**Supplementary materials for “Longitudinal associations between different dementia diagnoses and medication use jointly accounting for dropout”**

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Supplementary Figure 1. Study flow chart for the analytic sample of 2306 NACC participants, 2005-2014.

Supplementary Table 1. Results from the joint shared parameter model for number of medications and dropout. Here the effect estimates (and 95 % CI) for the covariates are shown for total number of medications (as risk ratios) and for the dropout (as odds ratios)

Participants enrolled in NACC 2005-2014: N = 32,266

Participants with no dementia at time of enrolment: N=21,079

Participants ≥ 65 at time of enrolment: N=16,525

Participants > 1 NACC assessment: N=15,824

Incident Dementia: 2,516

 *Alzheimer’s: 2,032 (80.8%)*

 *Vascular: 135 (5.4%)*

 *Lewy-body: 139 (5.5%)*

 *Fronto-temporal: 74 (2.9%)*

 *Other: 136 (5.4%)*

Study Sample: 2,306

 *Alzheimer’s: 2,032*

 *Vascular: 135*

 *Lewy-body: 139*

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| --- | --- |
|  | Risk ratios estimates from the joint model for the covariates effects on the number of medications |
| **Parameter** | **Estimate** | **95 % CI****lower** | **upper** | **p value** |
| Intercept | 5.63 | 5.04 | 6.29 | <.0001 |
| VD | 1.08 | 1.01 | 1.17 | 0.0371 |
| LBD | 1.12 | 1.03 | 1.21 | 0.0065 |
| Depression | 1.06 | 1.02 | 1.09 | 0.0010 |
| Diabetes | 1.25 | 1.18 | 1.32 | <.0001 |
| Race (white) | 1.13 | 1.06 | 1.19 | 0.0001 |
| Gender (female) | 0.96 | 0.92 | 1.00 | 0.0404 |
| Age ($\geq $ 85 years) | 0.98 | 0.94 | 1.02 | 0.2315 |
| Cardiovascular disease | 1.19 | 1.14 | 1.24 | <.0001 |
| Psychiatric disorder | 1.05 | 0.99 | 1.12 | 0.1123 |
|  | Odds ratios estimates from the joint model for the covariates effects on the odds of dropout |
| Intercept | 0.00 | 0.00 | 0.00 | <.0001 |
| VD | 1.63 | 0.59 | 4.51 | 0.34 |
| LBD | 1.73 | 0.52 | 5.80 | 0.37 |
| Depression | 0.91 | 0.49 | 1.66 | 0.75 |
| Diabetes | 1.95 | 0.87 | 4.38 | 0.10 |
| Race (white) | 1.66 | 0.64 | 4.29 | 0.30 |
| Gender (female) | 0.83 | 0.45 | 1.50 | 0.53 |
| Age ($\geq $ 85 years) | 9.67 | 5.06 | 18.46 | <.0001 |
| Cardiovascular disease | 1.81 | 0.92 | 3.54 | 0.08 |
| Psychiatric disorder | 0.53 | 0.16 | 1.76 | 0.30 |