

Data Supplement to Gerhard et al. Comparative mortality risks of antipsychotic medications in community-dwelling older adults. *Br J Psychiatry* doi: 10.1192/bjp.bp.112.122499

Table DS1 Dose conversion to chlorpromazine equivalencies

Antipsychotic Agent	Chlorpromazine (CPZ) equivalencies (APM dose * <i>FACTOR</i> = 100 mg of CPZ)†	Chlorpromazine (CPZ) equivalencies (APM dose * <i>FACTOR</i> = 100 mg of CPZ)‡
Haloperidol	50	54.3
Aripiprazole	13.3	15.6
Olanzapine	20	21.1
Quetiapine	1.3	0.7
Risperidone	50	75.8
Ziprasidone	1.7	1.98

†Woods et al. (28)

‡Andreasen et al. (29)

Table DS2. APM Dose Distributions Observed in the Study Population

Mg chlorpromazine equivalencies* (mg actual dose)														
Percentile	All APMs combined		Risperidone		Olanzapine		Quetiapine		Haloperidol		Aripiprazole		Ziprasidone	
10	25	(n/a)	13	(0.25)	50	(2.5)	33	(25)	25	(0.5)	67	(5.0)	34	(20)
20	25	(n/a)	25	(0.5)	50	(2.5)	33	(25)	25	(0.5)	67	(5.0)	34	(20)
30	33	(n/a)	25	(0.5)	50	(2.5)	33	(25)	50	(1.0)	67	(5.0)	68	(40)
40	50	(n/a)	25	(0.5)	50	(2.5)	33	(25)	50	(1.0)	67	(5.0)	68	(40)
50	50	(n/a)	25	(0.5)	100	(5.0)	65	(50)	50	(1.0)	133	(10.0)	68	(40)
60	50	(n/a)	50	(1.0)	100	(5.0)	65	(50)	100	(2.0)	133	(10.0)	68	(40)
70	98	(n/a)	50	(1.0)	100	(5.0)	65	(50)	100	(2.0)	133	(10.0)	102	(60)
80	100	(n/a)	50	(1.0)	100	(5.0)	98	(75)	150	(3.0)	200	(15.0)	136	(80)
90	150	(n/a)	100	(2.0)	200	(10.0)	130	(100)	250	(5.0)	200	(15.0)	204	(120)
Dose group**	Mg CPZ	% of patients	Mg RIS	% of patients	Mg OLA	% of patients	Mg QUE	% of patients	Mg HAL	% of patients	Mg ARI	% of patients	Mg ZIP	% of patients
Low	]0,50[	33.1%	≤0.5	55.7%	≤2.5	48.3%	≤25	48.6%	≤1	52.2%	≤5	42.4%	≤20	24.9%
Medium	[50,75]	36.0%	]0.5,1]	29.5%	]2.5,5]	33.3%	]25,50]	27.8%	]1,4]	33.9%	]5,15[	33.0%	]20,60[	41.7%
High	>75	30.9%	>1	14.8%	>5	18.4%	>50	23.5%	>4	13.9%	≥15	24.6%	≥60	33.4%

* using the conversion from Woods et al. (28)

**for dose-response analyses

Table DS3. Consistency of Prescribed Daily APM Dose Over Follow-up

	Last dose same as index dose (%)	Second dose same as index dose (%)*
All study APMs	82.98	88.16
Risperidone	81.98	87.52
Olanzapine	83.92	88.82
Quetiapine	80.90	87.21
Haloperidol	87.22	90.10
Aripiprazole	84.56	88.97
Ziprasidone	87.14	89.50

* For those without second APM claim except the index claim before the censoring date, index dose is used as the second dose in the calculation.

Table DS4. Death within 180 days after start of new antipsychotic medication*

	Risperidone n=49,333 pyrs=11,262		Olanzapine n=44,296 pyrs=10,674		Quetiapine n=26,130 pyrs=6,136		Haloperidol n=13,159 pyrs=2,261		Aripiprazole n=1,908 pyrs=429		Ziprasidone n=1,567 pyrs=328	
	N	Rate (95%CI)	N	Rate (95%CI)	N	Rate (95%CI)	N	Rate (95%CI)	N	Rate (95%CI)	N	Rate (95%CI)
Non-cancer mortality	1,654	14.7 (14.0-15.4)	1,204	11.3 (10.6-11.9)	594	9.7 (8.9-10.5)	710	31.4 (29.1-33.7)	25	5.8 (3.5-8.1)	29	8.8 (5.6-12.1)
Cause-specific mortality												
Circulatory system	897	8.0 (7.4-8.5)	685	6.4 (5.9-6.9)	330	5.4 (4.8-6.0)	399	17.7 (15.9-19.4)	13	3.0 (1.4-4.7)	17	5.2 (2.7-7.6)
Cerebrovascular diseases	155	1.4 (1.2-1.6)	99	0.9 (0.7-1.1)	53	0.9 (0.6-1.1)	68	3.0 (2.3-3.7)	n/a	0.2 (0.0-0.7)	n/a	0.6 (0.0-1.5)
Respiratory system	230	2.0 (1.8-2.3)	178	1.7 (1.4-1.9)	84	1.4 (1.1-1.7)	101	4.5 (3.6-5.3)	n/a	1.4 (0.3-2.5)	n/a	0.9 (0.0-2.0)
Other	527	4.7 (4.3-5.1)	341	3.2 (2.9-3.5)	180	2.9 (2.5-3.4)	210	9.3 (8.0-10.5)	n/a	1.4 (0.3-2.5)	n/a	2.7 (1.0-4.5)

*: Rate expressed per 100 person-years (pyrs)
n/a: cell size under 10.

Table DS5. Hazard ratios of death during different follow-up periods

	HR (95% CI)							
	Full Duration (180 days)		Duration 1 (0 - 39 days)		Duration 2 (40 - 79 days)		Duration 3 (80 - 180 days)	
NON-CANCER MORTALITY								
Risperidone	1.0	-	1.0	-	1.0	-	1.0	-
Olanzapine	0.99	(0.91-1.07)	0.98	(0.91-1.06)	1.02	(0.91-1.15)	0.96	(0.81-1.15)
Quetiapine	0.81	(0.73-0.89)	0.89	(0.80-0.98)	0.84	(0.72-0.97)	0.71	(0.56-0.90)
Haloperidol	1.45	(1.31-1.60)	1.42	(1.29-1.56)	1.23	(1.04-1.45)	1.04	(0.76-1.42)
Aripiprazole	0.66	(0.42-1.02)	0.71	(0.46-1.10)	0.81	(0.43-1.52)	1.03	(0.48-2.23)
Ziprasidone	0.87	(0.59-1.30)	0.91	(0.61-1.34)	1.06	(0.59-1.89)	1.03	(0.46-2.34)

Note: Hazard ratios are hdPS-adjusted.

Table DS6. Stratified analyses of death within 180 Days

	Haloperidol		Aripiprazole		Olanzapine		Quetiapine		Ziprasidone	
	HR	95%CI	HR	95%CI	HR	95%CI	HR	95%CI	HR	95%CI
DEMENTIA	1.28	(1.09-1.49)	0.56	(0.26-1.19)	0.94	(0.83-1.06)	0.84	(0.72-0.97)	0.89	(0.50-1.58)
No DEMENTIA	1.55	(1.37-1.75)	0.66	(0.37-1.18)	1.01	(0.91-1.11)	0.80	(0.70-0.92)	0.64	(0.34-1.21)
AGE 65-80	1.57	(1.32-1.86)	0.64	(0.36-1.16)	0.95	(0.83-1.09)	0.78	(0.66-0.93)	0.49	(0.23-1.03)
AGE ≥81	1.29	(1.15-1.45)	0.72	(0.37-1.39)	1.01	(0.91-1.11)	0.80	(0.70-0.91)	1.14	(0.68-1.90)

Note: Reference category for all comparisons is risperidone. All hazard ratios are adjusted using stratum specific high-dimensional propensity scores.