



Supplementary Material

Article Title: Long-Term Use of Antidepressant and the Risk of Type 2 Diabetes Mellitus: A Population-Based Nested Case-Control Study in Taiwan

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Supplementary eTable 1. Demographic and clinical characteristics of study population, by antidepressant use^a

	Antidepressant users (n=77,459)		Non-users (n=491,645)	
	N	(%)	N	(%)
Age at index date, year				
<45	34511	(44.6)	312854	(63.6)
45-54	17196	(22.2)	91270	(18.6)
55-64	11179	(14.4)	46523	(9.5)
≥65	14573	(18.8)	43524	(8.9)
Gender, male	31473	(40.6)	256676	(52.2)
Medical illness				
Hypertension	17711	(22.9)	45431	(9.2)
Dyslipidemia	7478	(9.7)	21399	(4.4)
Cerebrovascular disease	7478	(9.7)	21399	(4.4)
Chronic heart failure	2800	(3.6)	5322	(1.1)
Chronic pulmonary disease	11003	(14.2)	36781	(7.5)
Chronic renal failure	2052	(2.6)	5577	(1.1)
Malignancy	2440	(3.2)	5646	(1.1)
Psychiatric illness				
Mood disorders	15497	(20.0)	1710	(0.3)
Psychotic disorders	1609	(2.1)	1711	(0.3)
Anxiety disorders	20144	(26.0)	14435	(2.9)
Sleep disorders	15139	(19.5)	16500	(3.4)
Alcohol related disorder	855	(1.1)	1438	(0.3)
Concomitant use of medication				
Antithrombotic agent	12161	(15.7)	26726	(5.4)
Anti-hypertensive agent	27732	(35.8)	57692	(11.7)
Corticosteroid	22403	(28.9)	99116	(20.2)
Diuretic	8945	(11.5)	21473	(4.4)

Lipid lowering agent	3656	(4.7)	9039	(1.8)
Female sex hormones	11474	(14.8)	40351	(8.2)
Antipsychotics	8383	(10.8)	11337	(2.3)
Mood stabilizer	3035	(3.9)	2876	(0.6)
Health system utilization				
Number of outpatient visit per year				
<10	14897	(19.2)	232595	(47.3)
10-19	22236	(28.7)	145342	(29.6)
≥20	40326	(52.1)	116234	(23.6)
Hospitalization	9709	(12.5)	29195	(5.9)

a all p-value <0.001

Supplementary eTable 2. Demographic and clinical characteristics of case with diabetes and comparison subjects between 2000 and 2009

	Cases (N=33,480)		Controls (N=33,480)		p-value
	N	(%)	N	(%)	
Age at index date, year					
<45	6299	(18.8)	6299	(18.8)	
45-54	9439	(28.2)	9439	(28.2)	
55-64	8019	(24.0)	8019	(24.0)	
≥65	9723	(29.0)	9723	(29.0)	
Gender, male	18331	(54.8)	18331	(54.8)	
Medical illness					
Hypertension	9157	(27.4)	9106	(27.2)	.658
Hyperlipidemia	3109	(9.3)	3058	(9.1)	.496
Cerebrovascular disease	1125	(3.4)	1132	(3.4)	.881
Chronic heart failure	627	(1.9)	613	(1.8)	.688
Chronic pulmonary disease	3795	(11.3)	3762	(11.2)	.687
Chronic renal failure	428	(1.3)	424	(1.3)	.890

Malignancy	419	(1.3)	420	(1.3)	.972
Psychiatric illness					
Mood disorders	853	(2.5)	855	(2.6)	.961
Psychotic disorders	151	(0.5)	149	(0.4)	.908
Anxiety disorders	2291	(6.8)	2297	(6.9)	.927
Sleep disorders	1950	(5.8)	1945	(5.8)	.934
Alcohol related disorder	112	(0.3)	106	(0.3)	.684
Concomitant use of medication					
Antithrombotic agent	4151	(12.4)	4112	(12.3)	.647
Anti-hypertensive agent	10292	(30.7)	10291	(30.7)	.993
Corticosteroid	7468	(22.3)	7445	(22.2)	.831
Diuretic	3654	(10.9)	3594	(10.7)	.456
Lipid lowering agent	1444	(4.3)	1408	(4.2)	.491
Female sex hormones	2581	(7.7)	2599	(7.8)	.795
Antipsychotics	1055	(3.2)	1052	(3.1)	.947
Mood stabilizer	264	(0.8)	273	(0.8)	.697
Health system utilization					

Number of outpatient visit per year

<10	10414	(31.1)	10453	(31.2)	.912
10-19	9969	(29.8)	9982	(29.8)	
≥20	13097	(39.1)	13045	(39.0)	
Hospitalization	2069	(6.2)	2094	(6.3)	.689

Supplementary eTable 3. Diabetes Risk Associated with Antidepressant Using Propensity Score-Matching Methods

	Cases (N=33,480)		Controls (N=33,480)		Adjusted OR	(95% CI)
	N	(%)	N	(%)		
Antidepressant exposure status						
Non-use	23923	(71.5)	24254	(72.4)	1	referent
Overall cumulative period						
<1 year	5817	(17.4)	5587	(16.7)	1.04	(1.01-1.08)
1-2 years	301	(0.9)	270	(0.8)	1.09	(0.96-1.24)
≥2 years	306	(0.9)	232	(0.7)	1.2	(1.06-1.36)
Average daily dose and cumulative period						
≤0.5 DDD and < 2 years	3883	(11.6)	3773	(11.3)	1.03	(1.00-1.07)
≤0.5 DDD and ≥ 2 years	126	(0.4)	112	(0.3)	1.1	(0.91-1.33)
>0.5 DDD and < 2 years	2235	(6.7)	2084	(6.2)	1.06	(1.01-1.12)
>0.5 DDD and ≥ 2 years	180	(0.5)	120	(0.4)	1.29	(1.09-1.52)
Antidepressant classes and cumulative period						
Overall antidepressants < 2 years	6118	(18.3)	5857	(17.5)	1.04	(1.01-1.08)
Tricyclic antidepressants ≥ 2 years	103	(0.3)	71	(0.2)	1.25	(1.01-1.54)
SSRIs ≥ 2 years	61	(0.2)	34	(0.1)	1.42	(1.06-1.89)
SNRIs ≥ 2 years	8	0.0	7	0.0	1.11	(0.53-2.31)
SARIs ≥ 2 years	52	(0.2)	46	(0.1)	1.1	(0.82-1.48)

Others ≥ 2 years	6	0.0	6	0.0	1.03 (0.43-2.47)
Polypharmacy ≥ 2 years ^a	76	(0.2)	68	(0.2)	1.1 (0.86-1.42)