READ ME file for Medication-wide Association Study of Dementia

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The accompanying files comprise supplementary data 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.


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郝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郝p_value - the corresponding p value for the 5-year sensitivity analysis
year10郝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郝p_value - the corresponding p value for the 10-year sensitivity analysis
alzheimers郝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郝p_value - the corresponding p value for the Alzheimer’s disease sensitivity analysis
fdr郝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.
bmnf郝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.

* Code_list.docx
This file contains the codes used to identify medications and dementia cases in the study
- Medication codes (Read version 2)
- Dementia codes (primary care - Read version 2, hospital admissions and mortality - ICD-10)

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