**Table S3. Hazard ratios of dementia for different factors, analyzed by using time-dependent Cox regression analysis among users of level 2 and level 3 rated drugs**

|  |  |
| --- | --- |
|  | **Time-dependent Cox regression** |
| **Variables** | **Crude HR** | **95% CI** | **95% CI** | ***P*** | **aHR** | **95% CI** | **95% CI** | ***P*** |
| **Anticholinergic medications** | 　 |  |  | 　 | 　 |  |  |  |
| **Without** | Reference |  |  | 　 | Reference |  |  |  |
| **With** | 1.131  | 0.895  | 1.327  | 0.224 | 1.054  | 0.930  | 1.175  | 0.088  |
| **Male *(Reference: female)*** | 1.109  | 1.131  | 1.167  | <0.001 | 1.044  | 1.041  | 1.083  | 0.003 |
| **Age 60-64 *(Reference: age 50-64)*** | 1.081  | 1.041  | 1.107  | 0.003 | 1.041  | 1.019  | 1.077  | 0.033 |
| **Age ≧ 75 *(Reference: age 50-64)*** | 1.481  | 1.473  | 1.538  | <0.001 | 1.448  | 1.409  | 1.506  | <0.001 |
| **Stroke *(Reference: without)*** | 1.792  | 1.752  | 1.855  | <0.001 | 1.663  | 1.643  | 1.691  | <0.001 |
| **Parkinson's disease *(Reference: without)*** | 1.986  | 1.933  | 2.041  | <0.001 | 1.662  | 1.622  | 1.712  | <0.001 |
| **Epilepsy *(Reference: without)*** | 1.947  | 1.862  | 2.055  | <0.001 | 1.493  | 1.439  | 1.567  | <0.001 |
| **Hemiplegia & paraplegia *(Reference: without)*** | 1.615  | 1.539  | 1.692  | <0.001 | 1.175  | 1.072  | 1.294  | <0.001 |
| **Asthma *(Reference: without)*** | 1.243  | 1.138  | 1.397  | <0.001 | 1.126  | 1.044  | 1.200  | 0.001 |
| **Urinary incontinence *(Reference: without)*** | 1.361  | 1.186  | 1.601  | <0.001 | 1.257  | 1.102  | 1.434  | <0.001 |
| **Depression *(Reference: without)*** | 1.581  | 1.514  | 1.661  | <0.001 | 1.448  | 1.369  | 1.474  | <0.001 |
| **Bipolar disorder *(Reference: without)*** | 1.521  | 1.368  | 1.755  | <0.001 | 1.482  | 1.304  | 1.628  | <0.001 |
| **Psychotic disorders *(Reference: without)*** | 1.426  | 1.357  | 1.526  | <0.001 | 1.305  | 1.252  | 1.369  | <0.001 |

**HR= hazard ratio, CI = confidence interval, aHR = Adjusted hazard ratio: Adjusted for the variables listed in the table**

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***P:* Chi-square test on category variables and t-test on the continue variables**

***P* = 0.009 (Crude HR model). *P* = 0.077 (aHR model)**