

Figure S1. Flow-diagram of the study group classification process.

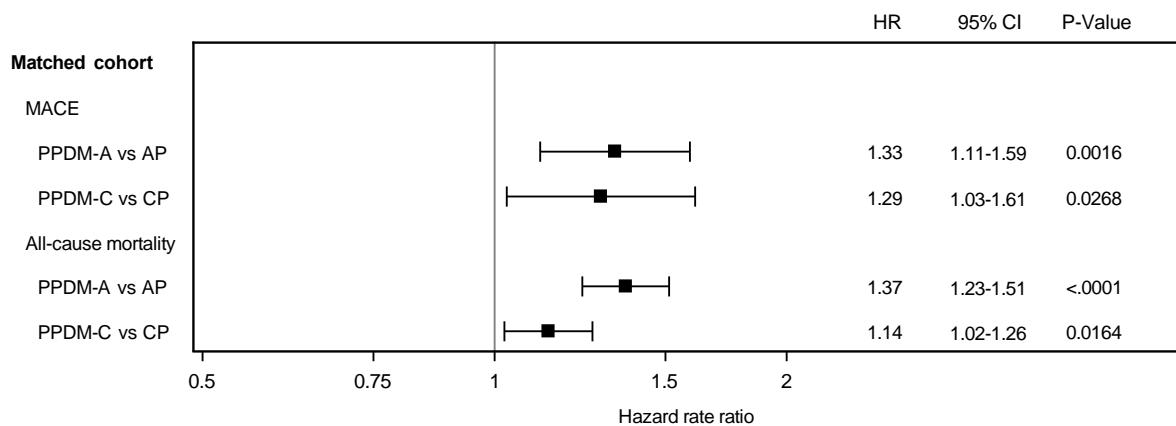


Figure S2. Forest plot showing adjusted hazard rate ratios for MACE and all-cause mortality in individuals with PPDM-A compared to AP (reference group) and PPDM-C compared to CP (reference group). Estimates are retrieved from Cox Proportional Hazards models and presented with 95% confidence intervals (95% CI) and corresponding p values (P-Value). The estimates are shown on a logarithmic scale (log10).

Table S1. ICD-10 and/or ATC codes used for definition of baseline characteristics and outcomes

Parameter	ICD-10 codes	ATC codes
Diabetes mellitus	E10.x, E11.x, E12.x, E13.x, E14.x, G63.2, H28.0, H36.0, M14.2, O24, R73	A10A, A10B
Chronic pancreatitis	K86.0, K86.1	-
Acute pancreatitis	K85.0, K85.1, K85.2, K85.3, K85.8, K85.9	-
Pancreas cancer	C25.x	-
Heavy smoking	J41.x-J44.x, J47.x, Z720.x, F17.x, T652.x	N07BA.x, N06AX12. After age 40: R03A.x, R03B.x, R03C.x, R03DA.x, R03DB.x or R03DX07.
Alcohol abuse	T51.x, G312.x, G621, I426, K292, K70.x, K852, K860 or F10.x	N07BB01, N07BB02, N07BB03 or N07BB05
Obesity	E66.x	A08A.x
Cholelithiasis	K80.x	-
MACE	I21.x, I61.x, I00.x-I99.x (death cause)	-
Severe hypoglycemia	E159.x-E162.x	-
CKD	N18.x	-
Enzyme-replacement	-	A09.x
Antidepressants	-	N06AA.x
Opioids	-	N02A.x
Anxiolytics	-	N05B.x
Antihypertensives	-	C02.x, C03.x, C04.x, C07.x, C08.x, C09.x
Antithrombotics	-	B01.x
Statins	-	C10AA01

Table S2. Charlson comorbidity index presented with score and ICD-10 codes for each comorbidity

Comorbidity	Score	ICD-10 codes
1, Acute myocardial infarction	1	DI21, DI23
2, Cardiac insufficiency	1	DI50, DI110, DI130, DI132
3, Cardiovascular disease	1	DI70, DI71, DI72, DI73, DI74, DI77
4, Cerebrovascular disease	1	DI60-DI69, DG45, DG46
5, Dementia	1	DF00-DF03, DF051, DG30
6, Chronic pulmonary disease	1	DJ40-DJ47, DJ60-DJ67, DJ684, DJ701, DJ703, DJ841, DJ920, DJ961, DJ982, DJ983
7, Connective tissue disease	1	DM05, DM06, DM08, DM09, DM30-DM36, DD86
8, Peptic ulcer	1	DK221, DK25-DK28
9, Mild liver disease	1	DB18, DK700-DK703, DK709, DK71, DK73, DK74, DK760
10, Diabetes mellitus	1	All were given score 1
11, Hemiplegia	1	DG81, DG82
12, Nephrological disease	2	DI12, DI13, DN00-DN05, DN07, DN11, DN14, DN17-DN19, DQ61
13, Late-diabetic complications	2	DE102-DE108, DE112-DE118
14, Solid cancers	2	DC00-DC75
15, Leukemia	2	DC91-DC95
16, Lymphoma	2	DC81-DC85, DC88, DC90, DC96
17, Moderate to severe liver disease	3	DB150, DB160, DB162, DB190, DK704, DK72, DK766, DI85
18, Metastatic cancer	6	DC76-DC80
19, AIDS	6	DB20, DB22, DB23, DB24

Table S3. Baseline characteristics and clinical outcomes of individuals on insulin therapy in the diabetes subgroups

	TYPE 2 DIABETES	PPDM-A	PPDM-C
Number of people	68,076	1,137	1,364
Age (yrs), mean (SD)	57 (15)	56 (14)	54 (11)
Age category (yrs), n (%)			
18-29	2,843 (4.2)	24 (2.1)	25 (1.8)
30-39	6,250 (9.2)	107 (9.4)	121 (8.9)
40-49	11,602 (17.0)	257 (22.6)	384 (28.2)
50-59	17,467 (25.7)	322 (28.3)	451 (33.1)
60-69	16,609 (24.4)	230 (20.2)	269 (19.7)
70-79	9,536 (14.0)	138 (12.1)	90 (6.6)
≥80	3,769 (5.5)	59 (5.2)	24 (1.8)
Sex, n (%)			
Female	28,136 (41.3)	349 (30.7)	385 (28.2)
Male	39,940 (58.7)	788 (69.3)	979 (71.8)
Heavy smokers, n (%)	15,108 (22.2)	288 (25.3)	337 (24.7)
Alcohol abuse, n (%)	3,933 (5.8)	371 (32.6)	976 (71.6)
Outcomes			
MACE, n (%)	8,793 (12.9)	120 (10.6)	115 (8.4)
Nonfatal acute myocardial infarctions, n (%)	5,307 (7.8)	66 (5.8)	69 (5.1)
Nonfatal stroke, n (%)	729 (1.1)	14 (1.2)	13 (1.0)
Cardiovascular death, n (%)	3,922 (5.8)	51 (4.5)	49 (3.6)
Heart failure, n (%)	8,994 (13.2)	107 (9.4)	77 (5.6)
Unstable angina, n (%)	2,006 (2.9)	26 (2.3)	20 (1.5)
Severe hypoglycemia			
Number of episodes, n_{obs} (%)	5,607 (8.2)	291 (25.6)	626 (45.9)
Number of persons, n (%)	3,703 (5.4)	146 (12.8)	262 (19.2)
Number of persons with 1 episode, n (%)	2,639 (3.9)	81 (7.1)	132 (9.7)
Number of persons with 2 episodes, n (%)	683 (1.0)	31 (2.7)	59 (4.3)
Number of persons with >2 episodes, n (%)	381 (0.6)	34 (3.0)	71 (5.2)
Died during follow-up, n (%)	22,989 (33.8)	482 (42.4)	645 (47.3)
Follow up time (person years)	619,311	7,723	8,397
Socioeconomic factors			
Highest completed education, n (%)			
<High-school graduate	36,196 (53.2)	592 (52.1)	671 (49.2)
>High-school graduate	31,102 (45.7)	537 (47.2)	681 (49.9)
Unknown	778 (1.1)	8 (0.7)	12 (0.9)
Income, n (%)			

Low	38,150 (56.0)	651 (57.3)	869 (63.7)
Normal	20,517 (30.1)	351 (30.9)	359 (26.3)
High	8,797 (12.9)	132 (11.6)	136 (10.0)
Unknown	612 (0.9)	3 (0.3)	

Concomitant illnesses

Obesity, n (%)	14,209 (20.9)	195 (17.2)	130 (9.5)
Cholelithiasis, n (%)	2,673 (3.9)	388 (34.1)	216 (15.8)
History of non-fatal MACE, n (%)	3,298 (4.8)	64 (5.6)	62 (4.5)
Chronic kidney disease, n (%)	833 (1.2)	35 (3.1)	29 (2.1)
Charlson comorbidity index, mean (SD)	1.7 (1.5)	2.1 (1.8)	2.2 (1.8)
Charlson category, n (%)			
1-2	46,718 (68.6)	606 (53.3)	661 (48.5)
>2	21,358 (31.4)	531 (46.7)	703 (51.5)

Concomitant medication

Enzyme treatment, n (%)	152 (0.2)	44 (3.9)	510 (37.4)
Antidepressants, n (%)	4,673 (6.9)	124 (10.9)	231 (16.9)
Opioids, n (%)	26,365 (38.7)	780 (68.6)	1,169 (85.7)
Anxiolytics, n (%)	16,926 (24.9)	484 (42.6)	786 (57.6)
Antihypertensives, n (%)	37,765 (55.5)	653 (57.4)	710 (52.1)
Antithrombotics, n (%)	18,316 (26.9)	329 (28.9)	351 (25.7)
Statins, n (%)	15,184 (22.3)	252 (22.2)	228 (16.7)

Table S4. Baseline characteristics and clinical outcomes of individuals in the matched cohort study of pancreatitis patients with and without diabetes

	PPDM-A	PPDM-C	AP	CP
Number of people	3,386	2,060	3,386	2,060
Age (yrs), mean (SD)	61 (15)	59 (12)	61 (16)	61 (12)
Age category (yrs), n (%)				
18-29	82 (2.4)	15 (0.7)	121 (3.6)	13 (0.6)
30-39	254 (7.5)	91 (4.4)	258 (7.6)	67 (3.3)
40-49	495 (14.6)	350 (17.0)	472 (13.9)	276 (13.4)
50-59	783 (23.1)	630 (30.6)	737 (21.8)	588 (28.5)
60-69	802 (23.7)	579 (28.1)	782 (23.1)	623 (30.2)
70-79	621 (18.3)	294 (14.3)	627 (18.5)	383 (18.6)
≥80	349 (10.3)	101 (4.9)	389 (11.5)	110 (5.3)
Sex, n (%)				
Female	1,439 (42.5)	694 (33.7)	1,439 (42.5)	694 (33.7)
Male	1,947 (57.5)	1,366 (66.3)	1,947 (57.5)	1,366 (66.3)
Heavy smokers, n (%)	1,009 (29.8)	719 (34.9)	1,144 (33.8)	968 (47.0)
Alcohol abuse, n (%)	775 (22.9)	1,288 (62.5)	513 (15.2)	1,121 (54.4)
Outcomes				
MACE, n (%)	351 (10.4)	219 (10.6)	232 (6.9)	140 (6.8)
Nonfatal acute myocardial infarctions, n (%)	163 (4.8)	115 (5.6)	95 (2.8)	52 (2.5)
Nonfatal stroke, n (%)	25 (0.7)	30 (1.5)	29 (0.9)	17 (0.8)
Cardiovascular death, n (%)	198 (5.8)	107 (5.2)	140 (4.1)	88 (4.3)
Heart failure, n (%)	278 (8.2)	129 (6.3)	147 (4.3)	105 (5.1)
Unstable angina, n (%)	68 (2.0)	36 (1.7)	33 (1.0)	20 (1.0)
Severe hypoglycemia				
Number of episodes, <i>n_{obs}</i> (%)	326 (9.6)	549 (26.7)	-	-
Number of persons, <i>n</i> (%)	169 (5.0)	236 (11.5)	-	-
Number of persons with 1 episode, <i>n</i> (%)	98 (2.9)	126 (6.1)	-	-
Number of persons with 2 episodes, <i>n</i> (%)	35 (1.0)	51 (2.5)	-	-
Number of persons with >2 episodes, <i>n</i> (%)	36 (1.1)	59 (2.9)	-	-
Died during follow-up, <i>n</i> (%)	1,201 (35.5)	1,015 (49.3)	702 (20.7)	715 (34.7)
Follow up time (person years)	18,612	10,960	22,524	11,249
Socioeconomic factors				
Highest completed education, n (%)				

<High-school graduate	1,725 (50.9)	1,047 (50.8)	1,531 (45.2)	982 (47.7)
>High-school graduate	1,631 (48.2)	987 (47.9)	1,829 (54.0)	1,062 (51.6)
Unknown	30 (0.9)	26 (1.3)	26 (0.8)	16 (0.8)
Income, n (%)				
Low	2,000 (59.1)	1,374 (66.7)	1,627 (48.1)	1,159 (56.3)
Normal	1,004 (29.7)	508 (24.7)	1,159 (34.2)	623 (30.2)
High	378 (11.2)	178 (8.6)	599 (17.7)	277 (13.4)
Unknown	<5	<5	<5	<5
Concomitant illnesses				
Obesity, n (%)	797 (23.5)	226 (11.0)	509 (15.0)	178 (8.6)
Cholelithiasis, n (%)	1,536 (45.4)	378 (18.3)	1,807 (53.4)	409 (19.9)
History of non-fatal MACE, n (%)	233 (6.9)	132 (6.4)	156 (4.6)	118 (5.7)
Chronic kidney disease, n (%)	103 (3.0)	54 (2.6)	50 (1.5)	58 (2.8)
Charlson comorbidity index, mean (SD)	2.1 (1.7)	2.4 (1.8)	0.9 (1.5)	1.5 (2.0)
Charlson category, n (%)				
1-2	1,773 (52.4)	881 (42.8)	3,021 (89.2)	1,650 (80.1)
>2	1,613 (47.6)	1,179 (57.2)	365 (10.8)	410 (19.9)
Concomitant medication				
Enzyme treatment, n (%)	76 (2.2)	723 (35.1)	22 (0.6)	484 (23.5)
Antidepressants, n (%)	371 (11.0)	378 (18.3)	275 (8.1)	309 (15.0)
Opioids, n (%)	2,312 (68.3)	1,737 (84.3)	1,932 (57.1)	1,509 (73.3)
Anxiolytics, n (%)	1,337 (39.5)	1,136 (55.1)	1,024 (30.2)	1,034 (50.2)
Antihypertensives, n (%)	2,293 (67.7)	1,293 (62.8)	1,825 (53.9)	1,208 (58.6)
Antithrombotics, n (%)	1,308 (38.6)	750 (36.4)	1,031 (30.4)	690 (33.5)
Statins, n (%)	1,110 (32.8)	530 (25.7)	738 (21.8)	500 (24.3)