Projects beginning in 2003

2003/001

Anaemia and mortality in Busselton

Aims

The aim of this project is to examine the relationship between anaemia (haemoglobin) and mortality in the 1978 and 1994/5 survey cohorts. The 1978 survey cohort was chosen because it has a good collection of disease history information and now has 23 years of mortality followup. The 1994/5 survey was chosen because it has a good collection of medication data and ferritin levels (1978 does not) and still has 6/7 years of mortality followup.

Investigators

- Dr Liz Milward, School of Biomedical Sciences, University of Newcastle
- Prof Matthew Knuiman, School of Population Health, UWA
- Prof John Olynk, Dept of Medicine, UWA

Project status

In progress

2003/002

Metabolic syndrome and non-alcoholic fatty liver disease in Busselton

Aims

1. Determine the prevalence of the metabolic syndrome and its components in the adult Busselton population.
2. Quantify the cardiovascular disease outcomes of the metabolic syndrome in an Australian population.
3. Determine the prevalence of low grade inflammation in the Busselton population, its associations with cardiovascular risk factors and metabolic syndrome, and whether it is an independent risk factor for cardiovascular diseases.
4. Define the prevalence and cause of abnormal liver function tests, and the prevalence of NAFLD in the adult Busselton population.
5. Determine the impact of abnormal liver function tests and NAFLD on mortality and morbidity.
6. Investigate the association of abnormal liver function/NAFLD and inflammation with metabolic syndrome indicators and develop expanded definitions of the metabolic syndrome that relate to cardiovascular outcomes.
Investigators

- Prof Matthew Knuiiman, School of Population Health, UWA
- Prof John Olynyk
- A/Prof Joe Hung
- Prof Tim Davis
- Dr John Beilby

Project status

In progress

2003/003

HLA DQ typing on Busselton population

Aims

Recent studies have confirmed that virtually all (98-100%) Coeliac patients are HLA DQ2 or DQ8 +ve. There are also a small (~5-10%) but significant number of anti-transglutaminase IgA +ve subjects and an even larger number of anti-transglutaminase IgG subjects who do not have Coeliac disease. We will therefore test TGA and TGG +ve subjects and controls for HLA DQ2 and DQ8 status. This would enable us to hopefully reduce the number of subjects requiring a gastroscopy and distal duodenal biopsies as well as reducing the miss rate of undiagnosed Coeliac patients.

Investigators

- Dr Digby Cullen
- Dr D F Mallon

Project status

In progress

2003/004

Effect of androgens on cognitive function and evolution of dementia

Aims

The primary aim of this project is to clarify the relationship between androgen status and impaired cognition or dementia in older men and women. We will
assess androgen status in a comprehensive cross-sectional community sample of older men and women. Serum total and free testosterone will be analysed for correlation with clinical and neuropsychological measures of cognitive function and with apolipoprotein E (APOE) genotype. In addition plasma levels of the Alzheimer's Disease-related peptide amyloid beta (Ab40 and Ab42) will be measured. The resulting data will define the incidence of subclinical androgen deficiency, evaluate the interaction between androgens, APOE genotype, cognition and dementia in older men, and explore the utility of plasma measurements of Ab as a marker of impaired cognition or dementia. These findings will allow us to assess the prevalence of androgen deficiency in older men and its relationship to cognitive impairment and dementia, and to investigate the potential role of androgen supplementation for the prevention of cognitive decline and dementia in older men in the community. The relationship of androgen status to cognitive function and plasma Ab40 and Ab42 in women from the Busselton population will be studied in parallel.

**Investigators**

- [Dr Bu Yeap](#)
- A/Prof Ralph Martins
- [Dr Liz Milward](#)
- P Chubb
- [Dr Jonathan Beilin](#)
- A/Prof David Bruce
- [Prof John Olynyk](#)

**Project status**

In progress