HICG/1/39 - Utilising Routinely Collected Electronic Medical Records to Predict Dementia

Dementia has catastrophic implications for affected individuals, their family and wider society. Research is, therefore, needed to investigate the variability in susceptibility and treatment response to the disease. However, patients with dementia are challenging to study and identify for treatment because the diagnosis is not easily observable in medical records. The apolipoprotein E ε4 (ApoE4) genotype has been shown in literature and in an internal pilot study to be a robust biomarker for predicting the late-onset of dementia. In this project, the Electronic Medical Records (EMRs) for 18,190 individuals within the large Genetics of Diabetes Audit and Research in Tayside Study (GoDARTS) bioresource will be used to develop and validate a dementia phenotype algorithm. The algorithm will be validated and tested against the ApoE4 genotype of the individuals and then could be applied routinely across the EMRs of the Scottish population to identify potentially undiagnosed dementia sufferers/cases.