

Supplementary

Table S1 The disease categories, corresponding ICD-10 codes and CCI weights

Disease category	ICD-10 codes	Weights
Myocardial infarction	I21*, I22*, I23*, I252	1
Congestive cardiac failure	I11, I13, I255, I42, I43, I50, I517	1
Peripheral vascular disease	I70–I73, I770, I771, K551, K558, K559, R02, Z958, Z959	1
Cerebrovascular disease	G45, G46, I60–I69	1
Dementia	A810, F00–F03, F051, G30, G31	1
Chronic pulmonary disease	I26, I27, J40–J45, J46*, J47, J60–J67, J684, J701, J703	1
Rheumatological disease	M05, M06, M09, M120, M315, M32–M36	1
Liver disease	B18, I85, I864, I982, K70, K71, K721, K729, K76, R162, Z944	1
Diabetes mellitus	E10–E14	1
Hemiplegia or paraplegia	G114, G81–G83	2
Renal disease	I12, I13, N01, N03, N05, N07, N08, N171*, N172*, N18, N19*, N25, Z49, Z940, Z992	2
Other malignancy	C00–C26, C30–C33, C37–C41, C43, C45–C58, C60–C76, C80–C85, C88, C90–C97	2
Metastatic solid tumour	C77–C79	6
AIDS/HIV	B20–B24	6
Sum-CCI	N/A	0-27

ICD-10, International Classification of Diseases 10th Revision; CCI, Charlson comorbidity index; AIDS, acquired immunodeficiency syndrome; HIV, human immunodeficiency virus.

Table S2 Cancer location and ICD-10 codes included in other malignancies

Cancer location	ICD-10 code
Colorectal	C17-21, C26
Breast	C50
Prostate	C61
Lymphoma	C82-85
Leukemia	C88, C90-97
Head and neck	C00-C14, C30-33
Melanoma	C43
Bladder	C67-68
Kidney	C64-65
Mesothelioma	C45
Unknown primary tumor	C80
Brain	C70-72
Esophagus and stomach	C15-16
Liver	C22
Gallbladder	C23-24
Pancreas	C25
Mediastinal	C37-39
Bones	C40-41
Kaposi's sarcoma	C46
Nervous	C47
Peritoneum	C48
Connective tissue	C49
Female genitals	C51-52, C57-58
Cervix	C53
Uterus	C54-55
Ovarian	C56
Penis	C60
Testicle	C62
Male genitals	C63
Urethra	C66
Eye	C69
Thyroid	C73
Adrenal	C74-75
Unspecified	C76

ICD-10, International Classification of Diseases 10th Revision.

Table S3 The different types of medication and corresponding ATC-codes included

Included types of medication	ATC-code
Beta-lactamase sensitive penicillins	J01CE
Comb. of penicillins	J01CR
Macrolides	J01FA
Penicillins with extended spectrum	J01CA
Corticosteroids for systemic use	H02AB
Drugs for obstructive airway diseases	R03
Beta-blocking agents	C07A
Calcium channel blockers	C08
ACE inhibitors	C09AA
Non-selective monoamine reuptake inhibitors	N06AA
Selective serotonin reuptake inhibitors	N06AB
Other antidepressants	N06AX
Metformin	A10BA02
Warfarin	B01AA03
Phenprocoumon	B01AA04

ATC, Anatomical Therapeutic Chemical classification.

Table S4 Comparison of variables within the reduced cohort with complete results

Variables	Reduced cohort with complete results: 5,587 individuals		P value
	Non-LC (N=3,733, 66.8%)	LC (N=1,854, 33.2%)	
Demographics			
Age, median [IQR]	70 [58–78]	74 [68–80]	<0.001
Female sex, n (%)	1,605 (43.0)	955 (51.5)	<0.001
Smoking status, n (%)			
Never smokers	1,129 (30.2)	137 (7.4)	<0.001
Former smokers	1,621 (43.4)	1,063 (57.3)	<0.001
Active smokers	983 (26.3)	654 (35.3)	<0.001
Comorbidities, n (%)			
Myocardial infarction	44 (1.2)	14 (0.8)	0.141
Congestive cardiac failure	32 (0.9)	6 (0.3)	0.022
Peripheral vascular disease	105 (2.8)	72 (3.9)	0.031
Cerebrovascular disease	87 (2.3)	48 (2.6)	0.554
Dementia	16 (0.4)	8 (0.4)	0.989
Chronic pulmonary disease	412 (11.0)	173 (9.3)	0.050
Rheumatological disease	71 (1.9)	31 (1.7)	0.546
Liver disease	22 (0.6)	7 (0.4)	0.300
Diabetes mellitus	154 (4.1)	58 (3.1)	0.066
Hemiplegia or paraplegia	3 (0.1)	3 (0.2)	0.381
Renal disease	51 (1.4)	20 (1.1)	0.366
Other malignancies	629 (16.9)	184 (9.9)	<0.001
Metastatic solid tumor	188 (5.0)	42 (2.3)	<0.001
AIDS/HIV infection	0 (0)	1 (0.1)	0.156
Pulmonary tuberculosis	9 (0.2)	0 (0)	0.034
Sarcoidosis	4 (0.1)	2 (0.1)	0.994
Interstitial lung disease	29 (0.8)	5 (0.3)	0.022
Abscess	9 (0.2)	5 (0.3)	0.840
Pleural disease	88 (2.4)	17 (0.9)	<0.001
Pneumonia	291 (7.8)	95 (5.1)	<0.001
CCI =0	2,427 (65.0)	1,337 (72.1)	<0.001
CCI >0	1,306 (35.0)	517 (27.9)	<0.001
Medication, n (%)			
Antibiotics	1,530 (41.0)	734 (39.6)	0.317
COPD	965 (25.9)	595 (32.1)	<0.001
Beta blockers	672 (18.0)	344 (18.6)	0.614
Calcium antagonists	656 (17.6)	394 (21.3)	0.001
ACE inhibitors	425 (11.4)	241 (13.0)	0.080
Glucocorticoids	329 (8.8)	173 (9.3)	0.524
SSRI	265 (7.1)	128 (6.9)	0.789
Metformin	245 (6.6)	134 (7.2)	0.352
TCA	58 (1.6)	41 (2.2)	0.079
Consultations in general practice, n (%)			
0	314 (8.4)	102 (5.5)	<0.001
1–4	1,781 (47.7)	931 (50.2)	
>4	1,638 (43.9)	821 (44.3)	
CRP rapid tests in general practice, n (%)			
0	1,755 (47.0)	844 (45.5)	0.184
1–4	1,827 (48.9)	948 (51.1)	
>4	151 (4.1)	62 (3.3)	
Laboratory analyses, median [IQR]			
B-hemoglobin, mmol/L	8.6 [8.0–9.3]	8.5 [7.8–9.0]	<0.001
B-leucocytes, 10 ⁹ /L	7.69 [6.22–9.46]	8.89 [7.40–10.80]	<0.001
B-neutrophils, 10 ⁹ /L	4.76 [3.63–6.22]	5.88 [4.63–7.59]	<0.001
B-lymphocytes, 10 ⁹ /L	1.78 [1.35–2.34]	1.77 [1.35–2.30]	0.7993
NLR	2.68 [1.85–3.88]	3.20 [2.33–4.80]	<0.001
B-monocytes, 10 ⁹ /L	0.65 [0.51–0.84]	0.74 [0.58–0.93]	<0.001
B-basophils, 10 ⁹ /L	0.04 [0.03–0.06]	0.05 [0.02–0.07]	0.1664
B-eosinophils, 10 ⁹ /L	0.16 [0.09–0.27]	0.14 [0.07–0.24]	<0.001
B-platelets, 10 ⁹ /L	273 [224–335]	306 [246–385]	<0.001
P-albumin, g/L	43 [41–45]	42 [39–44]	<0.001
Total calcium, mmol/L	2.36 [2.29–2.43]	2.38 [2.31–2.45]	<0.001
P-CRP, mg/L	3.8 [1.5–11.0]	7.7 [2.7–25.0]	<0.001
P-ALAT, U/L	22 [16–31]	19 [14–27]	<0.001
P-LDH, U/L	199 [176–228]	214 [187–250]	<0.001
P-alkaline phosphatase, U/L	76 [63–92]	83 [68–101]	<0.001
P-bilirubin-total, µmol/L	8 [6–10]	7 [5–9]	<0.001
P-amylase (pancreatic), U/L	25 [19–34]	25 [19–34]	0.678
P-INR	1.0 [0.97–1.1]	1.0 [0.95–1.1]	0.001
P-creatinine, mmol/L	78 [65–91]	72 [60–87]	<0.001
P-sodium, mmol/L	140 [138–141]	139 [136–141]	<0.001
P-potassium, mmol/L	4 [3.8–4.3]	4.1 [3.8–4.3]	0.982
Symptoms, n (%)			
Predispositions	253 (6.8)	167 (9.0)	0.003
Expositions	785 (21.0)	354 (19.1)	0.091
Hemoptysis	694 (18.6)	212 (11.4)	<0.001
Pneumonia	671 (18.0)	303 (16.3)	0.130
Cough	2,012 (53.9)	696 (52.3)	0.249
Dyspnoea	1,365 (36.6)	663 (35.8)	0.556
Fever	268 (7.2)	81 (4.4)	<0.001
Weight loss	822 (22.0)	584 (31.5)	<0.001
Fatigue	684 (18.3)	428 (23.1)	<0.001
Hot flash	402 (10.8)	177 (9.6)	0.158
Hoarseness	174 (4.7)	92 (5.0)	0.619
Back pain	133 (3.6)	129 (7.0)	<0.001
Other pain	340 (9.1)	250 (13.5)	<0.001
Angina	428 (11.5)	256 (13.8)	0.012
Headache	114 (3.1)	65 (3.5)	0.366
Dizziness	161 (4.3)	96 (5.2)	0.146
Edema	196 (5.3)	108 (5.8)	0.372

LC, lung cancer; IQR, interquartile range; AIDS, acquired immunodeficiency syndrome; HIV, human immunodeficiency virus; CCI, Charlson Comorbidity Index; P-, plasma; B-, blood; ALAT, alanine aminotransferase; CRP, C-reactive protein; INR, international normalized ratio; LDH, lactate dehydrogenase; NLR, neutrophil to lymphocyte ratio; COPD, chronic obstructive pulmonary disease; ACE, angiotensin-converting-enzyme; SSRI, selective serotonin reuptake inhibitors; TCA, tricyclic antidepressants.