**Table 1. Association between opioid exposure and mortality and hospital length of stay in elderly patients admitted to ICU in Ontario from 2002 to 2014**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Opioid exposure** | **Hospital mortality, N (%)** | **Odds ratio for mortalitya** | **95% CI** | **p-value** |
| **Non-users** | 73,668 (15.9) | Ref |  |  |
| **Intermittent users** | 35,091 (17.5) | 1.09 | 1.07–1.11 | <0.0001 |
| **Chronic users** | 9,002 (18.6) | 1.12 | 1.09–1.15 | <0.0001 |
|  | **Hospital length of stay, median (IQR)b** | **Subdistribution hazard ratio for length of stayc** | **95% CI** | **p-value** |
| **Non-users** | 8.0 (4.0–15.0) | Ref |  |  |
| **Intermittent users** | 8.0 (5.0–16.0) | 0.93 | 0.92–0.94 | <0.0001 |
| **Chronic users** | 9.0 (5.0–17.0) | 0.87 | 0.85–0.88 | <0.0001 |

CI: Confidence interval, IQR: interquartile range

aAdjusted model. For complete model see Supplement eTable 2. Adjusted for age, sex, selected Charlson comorbidities, patient type (medical or surgical), mechanical ventilation, year and hospital type (teaching or community).

bHospital length of stay in days for survivors

cAdjusted model. For complete model see Supplement eTable 3. Adjusted for age, sex, selected Charlson comorbidities, patient type (medical or surgical), mechanical ventilation, year and hospital type (teaching or community).

**Figure 1. Prevalence of chronic opioid use, intermittent use and non-use prior to hospital admission among elderly ICU patients admitted in Ontario from 2002 to 2014, with 95% confidence intervals**

Figure showing the proportion of elderly ICU admissions exposed to opioid prior to admission. The trend of change in prevalence of chronic users, intermittent users and non-users over time was assessed using a negative binomial model. Between 2002 and 2014, chronic users admitted to the ICU increased (p<0.0001) while intermittent users decreased (p=0.0002). The trend for non-users did not change over time (p=0.5).

