

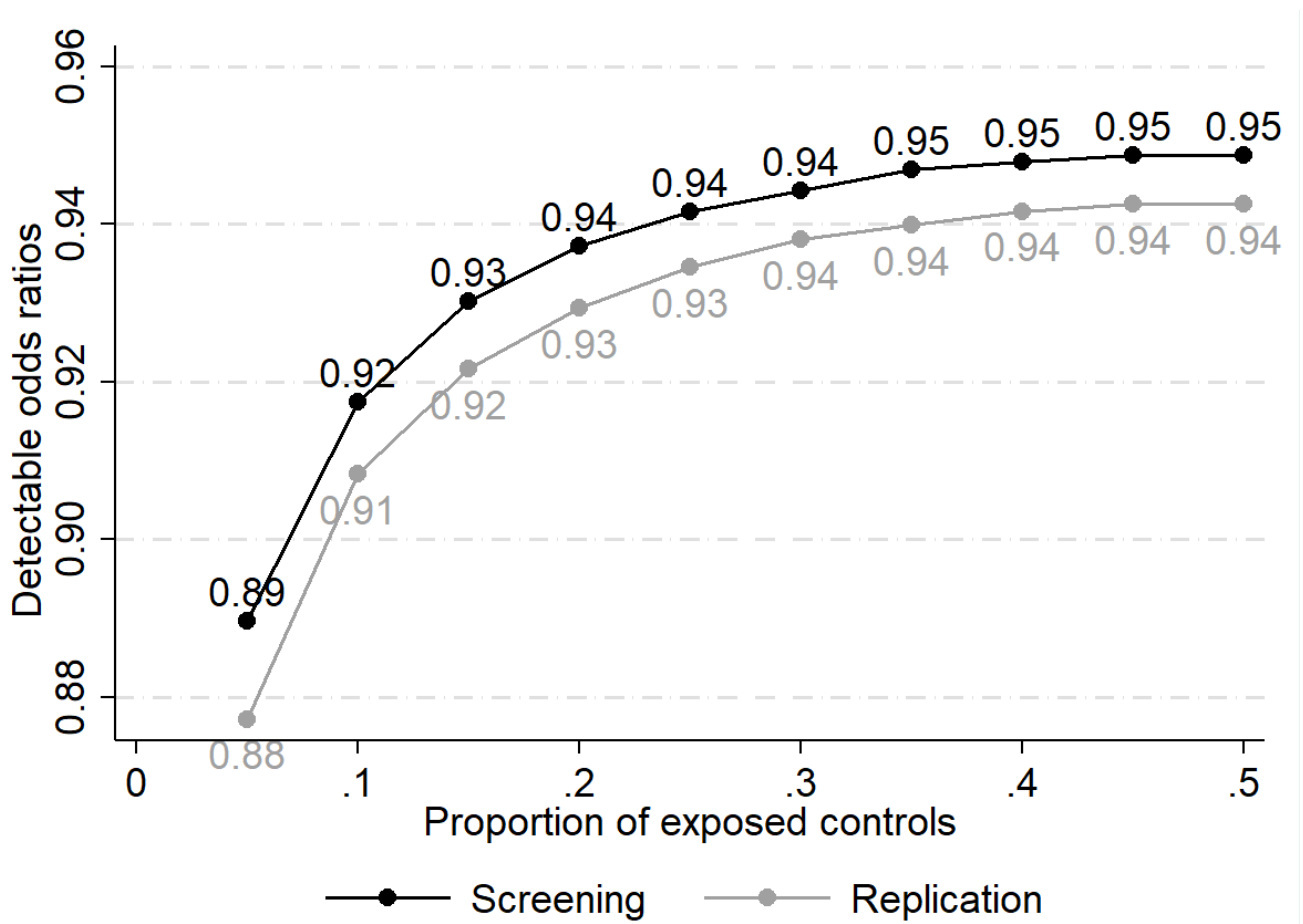
Supplementary material:

Identification of drugs associated with lower risk of Parkinson' disease using systematic screening approach in a nationwide nested case-control study

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Supplementary Figure 1. Detectable odds ratios for inverse associations in screening and replication phases for different proportion of exposed controls. $B=0.8$, $\alpha=0.1$ for screening phase, $\alpha=0.05$ for replication phase.



Supplementary table 1. Data sources and codes for confounder identification

Covariate	Data sources and coding	Timeframe
Asthma/COPD	Special reimbursement register code 203 Care register for health care ICD-8: 493 ICD-9: 4912A, 493, 4690A ICD-10: J44-J46	From 1972 until 3 years before index date 1972-1986 1987-1994 From 1995 until 3 years before index date
Cancer history	Cancer register ICD-10 code from IARC CRG Tools: C00-C97	From 1972 until 3 years before index date
Cardiovascular diseases	Special reimbursement code 201, 205, 206, 207, 213, 280	From 1972 until 3 years before index date
Diabetes	Care register for health care ICD-8: 250, 25101 ICD-9: 250, 2510, 2518 ICD-10: E10–E14 Special reimbursement register code 103	1972-1986 1987-1995 From 1996 until 3 years before index date From 1972 until 3 years before index date
Head injury	Care register for health care ICD-8: 800–804, 830, 850–854, 870–873, 904, 906, 910, 920, 921, 950, 951 ICD-9: 800–803, 830, 8480, 850–854, 870–873, 918, 920, 921, 9250, 9251, 950, 951, 9590 ICD-10: S00–S09	1972-1986 1987-1994 From 1995 until 3 years before index date
Non-steroidal anti-inflammatory drug (NSAID) use	Prescription register ATC code M01A excluding glucosamine M01AX05	From 1995 until 3 years before index date
Stroke	Care register for health care ICD-8: 430-434 ICD-9: 430–432 ICD-10: I60-I64	1972-1986 1987-1995 From 1996 until 3 years before index date
Substance abuse	Care register for health care ICD-8: 291, 3031, 3032, 3039, 980 ICD-9: 291, 292, 303-305, 980, 3575, 3594, 4255, 5353, 7903, 5710A, 5711A, 5712A, 5713A, 5713X, 5771C, 5771D ICD-10: F10-F19, G31.2, G62.1, G72.1, I42.6, K29.2, K70, K86.0, R78.0, T51.0, T51.1, T51.9, X45 Reason for admission: codes 33, 71–75	1972-1986 1987-1995 From 1996 until 3 years before index date From 1993 until 3 years before index date From 1995 until 3 years before index date

	Prescription register: Medication used in alcohol or opioid dependence (ATC: N07BB, N07BC)	
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Supplementary Table 2. Characteristics of cases with PD and controls in replication sets.

	PD cases (n=10 184)	Controls (n=67 754)	P value
Age mean, 95%CI	71.0 (70.8-71.2)	70.6 (70.6-70.7)	Matched
Men, n (%)	5623 (55.2)	37,661 (55.5)	Matched
Nonsteroidal anti-inflammatory drug use	6625 (65.05)	42412 (62.60)	<.0001
Cardiovascular disease	3829 (37.60)	24140 (35.63)	0.0001
Diabetes	926 (9.09)	5829 (8.60)	0.1016
Asthma/ chronic obstructive pulmonary disease (COPD)	871 (8.55)	5680 (8.38)	0.5657
Cancer history	855 (8.40)	5230 (7.72)	0.0177
Head injury	585 (5.74)	4121 (6.08)	0.1818
Stroke	378 (3.71)	2482 (3.66)	0.8084
Substance abuse	284 (2.79)	2377 (3.51)	0.0002

Supplementary Table 3. All inverse univariate associations in the screening data set for any drug exposure in the main analyses (exposure at least three years before the index date).

ATC code	Drug name	n of exposed cases (%)	n of exposed controls (%)	OR (95%CI)	P
A02A	ANTACIDS	5 (<0.1)	38 (0.1)	0.89 (0.35,2.25)	0.799
A02AG	Antacids with antispasmodics	5 (<0.1)	38 (0.1)	0.89 (0.35,2.25)	0.799
A02BA01	cimetidine	<5 (<0.1)	27 (<0.1)	0.75 (0.23,2.47)	0.633
A02BB01	misoprostol	13 (0.1)	117 (0.2)	0.72 (0.4,1.28)	0.260
A02BD01	omeprazole, amoxicillin and metronidazole	35 (0.3)	247 (0.4)	0.93 (0.65,1.33)	0.687
A04	ANTIEMETICS AND ANTINAUSEANTS	24 (0.2)	178 (0.3)	0.9 (0.59,1.38)	0.628
A04A	ANTIEMETICS AND ANTINAUSEANTS	24 (0.2)	178 (0.3)	0.9 (0.59,1.38)	0.628
A04AA02	granisetron	5 (<0.1)	73 (0.1)	0.46 (0.19,1.15)	0.097
A04AA03	tropisetron	<5 (<0.1)	23 (<0.1)	0.56 (0.13,2.4)	0.437
A07AA09	vancomycin	<5 (<0.1)	37 (0.1)	0.69 (0.25,1.93)	0.479
A07EA01	prednisolone	6 (0.1)	89 (0.1)	0.44 (0.19,1.02)	0.055
A07EA02	hydrocortisone	27 (0.3)	200 (0.3)	0.9 (0.6,1.35)	0.608
A07EA06	budesonide	<5 (<0.1)	53 (0.1)	0.49 (0.18,1.36)	0.169
A08	ANTIOBESITY PREPARATIONS, EXCL. DIET PRODUCTS	32 (0.3)	261 (0.4)	0.83 (0.58,1.21)	0.336
A08A	ANTIOBESITY PREPARATIONS, EXCL. DIET PRODUCTS	32 (0.3)	261 (0.4)	0.83 (0.58,1.21)	0.336
A08AA02	fenfluramine	13 (0.1)	130 (0.2)	0.68 (0.39,1.21)	0.190
A08AA10	sibutramine	<5 (<0.1)	22 (<0.1)	0.63 (0.15,2.69)	0.535
A08AB01	orlistat	13 (0.1)	96 (0.1)	0.92 (0.51,1.64)	0.768
A10AB04	insulin lispro	19 (0.2)	178 (0.3)	0.71 (0.44,1.15)	0.163
A10AB06	insulin glulisine	<5 (<0.1)	22 (<0.1)	0.91 (0.27,3.04)	0.879
A10AD01	insulin (human)	47 (0.5)	314 (0.5)	0.97 (0.72,1.33)	0.871
A10AD04	Insulin lispro	<5 (<0.1)	34 (0.1)	0.39 (0.09,1.62)	0.193
A10AD05	insulin aspart	31 (0.3)	208 (0.3)	0.96 (0.65,1.4)	0.815
A10AE04	insulin glargine	57 (0.6)	453 (0.7)	0.83 (0.63,1.09)	0.184
A10BB07	glipizide	76 (0.7)	522 (0.8)	0.95 (0.75,1.21)	0.680
A10BD03	metformin and rosiglitazone	27 (0.3)	203 (0.3)	0.89 (0.59,1.33)	0.561
A10BD08	metformin and vildagliptin	<5 (<0.1)	23 (<0.1)	0.29 (0.04,2.17)	0.230
A10BG02	rosiglitazone	27 (0.3)	204 (0.3)	0.88 (0.58,1.31)	0.516
A10BG03	pioglitazone	26 (0.3)	179 (0.3)	0.97 (0.64,1.46)	0.871

A10BH02	vildagliptin	5 (<0.1)	44 (0.1)	0.74 (0.29,1.87)	0.520
A10BX02	repaglinide	9 (0.1)	87 (0.1)	0.69 (0.35,1.37)	0.291
B01AB05	enoxaparin	205 (2)	1399 (2.1)	0.96 (0.82,1.11)	0.551
B01AC05	ticlopidine	7 (0.1)	51 (0.1)	0.92 (0.42,2.03)	0.836
B01AE07	dabigatran etexilate	5 (<0.1)	72 (0.1)	0.46 (0.18,1.13)	0.091
B01AX05	fondaparinux	11 (0.1)	85 (0.1)	0.84 (0.45,1.58)	0.587
B03X	OTHER ANTIANEMIC PREPARATIONS	6 (0.1)	58 (0.1)	0.69 (0.3,1.59)	0.380
B03XA01	erythropoietin	5 (<0.1)	40 (0.1)	0.85 (0.34,2.16)	0.736
B03XA02	darbepoetin alfa	<5 (<0.1)	19 (<0.1)	0.66 (0.15,2.87)	0.580
B05	BLOOD SUBSTITUTES AND PERFUSION SOLUTIONS	6 (0.1)	56 (0.1)	0.71 (0.3,1.64)	0.420
B05C	IRRIGATING SOLUTIONS	<5 (<0.1)	28 (<0.1)	0.96 (0.34,2.74)	0.938
B05CB01	sodium chloride	<5 (<0.1)	28 (<0.1)	0.96 (0.34,2.74)	0.938
B06	OTHER HEMATOLOGICAL AGENTS	<5 (<0.1)	31 (<0.1)	0.43 (0.1,1.81)	0.250
B06A	OTHER HEMATOLOGICAL AGENTS	<5 (<0.1)	31 (<0.1)	0.43 (0.1,1.81)	0.250
B06AA55	streptokinase, combinations	<5 (<0.1)	31 (<0.1)	0.43 (0.1,1.81)	0.250
C01BD01	amiodarone	36 (0.4)	286 (0.4)	0.82 (0.58,1.16)	0.262
C01CA24	epinephrine	25 (0.2)	200 (0.3)	0.85 (0.56,1.29)	0.435
C02A	ANTIADRENERGIC AGENTS, CENTRALLY ACTING	82 (0.8)	573 (0.8)	0.94 (0.74,1.19)	0.601
C02AC01	clonidine	13 (0.1)	105 (0.2)	0.81 (0.46,1.44)	0.477
C02AC05	moxonidine	62 (0.6)	443 (0.7)	0.92 (0.7,1.2)	0.537
C02D	ARTERIOLAR SMOOTH MUSCLE, AGENTS ACTING ON	<5 (<0.1)	8 (<0.1)	0.81 (0.1,6.49)	0.843
C02DC01	minoxidil	<5 (<0.1)	8 (<0.1)	0.81 (0.1,6.49)	0.843
C02L	ANTIHYPERTENSIVES AND DIURETICS IN COMBINATION	5 (<0.1)	48 (0.1)	0.66 (0.26,1.66)	0.379
C02LA01	reserpine and diuretics	5 (<0.1)	48 (0.1)	0.66 (0.26,1.66)	0.379
C03A	LOW-CEILING DIURETICS, THIAZIDES	369 (3.6)	2511 (3.7)	0.96 (0.86,1.08)	0.496
C03AA03	hydrochlorothiazide	369 (3.6)	2511 (3.7)	0.96 (0.86,1.08)	0.496
C03BA04	chlortalidone	<5 (<0.1)	11 (<0.1)	0.59 (0.08,4.58)	0.614
C03C	HIGH-CEILING DIURETICS	710 (7)	4744 (7)	0.96 (0.88,1.04)	0.342
C03CA01	furosemide	705 (6.9)	4733 (7)	0.96 (0.88,1.04)	0.284
C03D	POTASSIUM-SPARING AGENTS	128 (1.3)	862 (1.3)	0.97 (0.8,1.17)	0.727
C03DA01	spironolactone	123 (1.2)	824 (1.2)	0.97 (0.8,1.18)	0.776
C03DB01	amiloride	<5 (<0.1)	26 (<0.1)	0.5 (0.12,2.12)	0.350

C03EA02	trichlormethiazide and potassium-sparing agents	146 (1.4)	1019 (1.5)	0.92 (0.77,1.1)	0.368
C07AA01	alprenolol	5 (<0.1)	48 (0.1)	0.66 (0.26,1.67)	0.384
C07AA06	timolol	12 (0.1)	110 (0.2)	0.71 (0.39,1.29)	0.263
C07AB04	acebutolol	107 (1.1)	752 (1.1)	0.92 (0.75,1.13)	0.440
C07AB12	nebivolol	<5 (<0.1)	25 (<0.1)	0.8 (0.24,2.72)	0.727
C07FB03	atenolol and other antihypertensives	15 (0.1)	107 (0.2)	0.92 (0.54,1.58)	0.768
C08CA10	nilvadipine	53 (0.5)	351 (0.5)	0.98 (0.74,1.31)	0.907
C09	AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM	2752 (27)	18609 (27.4)	0.96 (0.91,1.01)	0.101
C09A	ACE INHIBITORS, PLAIN	1993 (19.6)	13423 (19.8)	0.97 (0.92,1.02)	0.226
C09AA01	captopril	116 (1.1)	858 (1.3)	0.88 (0.72,1.07)	0.205
C09AA02	enalapril	999 (9.8)	7275 (10.7)	0.89 (0.83,0.95)	0.001
C09AA06	quinapril	36 (0.4)	250 (0.4)	0.96 (0.67,1.36)	0.797
C09B	ACE INHIBITORS, COMBINATIONS	580 (5.7)	3969 (5.8)	0.96 (0.88,1.05)	0.421
C09BA02	enalapril and diuretics	415 (4.1)	2819 (4.2)	0.97 (0.87,1.08)	0.588
C09BA03	lisinopril and diuretics	92 (0.9)	629 (0.9)	0.97 (0.78,1.21)	0.812
C09BA04	perindopril and diuretics	18 (0.2)	143 (0.2)	0.82 (0.5,1.33)	0.416
C09BA05	ramipril and diuretics	34 (0.3)	249 (0.4)	0.9 (0.63,1.29)	0.560
C09BB02	enalapril and lercanidipine	<5 (<0.1)	16 (<0.1)	0.84 (0.19,3.66)	0.818
C09BB05	ramipril and felodipine	17 (0.2)	127 (0.2)	0.89 (0.54,1.48)	0.665
C09CA07	telmisartan	92 (0.9)	709 (1)	0.85 (0.69,1.06)	0.161
C09CA08	olmesartan medoxomil	14 (0.1)	118 (0.2)	0.78 (0.45,1.37)	0.393
C09DA06	candesartan and diuretics	131 (1.3)	905 (1.3)	0.96 (0.79,1.15)	0.638
C09DA07	telmisartan and diuretics	53 (0.5)	377 (0.6)	0.93 (0.7,1.24)	0.621
C09DA08	olmesartan medoxomil and diuretics	<5 (<0.1)	31 (<0.1)	0.21 (0.03,1.53)	0.123
C09DB01	valsartan and amlodipine	19 (0.2)	158 (0.2)	0.81 (0.5,1.31)	0.388
C10AA02	lovastatin	297 (2.9)	2003 (3)	0.97 (0.86,1.1)	0.651
C10AA07	rosuvastatin	208 (2)	1455 (2.1)	0.95 (0.82,1.1)	0.465
C10AB04	gemfibrozil	38 (0.4)	262 (0.4)	0.96 (0.69,1.36)	0.834
C10AD06	acipimox	<5 (<0.1)	25 (<0.1)	0.52 (0.12,2.2)	0.375
C10AX09	ezetimibe	55 (0.5)	373 (0.5)	0.98 (0.74,1.3)	0.893
D02AX	Other emollients and protectives	<5 (<0.1)	20 (<0.1)	0.33 (0.04,2.47)	0.280
D03	PREPARATIONS FOR TREATMENT OF WOUNDS AND ULCERS	33 (0.3)	263 (0.4)	0.81 (0.56,1.17)	0.263

D03A	CICATRIZANTS	6 (0.1)	78 (0.1)	0.5 (0.22,1.14)	0.099
D03AX01	cadexomer iodine	<5 (<0.1)	56 (0.1)	0.35 (0.11,1.11)	0.074
D03AX02	dextranomer	<5 (<0.1)	26 (<0.1)	0.75 (0.23,2.47)	0.631
D03B	ENZYMES	28 (0.3)	204 (0.3)	0.89 (0.6,1.32)	0.560
D03BA52	collagenase, combinations	17 (0.2)	138 (0.2)	0.79 (0.48,1.31)	0.369
D05	ANTIPSORIATICS	121 (1.2)	1005 (1.5)	0.8 (0.67,0.97)	0.025
D05A	ANTIPSORIATICS FOR TOPICAL USE	106 (1)	925 (1.4)	0.77 (0.63,0.94)	0.010
D05AA	Tars	13 (0.1)	110 (0.2)	0.79 (0.44,1.4)	0.418
D05AX02	calcipotriol	85 (0.8)	745 (1.1)	0.76 (0.61,0.96)	0.019
D05AX03	calcitriol	8 (0.1)	84 (0.1)	0.64 (0.31,1.32)	0.225
D05AX05	tazarotene	<5 (<0.1)	37 (0.1)	0.72 (0.25,2.02)	0.528
D05AX52	calcipotriol, combinations	23 (0.2)	217 (0.3)	0.71 (0.46,1.1)	0.127
D05B	ANTIPSORIATICS FOR SYSTEMIC USE	27 (0.3)	185 (0.3)	0.98 (0.65,1.47)	0.928
D05BB02	acitretin	26 (0.3)	183 (0.3)	0.95 (0.63,1.44)	0.826
D06BA01	silver sulfadiazine	<5 (<0.1)	29 (<0.1)	0.22 (0.03,1.65)	0.142
D06BB03	aciclovir	61 (0.6)	407 (0.6)	0.99 (0.76,1.3)	0.962
D07AB01	clobetasone	46 (0.5)	382 (0.6)	0.79 (0.58,1.08)	0.136
D07AB08	desonide	126 (1.2)	970 (1.4)	0.86 (0.71,1.03)	0.104
D07AB09	triamcinolone	11 (0.1)	88 (0.1)	0.84 (0.45,1.57)	0.576
D07AC03	desoximetasone	29 (0.3)	247 (0.4)	0.78 (0.53,1.14)	0.198
D07AC09	budesonide	<5 (<0.1)	26 (<0.1)	0.51 (0.12,2.15)	0.358
D07AD01	clobetasol	200 (2)	1396 (2.1)	0.95 (0.82,1.11)	0.544
D07CB01	triamcinolone and antibiotics	49 (0.5)	344 (0.5)	0.94 (0.7,1.27)	0.702
D07X	CORTICOSTEROIDS, OTHER COMBINATIONS	400 (3.9)	2686 (4)	0.98 (0.88,1.1)	0.771
D07XB02	triamcinolone	31 (0.3)	245 (0.4)	0.84 (0.58,1.22)	0.354
D07XC01	betamethasone	279 (2.7)	1953 (2.9)	0.94 (0.83,1.07)	0.373
D09	MEDICATED DRESSINGS	18 (0.2)	151 (0.2)	0.78 (0.48,1.28)	0.332
D09A	MEDICATED DRESSINGS	18 (0.2)	151 (0.2)	0.78 (0.48,1.28)	0.332
D09AB01	zinc bandage without supplements	16 (0.2)	148 (0.2)	0.71 (0.43,1.19)	0.199
D11	OTHER DERMATOLOGICAL PREPARATIONS	<5 (<0.1)	38 (0.1)	0.71 (0.25,2)	0.520
D11A	OTHER DERMATOLOGICAL PREPARATIONS	<5 (<0.1)	38 (0.1)	0.71 (0.25,2)	0.520
D11AH01	tacrolimus	<5 (<0.1)	28 (<0.1)	0.48 (0.11,2.01)	0.313

G01AF08	tioconazole	<5 (<0.1)	23 (<0.1)	0.87 (0.26,2.9)	0.819
G01AX03	policresulen	5 (<0.1)	58 (0.1)	0.57 (0.23,1.43)	0.232
G03BB01	mesterolone	31 (0.3)	211 (0.3)	0.98 (0.67,1.43)	0.920
G03CA57	conjugated estrogens	5 (0.1)	37 (0.1)	0.92 (0.36,2.34)	0.854
G03DC03	lynestrenol	10 (0.2)	79 (0.3)	0.87 (0.45,1.67)	0.667
G03FA14	dydrogesterone and estrogen	23 (0.5)	172 (0.6)	0.9 (0.58,1.4)	0.652
G03FA17	drospirenone and estrogen	11 (0.2)	86 (0.3)	0.87 (0.46,1.63)	0.658
G03FB11	trimegestone and estrogen	<5 (<0.1)	24 (0.1)	0.29 (0.04,2.11)	0.220
G03GB02	clomifene	<5 (0.1)	32 (0.1)	0.65 (0.2,2.12)	0.476
G03HA01	cyproterone	16 (0.2)	109 (0.2)	0.94 (0.55,1.59)	0.807
G03X	OTHER SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM	<5 (<0.1)	30 (<0.1)	0.87 (0.31,2.48)	0.801
G03XC01	raloxifene	<5 (<0.1)	29 (<0.1)	0.9 (0.32,2.57)	0.848
G04BE03	sildenafil	16 (0.2)	122 (0.2)	0.89 (0.53,1.5)	0.662
G04BE08	tadalafil	<5 (<0.1)	23 (<0.1)	0.9 (0.27,3)	0.858
G04BE09	vardenafil	<5 (<0.1)	18 (<0.1)	0.38 (0.05,2.84)	0.345
H01CA02	nafarelin	<5 (<0.1)	22 (<0.1)	0.95 (0.28,3.23)	0.930
H01CB02	octreotide	<5 (<0.1)	7 (<0.1)	0.96 (0.12,7.81)	0.970
H02AB02	dexamethasone	28 (0.3)	205 (0.3)	0.91 (0.61,1.35)	0.641
H02AB07	prednisone	291 (2.9)	2045 (3)	0.94 (0.83,1.06)	0.313
H02AB09	hydrocortisone	11 (0.1)	93 (0.1)	0.78 (0.42,1.47)	0.447
H05A	PARATHYROID HORMONES AND ANALOGUES	<5 (<0.1)	9 (<0.1)	0.65 (0.08,5.13)	0.679
H05AA02	teriparatide	<5 (<0.1)	9 (<0.1)	0.65 (0.08,5.13)	0.679
J01CE08	benzathine benzylpenicillin	12 (0.1)	82 (0.1)	0.96 (0.52,1.75)	0.886
J01CF01	dicloxacillin	6 (0.1)	78 (0.1)	0.51 (0.22,1.18)	0.115
J01FA01	erythromycin	227 (2.2)	1642 (2.4)	0.92 (0.8,1.06)	0.253
J01FA15	telithromycin	139 (1.4)	984 (1.5)	0.95 (0.79,1.13)	0.559
J01FF01	clindamycin	480 (4.7)	3222 (4.7)	0.99 (0.9,1.09)	0.847
J01MA04	enoxacin	28 (0.3)	204 (0.3)	0.9 (0.61,1.34)	0.614
J01MA14	moxifloxacin	49 (0.5)	375 (0.6)	0.87 (0.64,1.17)	0.351
J01XX01	fosfomicin	31 (0.3)	282 (0.4)	0.72 (0.5,1.04)	0.084
J01XX08	linezolid	<5 (<0.1)	9 (<0.1)	0.69 (0.09,5.47)	0.726
J04A	DRUGS FOR TREATMENT OF TUBERCULOSIS	10 (0.1)	70 (0.1)	0.93 (0.48,1.81)	0.838

J04AB02	rifampicin	9 (0.1)	68 (0.1)	0.86 (0.43,1.73)	0.680
J05AB09	famciclovir	6 (0.1)	58 (0.1)	0.69 (0.3,1.59)	0.380
L01	ANTINEOPLASTIC AGENTS	41 (0.4)	299 (0.4)	0.9 (0.65,1.25)	0.524
L01A	ALKYLATING AGENTS	11 (0.1)	79 (0.1)	0.92 (0.49,1.73)	0.802
L01AA02	chlorambucil	<5 (<0.1)	35 (0.1)	0.56 (0.17,1.81)	0.329
L01AA03	melphalan	<5 (<0.1)	13 (<0.1)	0.51 (0.07,3.92)	0.519
L01B	ANTIMETABOLITES	14 (0.1)	134 (0.2)	0.68 (0.39,1.18)	0.172
L01BA01	methotrexate	5 (<0.1)	76 (0.1)	0.44 (0.18,1.08)	0.072
L01BB05	fludarabine	<5 (<0.1)	7 (<0.1)	0.96 (0.12,7.81)	0.970
L01XE01	imatinib	<5 (<0.1)	8 (<0.1)	0.86 (0.11,6.87)	0.887
L01XX11	estramustine	<5 (<0.1)	8 (<0.1)	0.81 (0.1,6.49)	0.843
L02AE03	goserelin	26 (0.3)	171 (0.3)	0.97 (0.64,1.47)	0.876
L02B	HORMONE ANTAGONISTS AND RELATED AGENTS	100 (1)	674 (1)	0.96 (0.77,1.18)	0.676
L02BA01	tamoxifen	34 (0.3)	238 (0.4)	0.94 (0.65,1.35)	0.728
L02BA02	toremifene	<5 (<0.1)	28 (<0.1)	0.47 (0.11,1.97)	0.301
L02BG03	anastrozole	10 (0.1)	83 (0.1)	0.79 (0.41,1.53)	0.493
L02BG04	letrozole	9 (0.1)	69 (0.1)	0.85 (0.43,1.71)	0.659
L02BG06	exemestane	<5 (<0.1)	9 (<0.1)	0.74 (0.09,5.85)	0.776
L03	IMMUNOSTIMULANTS	16 (0.2)	154 (0.2)	0.69 (0.41,1.15)	0.153
L03A	IMMUNOSTIMULANTS	16 (0.2)	154 (0.2)	0.69 (0.41,1.15)	0.153
L03AA02	filgrastim	9 (0.1)	79 (0.1)	0.74 (0.37,1.48)	0.399
L03AA13	pegfilgrastim	<5 (<0.1)	44 (0.1)	0.46 (0.14,1.47)	0.188
L03AB05	interferon alfa-2b	<5 (<0.1)	29 (<0.1)	0.93 (0.33,2.64)	0.890
L04	IMMUNOSUPPRESSANTS	160 (1.6)	1075 (1.6)	0.99 (0.84,1.17)	0.893
L04A	IMMUNOSUPPRESSANTS	160 (1.6)	1075 (1.6)	0.99 (0.84,1.17)	0.893
L04AA06	mycophenolic acid	<5 (<0.1)	26 (<0.1)	0.52 (0.12,2.2)	0.377
L04AD01	ciclosporin	18 (0.2)	149 (0.2)	0.82 (0.5,1.33)	0.415
M01AB01	indometacin	396 (3.9)	2712 (4)	0.96 (0.87,1.07)	0.510
M01AB02	sulindac	<5 (<0.1)	17 (<0.1)	0.4 (0.05,2.99)	0.370
M01AE11	tiaprofenic acid	176 (1.7)	1208 (1.8)	0.96 (0.82,1.13)	0.628
M01AE14	dexibuprofen	<5 (<0.1)	23 (<0.1)	0.89 (0.27,2.98)	0.856
M01CC01	penicillamine	<5 (<0.1)	34 (0.1)	0.78 (0.28,2.2)	0.638

M03BX01	baclofen	8 (0.1)	59 (0.1)	0.9 (0.43,1.89)	0.780
M04	ANTIGOUT PREPARATIONS	349 (3.4)	2569 (3.8)	0.89 (0.79,0.99)	0.037
M04A	ANTIGOUT PREPARATIONS	349 (3.4)	2569 (3.8)	0.89 (0.79,0.99)	0.037
M04AA01	allopurinol	348 (3.4)	2556 (3.8)	0.89 (0.79,1)	0.041
M05BA02	clodronic acid	<5 (<0.1)	41 (0.1)	0.63 (0.23,1.76)	0.377
M05BA06	ibandronic acid	17 (0.2)	112 (0.2)	0.98 (0.59,1.64)	0.940
N02AA59	codeine, combinations excl. psycholeptics	384 (3.8)	2580 (3.8)	0.99 (0.88,1.11)	0.826
N02BA11	diflunisal	22 (0.2)	158 (0.2)	0.92 (0.59,1.44)	0.728
N02CC05	almotriptan	9 (0.1)	74 (0.1)	0.83 (0.41,1.67)	0.601
N02CC06	eletriptan	7 (0.1)	53 (0.1)	0.91 (0.41,2)	0.806
N02CC07	frovatriptan	<5 (<0.1)	31 (<0.1)	0.44 (0.11,1.85)	0.264
N03AA03	primidone	<5 (<0.1)	27 (<0.1)	0.75 (0.23,2.47)	0.635
N03AB02	phenytoin	30 (0.3)	228 (0.3)	0.87 (0.59,1.28)	0.477
N03AX14	levetiracetam	<5 (<0.1)	33 (<0.1)	0.61 (0.19,1.99)	0.411
N05CM02	clomethiazole	<5 (<0.1)	15 (<0.1)	0.46 (0.06,3.5)	0.455
N06B	PSYCHOSTIMULANTS, AGENTS USED FOR ADHD AND NOOTROPICS	<5 (<0.1)	10 (<0.1)	0.68 (0.09,5.31)	0.713
N07BB04	naltrexone	13 (0.1)	107 (0.2)	0.83 (0.47,1.47)	0.519
P01B	ANTIMALARIALS	137 (1.3)	968 (1.4)	0.93 (0.78,1.12)	0.457
P01BA02	hydroxychloroquine	119 (1.2)	860 (1.3)	0.91 (0.75,1.11)	0.355
R01AB01	phenylephrine	5 (<0.1)	36 (0.1)	0.93 (0.37,2.38)	0.886
R03AC12	salmeterol	176 (1.7)	1168 (1.7)	0.99 (0.84,1.16)	0.916
R03AK06	salmeterol and fluticasone	217 (2.1)	1601 (2.4)	0.89 (0.77,1.03)	0.107
R03AL01	fenoterol and ipratropium bromide	197 (1.9)	1415 (2.1)	0.91 (0.78,1.05)	0.198
R03AL02	salbutamol and ipratropium bromide	6 (0.1)	58 (0.1)	0.69 (0.3,1.59)	0.381
R03BA01	beclometasone	426 (4.2)	2925 (4.3)	0.96 (0.86,1.06)	0.418
R03BA05	fluticasone	352 (3.5)	2358 (3.5)	0.99 (0.88,1.11)	0.814
R03BA08	ciclesonide	<5 (<0.1)	35 (0.1)	0.58 (0.18,1.9)	0.373
R03BB01	ipratropium bromide	154 (1.5)	1024 (1.5)	0.98 (0.83,1.17)	0.832
R03BB02	oxitropium bromide	19 (0.2)	140 (0.2)	0.88 (0.54,1.42)	0.600
R03BB04	tiotropium bromide	77 (0.8)	663 (1)	0.75 (0.59,0.95)	0.019
R03CA02	ephedrine	<5 (<0.1)	19 (<0.1)	0.7 (0.16,3.01)	0.634
R03D	OTHER SYSTEMIC DRUGS FOR OBSTRUCTIVE AIRWAY DISEASES	402 (3.9)	2814 (4.1)	0.93 (0.84,1.04)	0.215

R03DA04	theophylline	218 (2.1)	1580 (2.3)	0.9 (0.78,1.04)	0.145
R03DA05	aminophylline	15 (0.1)	113 (0.2)	0.87 (0.51,1.49)	0.614
R03DA54	theophylline, combinations excl. psycholeptics	37 (0.4)	318 (0.5)	0.75 (0.54,1.06)	0.106
R03DA74	theophylline, combinations with psycholeptics	7 (0.1)	47 (0.1)	0.99 (0.45,2.2)	0.988
R05DA09	dextromethorphan	37 (0.4)	247 (0.4)	0.99 (0.7,1.41)	0.975
R06AX11	astemizole	34 (0.3)	239 (0.4)	0.94 (0.66,1.35)	0.753
R06AX26	fexofenadine	59 (0.6)	441 (0.6)	0.9 (0.68,1.18)	0.433
S01AA12	tobramycin	17 (0.2)	115 (0.2)	0.94 (0.56,1.57)	0.801
S01AA13	fusidic acid	18 (0.2)	140 (0.2)	0.86 (0.52,1.4)	0.539
S01BA01	dexamethasone	105 (1)	780 (1.1)	0.88 (0.72,1.08)	0.221
S01BC01	indometacin	<5 (<0.1)	28 (<0.1)	0.65 (0.19,2.19)	0.490
S01EA02	dipivefrine	23 (0.2)	177 (0.3)	0.82 (0.53,1.27)	0.382
S01EA03	apraclonidine	15 (0.1)	114 (0.2)	0.83 (0.48,1.42)	0.496
S01EB01	pilocarpine	42 (0.4)	285 (0.4)	0.94 (0.68,1.3)	0.713
S01EC01	acetazolamide	66 (0.6)	473 (0.7)	0.89 (0.69,1.16)	0.390
S01EC03	dorzolamide	62 (0.6)	428 (0.6)	0.92 (0.7,1.2)	0.547
S01ED02	betaxolol	54 (0.5)	367 (0.5)	0.94 (0.7,1.25)	0.659
S01EE05	tafluprost	<5 (<0.1)	26 (<0.1)	0.51 (0.12,2.14)	0.355
S01F	MYDRIATICS AND CYCLOPLEGICS	52 (0.5)	452 (0.7)	0.76 (0.57,1.01)	0.058
S01FA01	atropine	11 (0.1)	131 (0.2)	0.54 (0.29,1)	0.051
S01FA02	scopolamine	18 (0.2)	158 (0.2)	0.77 (0.47,1.25)	0.284
S01FA04	cyclopentolate	21 (0.2)	185 (0.3)	0.75 (0.48,1.18)	0.215
S01FA06	tropicamide	<5 (<0.1)	20 (<0.1)	0.96 (0.29,3.25)	0.952
S01GA51	naphazoline, combinations	<5 (<0.1)	23 (<0.1)	0.87 (0.26,2.89)	0.818
S01GA55	phenylephrine, combinations	6 (0.1)	43 (0.1)	0.91 (0.39,2.14)	0.826
S01GX05	lodoxamide	26 (0.3)	183 (0.3)	0.92 (0.61,1.4)	0.709
S01GX06	emedastine	17 (0.2)	123 (0.2)	0.92 (0.55,1.52)	0.738
S01GX08	ketotifen	24 (0.2)	160 (0.2)	0.99 (0.64,1.52)	0.959
S02	OTOLOGICALS	219 (2.2)	1466 (2.2)	0.99 (0.86,1.14)	0.869
S02C	CORTICOSTEROIDS AND ANTIINFECTIVES IN COMBINATION	200 (2)	1382 (2)	0.96 (0.82,1.11)	0.556
S02CA02	flumetasone and antiinfectives	185 (1.8)	1281 (1.9)	0.95 (0.82,1.11)	0.544
S02CA06	dexamethasone and antiinfectives	19 (0.2)	128 (0.2)	0.99 (0.61,1.6)	0.966

S03	OPHTHALMOLOGICAL AND OTOLOGICAL PREPARATIONS	114 (1.1)	782 (1.2)	0.97 (0.8,1.19)	0.793
S03C	CORTICOSTEROIDS AND ANTIINFECTIVES IN COMBINATION	114 (1.1)	782 (1.2)	0.97 (0.8,1.19)	0.793
S03CA01	dexamethasone and antiinfectives	56 (0.5)	403 (0.6)	0.93 (0.7,1.23)	0.590
V03AE01	polystyrene sulfonate	<5 (<0.1)	36 (0.1)	0.56 (0.17,1.82)	0.335

Supplementary Table 4. All inverse univariate associations observed in the screening data set for any drug exposure in the main analyses (any exposure before the index date).

ATC code	Drug name	n of exposed cases (%)	n of exposed controls (%)	OR (95%CI)	P
A02BA01	cimetidine	<5 (<0.1)	30 (<0.1)	0.68 (0.21,2.21)	0.517
A02BA07	ranitidine bismuth citrate	11 (0.1)	86 (0.1)	0.85 (0.45,1.59)	0.607
A02BB01	misoprostol	16 (0.2)	121 (0.2)	0.86 (0.51,1.45)	0.562
A02BD01	omeprazole, amoxicillin and metronidazole	43 (0.4)	299 (0.4)	0.94 (0.68,1.3)	0.721
A04AA02	granisetron	16 (0.2)	154 (0.2)	0.69 (0.41,1.16)	0.167
A04AA03	tropisetron	<5 (<0.1)	30 (<0.1)	0.65 (0.2,2.13)	0.473
A04AD12	aprepitant	<5 (<0.1)	10 (<0.1)	0.69 (0.09,5.39)	0.723
A07AA09	vancomycin	6 (0.1)	65 (0.1)	0.6 (0.26,1.38)	0.229
A07EA01	prednisolone	9 (0.1)	100 (0.1)	0.6 (0.3,1.18)	0.139
A07EA02	hydrocortisone	38 (0.4)	266 (0.4)	0.96 (0.68,1.35)	0.806
A07EA06	budesonide	11 (0.1)	89 (0.1)	0.81 (0.43,1.53)	0.521
A08	ANTIOBESITY PREPARATIONS, EXCL. DIET PRODUCTS	35 (0.3)	287 (0.4)	0.83 (0.58,1.18)	0.302
A08A	ANTIOBESITY PREPARATIONS, EXCL. DIET PRODUCTS	35 (0.3)	287 (0.4)	0.83 (0.58,1.18)	0.302
A08AA02	fenfluramine	14 (0.1)	135 (0.2)	0.71 (0.41,1.23)	0.221
A08AA10	sibutramine	<5 (<0.1)	31 (<0.1)	0.67 (0.21,2.19)	0.509
A08AB01	orlistat	14 (0.1)	113 (0.2)	0.84 (0.48,1.46)	0.538
A10AB04	insulin lispro	24 (0.2)	239 (0.4)	0.67 (0.44,1.02)	0.064
A10AB06	insulin glulisine	6 (0.1)	55 (0.1)	0.73 (0.31,1.7)	0.465
A10AC01	insulin (human)	288 (2.8)	1916 (2.8)	0.99 (0.87,1.13)	0.904
A10AD04	Insulin lispro	<5 (<0.1)	49 (0.1)	0.4 (0.13,1.3)	0.127
A10AE04	insulin glargine	112 (1.1)	829 (1.2)	0.89 (0.73,1.08)	0.240
A10BB07	glipizide	90 (0.9)	599 (0.9)	0.98 (0.79,1.23)	0.878
A10BD03	metformin and rosiglitazone	34 (0.3)	279 (0.4)	0.81 (0.57,1.16)	0.260
A10BD05	metformin and pioglitazone	<5 (<0.1)	50 (0.1)	0.14 (0.02,0.98)	0.048
A10BD07	metformin and sitagliptin	41 (0.4)	276 (0.4)	0.99 (0.71,1.38)	0.950
A10BD08	metformin and vildagliptin	<5 (<0.1)	65 (0.1)	0.31 (0.1,1)	0.050
A10BG02	rosiglitazone	35 (0.3)	273 (0.4)	0.85 (0.6,1.21)	0.365
A10BG03	pioglitazone	41 (0.4)	279 (0.4)	0.98 (0.71,1.36)	0.903
A10BH02	vildagliptin	20 (0.2)	140 (0.2)	0.93 (0.58,1.49)	0.762
A10BH03	saxagliptin	<5 (<0.1)	7 (<0.1)	0.85 (0.1,6.93)	0.878

A10BH05	linagliptin	<5 (<0.1)	38 (0.1)	0.7 (0.25,1.97)	0.501
A10BJ01	exenatide	<5 (<0.1)	32 (<0.1)	0.21 (0.03,1.57)	0.130
A10BJ02	liraglutide	<5 (<0.1)	32 (<0.1)	0.87 (0.31,2.45)	0.788
A10BK01	dapagliflozin	<5 (<0.1)	15 (<0.1)	0.92 (0.21,4.01)	0.907
A10BX02	repaglinide	20 (0.2)	145 (0.2)	0.91 (0.57,1.45)	0.687
A11C	VITAMIN A AND D, INCL. COMBINATIONS OF THE TWO	26 (0.3)	180 (0.3)	0.95 (0.63,1.44)	0.814
A11CC03	alfacalcidol	17 (0.2)	132 (0.2)	0.85 (0.51,1.4)	0.514
B01AC05	ticlopidine	9 (0.1)	63 (0.1)	0.97 (0.48,1.95)	0.921
B01AC24	ticagrelor	<5 (<0.1)	17 (<0.1)	0.79 (0.18,3.41)	0.749
B01AE07	dabigatran etexilate	22 (0.2)	161 (0.2)	0.89 (0.57,1.39)	0.611
B01AX05	fondaparinux	21 (0.2)	142 (0.2)	0.96 (0.61,1.52)	0.864
B03BA02	cyanocobalamin tannin complex	18 (0.2)	137 (0.2)	0.86 (0.52,1.4)	0.543
B03X	OTHER ANTIANEMIC PREPARATIONS	15 (0.1)	120 (0.2)	0.83 (0.48,1.42)	0.487
B03XA01	erythropoietin	8 (0.1)	74 (0.1)	0.73 (0.35,1.52)	0.406
B06	OTHER HEMATOLOGICAL AGENTS	<5 (<0.1)	42 (0.1)	0.48 (0.15,1.54)	0.216
B06A	OTHER HEMATOLOGICAL AGENTS	<5 (<0.1)	42 (0.1)	0.48 (0.15,1.54)	0.216
B06AA55	streptokinase, combinations	<5 (<0.1)	42 (0.1)	0.48 (0.15,1.54)	0.216
C01BD01	amiodarone	54 (0.5)	402 (0.6)	0.88 (0.66,1.17)	0.373
C01CA24	epinephrine	35 (0.3)	253 (0.4)	0.93 (0.65,1.33)	0.694
C02A	ANTIADRENERGIC AGENTS, CENTRALLY ACTING	123 (1.2)	816 (1.2)	0.99 (0.82,1.2)	0.935
C02AC01	clonidine	14 (0.1)	119 (0.2)	0.77 (0.44,1.35)	0.362
C02AC05	moxonidine	102 (1)	675 (1)	0.99 (0.81,1.23)	0.962
C02D	ARTERIOLAR SMOOTH MUSCLE, AGENTS ACTING ON	<5 (<0.1)	8 (<0.1)	0.81 (0.1,6.49)	0.843
C02DC01	minoxidil	<5 (<0.1)	8 (<0.1)	0.81 (0.1,6.49)	0.843
C02L	ANTIHYPERTENSIVES AND DIURETICS IN COMBINATION	5 (<0.1)	50 (0.1)	0.64 (0.25,1.6)	0.336
C02LA01	reserpine and diuretics	5 (<0.1)	50 (0.1)	0.64 (0.25,1.6)	0.336
C03BA04	chlortalidone	<5 (<0.1)	11 (<0.1)	0.59 (0.08,4.58)	0.614
C03D	POTASSIUM-SPARING AGENTS	212 (2.1)	1405 (2.1)	0.98 (0.85,1.14)	0.805
C03DA01	spironolactone	205 (2)	1365 (2)	0.98 (0.84,1.13)	0.759
C03DB01	amiloride	<5 (<0.1)	29 (<0.1)	0.68 (0.21,2.24)	0.530
C03EA02	trichlormethiazide and potassium-sparing agents	166 (1.6)	1100 (1.6)	0.97 (0.83,1.15)	0.761
C07AA01	alprenolol	5 (<0.1)	48 (0.1)	0.66 (0.26,1.67)	0.384
C07AA06	timolol	17 (0.2)	118 (0.2)	0.94 (0.57,1.57)	0.825
C07AB04	acebutolol	115 (1.1)	805 (1.2)	0.93 (0.76,1.13)	0.454

C07F	BETA BLOCKING AGENTS AND OTHER ANTIHYPERTENSIVES	173 (1.7)	1157 (1.7)	0.99 (0.85,1.17)	0.939
C07FB03	atenolol and other antihypertensives	18 (0.2)	126 (0.2)	0.94 (0.58,1.55)	0.820
C09AA01	captopril	130 (1.3)	971 (1.4)	0.87 (0.73,1.05)	0.151
C09AA02	enalapril	1256 (12.3)	8883 (13.1)	0.92 (0.86,0.98)	0.010
C09AA06	quinapril	38 (0.4)	272 (0.4)	0.93 (0.66,1.31)	0.673
C09BA05	ramipril and diuretics	51 (0.5)	340 (0.5)	0.98 (0.73,1.32)	0.915
C09BB02	enalapril and lercanidipine	5 (<0.1)	35 (0.1)	0.96 (0.38,2.45)	0.929
C09BB05	ramipril and felodipine	20 (0.2)	160 (0.2)	0.84 (0.53,1.33)	0.456
C09CA07	telmisartan	151 (1.5)	1026 (1.5)	0.97 (0.82,1.15)	0.739
C09DA06	candesartan and diuretics	179 (1.8)	1255 (1.8)	0.94 (0.8,1.1)	0.455
C09DA07	telmisartan and diuretics	72 (0.7)	533 (0.8)	0.9 (0.7,1.15)	0.382
C09DA08	olmesartan medoxomil and diuretics	<5 (<0.1)	51 (0.1)	0.39 (0.12,1.24)	0.110
C09DB01	valsartan and amlodipine	39 (0.4)	283 (0.4)	0.93 (0.66,1.3)	0.654
C09DB02	olmesartan medoxomil and amlodipine	<5 (<0.1)	13 (<0.1)	0.53 (0.07,4.02)	0.536
C09DX01	valsartan, amlodipine and hydrochlorothiazide	11 (0.1)	75 (0.1)	0.99 (0.52,1.86)	0.971
C10AA02	lovastatin	336 (3.3)	2223 (3.3)	0.99 (0.88,1.12)	0.920
C10AB02	bezafibrate	71 (0.7)	477 (0.7)	0.99 (0.77,1.27)	0.953
C10AB04	gemfibrozil	40 (0.4)	281 (0.4)	0.95 (0.68,1.32)	0.755
C10AD06	acipimox	<5 (<0.1)	27 (<0.1)	0.48 (0.12,2.04)	0.323
C10AX09	ezetimibe	98 (1)	666 (1)	0.98 (0.79,1.22)	0.887
D02AX	Other antipsoriatics for topical use	10 (0.1)	75 (0.1)	0.9 (0.46,1.74)	0.745
D03	PREPARATIONS FOR TREATMENT OF WOUNDS AND ULCERS	45 (0.4)	372 (0.5)	0.79 (0.58,1.08)	0.140
D03A	CICATRIZANTS	7 (0.1)	91 (0.1)	0.5 (0.23,1.08)	0.079
D03AX01	cadexomer iodine	<5 (<0.1)	65 (0.1)	0.4 (0.15,1.11)	0.078
D03AX02	dextranomer	<5 (<0.1)	30 (<0.1)	0.65 (0.2,2.13)	0.476
D03B	ENZYMES	40 (0.4)	304 (0.4)	0.86 (0.62,1.2)	0.376
D03BA02	collagenase	18 (0.2)	139 (0.2)	0.86 (0.53,1.41)	0.553
D03BA52	collagenase, combinations	27 (0.3)	191 (0.3)	0.92 (0.61,1.38)	0.682
D05	ANTIPSORIATICS	156 (1.5)	1248 (1.8)	0.83 (0.71,0.99)	0.035
D05A	ANTIPSORIATICS FOR TOPICAL USE	139 (1.4)	1150 (1.7)	0.81 (0.68,0.97)	0.019
D05AA	Tars	17 (0.2)	127 (0.2)	0.9 (0.54,1.49)	0.674
D05AX02	calcipotriol	100 (1)	865 (1.3)	0.77 (0.63,0.95)	0.016
D05AX03	calcitriol	10 (0.1)	128 (0.2)	0.52 (0.27,1)	0.049
D05AX05	tazarotene	5 (<0.1)	40 (0.1)	0.83 (0.33,2.11)	0.696

D05AX52	calcipotriol, combinations	49 (0.5)	390 (0.6)	0.84 (0.62,1.14)	0.259
D05B	ANTIPSORIATICS FOR SYSTEMIC USE	33 (0.3)	237 (0.3)	0.93 (0.65,1.35)	0.711
D05BB02	acitretin	32 (0.3)	235 (0.3)	0.91 (0.63,1.32)	0.627
D06BA01	silver sulfadiazine	<5 (<0.1)	32 (<0.1)	0.2 (0.03,1.5)	0.118
D06BB03	aciclovir	72 (0.7)	495 (0.7)	0.96 (0.75,1.24)	0.778
D07AB01	clobetasone	66 (0.6)	485 (0.7)	0.9 (0.69,1.16)	0.411
D07AB08	desonide	182 (1.8)	1305 (1.9)	0.92 (0.79,1.08)	0.296
D07AB09	triamcinolone	11 (0.1)	98 (0.1)	0.75 (0.4,1.41)	0.374
D07AC03	desoximetasone	42 (0.4)	303 (0.4)	0.92 (0.66,1.27)	0.614
D07AC09	budesonide	<5 (<0.1)	26 (<0.1)	0.51 (0.12,2.15)	0.358
D07AD01	clobetasol	274 (2.7)	1872 (2.8)	0.98 (0.86,1.11)	0.717
D07BC01	betamethasone and antiseptics	339 (3.3)	2295 (3.4)	0.98 (0.87,1.1)	0.744
D07XB02	triamcinolone	34 (0.3)	270 (0.4)	0.83 (0.58,1.19)	0.322
D07XC01	betamethasone	361 (3.5)	2408 (3.5)	0.99 (0.89,1.11)	0.927
D09	MEDICATED DRESSINGS	27 (0.3)	209 (0.3)	0.85 (0.57,1.27)	0.417
D09A	MEDICATED DRESSINGS	27 (0.3)	209 (0.3)	0.85 (0.57,1.27)	0.417
D09AB01	zinc bandage without supplements	25 (0.2)	206 (0.3)	0.8 (0.52,1.21)	0.282
D10AF01	clindamycin	50 (0.5)	341 (0.5)	0.99 (0.74,1.34)	0.966
D11	OTHER DERMATOLOGICAL PREPARATIONS	<5 (<0.1)	42 (0.1)	0.64 (0.23,1.79)	0.396
D11A	OTHER DERMATOLOGICAL PREPARATIONS	<5 (<0.1)	42 (0.1)	0.64 (0.23,1.79)	0.396
D11AH01	tacrolimus	<5 (<0.1)	32 (<0.1)	0.42 (0.1,1.74)	0.229
G01AF08	tioconazole	<5 (<0.1)	23 (<0.1)	0.87 (0.26,2.9)	0.819
G01AX03	policresulen	5 (<0.1)	62 (0.1)	0.53 (0.21,1.33)	0.178
G03DC03	lynestrenol	10 (0.2)	82 (0.3)	0.83 (0.43,1.61)	0.589
G03FA17	drospirenone and estrogen	15 (0.3)	124 (0.4)	0.82 (0.48,1.41)	0.470
G03FB11	trimegestone and estrogen	<5 (<0.1)	30 (<0.1)	0.23 (0.03,1.68)	0.148
G03GA05	follitropin alfa	<5 (<0.1)	15 (<0.1)	0.92 (0.21,4.09)	0.916
G03GB02	clomifene	<5 (<0.1)	32 (<0.1)	0.65 (0.2,2.12)	0.476
G03X	OTHER SEX HORMONES AND MODULATORS OF THE GENITAL SYSTEM	5 (<0.1)	41 (0.1)	0.8 (0.31,2.02)	0.633
G03XC01	raloxifene	5 (<0.1)	40 (0.1)	0.82 (0.32,2.07)	0.669
G04BE08	tadalafil	<5 (<0.1)	29 (<0.1)	0.95 (0.33,2.72)	0.926
G04BE09	vardenafil	<5 (<0.1)	23 (<0.1)	0.59 (0.14,2.52)	0.479
H01CA02	nafarelin	<5 (<0.1)	23 (<0.1)	0.9 (0.27,3.07)	0.873
H02AB02	dexamethasone	42 (0.4)	358 (0.5)	0.78 (0.57,1.08)	0.135

H02AB04	methylprednisolone	489 (4.8)	3267 (4.8)	0.99 (0.9,1.09)	0.816
H02AB07	prednisone	385 (3.8)	2675 (3.9)	0.95 (0.85,1.06)	0.347
H02AB09	hydrocortisone	18 (0.2)	123 (0.2)	0.98 (0.6,1.6)	0.930
H04	PANCREATIC HORMONES	10 (0.1)	68 (0.1)	0.99 (0.51,1.93)	0.986
H04A	GLYCOGENOLYTIC HORMONES	10 (0.1)	68 (0.1)	0.99 (0.51,1.93)	0.986
H04AA01	glucagon	10 (0.1)	68 (0.1)	0.99 (0.51,1.93)	0.986
J01CF01	dicloxacillin	8 (0.1)	100 (0.1)	0.53 (0.26,1.08)	0.080
J01FA01	erythromycin	257 (2.5)	1820 (2.7)	0.94 (0.83,1.08)	0.384
J01FA15	telithromycin	174 (1.7)	1312 (1.9)	0.89 (0.76,1.04)	0.145
J01FF01	clindamycin	627 (6.2)	4414 (6.5)	0.94 (0.86,1.03)	0.176
J01MA04	enoxacin	33 (0.3)	224 (0.3)	0.97 (0.67,1.41)	0.882
J01MA12	levofloxacin	343 (3.4)	2367 (3.5)	0.95 (0.85,1.07)	0.391
J01MA14	moxifloxacin	89 (0.9)	720 (1.1)	0.81 (0.65,1.01)	0.067
J01XX01	fosfomycin	42 (0.4)	331 (0.5)	0.83 (0.6,1.15)	0.258
J01XX08	linezolid	<5 (<0.1)	17 (<0.1)	0.38 (0.05,2.87)	0.349
J04	ANTIMYCOBACTERIALS	24 (0.2)	179 (0.3)	0.89 (0.58,1.36)	0.582
J04A	DRUGS FOR TREATMENT OF TUBERCULOSIS	12 (0.1)	114 (0.2)	0.7 (0.38,1.26)	0.232
J04AB02	rifampicin	11 (0.1)	111 (0.2)	0.65 (0.35,1.22)	0.180
J05AB09	famciclovir	6 (0.1)	68 (0.1)	0.59 (0.25,1.35)	0.211
J05AH02	oseltamivir	<5 (<0.1)	17 (<0.1)	0.8 (0.18,3.47)	0.766
L01	ANTINEOPLASTIC AGENTS	61 (0.6)	503 (0.7)	0.79 (0.61,1.04)	0.090
L01A	ALKYLATING AGENTS	17 (0.2)	117 (0.2)	0.96 (0.58,1.6)	0.880
L01AA02	chlorambucil	6 (0.1)	47 (0.1)	0.82 (0.35,1.93)	0.656
L01AA03	melphalan	<5 (<0.1)	20 (<0.1)	0.67 (0.16,2.86)	0.587
L01B	ANTIMETABOLITES	22 (0.2)	230 (0.3)	0.63 (0.41,0.98)	0.038
L01BA01	methotrexate	7 (0.1)	91 (0.1)	0.51 (0.24,1.1)	0.085
L01BC06	capecitabine	11 (0.1)	102 (0.2)	0.71 (0.38,1.33)	0.287
L01CB	Podophyllotoxin derivatives	9 (0.1)	66 (0.1)	0.89 (0.44,1.79)	0.745
L01X	OTHER ANTINEOPLASTIC AGENTS	16 (0.2)	116 (0.2)	0.9 (0.53,1.51)	0.685
L01XE01	imatinib	<5 (<0.1)	11 (<0.1)	0.58 (0.07,4.47)	0.598
L01XE04	sunitinib	<5 (<0.1)	9 (<0.1)	0.73 (0.09,5.76)	0.765
L01XX11	estramustine	<5 (<0.1)	30 (<0.1)	0.43 (0.1,1.78)	0.242
L02	ENDOCRINE THERAPY	243 (2.4)	1618 (2.4)	0.97 (0.85,1.12)	0.687
L02AA02	polyestradiol phosphate	<5 (<0.1)	21 (<0.1)	0.61 (0.14,2.6)	0.504

L02AE03	goserelin	37 (0.4)	251 (0.4)	0.95 (0.67,1.35)	0.785
L02B	HORMONE ANTAGONISTS AND RELATED AGENTS	153 (1.5)	1074 (1.6)	0.92 (0.78,1.09)	0.349
L02BA01	tamoxifen	44 (0.4)	337 (0.5)	0.86 (0.63,1.18)	0.355
L02BA02	toremifene	<5 (<0.1)	31 (<0.1)	0.42 (0.1,1.77)	0.239
L02BB01	flutamide	11 (0.1)	79 (0.1)	0.89 (0.47,1.67)	0.716
L02BG03	anastrozole	14 (0.1)	139 (0.2)	0.66 (0.38,1.15)	0.141
L02BG04	letrozole	19 (0.2)	151 (0.2)	0.83 (0.51,1.34)	0.444
L03	IMMUNOSTIMULANTS	34 (0.3)	252 (0.4)	0.89 (0.62,1.28)	0.527
L03A	IMMUNOSTIMULANTS	34 (0.3)	252 (0.4)	0.89 (0.62,1.28)	0.527
L03AA13	pegfilgrastim	12 (0.1)	102 (0.2)	0.77 (0.42,1.41)	0.401
L03AB04	interferon alfa-2a	<5 (<0.1)	16 (<0.1)	0.42 (0.06,3.15)	0.396
L03AB05	interferon alfa-2b	5 (<0.1)	35 (0.1)	0.95 (0.37,2.43)	0.918
L04	IMMUNOSUPPRESSANTS	204 (2)	1431 (2.1)	0.95 (0.82,1.1)	0.483
L04A	IMMUNOSUPPRESSANTS	204 (2)	1431 (2.1)	0.95 (0.82,1.1)	0.483
L04AA06	mycophenolic acid	<5 (<0.1)	39 (0.1)	0.7 (0.25,1.97)	0.505
L04AB01	etanercept	<5 (<0.1)	46 (0.1)	0.6 (0.21,1.65)	0.319
L04AD01	ciclosporin	21 (0.2)	185 (0.3)	0.77 (0.49,1.21)	0.252
L04AX01	azathioprine	47 (0.5)	339 (0.5)	0.93 (0.68,1.26)	0.632
L04AX03	methotrexate	163 (1.6)	1098 (1.6)	0.99 (0.84,1.16)	0.869
M01AB01	indometacin	451 (4.4)	3031 (4.5)	0.99 (0.89,1.09)	0.773
M01AB02	sulindac	<5 (<0.1)	18 (<0.1)	0.38 (0.05,2.82)	0.341
M01CC01	penicillamine	<5 (<0.1)	36 (0.1)	0.73 (0.26,2.06)	0.555
M04	ANTIGOUT PREPARATIONS	485 (4.8)	3448 (5.1)	0.92 (0.83,1.01)	0.088
M04A	ANTIGOUT PREPARATIONS	485 (4.8)	3448 (5.1)	0.92 (0.83,1.01)	0.088
M04AA01	allopurinol	484 (4.8)	3433 (5.1)	0.92 (0.83,1.02)	0.098
M04AB01	probenecid	6 (0.1)	43 (0.1)	0.93 (0.39,2.18)	0.864
M05BA02	clodronic acid	6 (0.1)	69 (0.1)	0.57 (0.25,1.32)	0.190
M05BA08	zoledronic acid	<5 (<0.1)	12 (<0.1)	0.55 (0.07,4.25)	0.569
N02AA01	morphine	<5 (<0.1)	27 (<0.1)	0.95 (0.33,2.73)	0.931
N02BA11	diflunisal	22 (0.2)	172 (0.3)	0.85 (0.54,1.32)	0.472
N02CC06	eletriptan	8 (0.1)	67 (0.1)	0.82 (0.39,1.71)	0.597
N02CC07	frovatriptan	5 (<0.1)	51 (0.1)	0.68 (0.27,1.69)	0.403
N05CM02	clomethiazole	<5 (<0.1)	17 (<0.1)	0.82 (0.19,3.54)	0.787
N07B	DRUGS USED IN ADDICTIVE DISORDERS	81 (0.8)	563 (0.8)	0.99 (0.78,1.25)	0.914

N07BB01	disulfiram	67 (0.7)	471 (0.7)	0.98 (0.76,1.27)	0.879
N07BB04	naltrexone	14 (0.1)	114 (0.2)	0.84 (0.48,1.46)	0.529
P01B	ANTIMALARIALS	170 (1.7)	1202 (1.8)	0.94 (0.8,1.1)	0.427
P01BA01	chloroquine	11 (0.1)	74 (0.1)	0.97 (0.51,1.84)	0.929
P01BA02	hydroxychloroquine	153 (1.5)	1091 (1.6)	0.93 (0.78,1.1)	0.397
R01AB01	phenylephrine	5 (<0.1)	36 (0.1)	0.93 (0.37,2.38)	0.886
R03A	ADRENERGICS, INHALANTS	1840 (18.1)	12295 (18.1)	0.99 (0.94,1.05)	0.763
R03AC03	terbutaline	398 (3.9)	2678 (3.9)	0.99 (0.89,1.1)	0.866
R03AC12	salmeterol	198 (1.9)	1384 (2)	0.94 (0.81,1.1)	0.444
R03AC18	indacaterol	<5 (<0.1)	38 (0.1)	0.35 (0.08,1.43)	0.142
R03AK06	salmeterol and fluticasone	312 (3.1)	2380 (3.5)	0.86 (0.76,0.97)	0.012
R03AK07	formoterol and budesonide	250 (2.5)	1695 (2.5)	0.98 (0.85,1.12)	0.753
R03AK11	formoterol and fluticasone	<5 (<0.1)	16 (<0.1)	0.43 (0.06,3.24)	0.412
R03AL01	fenoterol and ipratropium bromide	255 (2.5)	1891 (2.8)	0.88 (0.77,1)	0.057
R03AL02	salbutamol and ipratropium bromide	12 (0.1)	103 (0.2)	0.76 (0.42,1.39)	0.376
R03AL04	indacaterol and glycopyrronium bromide	<5 (<0.1)	8 (<0.1)	0.84 (0.11,6.75)	0.873
R03BA01	beclometasone	496 (4.9)	3478 (5.1)	0.94 (0.85,1.03)	0.204
R03BA07	mometasone	<5 (<0.1)	14 (<0.1)	0.96 (0.22,4.22)	0.954
R03BB01	ipratropium bromide	188 (1.8)	1255 (1.8)	0.98 (0.84,1.15)	0.823
R03BB02	oxitropium bromide	21 (0.2)	150 (0.2)	0.91 (0.57,1.44)	0.683
R03BB04	tiotropium bromide	127 (1.2)	1240 (1.8)	0.66 (0.55,0.8)	<0.001
R03CA02	ephedrine	<5 (<0.1)	20 (<0.1)	0.67 (0.16,2.86)	0.587
R03CC03	terbutaline	29 (0.3)	192 (0.3)	0.99 (0.67,1.47)	0.963
R03D	OTHER SYSTEMIC DRUGS FOR OBSTRUCTIVE AIRWAY DISEASES	511 (5)	3556 (5.2)	0.94 (0.86,1.04)	0.233
R03DA04	theophylline	251 (2.5)	1892 (2.8)	0.86 (0.76,0.99)	0.034
R03DA05	aminophylline	17 (0.2)	131 (0.2)	0.85 (0.51,1.42)	0.539
R03DA54	theophylline, combinations excl. psycholeptics	43 (0.4)	368 (0.5)	0.76 (0.55,1.04)	0.090
R03DA74	theophylline, combinations with psycholeptics	7 (0.1)	48 (0.1)	0.97 (0.44,2.16)	0.949
R05CB03	carbocisteine	68 (0.7)	454 (0.7)	0.98 (0.76,1.27)	0.879
R06AX11	astemizole	36 (0.4)	253 (0.4)	0.94 (0.67,1.34)	0.749
R06AX26	fexofenadine	74 (0.7)	543 (0.8)	0.91 (0.71,1.16)	0.460
S01AA12	tobramycin	23 (0.2)	153 (0.2)	0.96 (0.61,1.51)	0.861
S01BA01	dexamethasone	125 (1.2)	920 (1.4)	0.89 (0.74,1.08)	0.225
S01BA09	clobetasone	<5 (<0.1)	30 (<0.1)	0.21 (0.03,1.51)	0.121

S01BC01	indometacin	<5 (<0.1)	34 (0.1)	0.73 (0.25,2.08)	0.554
S01EA02	dipivefrine	27 (0.3)	190 (0.3)	0.9 (0.6,1.36)	0.625
S01EA03	apraclonidine	22 (0.2)	169 (0.2)	0.84 (0.53,1.31)	0.430
S01EB01	pilocarpine	51 (0.5)	346 (0.5)	0.95 (0.7,1.27)	0.719
S01EC01	acetazolamide	79 (0.8)	581 (0.9)	0.87 (0.69,1.11)	0.265
S01EC03	dorzolamide	84 (0.8)	595 (0.9)	0.91 (0.72,1.14)	0.412
S01ED01	timolol	268 (2.6)	1755 (2.6)	0.99 (0.86,1.12)	0.830
S01ED02	betaxolol	69 (0.7)	446 (0.7)	0.99 (0.77,1.28)	0.935
S01ED51	timolol, combinations	277 (2.7)	1873 (2.8)	0.95 (0.84,1.08)	0.447
S01EE03	bimatoprost	40 (0.4)	278 (0.4)	0.92 (0.66,1.29)	0.647
S01EE05	tafluprost	15 (0.1)	100 (0.1)	0.98 (0.57,1.69)	0.940
S01F	MYDRIATICS AND CYCLOPLEGICS	64 (0.6)	510 (0.8)	0.83 (0.64,1.07)	0.156
S01FA01	atropine	14 (0.1)	143 (0.2)	0.63 (0.37,1.1)	0.104
S01FA02	scopolamine	19 (0.2)	177 (0.3)	0.72 (0.45,1.16)	0.180
S01FA04	cyclopentolate	27 (0.3)	217 (0.3)	0.82 (0.55,1.23)	0.343
S01GA51	naphazoline, combinations	<5 (<0.1)	24 (<0.1)	0.83 (0.25,2.77)	0.766
S01GA55	phenylephrine, combinations	6 (0.1)	46 (0.1)	0.85 (0.36,1.99)	0.704
S01GX05	lodoxamide	34 (0.3)	233 (0.3)	0.96 (0.67,1.38)	0.820
S02CA06	dexamethasone and antiinfectives	21 (0.2)	159 (0.2)	0.88 (0.56,1.39)	0.590
S03	OPHTHALMOLOGICAL AND OTOLOGICAL PREPARATIONS	136 (1.3)	923 (1.4)	0.99 (0.82,1.18)	0.884
S03C	CORTICOSTEROIDS AND ANTIINFECTIVES IN COMBINATION	136 (1.3)	923 (1.4)	0.99 (0.82,1.18)	0.884
S03CA01	dexamethasone and antiinfectives	65 (0.6)	455 (0.7)	0.95 (0.73,1.24)	0.725
V03	ALL OTHER THERAPEUTIC PRODUCTS	16 (0.2)	107 (0.2)	0.98 (0.58,1.67)	0.955
V03A	ALL OTHER THERAPEUTIC PRODUCTS	16 (0.2)	107 (0.2)	0.98 (0.58,1.67)	0.955
V03AE01	polystyrene sulfonate	7 (0.1)	70 (0.1)	0.66 (0.3,1.44)	0.295
V03AE07	calcium acetate	<5 (<0.1)	12 (<0.1)	0.54 (0.07,4.14)	0.551