**Supplemental Digital Content 3. Analysis of factors associated with linked partner infection.**

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|  |  | **Linked** | **Unlinked** |  | **Multivariate Model 1** | **Multivariate Model 2** |
|  |  | N=46 | N=26 | **P value** | **OR (95% CI)** | **P value**  | **OR (95% CI)** | **P value** |
| Region | Africa | 39 (85%) | 23 (88%) | 0.74a |  |  |  |  |
|  | Asia/America | 7 (15%) | 3 (12%) |  |  |  |  |  |
| Index sex | Male | 21 (46%) | 11 (42%) | 0.81a |  |  |  |  |
|  | Female | 25 (54%) | 15 (58%) |  |  |  |  |  |
| Couple type | Male-Male | 0 (0%) | 2 (8%) | 0.13a |  |  |  |  |
|  | Others | 46 (100%) | 24 (92%) |  |  |  |  |  |
| Study arm | Early ART | 3 (7%) | 14 (54%) | **<0**.**0001a** | 0.07 (0.01, 0.94) | **0**.**045** |  |  |
|  | Delayed ART | 43 (93%) | 12 (46%) |  | Ref |  |  |  |
| Index on ART  | Yes | 8 (17%) | 21 (81%) | **<0**.**0001a** |  |  |  |  |
| at SC | No | 38 (83%) | 5c (19%) |  |  |  |  |  |
| Index VL >400 | No | 4 (9%) | 21 (88%) | **<0**.**0001a** | Ref | **0**.**0006** | Not included |  |
| at SC | Yes | 39 (91%) | 3 (13%) |  | **157 (8.8, >999)** |  |  |  |
| Index log10VL at SCd | Median(IQR) | 4.93(4.11, 5.25) | 2.60(2.60, 2.60) | **<0**.**0001b** | Not included |  | **12.85 (3.76, 43.99)** | **<0**.**0001** |
| Index CD4 at SC | Median(IQR) | 379(308, 476) | 540(484, 683) | **0**.**0002b** | 0.31 (0.10, 0.91) | **0**.**033** |  |  |
| Yrs enrollment to SC | Median(IQR) | 1.5(0.8, 2.2) | 3.3(2.0, 4.7) | **0**.**0003b** |  |  |  |  |
| Sex partners | >1 | 0 (0%) | 5 (19%) | **0.007a** |  |  |  |  |
| ≤3 months | 1  | 41 (89%) | 19 (73%) |  |  |  |  |  |
| before SCe  | 0 | 3 (7%) | 2 (8%) |  |  |  |  |  |

**Legend for Supplementary Table:**

Results are shown for univariate analyses and two multivariate models performed using backward stepwise regression. Multivariate model 1 used the binary variable for viral load (<400 or ≥400 HIV RNA copies/mL); multivariate model 2 used the continuous variable for viral load (log10 HIV RNA copies/mL). Significance was defined as p <0.05 (bold text). CD4 cell count data were analyzed per 100 cells/mm3 increment; continuous viral load data were analyzed per log10 increment. Seven participants were excluded from the multivariate analysis because of missing index viral load and/or CD4 cell count data at seroconversion visit (five were missing viral load data; six were missing CD4 cell count data). Factors that remained associated with linked infection in the multivariate models are shown. ART: antiretroviral therapy; SC: seroconversion; IQR: interquartile range; VL: HIV viral load, copies/mL; CD4 cell count: cells/mm3; Yrs: years; OR: odds ratio; CI: confidence intervals.

a p-value from Fisher’s exact test.

b p-value from Wilcoxon Rank-Sum test.

c Two index participants were on ART due to pregnancy. They were considered to be not on ART at the time of seroconversion.

d Viral load values <400 copies/mL were assigned a value of 399 copies/mL (equivalent to 2.60 log10 copies/mL); 25 index viral load results obtained at the time of seroconversion were <400 copies/mL, including 4/43 results for couples with linked infection; 21/24 results for couples with unlinked infection.

e Two partners with linked infection did not provide information about the number of sex partners in the 3 months before seroconversion.