Appendix 1

Methods

The community-dwelling study population were registered with 45 general practices (GP) in the North East of England. Cases aged 60 and over had had a diagnosis of NVAF within 5 years and were identified by computerised searching of GP records, by prescription (digoxin) and by screening for NVAF as a problem title / Read code. NVAF was defined as chronic atrial fibrillation not caused by valvular heart disease. Controls in sinus rhythm were matched by age, sex and practice and were identified by selecting the adjacent patient on the GP’s electronic list when ordered by age.

Exclusion criteria included paroxysmal atrial fibrillation, established dementia [15], previous stroke/ transient ischaemic attack (TIA), mitral stenosis, prosthetic cardiac valves, severe visual / hearing problems, permanent pacemaker, severe congestive heart failure (CHF) and factors at the GPs’ discretion, such as terminal illness.

The presence of co-morbid illness was based on GP records of the diagnosis (coronary heart disease (CHD), CHF, hypertension, diabetes mellitus, thyrotoxicosis, Parkinson’s disease, peripheral vascular disease, depression) and corroborated at the initial interview.

Educational level was defined by age at leaving school and highest qualification obtained.

Neuropsychological test battery

This included: the Rey Complex Figure, [18] a measure of non-verbal memory and visuo-spatial ability; the Mini Mental State Examination (MMSE), [19,20,21,22] an assessment of general cognitive function; the Logical Memory and Digit Span subtests of the Wechsler Memory Scale (WMS) [23,24,25] which examine short and long-term verbal
memory and attention; Map Search and Telephone Task subtests of Tests of Everyday
Attention [26, 27], which measure selective and sustained / divided attention; and the
Paced Auditory Serial Addition Test (PASAT)[28, 29], a test of information processing
and attention. In addition, the National Adult Reading Test (NART), [30, 31] a measure
of premorbid intelligence, enabled determination of whether or not performance was
influenced by intelligence level.