**Appendix 4. Survival model showing accelerated delirium incidence for medication classes administered in hospital controlling for baseline medication use**

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| --- | --- | --- | --- |
|  | **Unadjusted hazard ratio****(95% CI)** | **Model 1****Adjusted hazard ratio*a*****(95% CI)** | **Model 2****Adjusted hazard ratio*b*****(95% CI)** |
| Benzodiazepines |  |  |  |
|  Pre-hospital | 1.05 (0.60 to 1.83) | 1.30 (0.72 to 2.33) | 1.29 (0.72 to 2.33) |
|  In hospital | 2.28 (1.30 to 4.01) | 2.31 (1.28 to 4.20) | 2.38 (1.31 to 4.32) |
| Opioids |  |  |  |
|  Pre-hospital | 1.32 (0.96 to 1.83) | 1.47 (1.05 to 2.06) | 1.36 (0.97 to 1.91) |
|  In hospital | 0.86 (0.64 to 1.14) | 0.87 (0.65 to 1.17) | 0.86 (0.64 to 1.15) |

*a*Models adjusted for age, gender, surgery type, Charlson comorbidity index, APACHE-II score, and cognition at baseline.

*b*Models adjusted for age, gender, surgery type, Charlson comorbidity index, APACHE-II score, cognition at baseline, and worst pain.