Supplemental Table 1: Read Codes for Alzheimer's Disease Case Definition

Read Code	Description
F110.00	Alzheimer's disease
Eu00.00	[X]Dementia in Alzheimer's disease
Eu00z11	[X]Alzheimer's dementia unspec
Eu00112	[X]Senile dementia,Alzheimer's type
Eu00200	[X]Dementia in Alzheimer's dis, atypical or mixed type
Eu00z00	[X]Dementia in Alzheimer's disease, unspecified
F110000	Alzheimer's disease with early onset
F110100	Alzheimer's disease with late onset
Eu00100	[X]Dementia in Alzheimer's disease with late onset
Eu00000	[X]Dementia in Alzheimer's disease with early onset
ZR1K.00	Alzheimer's disease assessment scale
ZR1K.11	ADAS - Alzheimer's disease assessment scale
13Y7.00	Alzheimer's disease society member
Eu00113	[X]Primary degen dementia of Alzheimer's type, senile onset
Eu00011	[X]Presenile dementia,Alzheimer's type
Eu00111	[X]Alzheimer's disease type 1
Eu00013	[X]Alzheimer's disease type 2
Eu00012	[X]Primary degen dementia, Alzheimer's type, presenile onset
Fyu3000	[X]Other Alzheimer's disease

Supplemental Table 2. Incidence Rates and Hazard Ratios (HR) for and Alzheimer's disease by Gout Status Using an <u>Alternative Definition</u>, according to subgroups

	Gout Status	N	Cases	Follow-up Time (person-years)	Mean Follow-up (years)	Incidence Rate (cases per 1000 person-years)	Age, Sex, Entry-time, and BMI-Matched HR (95%CI)[*]	+ GPs visits, continuous BMI, Smoking, and Alcohol Adjusted HR (95%CI)	+ Comorbidity and CVD Drug Adjusted HR[*] (95%CI)
Total	Yes	31799	145	171054.1	5.4	0.8 (0.7 to 1.0)	0.58 (0.48 to 0.70)	0.58 (0.48 to 0.70)	0.64 (0.53 to 0.78)
	No	128024	1062	691982.6	5.4	1.5 (1.4 to 1.6)	1.0 (reference)	1.0 (reference)	1.0 (reference)
Female	Yes	9099	57	44849.9	4.9	1.3 (1.0 to 1.6)	0.52 (0.38 to 0.69)	0.55 (0.40 to 0.74)	0.60 (0.44 to 0.82)
	No	36088	487	185475.1	5.1	2.6 (2.4 to 2.9)	1.0 (reference)	1.0 (reference)	1.0 (reference)
Male	Yes	22700	88	126204.3	5.6	0.7 (0.6 to 0.9)	0.63 (0.49 to 0.80)	0.61 (0.48 to 0.78)	0.68 (0.53 to 0.88)
	No	91936	575	506507.5	5.5	1.1 (1.0 to 1.2)	1.0 (reference)	1.0 (reference)	1.0 (reference)
<75 years	Yes	23456	71	139022.5	5.9	0.5 (0.4 to 0.6)	0.67 (0.51 to 0.88)	0.66 (0.51 to 0.87)	0.72 (0.54 to 0.96)
	No	94988	473	560341.4	5.9	0.8 (0.8 to 0.9)	1.0 (reference)	1.0 (reference)	1.0 (reference)
75-90 years	Yes	8343	74	32031.7	3.8	2.3 (1.8 to 2.9)	0.51 (0.39 to 0.66)	0.51 (0.39 to 0.67)	0.57 (0.43 to 0.75)
	No	33036	589	131641.2	4.0	4.5 (4.1 to 4.9)	1.0 (reference)	1.0 (reference)	1.0 (reference)
High Socio-Economic Depravity (SDI>2)	Yes	12715	56	68107.6	5.4	0.8 (0.6 to 1.1)	0.52 (0.35 to 0.76)	0.56 (0.40 to 0.78)	0.60 (0.42 to 0.84)
	No	49783	456	269689.0	5.4	1.7 (1.5 to 1.9)	1.0 (reference)	1.0 (reference)	1.0 (reference)
Low Socio-Economic Depravity (SDI≤2)	Yes	19084	89	102946.6	5.4	0.9 (0.7 to 1.1)	0.62 (0.47 to 0.80)	0.59 (0.42 to 0.82)	0.67 (0.47 to 0.94)
	No	78241	606	422293.6	5.4	1.4 (1.3 to 1.6)	1.0 (reference)	1.0 (reference)	1.0 (reference)
Hypertension	Yes	19062	96	96699.5	5.1	1.0 (0.8 to 1.2)	0.62 (0.48 to 0.80)	0.63 (0.48 to 0.82)	0.63 (0.48 to 0.84)
	No	56481	514	277730.7	4.9	1.9 (1.7 to 2.0)	1.0 (reference)	1.0 (reference)	1.0 (reference)
No Hypertension	Yes	12737	49	74354.6	5.8	0.7 (0.5 to 0.9)	0.57 (0.38 to 0.85)	0.56 (0.38 to 0.85)	0.57 (0.38 to 0.87)
	No	71543	548	414251.9	5.8	1.3 (1.2 to 1.4)	1.0 (reference)	1.0 (reference)	1.0 (reference)
Hyperlipidemia	Yes	14149	66	63187.4	4.5	1.0 (0.8 to 1.3)	0.58 (0.41 to 0.81)	0.53 (0.37 to 0.75)	0.56 (0.39 to 0.82)
	No	44697	357	196501.3	4.4	1.8 (1.6 to 2.0)	1.0 (reference)	1.0 (reference)	1.0 (reference)
No Hyperlipidemia	Yes	17650	79	107866.7	6.1	0.7 (0.6 to 0.9)	0.59 (0.45 to 0.78)	0.60 (0.45 to 0.78)	0.68 (0.51 to 0.91)
	No	83327	705	495481.3	5.9	1.4 (1.3 to 1.5)	1.0 (reference)	1.0 (reference)	1.0 (reference)
CVD	Yes	9647	48	45686.3	4.7	1.1 (0.8 to 1.4)	0.50 (0.33 to 0.77)	0.42 (0.26 to 0.67)	0.51 (0.30 to 0.85)
	No	27540	282	134444.4	4.9	2.1 (1.9 to 2.4)	1.0 (reference)	1.0 (reference)	1.0 (reference)
No CVD	Yes	22152	97	125367.8	5.7	0.8 (0.6 to 0.9)	0.61 (0.48 to 0.79)	0.61 (0.48 to 0.79)	0.66 (0.50 to 0.85)
	No	100484	780	557538.2	5.5	1.4 (1.3 to 1.5)	1.0 (reference)	1.0 (reference)	1.0 (reference)

*Adjusted for the covariates in Table 1, except for the sub-group variables