

Honigberg MC, Ye Y, Dattilo L, et al. Polygenic Risk, Frequency of Depressed Mood, and Cardiometabolic Disease.

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Supplementary Table 1. Baseline characteristics of included vs. excluded individuals.

Characteristic	Excluded (n=32,316)	Included (N=328,152)
Age, years	59.0 (7.6)	56.8 (7.9)
Female sex	19,228 (59.5%)	173,333 (52.8%)
Townsend deprivation index (median [IQR])	-1.6 [-3.3, 1.6]	-2.4 [-3.8, -0.1]
Smoking status		
• Current	4,690 (15.0%)	31,441 (9.6%)
• Former	10,924 (35.0%)	116,041 (35.4%)
• Never	15,597 (50.0%)	180,670 (55.1%)
Body mass index, kg/m ²	28.5 (5.3)	27.3 (4.6)
Systolic blood pressure	142.8 (20.1)	140 (19.6)
Antihypertensive medication use	9,231 (28.6%)	65,869 (20.1%)
Cholesterol-lowering medication use	7,717 (23.9%)	55,075 (16.8%)
Non-HDL cholesterol, mg/dL	165.7 (44.0)	164.9 (41.5)
C-reactive protein, mg/L (median [IQR])	1.8 [0.9, 3.8]	1.3 [0.6, 2.6]
Coronary artery disease	2,109 (6.5%)	13,259 (4.0%)
Type 2 diabetes mellitus	1,245 (3.9%)	6,903 (2.1%)
Atrial fibrillation	702 (2.2%)	5,671 (1.7%)

Values are displayed as mean (SD) or n (%) unless otherwise specified.

Supplementary Table 2. Absolute incidence rates for coronary artery disease, type 2 diabetes mellitus, and atrial fibrillation by polygenic risk and frequency of depressed mood.

Polygenic risk category	Frequency of depressed mood	Number of participants at risk	Events / person-years	Incidence rate per 1,000 person-years (95% CI)	Incidence rate difference (vs. highest frequency of depressed mood) (95% CI)	P-value
Coronary artery disease						
High	High	2,510	260 / 26,747	9.72 (8.54-10.90)	Reference	--
High	Moderate	11,305	882 / 121,624	7.25 (6.77-7.73)	-2.47 (-3.74 to -1.19)	1.5x10 ⁻⁴
High	Low	47,034	3,849 / 505,565	7.61 (7.37-7.85)	-2.11 (-3.31 to -0.90)	6.1x10 ⁻⁴
Intermediate	High	7,441	565 / 80,185	7.05 (6.47-7.63)	Reference	--
Intermediate	Moderate	34,561	1,909 / 376,361	5.07 (4.84-5.30)	-1.97 (-2.60 to -1.35)	5.6x10 ⁻¹⁰
Intermediate	Low	147,593	7,972 / 1,609,235	4.95 (4.85-5.06)	-2.09 (-2.68 to -1.50)	4.0x10 ⁻¹²
Low	High	2,449	143 / 26,623	5.37 (4.49-6.25)	Reference	--
Low	Moderate	11,707	452 / 128,460	3.52 (3.19-3.84)	-1.85 (-2.79 to -0.91)	1.1x10 ⁻⁴
Low	Low	50,292	1,848 / 552,728	3.34 (3.19-3.50)	-2.03 (-2.92 to -1.13)	8.6x10 ⁻⁶
Type 2 diabetes mellitus						
High	High	2,520	314 / 26,517	11.84 (10.53-13.15)	Reference	--
High	Moderate	11,622	916 / 124,939	7.33 (6.86-7.81)	-4.51 (-5.90 to -3.12)	2.2x10 ⁻¹⁰
High	Low	48,832	3,597 / 526,273	6.83 (6.61-7.05)	-5.01 (-6.34 to -3.68)	1.5x10 ⁻¹³
Intermediate	High	7,575	523 / 81,770	6.40 (5.85-6.94)	Reference	--
Intermediate	Moderate	35,118	1,594 / 383,993	4.15 (3.94-4.35)	-2.25 (-2.83 to -1.66)	5.3x10 ⁻¹⁴
Intermediate	Low	150,472	6,022 / 1,651,081	3.65 (3.56-3.74)	-2.75 (-3.30 to -2.19)	<2.2x10 ⁻¹⁶
Low	High	2,528	100 / 27,818	3.59 (2.89-4.30)	Reference	--
Low	Moderate	11,813	259 / 130,651	1.98 (1.74-2.22)	-1.61 (-2.36 to -0.87)	2.2x10 ⁻⁵
Low	Low	50,768	1,020 / 562,424	1.81 (1.70-1.92)	-1.78 (-2.49 to -1.07)	9.9x10 ⁻⁷

		Atrial fibrillation				
High	High	2,573	195 / 27,804	7.01 (6.03-8.00)	Reference	--
High	Moderate	11,683	741 / 127,107	5.83 (5.41-6.25)	-1.18 (-2.25 to -0.11)	0.03
High	Low	49,158	3,843 / 531,231	7.23 (7.01-7.46)	+0.22 (-0.79 to +1.23)	0.67
Intermediate	High	7,796	378 / 85,468	4.42 (3.98-4.87)	Reference	--
Intermediate	Moderate	35,418	1,393 / 389,586	3.58 (3.39-3.76)	-0.85 (-1.33 to -0.36)	6.0x10 ⁻⁴
Intermediate	Low	150,722	7,004 / 1,652,523	4.24 (4.14-4.34)	-0.18 (-0.64 to +0.27)	0.43
Low	High	2,558	68 / 28,232	2.41 (1.84-2.98)	Reference	--
Low	Moderate	11,899	336 / 131,201	2.56 (2.29-2.83)	+0.15 (-0.48 to +0.79)	0.64
Low	Low	50,673	1,439 / 559,929	2.57 (2.44-2.70)	+0.16 (-0.42 to +0.75)	0.59

Two-sided P-values (unadjusted for multiple comparisons) were calculated from the chi-squared statistic for the difference in incidence rates using the 'fmsb' package in R version 3.6.0.

Supplementary Table 3. Hazard ratios for incident cardiometabolic disease associated with frequency of depression among individuals at high polygenic risk (i.e., individuals in the top quintile of polygenic risk).

Condition	Frequency of depressed mood	No. at risk	Model 1		Model 2	
			Hazard ratio (95% CI)	P-value	Hazard ratio (95% CI)	P-value
Coronary artery disease	High	2,510	1.00 (reference)	--	1.00 (reference)	--
	Moderate	11,305	0.73 (0.64-0.84)	1.0x10 ⁻⁵	0.77 (0.66-0.90)	9.5x10 ⁻⁴
	Low	47,034	0.62 (0.54-0.70)	7.2x10 ⁻¹⁴	0.70 (0.61-0.81)	1.2x10 ⁻⁶
Type 2 diabetes mellitus	High	2,520	1.00 (reference)	--	1.00 (reference)	--
	Moderate	11,622	0.63 (0.55-0.71)	7.8x10 ⁻¹³	0.78 (0.68-0.90)	7.6x10 ⁻⁴
	Low	48,832	0.50 (0.44-0.56)	<2.2x10 ⁻¹⁶	0.66 (0.57-0.75)	3.0x10 ⁻¹⁰
Atrial fibrillation	High	2,573	1.00 (reference)	--	1.00 (reference)	--
	Moderate	11,683	0.83 (0.71-0.97)	0.02	0.88 (0.74-1.05)	0.16
	Low	49,158	0.79 (0.68-0.91)	0.001	0.87 (0.74-1.02)	0.10

Two-sided P-values (unadjusted for multiple comparisons) were calculated using multivariable-adjusted Cox proportional hazard models.

Model 1: Adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index

Model 2: Adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index, smoking status, pack-year smoking history, alcohol intake, vegetable + fresh fruit intake, days per week of moderate and vigorous exercise, sleep duration, systolic blood pressure, antihypertensive medication use, non-HDL cholesterol, cholesterol-lowering medication use, antiplatelet medication use, antihyperglycemic medication use, prevalent type 2 diabetes mellitus (models for coronary artery disease and atrial fibrillation only), body-mass index, C-reactive protein

Supplementary Table 4. Hazard ratios for incident cardiometabolic and cardiovascular disease associated with frequency of depression, excluding individuals (n=25,092) with prevalent coronary artery disease, type 2 diabetes, atrial fibrillation, ischemic stroke, peripheral artery disease, and/or heart failure from all models.

Condition	Frequency of depressed mood	No. at risk	Model 1		Model 2	
			Hazard ratio (95% CI)	P-value	Hazard ratio (95% CI)	P-value
Coronary artery disease	High	11,769	1.00 (reference)	--	1.00 (reference)	--
	Moderate	55,361	0.72 (0.67-0.78)	<2.2x10 ⁻¹⁶	0.78 (0.71-0.85)	1.8x10 ⁻⁸
	Low	235,930	0.56 (0.52-0.61)	<2.2x10 ⁻¹⁶	0.66 (0.61-0.72)	<2.2x10 ⁻¹⁶
Type 2 diabetes mellitus	High	11,769	1.00 (reference)	--	1.00 (reference)	--
	Moderate	55,361	0.64 (0.59-0.70)	<2.2x10 ⁻¹⁶	0.79 (0.72-0.86)	8.7x10 ⁻⁹
	Low	235,930	0.49 (0.46-0.53)	<2.2x10 ⁻¹⁶	0.66 (0.61-0.72)	<2.2x10 ⁻¹⁶
Atrial fibrillation	High	11,769	1.00 (reference)	--	1.00 (reference)	--
	Moderate	55,361	0.82 (0.74-0.91)	9.1x10 ⁻⁵	0.86 (0.77-0.96)	0.01
	Low	235,930	0.77 (0.70-0.84)	1.4x10 ⁻⁸	0.83 (0.75-0.92)	3.3x10 ⁻⁴

Two-sided P-values (unadjusted for multiple comparisons) were calculated using multivariable-adjusted Cox proportional hazard models.

Model 1: Adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index

Model 2: Adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index, smoking status, pack-year smoking history, alcohol intake, vegetable + fresh fruit intake, days per week of moderate and vigorous exercise, sleep duration, systolic blood pressure, antihypertensive medication use, non-HDL cholesterol, cholesterol-lowering medication use, antiplatelet medication use, antihyperglycemic medication use, body-mass index, C-reactive protein, and polygenic risk

Supplementary Table 5. Hazard ratios for incident cardiometabolic disease associated with frequency of depression, accounting for antidepressant medication use.

Condition	Frequency of depressed mood	Further adjusted for antidepressant medication use			Excluding those (n=21,180) using antidepressant medications		
		No. at risk	Hazard ratio (95% CI)	P-value	No. at risk	Hazard ratio (95% CI)	P-value
Coronary artery disease	High	12,400	1.00 (reference)	--	9,161	1.00 (reference)	--
	Moderate	57,574	0.79 (0.73-0.86)	2.9x10 ⁻⁸	50,262	0.78 (0.71-0.86)	5.0x10 ⁻⁷
	Low	244,919	0.69 (0.64-0.74)	<2.2x10 ⁻¹⁶	235,479	0.68 (0.62-0.74)	<2.2x10 ⁻¹⁶
Type 2 diabetes mellitus	High	12,623	1.00 (reference)	--	9,337	1.00 (reference)	--
	Moderate	58,554	0.82 (0.75-0.89)	4.9x10 ⁻⁶	51,172	0.83 (0.75-0.92)	4.2x10 ⁻⁴
	Low	250,072	0.72 (0.67-0.78)	8.6x10 ⁻¹⁶	240,498	0.69 (0.63-0.76)	6.8x10 ⁻¹⁴
Atrial fibrillation	High	12,927	1.00 (reference)	--	9,503	1.00 (reference)	--
	Moderate	59,001	0.86 (0.78-0.94)	0.002	51,392	0.86 (0.77-0.96)	0.006
	Low	250,553	0.81 (0.74-0.89)	4.0x10 ⁻⁶	240,770	0.80 (0.72-0.89)	3.8x10 ⁻⁵

Two-sided P-values (unadjusted for multiple comparisons) were calculated using multivariable-adjusted Cox proportional hazard models. Adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index, smoking status, pack-year smoking history, alcohol intake, vegetable + fresh fruit intake, days per week of moderate and vigorous exercise, sleep duration, systolic blood pressure, antihypertensive medication use, non-HDL cholesterol, cholesterol-lowering medication use, antiplatelet medication use, antihyperglycemic medication use, prevalent type 2 diabetes mellitus (models for coronary artery disease and atrial fibrillation only), body-mass index, C-reactive protein, and polygenic risk

Supplementary Table 6. Hazard ratios for incident cardiometabolic and cardiovascular disease, with follow-up truncated at December 31, 2019.

Condition	Frequency of depressed mood	No. at risk	Model 1		Model 2	
			Hazard ratio (95% CI)	P-value	Hazard ratio (95% CI)	P-value
Coronary artery disease	High	11,769	1.00 (reference)	--	1.00 (reference)	--
	Moderate	55,361	0.70 (0.65-0.75)	<2.2x10 ⁻¹⁶	0.77 (0.71-0.84)	4.4x10 ⁻¹⁰
	Low	235,930	0.55 (0.51-0.59)	<2.2x10 ⁻¹⁶	0.66 (0.61-0.71)	<2.2x10 ⁻¹⁶
Type 2 diabetes mellitus	High	11,769	1.00 (reference)	--	1.00 (reference)	--
	Moderate	55,361	0.65 (0.60-0.70)	<2.2x10 ⁻¹⁶	0.79 (0.72-0.86)	2.5x10 ⁻⁸
	Low	235,930	0.50 (0.46-0.53)	<2.2x10 ⁻¹⁶	0.67 (0.62-0.72)	<2.2x10 ⁻¹⁶
Atrial fibrillation	High	11,769	1.00 (reference)	--	1.00 (reference)	--
	Moderate	55,361	0.80 (0.74-0.88)	1.4x10 ⁻⁶	0.85 (0.77-0.94)	0.002
	Low	235,930	0.72 (0.66-0.78)	2.3x10 ⁻¹⁵	0.80 (0.73-0.88)	2.4x10 ⁻⁶

Two-sided P-values (unadjusted for multiple comparisons) were calculated using multivariable-adjusted Cox proportional hazard models.

Model 1: Adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index

Model 2: Adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index, smoking status, pack-year smoking history, alcohol intake, vegetable + fresh fruit intake, days per week of moderate and vigorous exercise, sleep duration, systolic blood pressure, antihypertensive medication use, non-HDL cholesterol, cholesterol-lowering medication use, antiplatelet medication use, antihyperglycemic medication use, body-mass index, C-reactive protein, and polygenic risk

Supplementary Table 7. Hazard ratios for incident cardiometabolic disease associated with Patient Health Questionnaire-2 (PHQ-2) score.

Condition	PHQ-2 score	No. at risk	Model 1		Model 2	
			Hazard ratio (95% CI)	P-value	Hazard ratio (95% CI)	P-value
Coronary artery disease	3-6	14,364	1.00 (reference)	--	1.00 (reference)	--
	1-2	69,955	0.74 (0.69-0.79)	<2.2x10 ⁻¹⁶	0.82 (0.76-0.89)	3.6x10 ⁻⁷
	0	225,787	0.58 (0.54-0.61)	<2.2x10 ⁻¹⁶	0.70 (0.65-0.75)	<2.2x10 ⁻¹⁶
	3-6	14,364	1.00 (reference)	--	1.00 (reference)	--
	0-1	261,985	0.59 (0.55-0.63)	<2.2x10 ⁻¹⁶	0.71 (0.66-0.77)	<2.2x10 ⁻¹⁶
Type 2 diabetes mellitus	3-6	14,639	1.00 (reference)	--	1.00 (reference)	--
	1-2	71,239	0.63 (0.59-0.67)	<2.2x10 ⁻¹⁶	0.77 (0.72-0.83)	2.3x10 ⁻¹¹
	0	230,507	0.47 (0.44-0.50)	<2.2x10 ⁻¹⁶	0.66 (0.61-0.71)	<2.2x10 ⁻¹⁶
	3-6	14,639	1.00 (reference)	--	1.00 (reference)	--
	0-1	267,361	0.48 (0.45-0.51)	<2.2x10 ⁻¹⁶	0.66 (0.62-0.71)	<2.2x10 ⁻¹⁶
Atrial fibrillation	3-6	14,980	1.00 (reference)	--	1.00 (reference)	--
	1-2	71,771	0.83 (0.76-0.89)	2.3x10 ⁻⁶	0.85 (0.78-0.93)	4.3x10 ⁻⁴
	0	230,792	0.72 (0.67-0.78)	<2.2x10 ⁻¹⁶	0.81 (0.74-0.88)	3.5x10 ⁻⁷
	3-6	14,980	1.00 (reference)	--	1.00 (reference)	--
	0-1	267,804	0.73 (0.68-0.79)	<2.2x10 ⁻¹⁶	0.81 (0.74-0.88)	5.8x10 ⁻⁷

Two-sided P-values (unadjusted for multiple comparisons) were calculated using multivariable-adjusted Cox proportional hazard models.

Model 1: Adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index

Model 2: Adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index, smoking status, pack-year smoking history, alcohol intake, vegetable + fresh fruit intake, days per week of moderate and vigorous exercise, sleep duration, systolic blood pressure, antihypertensive medication use, non-HDL cholesterol, cholesterol-lowering medication use, antiplatelet medication use, antihyperglycemic medication use, prevalent type 2 diabetes mellitus (models for coronary artery disease and atrial fibrillation models only), body-mass index, C-reactive protein, and polygenic risk

Supplementary Table 8. Interactions between polygenic risk and frequency of depressed mood.

Condition	Hazard ratio for interaction between polygenic risk and frequency of depressed mood (95% CI)	P-value for interaction
Coronary artery disease	0.95 (0.93-0.98)	0.002
Type 2 diabetes mellitus	1.00 (0.97-1.04)	0.85
Atrial fibrillation	0.97 (0.94-1.01)	0.12

Two-sided P-values (unadjusted for multiple comparisons) were calculated using multivariable-adjusted Cox proportional hazard models.

Polygenic risk is modeled as a quantitative trait. Frequency of depressed mood is modeled as an ordinal variable.

Models are adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index, smoking status, pack-year smoking history, alcohol intake, vegetable + fresh fruit intake, days per week of moderate and vigorous exercise, sleep duration, systolic blood pressure, antihypertensive medication use, non-HDL cholesterol, cholesterol-lowering medication use, antiplatelet medication use, antihyperglycemic medication use, prevalent type 2 diabetes mellitus (models for coronary artery disease and atrial fibrillation models only), body-mass index, C-reactive protein, polygenic risk, frequency of depressed mood, and interaction terms between frequency of depressed mood and each covariate.

Supplementary Table 9. Hazard ratios for incident coronary artery disease associated with frequency of depressed mood, stratified by polygenic risk tier.

Polygenic risk	Frequency of depressed mood	No. at risk	Model 1		Model 2	
			Hazard ratio (95% CI)	P-value	Hazard ratio (95% CI)	P-value
High	High	2,510	1.00 (reference)	--	1.00 (reference)	--
	Moderate	11,305	0.73 (0.64-0.84)	1.0x10 ⁻⁵	0.77 (0.66-0.90)	9.5x10 ⁻⁴
	Low	47,034	0.62 (0.54-0.70)	7.2x10 ⁻¹⁴	0.70 (0.61-0.81)	1.2x10 ⁻⁶
Intermediate	High	7,441	1.00 (reference)	--	1.00 (reference)	--
	Moderate	34,561	0.70 (0.64-0.78)	3.7x10 ⁻¹³	0.79 (0.71-0.88)	1.5x10 ⁻⁵
	Low	147,593	0.54 (0.49-0.59)	<2.2x10 ⁻¹⁶	0.66 (0.60-0.73)	<2.2x10 ⁻¹⁶
Low	High	2,449	1.00 (reference)	--	1.00 (reference)	--
	Moderate	11,707	0.64 (0.53-0.77)	3.7x10 ⁻⁶	0.73 (0.59-0.90)	0.003
	Low	50,292	0.47 (0.40-0.56)	<2.2x10 ⁻¹⁶	0.57 (0.47-0.69)	1.7x10 ⁻⁸

Two-sided P-values (unadjusted for multiple comparisons) were calculated using multivariable-adjusted Cox proportional hazard models.

Model 1: Adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index

Model 2: Adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index, smoking status, pack-year smoking history, alcohol intake, vegetable + fresh fruit intake, days per week of moderate and vigorous exercise, sleep duration, systolic blood pressure, antihypertensive medication use, non-HDL cholesterol, cholesterol-lowering medication use, antiplatelet medication use, antihyperglycemic medication use, prevalent type 2 diabetes mellitus, body-mass index, and C-reactive protein

Supplementary Table 10. Interactions between polygenic risk and frequency of depressed mood for total coronary artery disease (prevalent and incident).

Condition	Model 1		Model 2	
	Odds ratio for interaction (95% CI)	P-value for interaction	Odds ratio for interaction (95% CI)	P-value for interaction
Coronary artery disease	0.96 (0.94-0.98)	6.4×10^{-4}	0.95 (0.92-0.97)	6.6×10^{-5}

Two-sided P-values (unadjusted for multiple comparisons) were calculated using multivariable-adjusted logistic regression models.

Polygenic risk is modeled as a quantitative trait. Frequency of depressed mood is modeled as an ordinal variable.

Model 1: Adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index, polygenic risk, frequency of depressed mood

Model 2: Adjusted for age, age², sex, PC 1-20, genotyping array, country, Townsend deprivation index, smoking status, pack-year smoking history, alcohol intake, vegetable + fresh fruit intake, days per week of moderate and vigorous exercise, sleep duration, systolic blood pressure, antihypertensive medication use, non-HDL cholesterol, cholesterol-lowering medication use, antiplatelet medication use, antihyperglycemic medication use, prevalent type 2 diabetes mellitus, body-mass index, C-reactive protein, polygenic risk, frequency of depressed mood, and interaction terms between frequency of depressed mood and each covariate

Supplementary Table 11. Sex-stratified models for incident coronary artery disease.

Frequency of depressed mood	Men			Women		
	Number at risk	Hazard ratio (95% CI)	P-value	Number at risk	Hazard ratio (95% CI)	P-value
High	4,844	1.00 (reference)	--	7,556	1.00 (reference)	--
Moderate	22,339	0.84 (0.75-0.94)	0.002	35,235	0.70 (0.62-0.79)	1.0x10 ⁻⁸
Low	117,201	0.74 (0.67-0.81)	3.1x10 ⁻⁹	127,718	0.57 (0.51-0.63)	<2.2x10 ⁻¹⁶

Two-sided P-values (unadjusted for multiple comparisons) were calculated using multivariable-adjusted Cox proportional hazard models. Model adjusted for age, age², PC 1-20, genotyping array, country, Townsend deprivation index, smoking status, pack-year smoking history, alcohol intake, vegetable + fresh fruit intake, days per week of moderate and vigorous exercise, sleep duration, systolic blood pressure, antihypertensive medication use, non-HDL cholesterol, cholesterol-lowering medication use, antiplatelet medication use, antihyperglycemic medication use, prevalent type 2 diabetes mellitus, body-mass index, C-reactive protein, and polygenic risk

Online Appendix. *International Classification of Diseases* and procedure codes used to ascertain incident coronary artery disease, type 2 diabetes mellitus, and atrial fibrillation in the UK Biobank.

Diagnosis	ICD codes
Coronary artery disease	ICD 9: 410, 4109, 411, 4119, 412, 4129, 4140, 4148, 4149 ICD 10: I21, I21.0, I21.1, I21.2, I21.3, I21.4, I21.9, I22, I22.0, I22.1, I22.8, I22.9, I23, I23.0, I23.1, I23.2, I23.3, I23.4, I23.5, I23.6, I23.8, I24, I24.0, I24.1, I24.8, I24.9, I25.1, I25.2, I25.5, I25.6, I25.8, I25.9 OPCS-4: K40, K40.1, K40.2, K40.3, K40.4, K40.8, K40.9, K41, K41.1, K41.2, K41.3, K41.4, K41.8, K41.9, K42, K42.1, K42.2, K42.3, K42.4, K42.8, K42.9, K43, K43.1, K43.2, K43.3, K43.4, K43.8, K43.9, K44, K44.1, K44.2, K44.8, K44.9, K45.1, K45.2, K45.3, K45.4, K45.5, K45.6, K45.8, K45.9, K46.1, K46.2, K46.3, K46.4, K46.5, K46.8, K46.9, K49.1, K49.2, K49.3, K49.4, K49.8, K49.9, K50.1, K50.2, K50.4, K75.1, K75.2, K75.3, K75.4, K75.8, K75.9
Type 2 diabetes mellitus	ICD-10: E11, E11.0, E11.1, E11.2, E11.3, E11.4, E11.5, E11.6, E11.7, E11.9, E11.9
Atrial fibrillation	ICD 9: 4273 ICD 10: I48.0, I48.1, I48.2, I48.3, I48.4, I48.9