**Supplementary table2. Cox Proportional Hazards Regression Models for viral suppression rates and associated risk factors**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Characteristics** | **Total** | **The number of cases with viral suppression (≤50 copies/ml)** | **Observed Person-Months** | **Viral suppression rate****(Events/100 Person-Months)** | **HR** **(95% CI)** | **p-Value** | **Adjusted HR** **(95% CI)** | **p-Value** |
| **Total** | 2213 | 2102 | 18547 | 11.3 |  |  |  |  |
| **Gender** |  |  |  |  |  |  |  |  |
| Female | 133 | 125 | 1151 | 10.9 | 1.0 |  |  |  |
| Male | 2080 | 1977 | 17396 | 11.4 | 1.051(0.877-1.259) | 0.590 |  |  |
| Not available |  |  |  |  |  |  |  |  |
| **Race/ethnicity** |  |  |  |  |  |  |  |  |
| Han | 1918 | 1825 | 16016 | 11.4 | 1.0 |  |  |  |
| Others | 295 | 277 | 2531 | 11.0 | 0.959(0.845-1.088) | 0.517 |  |  |
| **Age at enrollment (years)** |  |  |  |  |  |  |  |  |
| <30 | 863 | 820 | 7132 | 11.5 | 1.0 |  |  |  |
| ≥30 | 1349 | 1281 | 11411 | 11.2 | 0.973(0.891-1.062) | 0.534 |  |  |
| Not available | 1 | 1 | - | - |  |  |  |  |
| **Marital status** |  |  |  |  |  |  |  |  |
| Unmarried | 1395 | 1333 | 11275 | 11.8 | 1.0 |  |  |  |
| Married/Divorced/widower | 813 | 764 | 7213 | 10.6 | 0.890(0.814-0.973) | 0.010 | 0.898(0.818-0.985) | 0.023 |
| Not available | 5 | 5 | - | - |  |  |  |  |
| **Education level** |  |  |  |  |  |  |  |  |
| Junior high school and below | 585 | 548 | 5137 | 10.7 | 1.0 |  |  |  |
| Senior high school and above | 1620 | 1546 | 13325 | 11.6 | 1.108(1.005-1.221) | 0.040 | 1.080(0.976-1.195) | 0.138 |
| Not available | 8 | 8 | - | - |  |  |  |  |
| **Infection Route** |  |  |  |  |  |  |  |  |
| MSM | 1861 | 1773 | 15585 | 11.3 | 1.0 |  |  |  |
| HST | 305 | 286 | 2571 | 11.1 | 0.969(0.855-1.098) | 0.620 |  |  |
| IDU | 11 | 10 | 75 | 13.3 | 1.201(0.645-2.236) | 0.564 |  |  |
| Others/ Not available | 36 | 33 | - | - |  |  |  |  |
| **Infection stage at enrollment** |  |  |  |  |  |  |  |  |
| Recent HIV infection | 764 | 728 | 6229 | 11.7 | 1.0 |  |  |  |
| Chronic HIV infection | 1410 | 1337 | 12072 | 11.1 | 0.940(0.859-1.029) | 0.181 |  |  |
| Not available | 39 | 37 | - | - |  |  |  |  |
| **Subtypes** |  |  |  |  |  |  |  |  |
| CRF01\_AE  | 1536 | 1463 | 12974 | 11.3 | 1.0 |  |  |  |
| CRF07\_BC | 417 | 398 | 3561 | 11.2 | 0.984(0.881-1.099) | 0.775 |  |  |
| B | 98 | 92 | 725 | 12.7 | 1.138(0.922-1.405) | 0.229 |  |  |
| Others | 162 | 149 | 1286 | 11.6 | 1.037(0.876-1.228) | 0.673 |  |  |
| **Time of ART initiation** |  |  |  |  |  |  |  |  |
| ≤7 days Group | 728 | 687 | 5491 | 12.5 | 1.247(1.115-1.395) | 0.0001 | 1.268(1.132-1.420) | <0.0001 |
| 8-30 days Group | 904 | 863 | 7614 | 11.3 | 1.121(1.007-1.248) | 0.036 | 1.132(1.017-1.261) | 0.017 |
| >30 days Group | 581 | 552 | 5441 | 10.1 | 1.0 |  | 1.0 |  |

Abbreviations: ART, antiretroviral therapy; CI, confidence interval; HR, hazard ratio; MSM, men who have sex with men; HST, heterosexual transmission; IDU, intravenous drug user.