 9OI.00, 8HT5.00, F421300, G2z.00, G24.00, G2.11, G21z011, L12.00, ZV7B100, G20z.00, 9h31.00, 9h32.00, L120.00, 8CR4.00, 662P.00, 2467, G22z.00, G200.00, G24z.00, G21z00, G21.00, 6627, 662c.00, 662b.00, G2y.00, 662d.00, TJC7z00, TJC7.00, 662F.00, 8I3N.00, 9OIA.11, G241000, 6628, 9OI.11, 662C.00, 9N1y200, G233.00, 9OI3.00, 9OI8.00, G22z.11, 662B.00, U60C511, 6629, 9OI4.00, 9OI5.00, 9OI6.00, G24z100, G24z000, G21z.00, G240.00, G672.11, 14P4.00, G222.00, 6146200, 9h3.00, L120z00, 9OIZ.00, 9N4L.00, G244.00, 9OIA.00, L120000, G220.00, 9OI7.00, G24z00, 9OI2.00, L127.00, 9OD9.00, G221.00, U60C51A, L128.00, L120100, 9OI1.00, 9ODA.00, G210.00, G241z00, G211.00, 9ODB.00, G241.00, G240000, G21z000, L120300, G211000, L122z00, G231.00, U60C500, G23.00, L121000, L122.00, 9OI9.00, G230.00, G23z.00, Gyu2.00, 66b2.00, L121100, L122100, G240z00, L122000, L120400, G203.00, 7Q01.00, L127z00, L121.00, L121z00, G210000, 662r.00, L122300, L121300, Gyu2100, 67H8.00, 9ODC.00, 662q.00,
Cardiac arrhythmias	G573200, G570000, G572z00, G57z.00, G57y900, 7L1H100, G573000, G573100, G573.00, 7936000, 7L1H000, G571.00, 3272, G57y000, G57.00, G574.00, G57y.14, G574000, 3282, G570.00, G574100, G57y300, 7936, 14AN.00, G57.11, 14S4.00, 3273, 7L1H.11, 7L1H200, G57y400, G575300, G571.11, G57y.00, 7936600, G57y600, 7936A00, 662D.11, 7936.11, 14AQ.00, 662J000, 329.00, 327.00, 7.94E+03, G57y100, 3274, 662S.00, 328.00, 14AD.00, G573z00, G570100, G572.00, G574011, 329Z.00, 212R.00, 9hF0.00, 7936400, 328Z.00, G570300, 14AP.00, 7L1H.13, G57yz00, 3283, G57yA00, 7936500, G570z00, G573300, 3293, 7L1H111, 7936F00, 7936300, 7936B00, 7936700, 7L1H300, 9hF1.00, 3295, 3298, 7936511, G574z00, 7936y00, 7L1H.12, 7936z00, 7936900, 6A9.00, G575200, 7936200, G570200, 7936100, 327Z.00, 7936800, Gyu5a00, 9Os.00, G572000, 9hF.00, 7936D00, G572100, 7936C00, 7936J00, 7936H00, 7936G00, 9Os0.00, 9Os1.00, 9Os2.00, 9Os3.00, 9Os4.00, 3296, 14AR.00, G57y200, G573500, G573400, 7L1H800, 7936K00, G559.00, 7L1H700,
Cerebrovascular disease	G65.00, G64.12, G66.11, G65.12, G66.00, G60.00, G65z.00, G631.11, G65.13, G6.00, G634.00, G64z.00, G61z.00, G631.12, G631.00, G621.00, G61.00, G670.11, G64z111, G650.11, G64.11, G64z.12, 14A7.12, G66.13, G64.13, G68X.00, G66.12, 14A7.11, G61.11, ZV12512, G667.00, G614.00, G663.00, G64.00, G604.00, G678.00, G64z200, G6z.00, G674000, G64z300, 662M.00, G656.00, G670.00, G671z00, G673200, G668.00, G613.00, G67.00, G641.00, G64z.11, G65zz00, G65z100, G640.00, 14AF.00, G664.00, G60X.00, G622.00, G61.12, 662e.00, G660.00, G623.00, G61X100, G662.00, G661.00, ZV12511, G65y.00, G602.00, G62z.00, G651000, G673000, G674.00, G68.00, G60z.00, G63y000, G650.00, G671100, G63y100, G64z000, G64z400, 6.63E+02, G641000, G61X000, G600.00, G616.00, G617.00, G61X.00, G610.00, G677.00, G62.00, G675.00, G630.00, G651.00, G665.00, G66X.00, G67y.00, G641.11, G673100, G620.00, G640000, G67z.00, G676.00, G676000, G683.00, G671.00, G611.00, G6W.00, G632.00, G605.00, G603.00, G682.00, G680.00, G653.00, G63.00, G612.00, G64z100, G681.00, G654.00, G68W.00, G6y.00, G63y.00, G677000, G666.00, Gyu6400, Gyu6200, G65z000, G677300, G601.00, G618.00, G63.11, G677100, G606.00, G615.00, G63.12, Gyu6100, G677200, 14AK.00, G671000, G677400, G63z.00, Gyu6500, Gyu6300, Gyu6600, Gyu6G00, Gyu6F00, G673300, G679.00, G633.00, Gyu6A00,
Congestive heart failure	G580.00, G581.00, G58.11, G58.00, G580.11, G58z.00, G581000, G581.13, G580.14, G580.12, G580.13, G580300, 662T.00, G58z.11, 662g.00, G58z.12, 662h.00, G232.00, G580000, 8B29.00, G580200, G582.00, G580100, 8CL3.00, 14AM.00, 662i.00, G211100, G234.00, G21z100, SP11111, SP11100, G210100, G580400, G5y4z00,
Myocardial infarction	G30.00, G30.14, G30.15, G308.00, G30.12, G307.00, G32.00, G301.00, G302.00, G307000, G307100, G311500, G300.00, G30X000, G30.11, G30.16, G30z.00, G301z00, G305.00, G32.11, G30A.00, G32.12, G30.17, G301100, G304.00, G30y000, G303.00, G30X.00, G309.00, G30.13, G30B.00, G30y.00, 14A3.00, 14A4.00, G301000, G30y200, G30yz00, 14AH.00, G30y100, G306.00, G31y100,

Peripheral vascular disease	G73z000,G71..00,7A14.11,G73..12,G714.00,G73zz00,G73z.00,G73yz00,R054.00,G732000,G73..11,G73..00,14D..11,G73..13,G73z011,G71z.00,G732.00,G718.00,G715000,G732100,G713.11,G715.00,G716.00,G710.00,G711.11,7A13.11,G714.11,G713.00,7A14400,G731000,G712.00,G732400,G73y100,7A14411,G711.00,G714100,7A13.00,7A14z00,R054z00,G73y.00,G732200,G731100,G716000,Gyu7.00,7A14100,7A14.00,7A14300,7A13z00,7A13y00,G714000,R054100,G732300,7A11311,R054000,7A13400,7A14200,7A14y00,7A11100,7A11300,7A11y00,7A13411,G713000,7A14000,7A13300,7A11z00,Gyu7600,7A11200,G717.00,Gyu7400,7A11211,7A13100,Gyu7300,7A11000,G733.00,G71A.00,G719.00,7A13000,Gyu7000,G714300,G714200,
Valvular heart disease	G540.16,G54zz00,G541100,G541212,G541200,G11..00,7911.12,G542000,G110.00,G541300,G543300,G542.00,G540.00,791z.00,P641.00,7910300,P601.00,7910.12,G541.00,7918,G540000,7902,7914300,G54z500,G543215,P64z.00,P63..00,7903,7914200,7910,G121.12,G130.00,P64..00,G140413,G120.00,7918000,P6y2.00,G540.14,7911,G541500,G13..00,G54z100,G541012,14AC.00,G541400,G133.12,G543.00,P61..00,7902.11,G543100,G541000,7911300,G543012,G543011,7914z00,G140.00,7902000,P6y0.00,7916z11,G11.11,7916.11,7916100,7915000,14T3.00,G131.14,7916000,G12..00,G544200,ZV42200,G541z00,7917000,7910200,G544100,7902z00,G543z00,7917z00,P67..00,P610.00,G111.11,P603.00,G140111,G54z013,7910400,P602.00,G111.12,G543000,P62..00,G540z00,7918100,7912,P6z0.00,G113.00,G54..11,ZV43300,G13z.00,7917.11,7916300,7914.11,7913.11,791..00,G11z.00,7910211,G541600,7918200,G140000,G133.00,G132.12,G54z.00,G121.00,G110.11,7912300,G132.00,G132.13,P602z00,G540100,G140412,G543400,7911.11,G542012,G542100,7911200,7910.11,7914212,G141z00,7919300,P6yy700,G543213,7917300,7913.12,G54z000,7911100,7919100,7915300,7919,P60..00,7919.11,7911y00,G544.00,ZV45H00,G544000,G540.12,7910z00,7915,G140400,G140112,G121.11,7911000,G542z00,7913000,G141.00,G112.13,P60z.00,G112.00,7918y00,P6yy.11,7915100,791A.00,P602100,7914211,G543200,P6W..00,7913,7912.11,G541011,791y.00,G541700,Gyu5600,TB01200,G131.00,7918z00,7916,G140514,7910213,P6X..00,7913400,G12z.00,G112.12,G54z300,7910100,G111.00,G542200,P60z100,7911400,7919000,Gyu1000,7911z00,Gyu5800,G141100,P601000,A932100,G140300,P65..00,7910212,G544X00,G114.00,P640.00,G541211,7903z00,G14z.11,744D100,7919400,G140100,7913300,7910y00,7914,G131.13,7915200,A932300,P66..00,G543311,7918300,G14021Y,G141000,7916z00,SP00200,P652.00,7916y00,7915y00,SyuK611,7913200,SP00400,G122.00,790D700,790Cz00,7902y00,7912200,791B.00,7917,7916200,A932.11,P65..11,P603.11,P611.00,7914100,7903y00,P600.00,791C200,G13y.00,7902300,P60zz00,Gyu5A00,791C400,G140500,7912z00,7912y00,G140z00,7914000,791By00,P651.00,ZVu6e00,7910214,7913y00,7910411,7919600,790D400,7902500,7902400,791D100,G54z014,7913100,7903.13,P650.00,791C300,791C100,7919500,7911411,791D000,A932200,G14021X,G140200,7910000,P601z00,791C000,7912.12,791D.00,7913z00,Gyu1100,G133.11,791C500,7918500,7913411,7914y00,7912511,7918400,7919z00,G542011,P6y3z00,7919y00,7911600,P6yC00,791Bz00,G542X00,Gyu5500,7912000,7912100,Gyu1200,P6y3.00,7912500,7917200,P61z.00,P65z.00,7911500,Gyu5D00,
Urolithiasis	K12z.00,K120.12,K140.11,K120.13,7B07.12,4G6..00,K12..12,7B07.13,K120z00,7B05000,7B05800,K120.00,K140.00,4G8..00,4G4..11,7B07z00,7B0B.00,7B07.00,4G4..00,7B07211,K12..11,C341111,7B29400,K12000,7B0B000,7B0B.11,7B25000,K120.11,14D3.00,7B17000,7B17011,7B17100,7B17111,7B17200,4G43.00,7B0Bz00,7B18.00,7B18000,7B43900,7B18011,7B18100,7B18200,4GA5.00,4G82.11,7B19.00,4G81.11,7B19000,7B07300,4G42.11,7B19100,7B19200,7B19211,7B42300,7B07400,4G41.00,7B19300,J643.00,7B19400,7B19z00,7B07011,4G4Z.00,7B2B400,7B07000,7B1C.00,7B1C000,7B1C100,7B1C200,7B1C300,7B1Cy00,7B07200,7B1Cz00,C341100,K14z.00,Kyu3.00,K14y.00,4G97.00,K14..00,4G44.00,7B0B100,7B07.11,K140z00,K12..00,7B07100,K121.00,K121.11,K122.00,4G8Z.00,7B0C200,7B0By00,7B07y00,7B05900,7B07311,7B0B200,K140100,7B1F000,Kyu3000,
Renal diseases	K06..00,K05..00,K011.00,K00..00,K04..00,K070.00,K01x100,K0..00,7L1A100,7L1A200,K01..00,K07z.00,K100.00,K02y200,K06..11,K03..11,K08y400,K03z.00,K031.00,K00..11,7261011,K050.00,K060.11,K09..00,K032100,K072.00,K02..00,7L1B000,K0D..00,K0C0.00,K0A..00,14D1.00,K08..00,K08y500,K010.00,14D..12,K05..11,K02..11,K021.00,K040.00,7L1A.11,K060.00,K03..12,K02..12,K032.00,1Z13.00,1Z14.00,1Z1..00,K02z.00,K0z..00,K030.00,K0A2.00,K08y100,K01B.00,K016.00,K00y000,7L1A000,K00..12,K00z.00,14V2.00,K100200,K0A3.00,K032600,K017.00,K019.00,K01x411,ZV45100,K015.00,K071.00,7L1B100,K014.00,K03T.00,K032400,K0C..00,K100300,K04z.00,K08z.00,K07..00,K03y000,K01z.00,TB11.00,K000.00,K013.00,K080.00,K03X.00,K081.00,7L1C000,7L1A500,K042.00,K042.11,K0A0.00,K03..00,K080z00,K080100,K03y200,K020.00,K03y.00,K04y.00,K03U.00,K0A5.00,K032y13,7L1B.11,K153100,K09z.00,K091.00,K08y.00,F447C00,K013.11,K0A3100,K08y300,K0B4000,K0C1.00,K0A5100,K0A1200,K034.00,K032y14,K0A4.00,K090.00,K03yz00,K0A5200,14V2.11,K0A2600,K0A4100,ZV56y11,K01x111,K0B..00,K035.00,K0B2.00,ZV56011,K041.00,SP05613,K01x400,K00yz00,K01x000,K0B5.00,K100z00,K00y200,K08yz11,SP01500,K100500,K0y..00,K0A2300,K0A1600,K032y11,K018.00,K080200,K08yz00,K0C4.00,K0A5000,ZV56100,8882,K05..12,Kyu2100,K0A0500,K00y300,K0A0300,K0A7.00,K0A3300,Kyu4100,K08y000,K01A.00,K032500,K0A3200,K100100,K0C2.00,K043.00,K013.12,K0A1300,K033.00,K029,K072,K071 B,K0363,K0411,K071,K0282N,K020L,K048,K0231DA,K0A5300,K01x300,SP07G00,K0A4W00,K03V.00,K0A3600,7A60600,Z919.00,K0A2500,Z919300,ZV56.00,K0A2700,K0A3700,K02y.00,K0A2200,K022.00,K0A4500,K0A0700,Kyu2.00,K0A1700,F371200,K03W.00,K032300,K0A5X00,ZV56z00,ZV56y00,Z91A.00,K00y.00,K02yz00,K01w.00,K090000,K0B1.00,7L1A600,K023.00,K02y300,K080300,K0A0100,K0A0200,K0A3000,K0A4300,TB11.11,K032y00,K0B4.00,K0

	01.00,7257300,K032000,K080000,K0A2100,TA22000,ZVu3G00,Kyu4.00,7L1A300,KOA1.00,K0y0.00,F410400,K0A4200,K01w000,Z919100,K0A3500,K0828,K0721,K0231D,K036 AB,Z1A2.00,K061H,K0281,K0231AA,K0282CI,K084,K0715,K0712C,K005,K049,K022F,K022,K0806G,K0852,K0351,K0481AA,K076 EC,K029 H,K0852C,K037 AA,K0084,K001,K0533H,K027H,K0854C,K0801,K0712,K004,K028,K0801C,K032,K055 L,K041,K027 AA,K0854N,K001C,K0716,K0403R,K014 TE,K071 C,K0891,K0463LN,K0553A,K0761,K081,K0533,K0481,K0591,K014 B,K063AA,K0011BH,K037 AB,K0531H,K027 C,K015,K040,K027,K0824,K020,K025,K0411A,K039 AB,K043AA,K007,K075,K027 CM,K013 T,K0083VP,K077,K045,K0411FH,K0084AA,K013 CR,K014 TT,K0051G,K084N,K0462AA,K0231,K009,K078,K076,K026,K066,K014 L,K0201,K022 LS,K0083,K057,K0A2800,K0231L,K022G,K0401,K0633AA,K067,K0463,4N2..00,K061 P,K0711,K0802,K0092D,K0413A,K013 CT,K055G,K0633,K055 BT,K0202,K036,K055A,K0181,K0181A,K0532H,K0171,K0231A,K0096,K0202C,K065,K0051F,K013P,K0095,K0541,K0712T,7L1A400,K0714,K0282NT,K0291,K082 AA,K0722,K014 C,K040 AP,K007DM,K0462,K0296,K063 B,K0402,K0231FH,K076 C,K0295,K0081,K0072M,K005 RP,K014P,K0211,K0011MP,K055 C,K021,K071 D,K043,K0A5600,K0806C,K074A,K0172,K046,K0854L,K0523,K0072E,K0072ME,K0222,K007 AA,K0282FH,K0721FH,K0714FH,K076FH,K068,K00y100,K032z00,K01y.00,Kyu1.00,1Z1H.00,K0282,K0892AA,K037,K0091M,K0372,K052AA,1Z1L.00,1Z1J.00,1Z1K.00,K0A2000,TA02000,7A61900,Kyu4000,K044.00,K032y15,1Z1J.11,1Z1L.11,K0A1100,K02y000,4I29.00,K0B6.00,1Z1K.11,K01x200,1Z1H.11,Kyu0300,K100000,K012.00,K0A0600,ZV56000,K0E..00,K0A0000,Kyu1C00,K0A0400,K024.00,Kyu1000,K0A4X00,
Uncomplicated diabetes mellitus	C100112,66A2.00,C10..00,C10F.00,C100011,C10FJ00,C10E.00,C108.00,C101.00,66A4.00,66AJ.00,66AJ100,C109.00,C109.11,66AS.00,C108800,C109700,66AR.00,66A5.00,66AJ.11,C10EM00,66Ac.00,66AH000,C10B.00,8BL2.00,66AU.00,C10E.11,66AP.00,66AQ.00,66AZ.00,66A8.00,66A1.00,66AI.00,C100100,C100111,C103.00,66AH.00,C108.12,C109.12,66AL.00,66AM.00,N030000,66AT.00,C109.13,C109J12,C109J00,C108.11,66AA.11,C102.00,66Ajz00,C10N.00,66Ab.00,C10F.11,8A13.00,C108.13,C109711,C100000,C10F700,66Aa.00,C10B000,66AY.00,C108400,N030100,66AV.00,66Ai.00,66AN.00,C109900,C108900,66Af.00,C10FN00,C10A100,C10FK00,C10E800,C109K00,C10D.00,66Ae.00,C109J11,C10K.00,66A9.00,C101y00,C100.00,C10EE00,C109800,C102000,C10E900,C10EN00,Cyu2000,C101z00,C103000,C108E11,C102100,C10C.00,C109D00,C10M.00,C10E400,66AK.00,C108E00,C109712,C108812,66AX.00,C10C.11,C108811,C10FD00,C10F711,8A12.00,C10E411,66AW.00,L180600,L180500,C100z00,C10E.12,C10G.00,C10FP00,Cyu2.00,C10A.00,C101000,66AG.00,C10E412,C101100,66AO.00,L180X00,C109D11,C108A00,C10K000,N030011,C103y00,C10D.11,C108411,C109D12,C10H.00,C10EM11,C10EA11,C108911,C10FJ11,C103z00,C10EN11,66Ah.00,66Ak.00,C10A000,C10H000,C10J.00,C103100,66Aj.00,C10EA00,C108E12,C102z00,C10E812,66Am.00,66Ao.00,66An.00,66Ag.00,C10N100,C10N000,C10FS00,C10ER00,C108A11,66Aq.00,66Ap.00,C10E911,C10G000,C108912,C108412,C10E912,C10C.12,C10FD11,C10EE12,C10EA12,
Diabetes mellitus with complications	F420.00,F381311,F372.12,C104.11,F420200,F420100,F420400,F372.11,C108700,F420000,C106.12,2BBL.00,C10yy00,F420300,C10ED00,F464000,F420600,2BBQ.00,2BBP.00,7276,F420z00,C10FC00,C10F500,2BBT.00,2BBR.00,2BBV.00,2BBW.00,2BBS.00,2BBX.00,C104y00,C106.00,C106.13,C104.00,2G5A.00,C109600,C108F11,2G5C.00,C109G11,C109012,C108J12,C10E700,C10FM00,C10FB00,C10F600,C10EH00,C10E500,C10F000,C108012,C106z00,C10EP00,2BBF.00,F372200,C109G00,C108B00,C109C12,C10FQ00,2832,C10FL00,2G5B.00,2G5E.00,2G5I.00,2G5I000,C10EL00,C10EK00,F420700,R054300,2G5J.00,2G5F.00,2G5G.00,2G5K.00,F372.00,C107.11,C107.12,C105.00,C10y.00,C107200,G73y000,C10F200,C105z00,C109400,C104100,C104z00,2G5L.00,2G5H.00,C10FH00,C107.00,F372100,F3y0.00,C10FF00,C108711,C106100,C10F811,C108J00,C109500,C109H00,C108712,C105100,C108C00,C109612,C10E200,C10F311,C108F00,C108500,C109E12,C10FE00,C10E312,C109B00,C10z.00,C109212,C109512,C108y00,C10EC00,C108000,C10F100,2BBk.00,C105y00,C109B11,C10E000,F420500,C10E100,C10E300,C109H11,C10F900,F372000,C109E11,C10F400,C108211,C108100,C10EF00,2G5W.00,C10F611,C109G12,C109011,C109100,C10FB11,C109A11,C108511,2BBL.00,C108300,C108200,C109000,2BBo.00,C10F911,R054200,C10EJ00,C109F00,C10F800,C109F11,C109411,C10EQ00,C109200,C107400,C10F011,C108D00,C109611,C10FG00,C109C00,C109111,C106.11,C108J11,C108600,C109F12,C10FL11,C108011,66Al.00,C106y00,C108212,C109511,C109300,C108H11,2G5V.00,C10FA00,C107100,C10y100,C10FR00,C10z100,C10zy00,C10z00,C108G00,C108z00,C109C11,C107z00,C10F300,F420800,C108H00,C109412,C108D11,C109H12,C106000,C109211,C10EB00,C108512,C10z000,C107300,C109E00,C105000,C10E600,C109112,C107000,C10yz00,C109A00,C10FM11,C10F411,C10E311,C10EC11,C10EG00,C10FE11,C10E712,C10E511,C104000,C10E711,C10FA11,C10EP11,C10E112,C10F211,C10E512,C108B11,C10E111,Cyu2300,C10A500,C10EF12,C10F111,C10EC12,
Hyperlipidaemia	C320.00,C324.00,44P3.00,C322.00,44O6.00,C320z00,C320000,ZV65317,C320300,44Q3.00,C320200,44O4.00,C320400,687B.00,44P4.00,C320.11,C320.13,ZC2CJ00,C325300,C320y00,44O3.00,Cyu8D00,C320100,8CR3.00,C325200,C325100,
Hypothyroidism	C04..13,C0A5.00,C04..11,C04..00,C04z.00,42Q2.00,C03..00,C041000,C030.00,C04..12,C043000,66B9.11,C04z.13,9Oj3.00,C04z.11,C04z.12,C04y.00,C043.00,C03z.12,66BA.11,9Oj..00,C040.00,C03y000,C046.00,C042.00,4424200,C043z00,C0A1.00,TJ27100,9Oj0.00,C045.00,9Oj1.00,9Oj2.00,C031.00,C040.11,F11x500,C041.00,C044.00,F395300,C03z.00,C041z00,C04z000,U602113,Q433700,C04z100,F381400,SL27100,C03..11,C03y.00,Cyu1100,9Oj4.00,8CR5.00,C03y100,C03z.11,C043200,C047.00,66BB.00,C043100,

Peptic ulcer disease	J12..00,J12y200,J13..00,J11..00,J14..15,J12y100,J11z.11,J11..12,J123.00,J14..14,1956,7627000,J130200,7627,J11..11,761J.11,J121.00,J14..13,J111211,J110111,J110200,J12z.00,J14z.00,J13..11,J14y200,J120100,J120.00,J120200,J121111,J111.00,J13z.00,761J000,J122.00,J14..00,J121211,J14..11,761J.00,J110.00,J110y00,ZV12711,J12yy00,J124.00,J11z.00,J110100,J130.00,J121000,761Jz00,J11y200,J111111,7627100,J131200,J121200,ZV12712,J131.00,ZV12C00,J140z00,J121400,J11yz00,J111z00,J110z00,J120000,J130100,J140.00,J130300,761D500,J120300,J111000,J121100,J130z00,J13y.00,J121z00,J121y00,J131400,J11z.12,7A11.00,J11y.00,J131100,J111200,J12y.00,J120z00,J120y00,7627200,7627z00,7627y00,J11y100,J13yz00,J14y100,J112.00,J14y.00,J111100,761D600,761J100,J13y200,J110000,J111y00,7612500,J14..12,J12yz00,J14yz00,J13y000,J111400,J130y00,J130000,J131z00,761J111,J131y00,J13y100,J12y000,J110300,J121300,J111300,J12y400,J11y000,J120400,J11y400,J126.00,J113.00,J112z00,J125.00,7612111,J12y300,761Jy00,J11yy00,J141.00,J13y300,J140100,J113z00,J131000,J13y400,
Mild liver disease	J615z13,J614.00,J614200,J61y200,A70z000,A705000,A703.00,J611.00,J615300,J612.00,J616000,Jyu7100,J617000,J613.00,J617.00,J614111,C350012,J614100,J616.00,J61y100,J61z.00,J61y700,J610.00,J616100,J614z00,J615z00,J615.00,J635300,J613000,J63B.00,J615z12,J612000,J615z11,J614000,A707000,J61y400,A707.00,J615700,J63X.00,A707200,J630.00,J62..00,A703000,A707X00,A705100,J61yz00,J635500,J615600,J61y300,A707100,J61y.00,J635600,A702000,J615400,J615.11,J615H00,J614300,J614y00,J615y00,J615812,J616z00,J61y500,J635400,A704000,J614400,J612.11,A702.00,J615100,J615z15,J615D00,J616200,J615500,J615800,J61y800,J615C00,J612.12,J61y600,
Moderate to severe liver disease	G85..11,J623.00,J61..00,G852300,J624.00,G858.00,760C300,G85..12,J62y.13,760C500,C310400,7609z00,7609400,J625.11,J622.11,J622.00,J62y.12,7609,J625.00,G850.00,G852200,G857.00,G851.00,7609300,G852.00,760F400,760F300,J62y.00,J62y.11,7609y11,G852z00,A704.00,Hyu5200,G852100,A704z00,761D800,G852000,
Chronic pulmonary diseases	H33..00,663..11,H333.00,H33z100,H33z011,14B4.00,H32..00,H3...11,H3...00,H330.12,H312200,H33..11,663..00,H34..00,H330.11,663V100,H31..00,663..12,663V300,663V000,H331.11,H57y200,663K.00,H33z.00,14B3.11,H33zz11,H33z000,H410.00,H331.00,H563.12,H330011,G41z.11,H3z..00,H312000,173A.00,H312011,H563100,H330111,H563.00,8H2P.00,H330.00,663P.00,663W.00,663U.00,663N.00,H330.14,H55..00,H3y1.00,H41..00,H58y300,H33z111,9OJA.11,G400.00,663y.00,663J.00,66YB.00,66Y5.00,66Y9.00,H38..00,1O1..00,H570.00,66YJ.00,663j.00,H37..00,H36..00,H322.00,8H2R.00,H311.00,66YM.00,H35..00,1O2..00,9OJ2.00,H35z100,H3y..00,H33z200,663V.00,663V200,663h.00,663O.00,663Q.00,663N200,66YK.00,H330000,H312100,14A6.00,H31z.00,H330.13,H350.00,H310000,H33zz00,14B3.00,H32yz00,9OJ..00,H310100,66YE.00,H33zz13,66YA.00,H331111,66YL.11,66YI.00,66YL.00,66Ye.00,66Yd.00,66YQ.00,H40..00,663p.00,663n.00,9OJA.00,H340.00,9OJ..11,H462.00,H3y0.00,H33zz12,H4...12,H4...00,H4y1000,173c.00,H564.00,H581.00,66Yj.00,H42z.00,H43z.00,G581.11,H320z00,H31y000,H313.00,663d.00,663u.00,H4...11,663e.00,H310.00,9OJ6.00,9OJ5.00,9OJ4.00,H332.00,66YS.00,H541000,H312300,H357.00,H320.00,66Yk.00,H441.00,663s.00,663v.00,663f.00,6.63E+102,H352.00,H312.00,H330100,H563z00,66Yf.00,H331000,H434.00,9OJZ.00,66YR.00,663N000,9OJ8.00,66YP.00,663t.00,H45..00,H352100,H57y400,H46..00,H34z.00,H33z.11,H32z.00,H46zz00,H4z..00,H352z00,H3z..11,H440.00,66YD.00,9OJ7.00,H311100,663O000,663w.00,663x.00,663N100,H460.00,H4y..00,H35y700,663r.00,H311000,H32y.00,H334.00,H55..11,66YC.00,H341.00,9OJ3.00,H355.00,66YL.12,663q.00,H57y100,H48..00,H4y2100,H4y2.00,H312z00,H331z00,H31y100,H35y500,66Yg.00,66Yh.00,H330z00,66YT.00,66Yi.00,H42..00,9OJ1.00,H321.00,H35z.00,H464.00,663m.00,H57y300,H464200,66YZ.00,H46z.00,H432.00,H4y1z00,H41z.00,H35y.00,H463.00,H35zz00,Hyu4200,H35y100,H57y000,Hyu5.00,H352000,H582.00,9OJ9.00,H35yz00,H4yy.00,H460z00,H356.00,H320000,H331100,H32y111,H320200,H44..00,H420.00,H310z00,66YI.00,H311z00,H351.00,H421.00,H35z000,H4yz.00,H450.00,H563.11,H464100,H32y200,H464000,Hyu5000,H43..00,Hyu3100,H31y.00,Hyu3000,H3y..11,Hyu3.00,H354.00,H31yz00,H320100,H35y800,H4y1.00,H35y200,H32y100,H464z00,H422.00,H44z.00,H423.00,Hyu5100,H35y000,H32y000,H353.00,H35y600,H39..00,H435.00,H433.00,H431.00,Hyu4700,H320300,Hyu4900,H410.11,
Osteoarthritis	N05..11,N05z611,N053611,N05z511,N05zL00,N05zJ00,14G2.00,12I2.00,N05zz00,N051.00,N053.00,N050z00,N05z000,N050000,N053000,N054z00,N051000,N054900,N05zM00,
RA	N040.00,14G1.00,N040P00,N040T00,N04X.00,N042200,N04..00,N047.00,38DZ.00,N04y012,N040S00,N040D00,N040700,N040800,N040F00,N040100,N040900,N040K00,N040B00,N040500,N042.00,F371200,N040000,N040A00,N040H00,43b9.00,N040J00,N040G00,N040C00,N040400,N040600,N040L00,
Other rheumatological disease	N240000,N20..00,N002.11,N002.00,N20..11,66A..00,N001.00,N044.00,N043.00,N003.00,N240300,N000.00,N042000,N000400,N2z..00,N004.00,N240200,N001100,N040Q00,N000000,N00y.00,N04..11,F396700,N040200,N043200,N00..11,N041.00,N043z00,N003X00,N001.12,N200.00,N000300,N040N00,F396400,N00..00,N04y000,N003000,N240.00,N240z00,N043300,N000200,N042z00,N003.11,N000z00,G5yA.00,N001000,N042100,N043100,N043000,F396500,N040R00,F396600,Nyu1G00,N04y011,F396z00,N000100,F396300,F396000,F396.00,N001.11,Nyu1200,N003100,Nyu1100,N231400,N000500,N000600,
Osteoporosis	N330.00,N33A.00,N33A100,N336.00,N33z200,N33zE00,N334200,N336.11,N331.12,N330B00,N331L00,N337100,N332.00,N332000,N33A000,N338000,N338111,N331.00,N331J00,N337.12,N33z500,N33zJ00,N334.00,N331F00,N33zG00,N338600,N330200,N338.00,N331M00,N331G00,N331900,N338100,N330000,N33z00,N33z400,N331011,N330100,N335.00,N337.11,N330C00,N331E00,N331800,N332300,N331K00,N339.00,N334311,N33zH00,N335000,N331111,N330500,N330D00,N33zD00,N331600,N331.11,N331y00

	,N33z.11,N337111,N331100,N331000,N33z.00,N330A00,N33zF00,N331300,N332100,N334800,N330z00,N334z00,N333.00,N33.00,N332400,N33zB00,N334100,N331C00,N331B00,N33z000,N331D00,N331200,N330300,N334400,N337.00,N338300,N33zC00,N334900,N335.11,N331.14,N337000,N331H00,N334A00,N332200,N331500,N331A00,N332z00,N338200,N338z00,N334600,N33z700,N33z900,N333000,N33zz11,N330800,N334700,N33z100,N331700,N337200,N332500,N334300,N338400,N337300,N33z300,N334B00,N330900,N337400,N331z00,N330400,N33z600,N334000,N334500,N338500,N33zK00,N331400,N333100,N333z00,N334C00,N330600,N33zA00,N331N00,N330700,N331M11,N331N11,N33B.00,N337z00,N33C.00,N331.13,N33zL00,N33zM00,1409.00,90dA.00,58E..11,58E0.00,58E1.00,58E5.00,58EC.00,58EL.00,58EF.00,58EK.00,58E2.00,58EH.00,58E4.00,58EB.00,58EN.00,58E8.00,58E..00,58EM.00,58EE.00,58ED.00,58EJ.00,58EG.00,58E9.00,58E3.00,58EA.00,58E7.00,58E6.00,58E1.00,58EW.00,58EV.00,58EQ.00,58EP.00,58ES.00,58ET.00,
Dementia	E00..12,E00..11,Eu02z14,Eu02z00,Eu01.00,E000.00,Eu00.00,Eu00z11,E004.11,Eu01200,Eu02300,Eu01.11,F111.00,Eu01100,Eu00112,Eu02.00,E001.00,F110000,E002000,Eu01z00,E004.00,E002100,Eu00011,Eu02500,E001300,Eu02z16,Eu02000,Eu00z00,E001200,Eu00200,Eu01300,F110100,E00..00,Eu02z13,Eu02200,E003.00,E001z00,Eu00100,E002z00,Eu02400,E004z00,E001000,E004000,E004300,Eu00113,E002.00,Eu01000,Eu00111,Eu02z11,Eu00000,E001100,Eu04100,Eu02100,Eu01y00,E004200,Eu01111,E004100,Eu00012,Eu00013,Eu02y00,
Hemiplegia	F22..11,F22..00,F234.00,F223.11,F241.00,F223.00,F141.00,2837,2834,F230100,2836,F22z.00,F222.11,F222.00,283..00,F240.00,F241100,2832.11,F240.11,F221.00,F232.00,2833,F242.00,F231.00,F240100,2835,F230000,F220.00,F24..00,F230z00,F240000,F241000,F232.11,283Z.00,F230.11,
Multiple sclerosis	F20..00,F204.00,F202.00,F201.00,1292,9kG..00,8Cc1.00,666A.00,F200.00,8Cc2.00,F207.00,8Cc0.00,F20z.00,8CS1.00,F203.00,F208.00,F206.00,8Cc4.00,8IAb.00,666B.00,ZRVE.00,
Other neurological diseases	F25..00,F20..00,F251000,R003.00,F370000,F250011,F110.00,F138200,F13X.00,F203.00,F143.00,F135100,F11z.11,F250000,F254000,F20..11,F21..00,R045100,F115.00,F134.00,F25z.11,1432,8B66.00,F283.00,F253.11,F140.00,F12..00,F256.00,C251.11,F113.00,F152.00,F251300,F16z.00,F138111,F21y200,F253.00,F281.00,F142.00,F251400,F160000,F282.00,F25011,F281.11,F11z.00,F380.00,F251600,282..11,F25X.00,F13z.00,F135.00,Eu80111,F152111,F116.00,2B4..11,F162.00,1B64.11,F256000,F251500,F132z12,F14..11,F16z.11,F163200,F130300,2B4..12,1B64.00,F151.00,F255000,F25z.00,F252.00,F25y200,F25y00,ZS78.00,ZS78G00,F113000,297A.00,C253.00,F250.00,F254500,ZS78.11,8BL3.00,F21z.00,F12z.00,R003z00,F11y100,F114.00,R043.00,F16z.12,2994.11,F14y011,F137000,2987.11,F16..00,F161000,F250400,F152300,F251200,F25y400,F25A.00,F121.11,F152z00,F144z00,F20z.00,F152400,F14..00,2B45.11,F130.00,F258.00,F15..00,F174.00,F251011,F...11,F256100,F254100,F202.00,F12W.00,F250200,F163z00,F11x600,F25y300,R003y00,F13z100,2B46.11,F255.00,F251.00,F12X.00,F255y00,44WF000,F14z.00,F152200,F135z00,F380z00,F255z00,F137200,F21X.00,F13..11,ZS78G11,2B43.00,F112.00,F36y000,F25F.00,F25C.00,F152100,2B42..00,F11yZ00,2B44.00,F250300,F11..00,F254z00,F254.00,282..00,F150.00,F11y000,F161500,F121.00,F13z000,F254400,F135200,F250500,F11y.00,F13..00,ZS78513,ZS78L00,F130500,F254200,F210.11,F13zz00,F152000,F2y..00,TJ6..00,TJ6z.00,F255200,F132100,ZS78511,F251100,F259.00,F25y.00,282Z.00,F281000,SL6y.00,F256.12,F381300,F255600,F200.00,F21y100,F130400,ZR2d.00,F251z00,F21y500,SL6xz00,F163.00,F144200,F29y300,F137.12,8E24.00,F151100,F21y.00,Eu80300,ZRaC.00,F250z00,F11xz00,F210.00,2B47.00,F132200,F161400,F117.00,F251y00,E2F3000,H27y000,Eu80112,F160100,F381600,Q437000,F130600,F255100,ZS78100,F11x700,ZS78H00,F130200,F256z00,F251111,A413.11,ZS78C00,F142200,ZS82.00,ZR11.11,F145.00,F13z300,ZS78800,F130z00,ZS78100,F284011,F113011,F123.00,ZS78D13,F130000,F381.00,F259.11,U606614,A94y100,A413.00,ZS78900,F131200,F14y.00,F25y100,2987,Eu80212,ZS78H11,F11X.00,F21yz00,F284000,2B45.00,F11x200,F25y000,F21y300,F254300,F255400,F16y000,F21y000,F161.00,F25D.00,ZS78512,Eu80215,Eu44500,C315100,ZS78C11,F151z00,F14y200,F15z.00,F142z00,F250y00,2994,F161z00,TJ63z00,F284z00,ZRC..00,7064100,F284012,SL6..11,F13z400,TJ64.00,F16y100,F211.11,TJ63.00,ZS78811,F132111,ZS78E00,ZR1R.00,F137011,U1A3.00,ZS78200,ZS78D00,F161100,F25E.00,F255012,F381z00,F137111,F151200,U606711,F212.00,ZS78D12,ZS78E11,ZRbf.11,F163100,F284.00,ZS78K11,SL6z.00,F161200,ZR1Q.00,F21y211,U606700,F256.11,F16y.00,T850.00,T850.11,ZS78911,F255500,ZRC..11,F160.00,F21y400,F201.00,2B46.00,TJ64z00,F151300,F113z00,F151000,F16yz00,F11x400,ZS78K00,F15y.00,F257.00,F161300,Ryu7100,ZR2d.11,Fyu2900,T850z00,F255300,F14y000,F14y100,F137.11,F1539C,F250A,Fyu2200,F1590C,F2113FI,ZS78A00,F1110A,U606.11,ZS78I11,F137100,U1A3500,F144.00,ZS78411,ZS78B11,ZR1Q.11,ZRbf.00,F381200,SL6yz00,F2510,ZS78212,F150.11,U606611,F207.00,F208.00,F204.00,F206.00,F25y500,F160z00,F11x900,ZR11.00,Fyu2100,F11x.00,8Q1..11,SL6..00,ZS78F00,U606718,ZS78300,F255311,F250100,F11x800,F163000,F142000,SL6x.00,U606719,T850.12,ZRh2.00,F151111,ZS78D11,
Psychosis	E104.00,Eu2z.11,E10..00,E103.00,1B1E.00,Eu22011,E03y300,E107.00,R001.00,E11..12,E00z.00,E212.00,E121.00,E100200,1464,Eu05y11,Eu31.12,E10z.00,E11..11,Eu0z.12,E103z00,Eu25.00,E107z00,Eu25100,Eu2z.00,E11y000,Eu23200,R001400,R001000,E12z.00,146H.00,E11..00,E212z00,E13z.00,F481K00,ZV11100,E00y.00,E100000,E1...00,E02..00,E13y.00,E1y..00,Eu20000,Eu25011,Eu2..00,Eu20y13,E110.11,212T.00,1B1b.00,R001z00,E13..11,Eu20400,Eu23012,Eu23100,Eu0z.11,Eu05200,ZV11112,ZV11000,E1z..00,E100100,E04y.00,E040.11,ZV11111,Eu84111,Eu20511,E134.00,Eu04.13,Eu04.00,R001200,Eu05000,E102.00,E02z.00,E13yz00,Eu23112,E11..13,8HHs.00,Eu21.18,Eu23312,Eu02z15,Eu44.14,Eu33312,E02yz00,P240200,Eu32314,Eu33213,Eu23z12,E101.00,E103200,Eu20214,Eu3z.11,Eu23z11,Eu2y.11,Eu33314,Eu05212,E13..00

	,E112400,E100.00,E111400,E10y000,E103000,Eu25z11,E11zz00,E11yz00,Eu25200,Eu25000,Eu20.00,Eu20z00,Eu16711,Eu25111,Eu20600,Eu20213,E103500,Eu23000,E0z..00,E14z.11,Eu25212,Eu25z00,Eu33316,E106.00,Eu60100,E10y.00,Eu21.00,E04z.00,Eu21.15,Eu25112,E141100,E11z.00,E110300,Eu20100,E107200,E100400,Eu02z12,E101z00,Eu20y00,E10yz00,Eu21.16,Eu20011,E110400,E02y.00,E103300,E00y.11,Eu25012,Eu32312,E103400,E100z00,Ryu5300,Eu84314,Eu20111,R001100,E116400,Eu21.12,E11z000,E03..00,E114400,E141.00,E107500,ZS7C611,E03z.00,E100300,Eu03.11,Eu25y00,E100500,E102000,E107000,E107300,Eu23211,E03yz00,Eu84512,Eu20300,E11y.00,E107100,Eu84013,Eu20200,E212200,E04..00,Eu84312,Eu21.14,E107400,E115400,E102z00,R001300,Eu20500,Eu20212,Eu21.13,E111300,E105.00,E101000,E0y..00,E212000,U406y00,E101500,13Y2.00,E03y.00,E117400,E11y300,Eu23212,Eu21.17,E100.11,212X.00,212W.00,Eu21.11,Eu20311,E10y.11,ZRhi.00,Eu20y12,E105200,Eu23214,E105500,E101400,E107.11,E10y100,E102100,
Depression	E2B..00,Eu32z11,E112.14,E200300,E135.00,E204.00,Eu31.11,2257,1B17.00,E204.11,1465,Eu32z00,E2B0.00,Eu32z12,Eu33.00,E114.00,E2B1.00,Eu32.00,E115.00,Eu31500,1B17.11,Eu3..00,E112.11,Eu32z14,E113700,E112.12,Eu32y00,Eu31.00,E113.11,E112.13,E112z00,TJ90.00,Eu32.13,Eu34113,Eu41211,E130.00,Eu34111,Eu33.11,Eu33.13,1BT..11,Eu32.11,E11z200,Eu32100,Eu32200,1B1U.00,1BT..00,Eu34112,1B1U.11,E211200,E112.00,Eu32400,Eu32y11,E118.00,Eu33212,Eu33211,146D.00,Eu32000,Eu41200,Eu32300,9H91.00,9H90.00,E115.11,E113200,E117.00,E113.00,E112200,E112300,Eu34114,E115000,E211000,E114300,E112100,Eu31300,E291.00,Eu31000,Eu33315,E114.11,E130.11,T840z00,Eu32.12,Eu33.12,1B1..00,Eu33400,Eu32212,Eu31400,Eu33311,Eu05300,Eu32313,Eu32311,E113400,E117600,E03y200,E116100,E113z00,E113300,1BT..12,Eu31100,E11y200,Eu31700,E115200,E117z00,Eu3y.00,Eu32z13,Eu31200,Eu33.14,9hC0.00,E113100,Eu33100,Eu3yy00,Eu33000,Eu3y100,ZRby100,9H92.00,8CAa.00,9k4..00,Eu3y011,E116.00,E116000,U609200,8HHq.00,Eu33313,Eu33200,U609000,Eu31z00,ZRaH.00,E112000,E115300,E113000,E115100,E114000,E114100,E290z00,Eu33z11,Eu3z.00,Eu30211,E115z00,Eu34z00,TJ90z00,Eu32211,Eu34.00,9HA0.00,9hC1.00,E112500,Eu33z00,SL90.00,Eu31600,8BK0.00,9HA1.00,Eu06y11,SL90z00,E02y300,U204.11,E114200,U609211,E258.00,Eu33300,Eu33y00,Eu30212,9hC..00,E117000,Eu34y00,Eu3y000,9Ov..00,Eu31y00,E116600,ZRlfh00,E113600,U609213,E113500,Eu32y12,E112600,E115600,E114z00,U1A4.11,8I3F.00,E114500,Eu32213,T840.00,E116200,E116300,E116z00,E116500,E117100,E114600,9k40.00,Eu31.13,E117200,E117500,9Ov0.00,E115500,9Ov1.00,E117300,Eu33214,212V.00,9Ov4.00,9Ov3.00,9Ov2.00,E258z00,ZRlf00,9kQ..00,Eu32600,Eu32500,Eu32700,Eu32800,FyuB100,1TC..00,
Anaemia	D00..12,D21z.00,D00..00,D21z.13,D104.00,D104100,L182500,D21z.12,L182.00,L182400,D014.00,D010.00,D011100,D211.00,D010.11,D21..00,D1..00,D110.00,D012500,D012.00,D01..11,D41yz11,D104z00,D21z.11,D00y100,Dyu0000,D011.11,C294300,D011X00,D0z..00,D106400,D104300,D00yz00,D104500,D01z00,B937100,F422100,D214.00,D104400,D10z.00,D11z.00,2C2..00,D20..00,D00z00,4R2.00,L182000,D201.00,688..00,D210.00,D213.00,D201000,2C2Z.00,D215.00,D1z..00,B937X00,D0..12,D00y.12,L182300,1453,D104811,D201z00,D102000,D013000,B937000,D106.00,B937200,D012.11,1454,D215000,D2y..00,D0y..00,4283,4254,D000.00,D104800,D11..00,D21yz00,D011.00,L182200,D21y011,D104211,Dyu2200,1451,D011z00,D106300,D106200,D104000,J69y700,D210300,D110400,D201111,D106100,D104900,D011000,D21y200,D00y.00,L182100,D200100,D21y.00,D201700,Dyu0200,D2z..00,D00y012,D012100,D00y011,D012200,D200000,D2...00,D104311,D111100,D10..00,D110z00,D110000,D1y..00,D00z200,D204.00,D210100,D012z00,D201100,D210000,D111000,D201.11,B937300,D200.15,D104011,D211.11,D010.13,D104700,D210400,Dyu1200,D110100,D102200,D112z12,Dyu2400,D013.00,D21y000,Dyu0300,D01z.11,Dyu0600,D104200,D010.12,D00y000,D012300,D103100,D012400,D013z00,BBmA.00,F381500,D201412,D104600,D01z.00,D107000,D106z00,D110200,D201200,D111.00,D00z100,D01y.00,D21yy00,D012112,BBmB.00,D01y100,R100300,D011200,D111500,D014000,D200111,D201211,D104z11,D201400,D111400,D20z.00,D200.00,D200011,D011013,D200y00,D106000,D201311,D014z00,D014100,D102.00,Dyu0.00,D210200,D10y.00,D011011,Dyu1100,7Q09000,D01yz00,7Q09100,D106500,D111z00,D210z00,D0...11,BBmL.00,68b0.00,65QF.00,D012111,Qyu5C00,D111y00,Dyu1.00,Dyu1500,D01yy00,1364,D00..11,42R4100,D000.11,D0...00,D01..00,42D2.00,42D4.00,D00z.00,D00z000,D001.00,42A4.00,D00y.11,L182z00,Dyu0100,D000.12,1452,4293,65QE.00,
Psoriasis	14F2.00,M16..00,M160.00,M160.11,M160000,M160100,M160z00,M161.00,M161000,M161100,M161200,M161300,M161400,M161500,M161600,M161700,M161800,M161900,M161A00,M161B00,M161C00,M161D00,M161E00,M161F00,M161F11,M161H00,M161z00,M166.00,M16y.00,M16y000,M16z.00,Myu3000,N045200,Nyu1300,

Supplementary Table 3. Comorbidities present 1 year before index date

	1-year period before index date							
	Cases		Controls		Unadjusted OR		Adjusted OR [†]	
Charlson index								
0	1290	(80.37)	5766	(91.76)	Reference		Reference	
1-2	296	(18.44)	491	(7.81)	2.83	(2.40-3.33)*	2.55	(2.15-4.00)*
3-4	16	(1.00)	23	(0.37)	3.44	(1.78-6.65)*	2.96	(1.52-6.00)*
≥5	3	(0.19)	4	(0.06)	3.97	(0.88-17.9)	3.33	(0.72-16.0)
Neoplasms	29	(1.81)	68	(1.08)	1.69	(1.07-2.65)*	1.55	(0.97-2.45)
Solid malignancy and leukaemia	29	(1.81)	63	(1.00)	1.81	(1.15-2.86)*	1.65	(1.03-2.62)*
Lymphoma	0	(0.00)	3	(0.05)	N/A		N/A	
Metastatic solid tumours	3	(0.19)	4	(0.06)	3.00	(0.67-13.4)	2.58	(0.57-11.7)
Cardiovascular diseases	162	(10.09)	389	(6.19)	1.76	(1.44-2.16)*	1.64	(1.33-2.03)*
Hypertension	112	(6.98)	320	(5.09)	1.42	(1.12-1.79)*	1.34	(1.05-1.69)*
Cardiac arrhythmias	14	(0.87)	25	(0.40)	2.23	(1.15-4.32)*	2.23	(1.14-4.36)*
Cerebrovascular disease	19	(1.18)	26	(0.41)	2.82	(1.56-5.09)*	2.57	(1.40-4.73)*
Congestive heart failure	19	(1.18)	51	(0.81)	2.86	(1.26-6.49)*	2.31	(1.00-5.34)*
Myocardial infarction	8	(0.50)	6	(0.10)	5.23	(1.81-15.1)*	3.81	(1.29-11.3)*
Peripheral vascular disease	7	(0.44)	15	(0.24)	1.87	(0.76-4.58)	1.62	(0.65-4.01)
Valvular heart disease	8	(0.50)	11	(0.18)	2.67	(1.06-6.70)*	2.58	(1.01-6.57)*
Genitourinary diseases	40	(2.49)	12	(0.19)	13.33	(7.00-25.42)*	13.32	(6.92-25.64)*
Urolithiasis	0	(0.00)	4	(0.06)	-	-	-	-
Renal diseases	40	(2.49)	8	(0.13)	20.00	(9.36-42.7)*	19.57	(9.08-42.2)*
Metabolic and endocrine diseases	79	(4.92)	220	(3.50)	1.42	(1.08-1.86)*	1.27	(0.97-1.68)
Uncomplicated diabetes mellitus	31	(1.93)	102	(1.62)	1.20	(0.80-1.81)	1.04	(0.69-1.58)
Diabetes mellitus with complications	3	(0.19)	14	(0.22)	0.76	(0.21-2.73)	0.66	(0.18-2.38)
Hyperlipidaemia	21	(1.31)	65	(1.03)	1.23	(0.74-2.05)	1.11	(0.66-1.87)
Hypothyroidism	33	(2.06)	57	(0.91)	2.30	(1.47-3.60)*	2.18	(1.39-3.43)*
Gastrointestinal and hepatic diseases	7	(0.44)	11	(0.18)	2.55	(0.99-6.57)	2.62	(0.99-6.93)
Peptic ulcer disease	4	(0.25)	8	(0.13)	2.00	(0.60-6.64)	2.39	(0.70-8.14)
Mild liver disease	3	(0.19)	4	(0.06)	3.00	(0.67-13.4)	2.52	(0.55-11.6)
Moderate to severe liver disease	0	(0.00)	1	(0.02)	-	-	-	-
Chronic pulmonary diseases	102	(6.36)	245	(3.90)	1.67	(1.31-2.13)*	1.40	(1.09-1.79)*
Musculoskeletal and connective tissue diseases	136	(8.47)	136	(2.16)	4.31	(3.35-5.56)*	4.20	(3.25-5.44)*
Osteoarthritis	35	(2.18)	95	(1.51)	1.46	(0.98-2.17)	1.40	(0.93-2.10)
Rheumatoid Arthritis	48	(2.99)	12	(0.19)	16.00	(8.5-30.12)*	15.67	(8.29-29.60)*
Other rheumatological disease	66	(4.11)	83	(1.32)	3.27	(2.34-4.58)*	3.07	(2.19-4.32)*
Osteoporosis	24	(1.50)	27	(0.43)	3.36	(1.92-5.89)*	3.20	(1.80-5.68)*
Neurological and mental disorders	139	(8.66)	319	(5.08)	1.80	(1.46-2.22)*	1.66	(1.34-2.06)*
Dementia	0	(0.00)	2	(0.03)	-	-	-	-
Hemiplegia	0	(0.00)	0	(0.00)	-	-	-	-
Multiple sclerosis	2	(0.12)	2	(0.03)	4.00	(0.56-28.4)	5.01	(0.69-36.3)
Other neurological diseases	24	(1.50)	29	(0.46)	3.25	(1.89-5.59)*	3.16	(1.81-5.49)*
Psychosis	2	(0.12)	7	(0.11)	1.14	(0.24-5.50)	1.23	(0.25-5.95)
Depression	116	(7.23)	285	(4.54)	1.66	(1.32-2.08)*	1.52	(1.20-1.91)*
Other comorbidities	84	(5.23)	111	(1.77)	3.13	(2.33-4.19)*	3.00	(2.23-4.05)*
Anaemia	55	(3.43)	75	(1.19)	3.04	(2.12-4.35)*	2.93	(2.04-4.21)*
Psoriasis	30	(1.87)	36	(0.57)	3.27	(2.02-5.30)*	3.17	(1.94-5.18)*

Charlson index includes myocardial infarction, congestive heart failure, peripheral vascular disease, cerebrovascular disease, dementia, chronic pulmonary disease, rheumatologic disease, peptic ulcer disease, mild liver disease, moderate or severe liver disease, diabetes mellitus [DM], DM with chronic complications, renal diseases, any malignancy [including leukaemia and lymphoma], metastatic solid tumour and human immunodeficiency virus [HIV] infection.

†adjusted for age, gender, index year, BMI class, smoking status and alcohol consumption

* $p < 0.05$

Supplementary Table 4. Cumulative probability of comorbidity after diagnosis of SLE. Figures are probability of incident comorbidity (percentage).

	People with SLE					Controls					P value
	Index date	1 year	2 years	5 years	10 years	Index date	1 year	2 years	5 years	10 years	
Charlson index ≥1	38.07	42.40	45.00	51.80	61.70	20.35	22.40	24.20	30.00	39.60	<.0001
Any increase in Charlson index	0	4.01	6.66	13.70	24.50	0	1.75	3.61	9.47	19.50	<.0001
Neoplasms	5.48	7.11	7.7	9.74	15.73	3.28	3.94	4.56	6.83	11.49	<.0001
Solid malignancy and leukaemia	5.30	6.82	7.48	9.46	14.62	3.12	3.77	4.36	6.59	10.84	<.0001
Lymphoma	0.25	0.51	0.64	1.17	1.66	0.18	0.26	0.33	0.40	0.66	<.0001
Metastatic solid tumours	0.31	0.76	0.90	1.05	2.21	0.16	0.23	0.33	0.55	1.14	0.0057
Cardiovascular diseases	22.68	26.67	29.03	36.84	47.3	16.96	18.97	21.09	27.16	37.17	<.0001
Hypertension	16.26	19.70	21.40	28.00	37.30	13.92	15.70	17.50	22.70	31.30	<.0001
Cardiac arrhythmias	1.68	2.42	3.09	4.64	7.91	1.64	1.90	2.19	3.46	5.58	0.0023
Cerebrovascular disease	3.05	3.88	4.21	6.05	9.21	1.72	2.03	2.32	3.57	5.76	<.0001
Congestive heart failure	1.18	1.78	2.38	3.27	4.63	0.81	0.91	1.09	1.70	2.80	0.0003
Myocardial infarction	2.24	2.36	2.49	3.60	5.27	0.89	1.14	1.32	1.82	2.92	<.0001
Peripheral vascular disease	2.31	2.61	2.88	3.91	4.97	1.05	1.18	1.30	1.67	2.62	<.0001
Valvular heart disease	1.37	1.72	1.85	2.82	4.20	0.62	0.71	0.83	1.22	2.25	<.0001
Genitourinary diseases	3.49	4.9	5.3	7.44	9.22	0.95	1.09	1.43	2.09	3.3	<.0001
Urolithiasis	0.44	0.51	0.51	0.66	0.87	0.59	0.62	0.74	0.83	1.06	0.5161
Renal diseases	3.05	4.39	4.79	6.78	8.35	0.38	0.49	0.71	1.28	2.28	<.0001
Metabolic and endocrine diseases	13.58	16.08	17.88	22.83	29.85	9.52	11.05	12.54	16.84	24	<.0001
Uncomplicated diabetes mellitus	3.12	3.76	4.16	5.34	7.98	2.96	3.44	3.88	5.30	8.11	0.8904
Diabetes mellitus with complications	0.62	0.64	1.04	2.00	5.81	0.53	0.60	0.77	1.38	5.49	0.8326
Hyperlipidaemia	4.42	5.54	6.41	8.79	14.40	4.09	4.85	5.60	8.36	12.40	0.1416
Hypothyroidism	7.23	8.60	9.46	12.10	14.30	3.34	3.88	4.40	5.88	8.50	<.0001
Gastrointestinal and hepatic diseases	3.93	4.26	4.4	5.44	6.5	1.13	1.35	1.41	1.86	2.76	<.0001
Peptic ulcer disease	2.87	3.06	3.19	3.63	4.17	0.89	1.01	1.06	1.26	1.80	<.0001
Mild liver disease	1.00	1.15	1.15	1.82	2.56	0.25	0.36	0.37	0.56	0.89	<.0001
Moderate to severe liver disease	0.25	0.32	0.32	0.39	0.50	0.03	0.03	0.03	0.14	0.27	0.0371
Chronic pulmonary diseases	14.89	16.40	17.50	21.40	27.00	10.25	11.00	11.70	14.10	17.10	<.0001
Musculoskeletal and connective tissue diseases	19.38	22.48	25	30.4	40.15	7.38	8.31	9.33	12.59	18.29	<.0001
Osteoarthritis	8.16	9.35	10.10	12.30	17.00	5.49	6.23	7.26	9.57	13.70	0.0028

Rheumatoid Arthritis	6.11	6.78	7.05	7.57	9.23	0.76	0.83	0.87	1.20	1.65	<.0001
Other rheumatological diseases	8.79	10.85	11.99	14.43	18.45	3.15	3.51	3.97	5.22	7.08	<.0001
Osteoporosis	6.11	7.69	9.55	14.03	20.19	2.90	3.39	3.9	5.47	9.04	<.0001
Neurological and mental disorders	27.04	29.5	32.72	38.52	47.01	18.56	20.91	22.85	28.08	35.48	<.0001
Dementia	0.00	0.00	0.07	0.22	0.86	0.11	0.15	0.20	0.55	1.52	0.2159
Hemiplegia	0.37	0.45	0.51	0.59	0.69	0.22	0.26	0.29	0.37	0.50	0.3852
Multiple sclerosis	0.44	0.45	0.45	0.45	0.55	0.18	0.21	0.24	0.28	0.44	0.5426
Other neurological diseases	4.55	5.15	5.61	6.79	8.89	1.72	2.03	2.25	2.93	4.44	<.0001
Psychosis	0.93	1.02	1.22	1.44	2.18	0.62	0.65	0.72	0.92	1.33	0.0049
Depression	23.12	25.30	28.10	33.40	40.50	16.84	19.00	20.80	25.40	31.70	<.0001
Other comorbidities	14.89	17.6	19.32	23.96	31.23	9.47	10.49	11.48	13.88	18.97	<.0001
Anaemia	11.71	13.80	15.20	19.60	26.70	7.46	8.14	8.90	10.90	15.60	<.0001
Psoriasis	4.24	4.71	5.18	6.08	7.04	2.24	2.52	2.79	3.38	4.36	<.0001

Supplementary table 5. Cumulative probability of all-cause mortality after diagnosis of SLE

	People with SLE					Controls					P value
	At diagnosis	1 year	2 years	5 years	10 years	At diagnosis	1 year	2 years	5 years	10 years	
Overall	0	1.46	3.09	8.28	17.00	0	0.79	1.58	4.43	10.29	<.0001
Gender											
Men	0	3.11	5.60	13.96	23.80	0	1.15	2.52	5.87	13.74	<.0001
Women	0	1.08	2.52	7.00	15.47	0	0.71	1.37	4.11	9.52	<.0001

Figures are probability of incident comorbidity (percentage)