READ ME file for Medication-wide Association Study of Dementia

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The accompanying dataset is a results table from a medication-wide association study of dementia using the Secure Anonymised Information Linkage databank Dementia electronic Cohort (SAIL-DeC). SAIL-DeC is an electronic cohort composed entirely from routinely-collected healthcare data from Wales, UK.

The creation of the SAIL-DeC resource is detailed at:

Schnier C, Wilkinson T et al. Cohort profile: The Secure Anonymised Information Linkage databank Dementia e-cohort (SAIL-DeC). International Journal of Population Data Science. 2020 Feb 25;5(1).

Available at https://ijpds.org/article/view/1121 .

For questions regarding accessing SAIL-DeC data, visit https://saildatabank.com or https://portal.dementiasplatform.uk/Home/SAILDementiaECohort

Details of study:
This hypothesis-generating study involved a study population of 551,334 individuals (16,998 of whom developed dementia during follow-up), selected from the SAIL-DeC resource. 744 medications were included in the analysis. By publishing the results table, we hope to minimise bias from selective reporting, and provide an opportunity for other researchers to examine the results to generate hypotheses for further investigation.

Description of files contained within this folder:

* results.csv
This is the results table from the full study population (training

and validation cohorts combined). Each row contains the results for one medication.

The fields are:
- bnf_code – code containing the British National Formulary chapter and section (e.g. 1.1 is Chapter 1, Section 1 from the BNF).
- read_code – the corresponding Read version 2 code for that medication
- drug – name of drug
- cases_exposed – number of people who developed dementia who were exposed to this drug. This is not the same as the total sample size.
- overall_HR – the hazard ratio for being exposed to that drug and the development of dementia
- p_value – the corresponding p value
- year5_HR – hazard ratio from the sensitivity analysis in which people who developed dementia <5 years after being exposed to the drug for the first time were excluded
- year5_p_value – the corresponding p value for the 5-year sensitivity analysis
- year10_HR – hazard ratio from the sensitivity analysis in which people who developed dementia <10 years after being exposed to the drug for the first time were excluded
- year10_p_value – the corresponding p value for the 10-year sensitivity analysis
- alzheimers_HR – the hazard ratio from the sensitivity analysis in which only Alzheimer's disease subtype codes were used as the outcome (as opposed to all-cause dementia)
- alzheimers_p_value – the corresponding p value for the Alzheimer's disease sensitivity analysis
- fdr_select – whether the drug passed the less stringent correction for multiple testing (False Discovery Rate of 10% in training dataset and p<0.05 in validation dataset). 1 = yes, 0 = no.
- bonf_select – whether the drug passed the stringent correction for multiple testing (Bonferroni correction in training and validation datasets). 1 = yes, 0 = no.

Note: numbers <10 have been masked to preserve de-identification of individuals.