Supplementary material

Supplementary Table

Estimates of incidence rate ratios (IRR) for secondary *Pneumocystis jirovecii* pneumonia (PjP) from the fitted general additive model with a cubic spline smoother for CD4 count. In addition, there was a highly significant association of PjP with lower CD4 counts (p<0.001). MSM: Men who have sex with men; IDU: intravenous drug use, CI: Confidence interval

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | IRR | 95% CI | p-value |
| Gender Male Female | Reference1.23 | [0.98, 1.70] | 0.08 |
| Age (per year) | 0.99 | [0.97, 1.00] | 0.03 |
| Transmission Mode..MSM..IDU..Other..Heterosexual | Reference1.341.200.96 | [1.00, 1.78][0.73, 1.95][0.72, 1.29] | 0.050.480.81 |
| PjP Prophylaxis.. No Yes | Reference1.16 | [0.59, 2.27] | 0.67 |
| HIV plasma RNA (copies/mL)..Low (<400)..Medium (400-10’000) High (>10’000) | Reference2.025.11 | [1.19, 3.5][2.87, 9.12] | 0.01<0.001 |
| *Interaction term*RNA x PjP Prophylaxis Low (<400) and No PjP Prophylaxis..Medium (400-10’000) and PjP Prophylaxis..High (>10’000) and PjP Prophylaxis | Reference1.021.35 | [0.26, 4.07][0.35, 5.22] | 0.980.67 |

Supplementary Figure

Incidence of secondary Pneumocystis Pneumonia (PjP) stratified plasma HIV-RNA levels from those off (left panel) and on (right panel) PjP prophylaxis. Plasma HIV-RNA levels: High >10’000, Medium 400-10’000, Low <400 copies/mL. From the fitted Poisson general additive model for a 35-year-old male IDU patient with 95% confidence intervals shown shaded in the respective colour.



Notes: PjP *Pneumocystis jirovecii* pneumonia, HIV-RNA human immunodeficiency viruses (HIV) Ribonucleic acid, IDU: intravenous drug use, py person years, py person years.