**Supplementary material for “Polypharmacy among community-dwelling elderly in Singapore: Prevalence, risk factors and association with medication non-adherence”**

**Supplementary Figure 1. Distribution of the number of prescription medications being taken on a regular basis among community-dwelling elderly Singaporeans (N = 1,499)**

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**Supplementary Table 1. Association of potential risk factors with polypharmacy among community-dwelling elderly Singaporeans: Multivariable logistic regression – Sensitivity Analyses**

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|  | **SENSITIVITY ANALYSIS 1:**  **Polypharmacy: ≥6 medicines**  **(N = 1,499)** | **SENSITIVITY ANALYSIS 2:**  **Polypharmacy: ≥5 medicines among those taking ≥1 medicine**  **(N = 1,229)** |
| **Risk factor** | **Odds Ratio (95% Confidence Interval)** | |
| Age *(Ref: 66 - 69)* |  |  |
| 70 - 74 | 1.58 (0.76, 3.28) | 1.25 (0.71, 2.19) |
| 75 - 79 | 2.10 (0.99, 4.42) | 1.65 (0.93, 2.93) |
| 80 - 84 | 1.51 (0.69, 3.33) | 1.49 (0.82, 2.70) |
| ≥85 | 1.94 (0.86, 4.39) | 1.85 (0.99, 3.46) |
| Gender *(Ref: Women)* |  |  |
| Men | **1.70 (1.07, 2.72)** | **1.97 (1.34, 2.90)** |
| Ethnicity *(Ref: Chinese)* |  |  |
| Malay | **2.05 (1.06, 3.96)** | **2.01 (1.21, 3.36)** |
| Indian | **2.41 (1.19, 4.88)** | **3.79 (2.01, 7.15)** |
| Other | **4.40 (1.27, 15.2)** | 2.67 (0.55, 13.1) |
| Educational Status *(Ref: No formal education)* |  |  |
| Primary | 1.18 (0.69, 2.03) | 0.99 (0.64, 1.52) |
| Secondary and above | 0.65 (0.31, 1.37) | 0.67 (0.39, 1.15) |
| Housing Type *(Ref: 1- and 2-room flat)* |  |  |
| 3-room flat | 1.52 (0.66, 3.49) | 1.80 (0.89, 3.65) |
| 4- and 5-room flat | 0.83 (0.38, 1.83) | 1.20 (0.62, 2.35) |
| Private | 1.23 (0.42, 3.64) | 1.68 (0.68, 4.15) |
| Hospitalizations in past 1 year *(Ref: 0)* |  |  |
| 1 - 2 | 1.56 (0.92, 2.67) | 1.30 (0.83, 2.06) |
| >2 | **4.34 (1.64, 11.5)** | 1.80 (0.67, 4.81) |
| Emergency Room Visit in past 6 months *(Ref: No)* |  |  |
| Yes | **1.90 (1.00, 3.60)** | 1.49 (0.82, 2.68) |
| Doctor Visit in past 3 months *(Ref: No)* |  |  |
| Yes | 0.65 (0.32, 1.29) | 1.04 (0.53, 2.03) |
| Used Pioneer Generation Card in past 3 months *(Ref: No)* |  |  |
| Yes | 1.51 (0.86, 2.67) | 1.38 (0.82, 2.31) |
| Number of Chronic Diseases *(Ref: 0 - 1)* |  |  |
| 2 | **12.9 (3.97, 41.8)** | **4.53 (2.05, 9.98)** |
| 3 | **21.8 (6.74, 70.4)** | **10.7 (4.92, 23.4)** |
| ≥4 | **44.5 (14.0, 142)** | **27.4 (12.8, 58.8)** |
| Number of ADL Limitations *(0 - 6)* | 1.13 (0.99, 1.29) | **1.17 (1.05, 1.31)** |

*Ref* Reference, *ADL* Activities of daily living

**Supplementary Table 2. Association of polypharmacy, *when defined as ‘≥6 medicines’,* with medication non-adherence among community-dwelling elderly Singaporeans: Multivariable logistic regression (N = 1,104)**\*

|  |  |
| --- | --- |
| **Risk factor** | **Odds Ratio (95% Confidence Interval)** |
| **Polypharmacy (defined as ‘≥6 medicines’)** *(Ref: No)* |  |
| **Yes** | **1.71 (1.09, 2.67)** |
| Age *(Ref: 66 - 69)* |  |
| 70 - 74 | 0.96 (0.62, 1.47) |
| 75 - 79 | 1.28 (0.81, 2.01) |
| 80 - 84 | 1.54 (0.97, 2.45) |
| ≥85 | 1.29 (0.77, 2.15) |
| Gender *(Ref: Women)* |  |
| Men | 0.78 (0.56, 1.08) |
| Ethnicity *(Ref: Chinese)* |  |
| Malay | 0.96 (0.64, 1.44) |
| Indian | 1.55 (0.88, 2.72) |
| Other | 2.76 (0.86, 8.81) |
| Educational Status *(Ref: No formal education)* |  |
| Primary | 0.93 (0.65, 1.33) |
| Secondary and above | **0.59 (0.39, 0.89)** |
| Cognitive Status *(Ref: No impairment)* |  |
| Mild impairment | 1.18 (0.78, 1.78) |
| Moderate impairment | 0.52 (0.16, 1.64) |

*Ref* Reference

\**Association of polypharmacy, defined as ‘≥5 medicines among those taking ≥1 medicine’, with medication non-adherence is not shown. The results are the same as the main analysis, which defines polypharmacy as ‘≥5 medicines’. This is because elderly not taking any prescription medications could not report medication non-adherence, and thus, are already excluded from this sample.*