

Farr@Aberdeen Research Theme: Aberdeen Children of the 1950s Cohort studies (leveraged funding)

Evaluating the health burden of systemic vasculitis

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Anti-neutrophil cytoplasmic antibody (ANCA)-associated vasculitis (AAV) constitutes a group of rare, multisystem autoimmune disorders. The advent of immunosuppressive therapy in the 1980s has transformed the fatal nature of these diseases into chronic, relapsing conditions. Although patient longevity has improved considerably, patients with AAV still have to live with a considerable comorbidity burden which awaits to be quantified. The overall aim of this project is to increase the understanding of the health burden of comorbidities in AAV.

So far, we have identified patients with AAV from major hospitals in NHS Fife, Grampian, Greater Glasgow and Clyde, Highland, Lothian, and Tayside. These patients will be matched with five age-, sex-, and geography-matched patients without AAV from the general population register. Currently, data linkage is being undertaken with the following datasets: General acute/Inpatient dataset (SMR01), Mental Health Inpatient dataset (SMR04), Scottish Cancer Registry (SMR06), Outpatient dataset (SMR00), Prescribing Information System, and the National Records of Scotland Death Records.

The linked datasets will allow us to follow the patient journey within the healthcare system to (i) identify the acquisition of comorbidities in patients with AAV, (ii) compare the burden of comorbidities in AAV to that in the general population, and (iii) assess the putative risk factors for the occurrence of comorbidities in AAV. The statistical methods used will include descriptive statistics as well as regression analysis, such as conditional logistic regression for comparing the occurrence of comorbidities in patients with and without AAV, and survival analysis methods for investigating the putative risk factors for the occurrence of comorbidities in AAV. The increased understanding of comorbidities in AAV through the results of this project could inform the planning of care and management of patients with AAV.

Terms:

AAV: ANCA-associated vasculitis; AAV constitutes a group of rare, autoimmune conditions which predominantly affect small to medium-sized blood vessels. The three diseases which belong to this group are granulomatosis with polyangiitis, eosinophilic granulomatosis with polyangiitis, and microscopic polyangiitis.

Acknowledgement:

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Benzodiazepines and Z-drugs Prescribing Patterns over Time among the Aberdeen Children of the Nineteen Fifties Cohort

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Long-term benzodiazepines (BZD) and Z-drugs prescribing is concerning worldwide, due to the associated risks. Despite guidelines to limit prescribing, the sustained prescribing level in Scotland over the last decade suggests long-term use. Understanding BZD and Z-drugs prescribing patterns and associated confounders might help prevent long-term use.

Few studies have examined BZD and Z-drugs prescribing patterns in relation to the guidelines because national prescribing reports present aggregated prescribing information. This means it is not possible to distinguish between regular or intermittent users or examine actual daily doses nor examine whether particular patient characteristics are related to long-term prescribing nor is it possible to examine how prescribing changes in a group of people as they age. Patient-level information is needed.

The Aberdeen Children of the Nineteen Fifties (ACONF) cohort (all 12,150 children born 1950-1956 and attending primary school in December 1962) combines early-life circumstances with more recent social and health-related information. The cohort also offers unique opportunity to investigate social mobility since Aberdeen was one of the poorest cities during the 1960s/1970s, becoming one of the most affluent Scottish cities with the rapid growth of the oil industry. ACONF are currently in the age group which has the highest prevalence of BZD and Z-drugs prescribing.

Aim

To understand BZD and Z-drugs prescribing patterns among the ACONF cohort since 2009, including the characteristics of those prescribed these drugs (including early, mid and current life socioeconomic status and circumstances, social mobility and multimorbidity), and their perceptions of anxiety, insomnia and BZD and Z-drugs.

Methods

Firstly, a data linkage study in which the ACONF will be linked to Scottish electronic health datasets: the Prescribing Information System (PIS), the Scottish Drug Misuse Database (SDMD), and the Scottish Morbidity Database (SMD, a permanently linked database which links together general hospital admissions (SMR01), psychiatric hospital admissions (SMR04), the Scottish Cancer Registry (SMR06), and death information).

Secondly, a qualitative study will examine in-depth ACONF members' perceptions about anxiety, insomnia and these drugs.

Progress to date:

A comprehensive literature review has been conducted; the study protocol developed and permissions are being sought for the data linkage study.