Supplemental Digital Content Table 1: Number of transitions between states classified for each year of follow-up

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| State in year *j-1* |  | State in year *j* | | | | | |
| Guidelines (1) | | Successful decreased (2) | Suboptimal (3) | Lost to follow-up or died (4/5) | Censored | Total |
| Initiation | 4066† | | 120 | 2494 | 297 | 833 | 7810 |
| 52.06‡ | | 1.54 | 31.39 | 3.80 | 10.67 |  |
| Guidelines (1) | 14215 | | 758 | 1188 | 379 | 4072 | 20612 |
| 68.97 | | 2.88 | 6.56 | 1.84 | 19.75 |  |
| Successful decreased (2) | 490 | | 239 | 160 | 17 | 351 | 1257 |
| 39.98 | | 19.01 | 12.73 | 1.35 | 27.92 |  |
| Suboptimal (3) | 1841 | | 140 | 5387 | 469 | 1392 | 9229 |
| 19.95 | | 1.52 | 58.37 | 5.08 | 15.08 |  |
| Total | 20612 | | 1257 | 9229 | 1162 | 6648 | 38908 |

† Number of transitions

‡ Rate of transitions per 100 person years of follow-up

1: Guidelines care: suppressed VL and CD4 > 200 cells/mm3, no gaps in cART >3 months and no gaps in CD4 or VL measurement >6 months

2: Successful care with decreased follow-up: as guidelines care except no gaps in CD4 or VL measurement >12 months

3: Suboptimal care: unsuppressed VL or CD4 <200 cells/mm3, 1 or more gaps in cART >3 months, or 1 or more gaps in VL or CD4 measurement >12 months

4/5: Combined lost to follow-up and death: no contact for 18 months or died

VL: viral load

Supplemental Digital Content Table 2: Estimated hazard ratios from a multivariable multistate model

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Age (per 10 years) | Male | Indigenousa | PWIDb |
| Transitions | HR (95% CI) | HR (95% CI) | HR (95% CI) | HR (95% CI) |
| Guidelines (1) to |  |  |  |  |
| Successful (2) | 0.76 (0.68, 0.84) | 0.84 (0.66, 1.07) | 0.81 (0.45, 1.44) | 0.81 (0.62, 1.05) |
| Suboptimal (3) | 0.87 (0.79, 0.94) | 0.74 (0.62, 0.89) | 1.28 (0.97, 1.68) | 1.90 (1.62, 2.24) |
| LTF/Death (4/5) | 1.14 (1.02, 1.28) | 0.94 (0.69, 1.29) | 1.91 (1.21, 3.03) | 1.22 (0.92, 1.63) |
| Successful (2) to |  |  |  |  |
| Guidelines (1) | 1.08 (0.96, 1.22) | 0.86 (0.65, 1.14) | 1.17 (0.62, 2.20) | 1.01 (0.75, 1.37) |
| Suboptimal (3) | 1.03 (0.79, 1.33) | 0.92 (0.55, 1.52) | 1.05 (0.30, 3.66) | 0.95 (0.55, 1.63) |
| Suboptimal (3) to |  |  |  |  |
| Guidelines (1) | 1.19 (1.12, 1.26) | 1.30 (1.14, 1.48) | 0.99 (0.45, 1.44) | 0.70 (0.62, 0.79) |
| Successful (2) | 0.93 (0.67, 1.29) | 2.26 (0.84, 6.07) | 0.91 (0.09, 9.33) | 0.56 (0.25, 1.27) |
| LTF/death (4/5) | 1.10 (0.98, 1.24) | 0.94 (0.74, 1.19) | 1.78 (1.24, 2.57) | 1.10 (0.86, 1.40) |

HR: hazard ratio; CI: confidence interval; PWID: people who have injected drugs; LTF: lost to follow-up; VL: viral load; cART: combination antiretroviral therapy;

a reference: non-Indigenous; indicator for unknown Indigenous ethnicity not shown

b reference: non-PWID; indicator for unknown PWID status not shown

1: Guidelines care: suppressed VL, no gaps in cART >3 months and no gaps in CD4 or VL measurement >6 months

2: Successful care with decreased follow-up: as guidelines care except no gaps in CD4 or VL measurement >12 months

3: Suboptimal care: unsuppressed VL, 1 or more gaps in cART >3 months, or 1 or more gaps in VL or CD4 measurement >12 months

4/5: Combined lost to follow-up and death: no contact for 18 months or died

Supplemental Digital Content Figure 1. State structure for estimation of transition matrix

Guidelines (1)

Successful, decreased (2)

Suboptimal (3)

Lost to follow-up or died (4/5)

Censored

Solid lines represent the eight transitions estimated in the multi-state model of engagement in HIV care.