**Supplemental Tables/ Figures**

**Sensitivity analyses**

Table 1. Baseline characteristics of patients with CD4 cell count <100 cells/mm3 at ART initiation (n=2,101)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Baseline Characteristics** | **Overalll** | | **Non-macrolide** | | **Macrolide use** | |
| **No.** | **%** | **No.** | **%** | **No.** | **%** |
| **Total** | **2,101** | | **1,929** | | **172** | |
| **Age at ART Initiation (years)** |  |  |  |  |  |  |
| 18-29 | 538 | 25.61 | 500 | 25.92 | 38 | 22.09 |
| 30-39 | 953 | 45.36 | 889 | 46.09 | 64 | 37.21 |
| 40-49 | 430 | 20.47 | 381 | 19.75 | 49 | 28.49 |
| ≥50 | 180 | 8.57 | 159 | 8.24 | 21 | 12.21 |
| Median (IQR) | 34.8 (29.9 - 41.1) | | 34.5 (29.8-40.7) | | 37.2 (30.7-44.1) | |
| **Sex** |  |  |  |  |  |  |
| Male | 1,580 | 75.20 | 1,439 | 74.60 | 141 | 81.98 |
| Female | 521 | 24.80 | 490 | 25.40 | 31 | 18.02 |
| **HIV mode of exposure** |  |  |  |  |  |  |
| Heterosexual | 299 | 14.23 | 246 | 12.75 | 53 | 30.81 |
| Homosexual | 1,505 | 71.63 | 1,400 | 72.58 | 105 | 61.05 |
| Others | 297 | 14.14 | 283 | 14.67 | 14 | 8.14 |
| **HBV status (n=1,617 tested)** |  |  |  |  |  |  |
| Negative (% tested) | 1,439 | 88.99 | 1,298 | 88.78 | 141 | 90.97 |
| Positive (% tested) | 178 | 11.01 | 164 | 11.22 | 14 | 9.03 |
| Missing | 484 | 23.04 | 467 | 24.21 | 17 | 9.88 |
| **HCV status (n=1,524 tested)** |  |  |  |  |  |  |
| Negative (% tested) | 1,233 | 80.91 | 1,093 | 79.15 | 140 | 97.90 |
| Positive (% tested) | 291 | 19.09 | 288 | 20.85 | 3 | 2.10 |
| Missing | 577 | 27.46 | 548 | 28.41 | 29 | 16.86 |
| **Baseline CD4 (cells/mm3)** |  |  |  |  |  |  |
| ≤50 | 1,345 | 64.02 | 1,202 | 62.31 | 143 | 83.14 |
| 51-100 | 756 | 35.98 | 727 | 37.69 | 29 | 16.86 |
| Median (IQR) | 36 (15-64) | | 38 (16-66) | | 25(12-45) | |
| **Viral load (copies/ml)** |  |  |  |  |  |  |
| ≤100,000 | 460 | 21.89 | 402 | 20.84 | 58 | 33.72 |
| ≥100,000 | 626 | 29.80 | 534 | 27.68 | 92 | 53.49 |
| Missing | 1,015 | 48.31 | 993 | 51.48 | 22 | 12.79 |
| Median (IQR) | 120,000 (1086-372000) | | 120,000 (48,200-373,000) | | 118,755 (56,000-368,600) | |
| **Prior AIDS diagnosis** |  |  |  |  |  |  |
| None known | 1,176 | 55.97 | 1,120 | 58.06 | 56 | 32.56 |
| Yes | 925 | 44.03 | 809 | 41.94 | 116 | 67.44 |
| **Initial ART Regimen** |  |  |  |  |  |  |
| NNRTI-based therapy | 1,836 | 87.39 | 1,707 | 88.49 | 129 | 75.00 |
| Other | 265 | 12.61 | 222 | 11.51 | 43 | 25.00 |
| **Cotrimoxazole use at baseline** |  |  |  |  |  |  |
| No | 540 | 25.70 | 502 | 26.02 | 38 | 22.09 |
| Yes | 1,561 | 74.30 | 1,427 | 73.98 | 134 | 77.91 |
| **Other chemoprophylaxis use at baseline** |  |  |  |  |  |  |
| No | 1,219 | 58.02 | 1,151 | 59.67 | 68 | 39.53 |
| Yes | 882 | 41.98 | 778 | 40.33 | 104 | 60.47 |

\*Values are n (% total) unless otherwise specified. IQR=interquatile range, HCV=Hepatitis C virus, HBV=Hepativis B virus, ART=antiretroviral therapy, NNRTI=non-nucleoside reverse transcriptase in

Table 2. Risk factors associated with AIDS-defining conditions or HIV-associated mortality among patients with CD4 cell count of <100 mm3 at ART initiation

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Follow-up years | No. of AIDS or deaths | Rate | 95% CI | | Univariate | | | | Multivariate | | | |
| HR | 95% CI | | p-value | HR | 95% CI | | p-value |
| **Total** | 2227.43 | 123 | 5.52 | 4.63 | 6.59 |  |  |  |  |  |  |  |  |
| **Age at ART Initiation (years)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Per 10 year increase in age | 2227.43 | 123 | 5.52 | 4.63 | 6.59 | 1.24 | 1.03 | 1.49 | 0.024 | 1.27 | 1.04 | 1.57 | 0.022 |
| **Sex** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1646.40 | 93 | 5.65 | 4.61 | 6.92 | 1.00 | - | - | - | 1.00 | - | - | - |
| Female | 581.03 | 30 | 5.16 | 3.61 | 7.38 | 0.98 | 0.62 | 1.54 | 0.937 | 1.28 | 0.76 | 2.14 | 0.349 |
| **HIV mode of exposure** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heterosexual | 332.05 | 22 | 6.63 | 4.36 | 10.06 | 1.00 | - | - | - | 1.00 | - | - | - |
| Homosexual | 1568.85 | 87 | 5.55 | 4.49 | 6.84 | 1.05 | 0.57 | 1.91 | 0.883 | 0.99 | 0.53 | 1.86 | 0.984 |
| Other | 326.52 | 14 | 4.29 | 2.54 | 7.24 | 0.83 | 0.39 | 1.74 | 0.616 | 0.66 | 0.30 | 1.47 | 0.310 |
| **HBV status (n=1,041 tested)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Negative | 1541.54 | 82 | 5.32 | 4.28 | 6.60 | 1.00 | - | - | - | 1.00 | - | - | - |
| Positive | 193.83 | 10 | 5.16 | 2.78 | 9.59 | 0.99 | 0.51 | 1.90 | 0.970 | 0.40 | 0.13 | 1.24 | 0.112 |
| Missing | 492.05 | 31 | 6.30 | 4.43 | 8.96 |  |  |  |  |  |  |  |  |
| **HCV status (n=981 tested)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Negative | 1309.13 | 77 | 5.88 | 4.70 | 7.35 | 1.00 | - | - | - | 1.00 | - | - | - |
| Positive | 266.00 | 15 | 5.64 | 3.40 | 9.35 | 1.33 | 0.72 | 2.48 | 0.366 | 1.30 | 0.63 | 2.68 | 0.48 |
| Missing | 652.29 | 31 | 4.75 | 3.34 | 6.76 |  |  |  |  |  |  |  |  |
| **CD4 (cells/mm3)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Per 10 cell increase in CD4 counts | 2227.43 | 123 | 5.52 | 4.63 | 6.59 | 0.94 | 0.91 | 0.98 | 0.001 | 0.94 | 0.90 | 0.97 | 0.001 |
| **Viral load (copies/ml)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ≤ 100,000 | 558.61 | 30 | 5.37 | 3.75 | 7.68 | 1.00 | - | - | - | 1.00 | - | - | - |
| ≥ 100,000 | 764.97 | 48 | 6.27 | 4.73 | 8.33 | 1.62 | 1.02 | 2.58 | 0.042 | 1.06 | 0.57 | 1.96 | 0.863 |
| Missing | 903.85 | 45 | 4.98 | 3.72 | 6.67 |  |  |  |  |  |  |  |  |
| **Prior AIDS diagnosis** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| None known | 1247.85 | 56 | 4.49 | 3.45 | 5.83 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 979.58 | 67 | 6.84 | 5.38 | 8.69 | 1.43 | 0.97 | 2.09 | 0.068 | 1.45 | 0.91 | 2.32 | 0.119 |
| **ART Regimen** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NNRTI-based therapy | 1904.99 | 100 | 5.25 | 4.32 | 6.39 | 1.00 | - | - | - | 1.00 | - | - | - |
| Other | 322.44 | 23 | 7.13 | 4.74 | 10.73 | 1.08 | 0.65 | 1.80 | 0.758 | 1.08 | 0.63 | 1.87 | 0.776 |
| **Macrolide use at baseline** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 2122.73 | 104 | 4.90 | 4.04 | 5.94 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 104.70 | 19 | 18.15 | 11.58 | 28.45 | 1.53 | 0.82 | 2.87 | 0.182 | 1.65 | 0.75 | 3.65 | 0.217 |
| **Cotrimoxazole use** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 1255.99 | 71 | 5.65 | 4.48 | 7.13 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 971.44 | 52 | 5.35 | 4.08 | 7.02 | 0.80 | 0.54 | 1.19 | 0.278 | 0.55 | 0.34 | 0.89 | 0.015 |
| **Other chemoprophylaxis use** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 1571.51 | 75 | 4.77 | 3.81 | 5.98 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 655.92 | 48 | 7.32 | 5.51 | 9.71 | 1.19 | 0.77 | 1.85 | 0.439 | 0.96 | 0.56 | 1.64 | 0.886 |

\*Patients with missing data were included but hazard ratio (HRs) for missing categories are not reported. Despite not reaching significance in the univariate analysis, macrolide use and cotrimoxazole use were included in the multivariate analysis. ART=antiretroviral therapy, NNRTI=non-nucleoside reverse transcriptase inhibit

Table 3. Risk factors associated with HIV-associated mortality among patients with CD4 cell count <100 cells/mm3 at ART initiation

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Follow-up years | Deaths | Rate | 95% CI | | Univariate | | | | Multivariate | | | |
| HR | (95%CI) | | p-value | HR | (95%CI) | | p-value |
| **Total** | 2381.90 | 56 | 2.35 | 1.81 | 3.05 |  |  |  |  |  |  |  |  |
| **Age at ART Initiation (years)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Per 10 year increase in age | 2381.90 | 56 | 2.35 | 1.81 | 3.05 | 1.27 | 0.93 | 1.74 | 0.133 | 1.31 | 0.91 | 1.88 | 0.153 |
| **Sex** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1766.92 | 43 | 2.43 | 1.80 | 3.28 | 1.00 | - | - | - | 1.00 | - | - | - |
| Female | 614.98 | 13 | 2.11 | 1.23 | 3.64 | 0.91 | 0.47 | 1.77 | 0.787 | 1.12 | 0.50 | 2.47 | 0.788 |
| **HIV mode of exposure** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heterosexual | 356.14 | 9 | 2.53 | 1.31 | 4.86 | 1.00 | - | - | - | 1.00 | - | - | - |
| Homosexual | 1675.06 | 37 | 2.21 | 1.60 | 3.05 | 0.95 | 0.40 | 2.25 | 0.916 | 0.84 | 0.34 | 2.06 | 0.707 |
| Other | 350.70 | 10 | 2.85 | 1.53 | 5.30 | 1.28 | 0.46 | 3.54 | 0.639 | 1.17 | 0.37 | 3.68 | 0.786 |
| **HBV status (n=1,041 tested)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Negative | 1654.09 | 34 | 2.06 | 1.47 | 2.88 | 1.00 | - | - | - | 1.00 | - | - | - |
| Positive | 205.97 | 6 | 2.91 | 1.31 | 6.48 | 1.44 | 0.61 | 3.41 | 0.411 | 0.70 | 0.16 | 3.04 | 0.635 |
| Missing | 521.84 | 16 | 3.07 | 1.88 | 5.00 |  |  |  |  | 2.01 | 0.65 | 6.23 | 0.226 |
| **HCV status (n=981 tested)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Negative | 1402.81 | 30 | 2.14 | 1.50 | 3.06 | 1.00 | - | - | - | 1.00 | - | - | - |
| Positive | 291.04 | 11 | 3.78 | 2.09 | 6.82 | 2.91 | 1.28 | 6.63 | 0.011 | 2.53 | 0.73 | 8.85 | 0.145 |
| Missing | 688.05 | 15 | 2.18 | 1.31 | 3.62 |  |  |  |  |  |  |  |  |
| **CD4 (cells/mm3)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Per 10 cell increase in CD4 counts | 2381.90 | 56 | 2.35 | 1.81 | 3.05 | 0.87 | 0.80 | 0.94 | <0.001 | 0.87 | 0.81 | 0.93 | <0.001 |
| **Viral load (copies/ml)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ≤ 100,000 | 1444.21 | 17.00 | 1.18 | 0.73 | 1.89 | 1.00 | - | - | - | 1.00 | - | - | - |
| ≥ 100,000 | 347.12 | 18.00 | 5.19 | 3.27 | 8.23 | 2.28 | 1.11 | 4.66 | 0.025 | 0.88 | 0.33 | 2.32 | 0.796 |
| Missing | 590.58 | 21.00 | 3.56 | 2.32 | 5.45 |  |  |  |  |  |  |  |  |
| **Prior AIDS diagnosis** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| None known | 1343.92 | 16 | 1.19 | 0.73 | 1.94 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 1037.98 | 40 | 3.85 | 2.83 | 5.25 | 2.99 | 1.55 | 5.77 | <0.001 | 5.93 | 2.37 | 14.87 | <0.001 |
| **ART Regimen** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NNRTI-based therapy | 2038.66 | 47 | 2.31 | 1.73 | 3.07 | 1.00 | - | - | - | 1.00 | - | - | - |
| Other | 343.23 | 9 | 2.62 | 1.36 | 5.04 | 1.01 | 0.45 | 2.26 | 0.974 | 0.88 | 0.34 | 2.26 | 0.786 |
| **Macrolide use** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 2266.57 | 53 | 2.34 | 1.79 | 3.06 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 115.33 | 3 | 2.60 | 0.84 | 8.07 | 0.31 | 0.09 | 1.09 | 0.068 | 0.21 | 0.05 | 0.88 | 0.034 |
| **Cotrimoxazole use** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 1351.89 | 29 | 2.15 | 1.49 | 3.09 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 1030.01 | 27 | 2.62 | 1.80 | 3.82 | 0.57 | 0.32 | 1.01 | 0.054 | 0.35 | 0.17 | 0.69 | 0.003 |
| **Other chemoprophylaxis use** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 1670.56 | 33 | 1.98 | 1.40 | 2.78 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 711.34 | 23 | 3.23 | 2.15 | 4.87 | 1.21 | 0.65 | 2.27 | 0.551 | 1.15 | 0.53 | 2.49 | 0.721 |

\*Patients with missing data were included but hazard ratio (HRs) for missing categories are not reported. ART=antiretroviral therapy, NNRTI=non-nucleoside reverse transcriptase inhibitor.



Figure 1. Patients with CD4 count <100 cells/mm3 at antiretroviral therapy initiation: cumulative probabilities of a) AIDS-defining condition or HIV-associated mortality by macrolide use and b) HIV-associated mortality by macrolide use

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Follow-up years | No. of AIDS or deaths | Rate | 95% CI | | Univariate | | | | Multivariate | | |  |
| HR | (95%CI) | | p-value | HR | (95%CI) | | p-value |
| **Total** | 1347.0 | 188 | 14.0 | 12.1 | 16.1 |  |  |  |  |  |  |  |  |
| **Age at ART Initiation (years)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Per 10 year increase in age | 1347.0 | 188 | 14.0 | 12.1 | 16.1 | 1.00 | 0.85 | 1.19 | 0.960 | 1.03 | 0.84 | 1.25 | 0.790 |
| **Sex** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1034.0 | 144 | 13.9 | 11.8 | 16.4 | 1.00 | - | - | - | 1.00 | - | - | - |
| Female | 313.0 | 44 | 14.1 | 10.5 | 18.9 | 1.18 | 0.82 | 1.68 | 0.375 | 1.36 | 0.91 | 2.03 | 0.131 |
| **HIV mode of exposure** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heterosexual | 197.2 | 35 | 17.7 | 12.7 | 24.7 | 1.00 | - | - | - |  |  |  |  |
| Homosexual | 936.0 | 125 | 13.4 | 11.2 | 15.9 | 1.00 | 0.63 | 1.60 | 0.994 | 1.01 | 0.58 | 1.77 | 0.964 |
| Other | 213.8 | 28 | 13.1 | 9.0 | 19.0 | 1.13 | 0.66 | 1.95 | 0.656 | 1.08 | 0.57 | 2.02 | 0.819 |
| **HBV status (n=1,041 tested)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Negative | 924.3 | 119 | 12.9 | 10.8 | 15.4 | 1.00 | - | - | - | 1.00 | - | - | - |
| Positive | 114.1 | 16 | 14.0 | 8.6 | 22.9 | 1.10 | 0.65 | 1.89 | 0.716 | 0.96 | 0.48 | 1.92 | 0.915 |
| Missing | 308.6 | 53 | 17.2 | 13.1 | 22.5 |  |  |  |  |  |  |  |  |
| **HCV status (n=981 tested)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Negative | 761.4 | 108 | 14.2 | 11.7 | 17.1 | 1.00 | - | - | - | 1.00 | - | - | - |
| Positive | 174.4 | 25 | 14.3 | 9.7 | 21.2 | 1.65 | 1.03 | 2.65 | 0.038 | 1.42 | 0.82 | 2.47 | 0.212 |
| Missing | 411.2 | 55 | 13.4 | 10.3 | 17.4 |  |  |  |  |  |  |  |  |
| **CD4 (cells/mm3)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Per 10 cell increase in CD4 counts | 1347.0 | 188 | 14.0 | 12.1 | 16.1 | 0.97 | 0.95 | 0.99 | 0.005 | 0.97 | 0.95 | 0.99 | 0.009 |
| **Viral load (copies/ml)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ≤100,000 | 797.2 | 83 | 10.4 | 8.4 | 12.9 | 1.00 | - | - | - | 1.00 | - | - | - |
| ≥100,000 | 201.9 | 45 | 22.3 | 16.6 | 29.9 | 1.38 | 0.92 | 2.07 | 0.117 | 0.87 | 0.51 | 1.49 | 0.617 |
| Missing | 347.9 | 60 | 17.2 | 13.4 | 22.2 |  |  |  |  |  |  |  |  |
| **Prior AIDS diagnosis** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| None known | 662.1 | 89 | 13.4 | 10.9 | 16.5 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 684.8 | 99 | 14.5 | 11.9 | 17.6 | 0.97 | 0.71 | 1.33 | 0.856 | 0.99 | 0.69 | 1.41 | 0.935 |
| **ART Regimen** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NNRTI-based therapy | 1163.0 | 155 | 13.3 | 11.4 | 15.6 | 1.00 | - | - | - | 1.00 | - | - | - |
| Other | 184.0 | 33 | 17.9 | 12.7 | 25.2 | 0.86 | 0.56 | 1.32 | 0.486 | 1.03 | 0.67 | 1.59 | 0.898 |
| **Macrolide use** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 1253.8 | 137 | 10.9 | 9.2 | 12.9 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 93.2 | 51 | 54.7 | 41.6 | 72.0 | 2.50 | 1.57 | 3.99 | <.0.001 | 2.80 | 1.64 | 4.80 | <.0.001 |
| **Cotrimoxazole use** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 542.3 | 71 | 13.1 | 10.4 | 16.5 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 804.7 | 117 | 14.5 | 12.1 | 17.4 | 1.15 | 0.81 | 1.63 | 0.437 | 0.86 | 0.57 | 1.28 | 0.447 |
| **Other chemoprophylaxis use** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 934.1 | 111 | 11.9 | 9.9 | 14.3 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 412.9 | 77 | 18.6 | 14.9 | 23.3 | 1.39 | 1.00 | 1.94 | 0.051 | 1.06 | 0.70 | 1.58 | 0.791 |

Table 4. Risk factors associated with AIDS-defining conditions or HIV-associated mortality among patients with CD4 cell count <50 cells/mm3 at ART initiation\*

\*Sensitivity analaysis done if 50% LTFU patients were assumed to experience HIV-associated death. Patients with missing data were included but hazard ratio (HRs) for missing categories are not reported. LTFU = loss to follow up, ART=antiretroviral therapy, NNRTI=non-nucleoside reverse transcriptase inhibitor.

Table 5. Risk factors associated with HIV-associated mortality among patients with CD4 cell count <50 cells/mm3 at ART initiation\*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Follow-up years | Deaths | Rate | 95% CI | | Univariate | | | | Multivariate | | | |
| HR | (95%CI) | | p-value | HR | (95%CI) | | p-value |
| **Total** | 1466.85 | 135 | 9.20 | 7.77 | 10.89 |  |  |  |  |  |  |  |  |
| **Age at ART Initiation (years)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Per 10 year increase in age | 1466.85 | 135 | 9.20 | 7.77 | 10.89 | 0.89 | 0.72 | 1.11 | 0.298 | 0.93 | 0.72 | 1.21 | 0.590 |
| **Sex** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1129.94 | 104 | 9.20 | 7.59 | 11.15 | 1.00 | - | - | - | 1.00 | - | - | - |
| Female | 336.91 | 31 | 9.20 | 6.47 | 13.08 | 1.19 | 0.78 | 1.82 | 0.420 | 1.25 | 0.78 | 2.02 | 0.357 |
| **HIV mode of exposure** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heterosexual | 213.64 | 27 | 12.64 | 8.67 | 18.43 | 1.00 | - | - | - | 1.00 | - | - | - |
| Homosexual | 1019.33 | 83 | 8.14 | 6.57 | 10.10 | 0.85 | 0.50 | 1.43 | 0.537 | 0.70 | 0.38 | 1.30 | 0.253 |
| Other | 233.88 | 25 | 10.69 | 7.22 | 15.82 | 1.28 | 0.71 | 2.32 | 0.406 | 0.94 | 0.47 | 1.88 | 0.857 |
| **HBV status (n=1,041 tested)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Negative | 1009.88 | 83 | 8.22 | 6.63 | 10.19 | 1.00 | - | - | - | 1.00 | - | - | - |
| Positive | 122.63 | 13 | 10.60 | 6.16 | 18.26 | 1.38 | 0.74 | 2.56 | 0.309 | 1.30 | 0.60 | 2.83 | 0.507 |
| Missing | 334.34 | 39 | 11.66 | 8.52 | 15.97 |  |  |  |  |  |  |  |  |
| **HCV status (n=981 tested)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Negative | 835.26 | 70 | 8.38 | 6.63 | 10.59 | 1.00 | - | - | - | 1.00 | - | - | - |
| Positive | 192.18 | 23 | 11.97 | 7.95 | 18.01 | 3.10 | 1.85 | 5.19 | <0.001 | 2.27 | 1.24 | 4.14 | 0.008 |
| Missing | 439.42 | 42 | 9.56 | 7.06 | 12.93 |  |  |  |  |  |  |  |  |
| **CD4 (cells/mm3)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Per 10 cell increase in CD4 counts | 1466.85 | 135 | 9.20 | 7.77 | 10.89 | 0.97 | 0.95 | 0.99 | 0.009 | 0.97 | 0.95 | 1.00 | 0.036 |
| **Viral load (copies/ml)** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ≤100,000 | 868.23 | 63 | 7.26 | 5.67 | 9.29 | 1.00 | - | - | - | 1.00 | - | - | - |
| ≥100,000 | 224.12 | 27 | 12.05 | 8.26 | 17.57 | 1.36 | 0.84 | 2.21 | 0.214 | 0.73 | 0.38 | 1.39 | 0.336 |
| Missing | 374.50 | 45 | 12.02 | 8.97 | 16.09 |  |  |  |  |  |  |  |  |
| **Prior AIDS diagnosis** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| None known | 733.41 | 59 | 8.04 | 6.23 | 10.38 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 733.44 | 76 | 10.36 | 8.28 | 12.97 | 1.12 | 0.77 | 1.64 | 0.546 | 1.39 | 0.90 | 2.15 | 0.140 |
| **ART Regimen** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| NNRTI-based therapy | 1272.07 | 109 | 8.57 | 7.10 | 10.34 | 1.00 | - | - | - | 1.00 | - | - | - |
| Others | 194.78 | 26 | 13.35 | 9.09 | 19.61 | 1.06 | 0.66 | 1.69 | 0.810 | 1.19 | 0.73 | 1.94 | 0.495 |
| **Macrolide use** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 1365.26 | 96 | 7.03 | 5.76 | 8.59 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 101.59 | 39 | 38.39 | 28.05 | 52.54 | 2.48 | 1.49 | 4.13 | <0.001 | 2.37 | 1.33 | 4.19 | 0.003 |
| **Cotrimoxazole use** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 582.35 | 50 | 8.59 | 6.51 | 11.33 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 884.50 | 85 | 9.61 | 7.77 | 11.89 | 1.22 | 0.80 | 1.85 | 0.360 | 0.74 | 0.45 | 1.21 | 0.227 |
| **Other chemoprophylaxis use** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No | 1007.65 | 78 | 7.74 | 6.20 | 9.66 | 1.00 | - | - | - | 1.00 | - | - | - |
| Yes | 459.20 | 57 | 12.41 | 9.57 | 16.09 | 1.50 | 1.02 | 2.21 | 0.040 | 1.25 | 0.79 | 1.96 | 0.343 |

\*Sensitivity analaysis done if 50% LTFU patients were assumed to experience HIV-associated death. Patients with missing data were included but hazard ratio (HRs) for missing categories are not reported. LTFU = loss to follow up. ART=antiretroviral therapy, NNRTI=non-nucleoside reverse transcriptase inhibitor.