

S6 Table. Results from sensitivity analyses 1 and 2 (subset of study population).

Association between level of multimorbidity (number of diagnosed chronic conditions) with 1-year hospitalizations and Emergency Department visits among home care clients with dementia in Ontario (2012) in sensitivity analyses:

Sensitivity 1: Restricting home care clients based on their reason for index RAI-HC assessment (N=28,753 or 95% of original cohort), and

Sensitivity 2: Restricting home care clients based on their cognition level (N=25,618 or 85% of original cohort).

| | Outcome: Hospitalizations | | | | Outcome: ED Visits | | | |
|-------------------------|-------------------------------|--|-------------------------------|--|-------------------------------|--|-------------------------------|--|
| | Sensitivity 1 sHR (95% CI) | | Sensitivity 2 sHR (95% CI) | | Sensitivity 1 sHR (95% CI) | | Sensitivity 2 sHR (95% CI) | |
| Level of Multimorbidity | | | | | | | | |
| 0-1 CC | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | |
| 2 CC | 1.17 (1.05-1.30) * | | 1.17 (1.04-1.31) * | | 1.15 (1.05-1.26) * | | 1.18 (1.07-1.30) * | |
| 3 CC | 1.31 (1.19-1.45) * | | 1.30 (1.17-1.45) * | | 1.30 (1.19-1.42) * | | 1.33 (1.21-1.46) * | |
| 4 CC | 1.48 (1.34-1.63) * | | 1.45 (1.30-1.62) * | | 1.44 (1.33-1.57) * | | 1.45 (1.32-1.60) * | |
| 5+ CC | 1.88 (1.72-2.06) * | | 1.85 (1.67-2.05) * | | 1.63 (1.50-1.77) * | | 1.66 (1.52-1.82) * | |
| Sex | | | | | | | | |
| Women | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | |
| Men | 1.20 (1.14-1.26) * | | 1.21 (1.15-1.27) * | | 0.95 (0.90-0.99) * | | 0.95 (0.91-1.00) * | |
| Age (continuous) | 1.01 (1.00-1.01) * | | 1.01 (1.00-1.01) * | | 1.00 (1.00-1.00) | | 1.00 (0.99-1.00) | |
| Income Quintile | | | | | | | | |
| 1 (low) | 1.04 (0.97-1.11) | | 1.04 (0.97-1.11) | | 1.06 (0.99-1.13) | | 1.05 (0.99-1.13) | |
| 2 | 1.02 (0.95-1.09) | | 1.00 (0.93-1.07) | | 1.11 (1.04-1.18) * | | 1.09 (1.02-1.16) * | |
| 3 | 0.96 (0.90-1.03) | | 0.95 (0.88-1.02) | | 1.05 (0.98-1.12) | | 1.01 (0.95-1.09) | |
| 4 | 0.91 (0.85-0.98) * | | 0.91 (0.84-0.98) * | | 1.04 (0.97-1.11) | | 1.03 (0.96-1.10) | |
| 5 (high) | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | |
| Marital Status | | | | | | | | |
| Married | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | |
| Widowed | 0.98 (0.93-1.03) | | 0.97 (0.92-1.03) | | 0.95 (0.90-0.99) * | | 0.95 (0.91-1.01) | |
| Separated/Divorced | 0.99 (0.90-1.10) | | 1.00 (0.90-1.10) | | 0.94 (0.86-1.03) | | 0.93 (0.85-1.01) | |

| | | | | | | | | |
|----------------------------|------------------|---|------------------|---|------------------|---|------------------|---|
| Never Married/Other | 0.86 (0.76-0.97) | * | 0.89 (0.79-1.00) | | 0.85 (0.77-0.95) | * | 0.89 (0.80-1.00) | |
| Residence | | | | | | | | |
| Urban | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | |
| Rural | 1.04 (0.97-1.11) | | 1.04 (0.97-1.11) | | 1.20 (1.13-1.27) | * | 1.19 (1.12-1.27) | * |
| Continuity of Care | | | | | | | | |
| Low (<median) | 1.01 (0.97-1.06) | * | 1.02 (0.97-1.07) | | 1.03 (0.99-1.07) | | 1.02 (0.98-1.06) | |
| High (>=median) | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | |
| Prior Hospitalizations | | | | | | | | |
| None | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | |
| 1 | 1.16 (1.10-1.23) | * | 1.17 (1.10-1.23) | * | 0.96 (0.91-1.00) | | 0.96 (0.91-1.01) | |
| ≥2 | 1.44 (1.35-1.54) | * | 1.41 (1.31-1.50) | * | 1.06 (0.99-1.13) | | 1.05 (0.99-1.12) | |
| Prior ED visits | | | | | | | | |
| None | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | |
| 1 | 1.23 (1.16-1.30) | * | 1.21 (1.15-1.29) | * | 1.36 (1.29-1.43) | * | 1.37 (1.30-1.45) | * |
| ≥2 | 1.41 (1.34-1.49) | * | 1.40 (1.33-1.48) | * | 1.97 (1.88-2.07) | * | 1.97 (1.87-2.07) | * |
| MDS-HSI (continuous) | 1.16 (1.03-1.30) | * | 1.03 (0.91-1.18) | | 2.19 (1.97-2.43) | * | 1.91 (1.70-2.15) | * |
| CHESS | | | | | | | | |
| No instability | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | | 1.00 [REF] | |
| Minimal instability | 1.09 (1.02-1.15) | * | 1.08 (1.01-1.14) | * | 1.02 (0.97-1.08) | | 1.02 (0.96-1.07) | |
| Low instability | 1.01 (0.95-1.08) | | 1.00 (0.94-1.07) | | 0.94 (0.89-1.00) | * | 0.95 (0.89-1.00) | |
| Moderate instability | 1.10 (1.02-1.20) | * | 1.10 (1.02-1.20) | * | 0.91 (0.84-0.98) | * | 0.89 (0.83-0.97) | * |
| High-very high instability | 1.09 (0.96-1.23) | | 1.04 (0.91-1.19) | | 0.82 (0.72-0.93) | * | 0.80 (0.70-0.91) | * |

Notes:

* denotes $p < 0.05$

Abbreviations: sHR = sub-hazard ratio; CI = confidence interval; CC = chronic conditions

CHESS values to range from 0 (no health instability) to 4 (high to very high instability), with higher values indicative of adverse outcomes