

Supplementary Appendix

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Title: Real-World Evidence on Levetiracetam-Induced hypokalemia: An Active Comparator Cohort Study

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This appendix contains additional information about the paper including codes used and sensitivity analysis. It should be read with the main text.

Table S1: List of ICD-10 codes used in identifying comorbidities during the six months prior to index date.

Disease	ICD-10 Code
Adrenal insufficiency	E27
Alcoholism or drug abuse	F10-F19
Allergy	H01, J30, L23, L27, L56, K52, K90, T78, T88
Anemia	D50, D52-D53, D55-D64
Anxiety	F40-F41
Asthma or COPD	J40, J41, J42, J44, J45, J46, J47
Atherosclerosis or PAOD	I65-I67, I70, I73
Barter syndrome	E87.8
Cancer	C1-C97, D00-D09, D37-D48
Cardiac insufficiency	I50
Cardiac valve disorders	I34-I37
Cardiac arrhythmias	I44-I49
Cerebral ischemia or chronic stroke	I60-I64, I69, G45
Chronic cholecystitis gallstones	K80, K81
Chronic ischemic heart disease	I20-I21, I25
Dementia	F01-F03, F05, G30-G31, R54
Depression	F32-F33
Diarrhea	K59.1, R19.7
Diabetes mellitus	E10-E14
Epilepsy	G40.3, G40.4, G40.9
Gastritis or GERD	K21, K25-K29
Heart Failure	I09, I50, I97
Hyperlipidemia	E78
Hypertension	I10-I16
Liver Disease	K70-K74, K76
Magnesium Deficiency	E61.2
Parkinson disease	G20-G22
Renal Insufficiency	I12-I13, N00-N05, N07, N11, N14, N17-N19, Z49.2

ICD-10: The International Classification of Diseases 10th Revision.

Table S2: Sensitivity analysis results in which adjustment for cumulative dosage was considered. Cumulative dosage calculated as the dose received (in milligrams) from the medication initiation to the onset of event.

Hypokalemia identified by laboratory test or clinical diagnosis with a follow-up of 6-months						
6-months	Levetiracetam	6,500	97	303	1.89 (95% CI: 1.05-3.41)	2.04 (95% CI: 1.28 -3.27)
6-months	Carbamazepine	2,482	7	57	Reference	Reference
Moderate to severe hypokalemia identified by laboratory test with a follow-up of 6-months						
6-months	Levetiracetam	6,500	25	78	2.03 (95% CI: 0.82 – 5.04)	2.41 (95% CI: 1.26 -4.58)
6-months	Carbamazepine	2,482	3	24	Reference	Reference

CI: confidence interval; HR: hazard ratio; IPTW: Inverse Probability of Treatment Weighting; PS: propensity score; pyrs: patient year.