

Reference Curves for CD4+ T Cell Count Response to Combination of Antiretroviral Treatment in HIV-1 Infected Naïve Patients

The Standard Reference Distribution of CD4 Response to HAART Project Team for the Collaboration of Observational HIV Epidemiological Research Europe (COHERE) in EuroCoord

S1 Table. Included vs non-included patients' baseline characteristics

| | | Analysed population n=28,992 | | Excluded population n=25,161 | | P-value |
|--|--------------|---------------------------------|-------------|---------------------------------|-------------|-------------------|
| Male | n (%) | 21130 | (72.9) | 17434 | (69.3) | <10 ⁻⁴ |
| Age at cART initiation (years) | Median (IQR) | 39 | (33; 46) | 38 | (32; 45) | <10 ⁻⁴ |
| Years of follow-up after initiating cART | Median (IQR) | 2.3 | (1.3; 3.5) | 1.8 | (0.4; 3.2) | <10 ⁻⁴ |
| HIV transmission risk group | n (%) | | | | | <10 ⁻⁴ |
| Heterosexual | | 11601 | (40.0) | 10922 | (43.4) | |
| Men having sex with men | | 12547 | (43.3) | 8826 | (35.1) | |
| Injecting drug use | | 1952 | (6.7) | 2548 | (10.1) | |
| Other/unknown | | 2892 | (10.0) | 2865 | (11.4) | |
| CDC stage C | n (%) | | | | | <10 ⁻⁴ |
| No | | 21626 | (74.6) | 17562 | (69.8) | |
| Yes | | 6144 | (21.2) | 6211 | (24.7) | |
| Unknown | | 1222 | (4.2) | 1388 | (5.5) | |
| HCV positive | n (%) | 2250 | (7.8) | 2582 | (10.3) | <10 ⁻⁴ |
| cART initiation year | n (%) | | | | | <10 ⁻⁴ |
| 2005 | | 5342 | (18.4) | 4889 | (19.4) | |
| 2006 | | 5864 | (20.2) | 5033 | (20.0) | |
| 2007 | | 6266 | (21.6) | 4764 | (18.9) | |
| 2008 | | 6958 | (24.0) | 4760 | (18.9) | |
| 2009 | | 4562 | (15.7) | 5715 | (22.7) | |

| | | Analysed population | | Excluded population | | P-value |
|---|--------------|---------------------|-------------|---------------------|-------------|-------------------|
| | | n=28,992 | | n=25,161 | | |
| CD4 measure prior cART initiation (cells/mm ³) | Median (IQR) | 249 | (150; 336) | 250 | (132; 360) | 0.066 |
| 1st line cART regimen, n(%) | n (%) | | | | | <10 ⁻⁴ |
| PI/r-based | | 12706 | (43.8) | 12740 | (50.6) | |
| NNRTI-based | | 14665 | (50.6) | 10115 | (40.2) | |
| PI- and NNRTI-based | | 328 | (1.1) | 285 | (1.1) | |
| Unboosted PI-based | | 607 | (2.1) | 1050 | (4.2) | |
| Other * | | 686 | (2.4) | 971 | (3.9) | |

cART: combination of Antiretroviral Therapy, IQR: Interquartile Range, HIV: Human Immunodeficiency Virus, CDC: Center for Disease Control, HCV: Hepatitis C Virus, CD4: Cluster of Differentiation 4, RNA: Ribonucleic Acid, PI: Protease Inhibitor, NNRTI: Non-Nucleoside Reverse-Transcriptase Inhibitor

S2 Table. CD4 change at 6 months to maintain or accelerate the CD4+ T cell response according

| Quantile at cART initiation | CD4cells count (/mm3) | CD4 increase to maintain the initial level | | | CD4 increase to reach a higher level at 6 months |
|-----------------------------|-----------------------|--|-------------|-------------|--|
| | | At 3 months | At 6 months | At 9 months | |
| 25 th | 152 | 76 | 85 | 121 | 50 th : 215 75 th : 349 |
| 50 th | 251 | 100 | 116 | 156 | 75 th : 250 |
| 75 th | 341 | 138 | 160 | 210 | |

S1 Figure. Percentiles (5th, 10th, 25th, 50th, 75th, 90th, 95th) of CD4+ T cell count over time from cART initiation until 15 months