

**Additional file 2: Diagnosed comorbidity complexes of community-living dementia patients and control subjects stratified by gender**

| Diagnosis group   | Men (N=9,973;<br>1,684 cases; 8,289 control subjects) |             |                  | Women (N=23,146; 3,840 cases;<br>19,306 control subjects) |             |                  |
|---|---|-------------|------------------|---|-------------|------------------|
|   | Case (%)  | Control (%) | OR*              | Case (%)  | Control (%) | OR*              |
| <b>Neoplasms</b>  |   |             |                  |   |             |                  |
| Cancer (all)  | 37.4  | 35.9        | 1.03 (0.92-1.15) | 23.4  | 24.1        | 0.97 (0.89-1.05) |
| <b>Diseases of the blood and blood-forming organs</b>     |   |             |                  |   |             |                  |
| Anaemia   | 26.5  | 19.8        | 1.41 (1.25-1.60) | 24.7  | 18.8        | 1.40 (1.29-1.52) |
| <b>Endocrine, nutritional and metabolic diseases</b>      |   |             |                  |   |             |                  |
| Thyroid dysfunction                                       | 19.7  | 17.7        | 1.10 (0.97-1.26) | 30.4  | 32.6        | 0.93 (0.86-1.00) |
| Diabetes  | 49.6  | 40.0        | 1.41 (1.27-1.57) | 44.7  | 38.6        | 1.29 (1.20-1.38) |
| Disorders of lipoprotein metabolism and other lipidaemias | 51.3  | 51.3        | 0.95 (0.86-1.06) | 47.4  | 52.2        | 0.86 (0.80-0.92) |
| Fluids/electrolyte disorders                              | 29.1  | 16.9        | 1.96 (1.74-2.21) | 29.6  | 20.3        | 1.61 (1.49-1.74) |
| <b>Mental and behavioural disorders</b>                   |   |             |                  |   |             |                  |
| Psychotic/neurotic disorders                              | 20.8  | 13.4        | 1.66 (1.45-1.89) | 27.6  | 19.8        | 1.62 (1.49-1.75) |
| Depression  | 25.4  | 10.1        | 2.94 (2.58-3.35) | 34.3  | 20.0        | 2.11 (1.96-2.28) |
| Insomnia  | 16.3  | 9.5         | 1.81 (1.56-2.10) | 17.2  | 13.0        | 1.36 (1.23-1.49) |
| <b>Diseases of the nervous system</b>                     |   |             |                  |   |             |                  |
| Parkinson's disease                                       | 14.8  | 2.9         | 5.73 (4.75-6.92) | 8.2   | 2.4         | 3.57 (3.08-4.14) |
| <b>Diseases of the eye and ear</b>                        |   |             |                  |   |             |                  |
| Severe vision reduction                                   | 43.1  | 47.3        | 0.81 (0.73-0.90) | 41.9  | 51.3        | 0.68 (0.64-0.73) |
| Severe hearing loss                                       | 22.7  | 20.7        | 1.09 (0.96-1.24) | 18.8  | 17.3        | 1.06 (0.97-1.16) |
| <b>Diseases of the circulatory system</b>                 |   |             |                  |   |             |                  |
| Hypertension  | 75.4  | 73.1        | 1.03 (0.92-1.16) | 77.0  | 79.7        | 0.83 (0.76-0.90) |
| Coronary artery disease (CAD)                             | 48.8  | 42.9        | 1.22 (1.10-1.35) | 38.6  | 36.4        | 1.06 (0.98-1.13) |
| Cardiac arrhythmias                                       | 35.1  | 31.6        | 1.14 (1.02-1.27) | 28.8  | 27.4        | 1.03 (0.96-1.12) |
| Cardiac insufficiency                                     | 39.2  | 25.8        | 1.84 (1.64-2.05) | 44.4  | 33.9        | 1.45 (1.35-1.56) |
| Atherosclerosis/peripheral arterial occlusive disease     | 50.9  | 32.3        | 2.09 (1.88-2.33) | 43.1  | 29.8        | 1.75 (1.63-1.87) |
| Cerebral ischaemia/chronic stroke                         | 38.0  | 15.6        | 3.23 (2.88-3.62) | 26.7  | 13.8        | 2.20 (2.03-2.39) |
| Lower limb varicosis                                      | 19.2  | 16.5        | 1.17(1.02-1.34)  | 29.8  | 29.5        | 1.02 (0.95-1.10) |

**Diseases of the respiratory system**

|   |      |      |                  |      |      |                  |
|---|------|------|------------------|------|------|------------------|
| Pneumonia   | 11.9 | 6.2  | 1.98 (1.66-2.35) | 7.4  | 4.4  | 1.69 (1.47-1.95) |
| Asthma/chronic obstructive pulmonary disease (COPD) | 35.0 | 31.0 | 1.16 (1.04-1.30) | 23.3 | 22.9 | 1.02 (0.9-1.11)  |

**Diseases of the musculoskeletal system and connective tissue**

|   |      |      |                  |      |      |                  |
|---|------|------|------------------|------|------|------------------|
| Arthritis                                   | 14.9 | 15.3 | 0.95 (0.82-1.10) | 12.1 | 13.1 | 0.92 (0.83-1.02) |
| Joint arthrosis                             | 38.3 | 39.6 | 0.91 (0.82-1.02) | 47.3 | 50.6 | 0.87 (0.81-0.93) |
| Purine/pyrimidine metabolism disorders/gout | 35.3 | 36.9 | 0.90 (0.81-1.01) | 25.0 | 24.9 | 1.00 (0.92-1.08) |
| Low back pain                               | 54.5 | 55.9 | 0.90 (0.81-1.00) | 58.0 | 60.8 | 0.91 (0.85-0.97) |
| Osteoporosis                                | 9.1  | 6.5  | 1.40 (1.16-1.69) | 31.6 | 29.3 | 1.11 (1.03-1.19) |

**Diseases of the genitourinary system**

|                             |      |      |                  |      |      |                  |
|-----------------------------|------|------|------------------|------|------|------------------|
| Renal insufficiency/failure | 29.2 | 20.2 | 1.59 (1.41-1.79) | 17.8 | 14.2 | 1.26 (1.15-1.38) |
| Incontinence                | 43.0 | 17.5 | 3.46 (3.09-3.88) | 45.5 | 25.6 | 2.38 (2.22-2.56) |

**Injuries, fractures and fall risks**

|                         |      |      |                  |      |      |                  |
|-------------------------|------|------|------------------|------|------|------------------|
| Fractures and injuries  | 35.1 | 27.6 | 1.38 (1.23-1.54) | 40.2 | 32.2 | 1.39 (1.29-1.49) |
| Fall risk and dizziness | 24.9 | 15.2 | 1.80 (1.59-2.05) | 29.0 | 22.0 | 1.41 (1.30-1.52) |

---

\*ORs are adjusted for age.