

HIV treatment outcomes after 10 years on ART in the TREAT Asia Observational Database (TAHOD) and Australian HIV Observational Database (AHOD)

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BACKGROUND

- An increasing number of people living with HIV (PLHIV) have been receiving antiretroviral therapy (ART) for many years.
- We aimed to assess immunological and survival outcomes among PLHIV from Asia and Australia who have been on ART for at least a decade.

METHODS

- We included PLHIV enrolled in TAHOD and AHOD who have been on ART for at least 10 years.
- Factors associated with CD4 cell counts during years 11 to 15 post ART initiation were analysed using repeated measure linear regression.
- Survival after 10 years on ART was analysed using Fine and Gray competing risk regression.
- VL failure: TAHOD: single VL ≥ 1000 copies/mL after 6 months on ART; AHOD: VL ≥ 1000 copies/mL after 6 months on ART with confirmed secondary VL ≥ 1000 copies/mL within 6 months.

RESULTS

- We included 4867 PLHIV from participating sites in TAHOD and 2272 from AHOD.

Figure 2. Average CD4 cell counts by World Bank Country Income Grouping

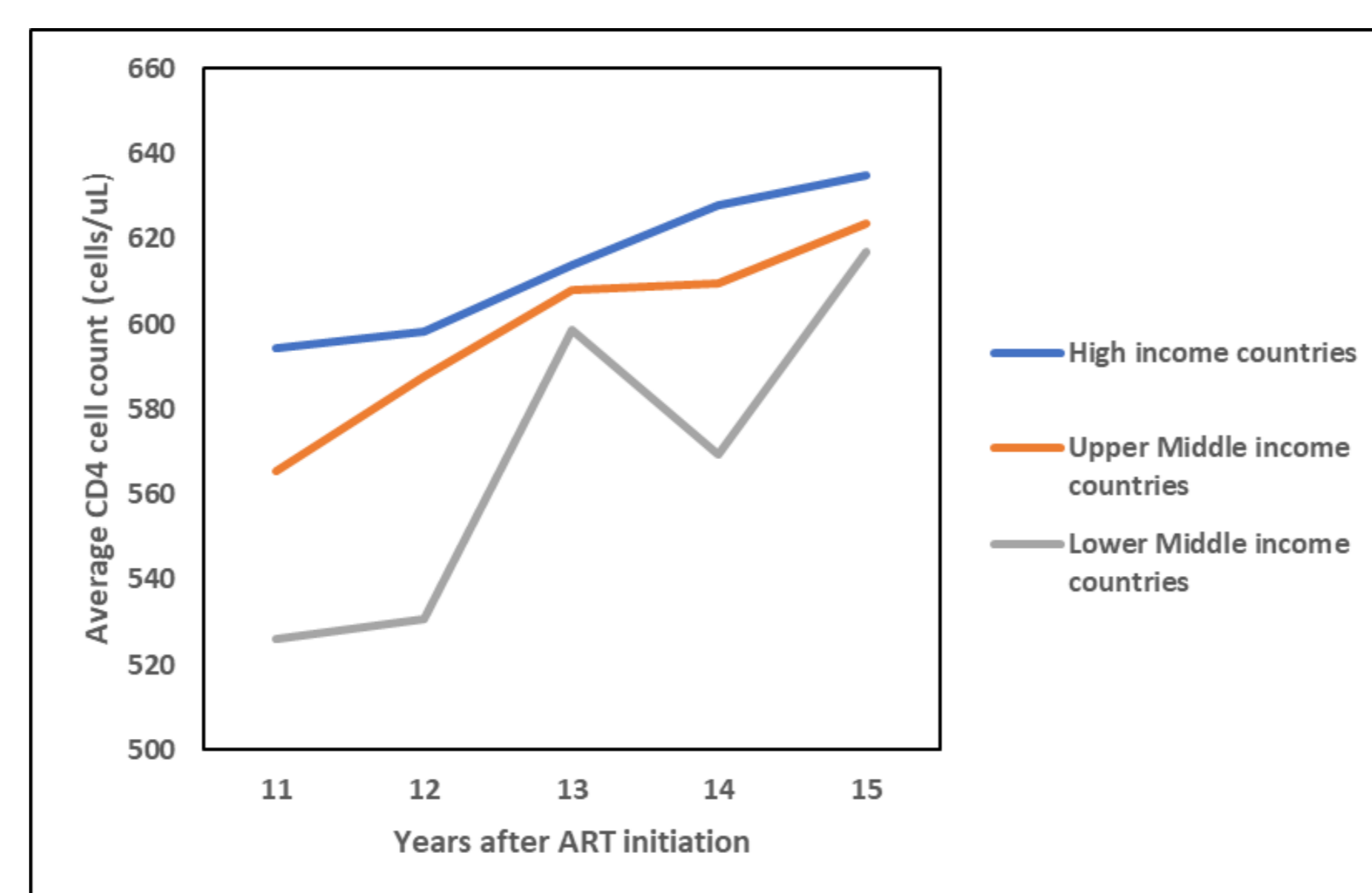


Figure 3. Factors associated with increasing CD4 cell counts during years 11 to 15 after ART initiation

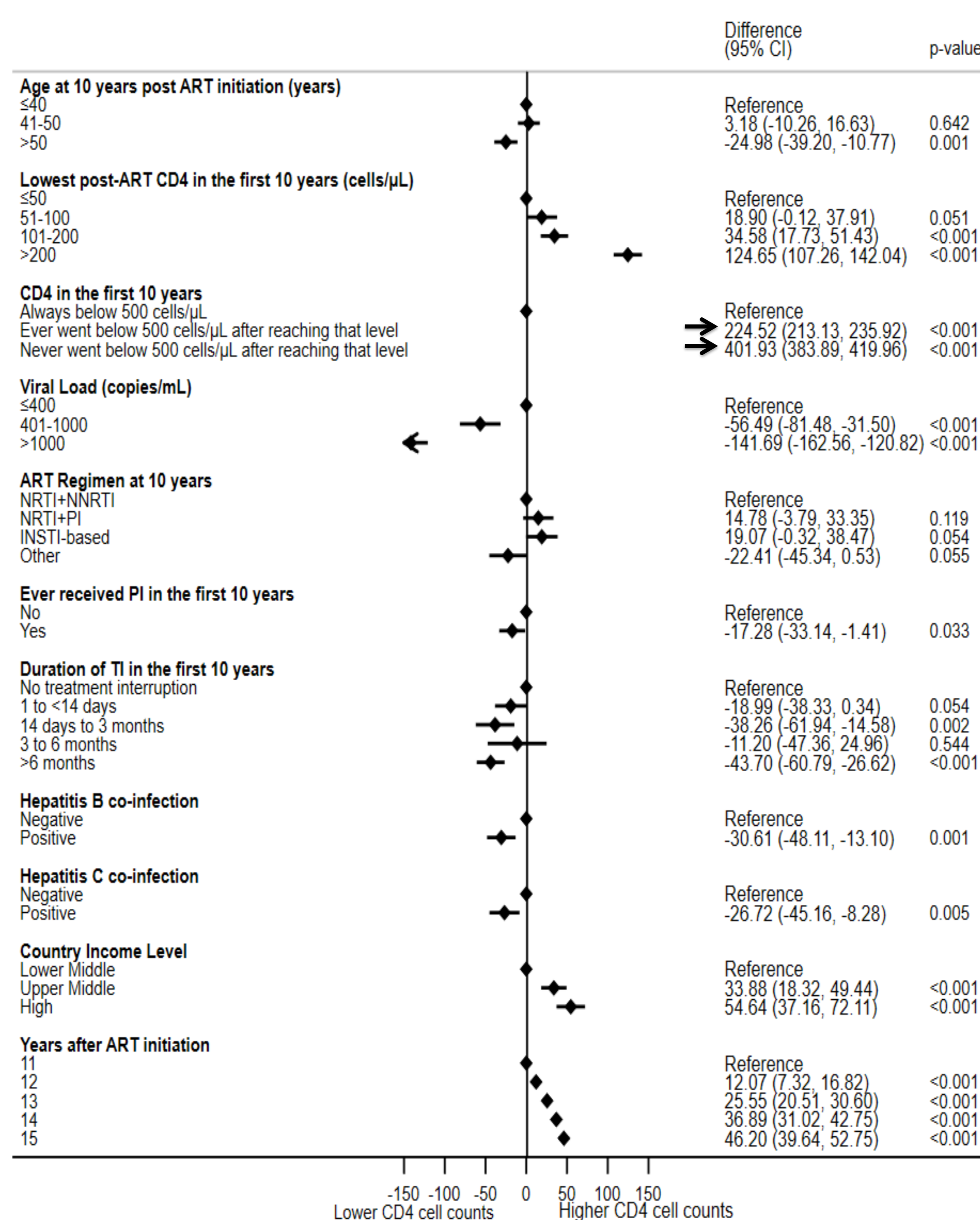
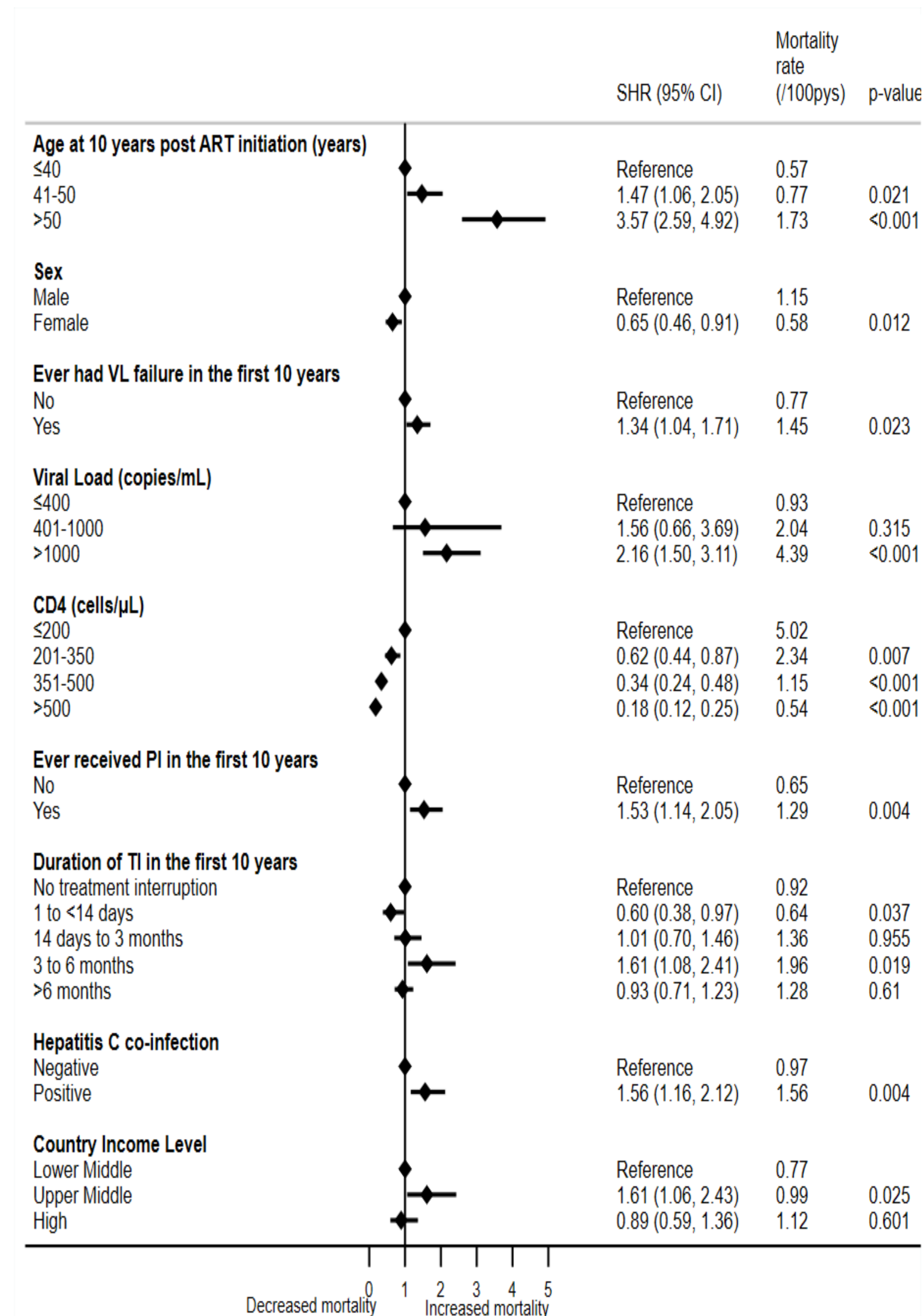


Figure 4. Factors associated with mortality after 10 years on ART



*Covariates not included at $p > 0.05$: mode of HIV exposure, CD4 in the first 10 years, ART regimen, AZT in the first 10 years, HBV co-infection, and prior AIDS illnesses.

Figure 1. Map of TAHOD and AHOD participating sites.

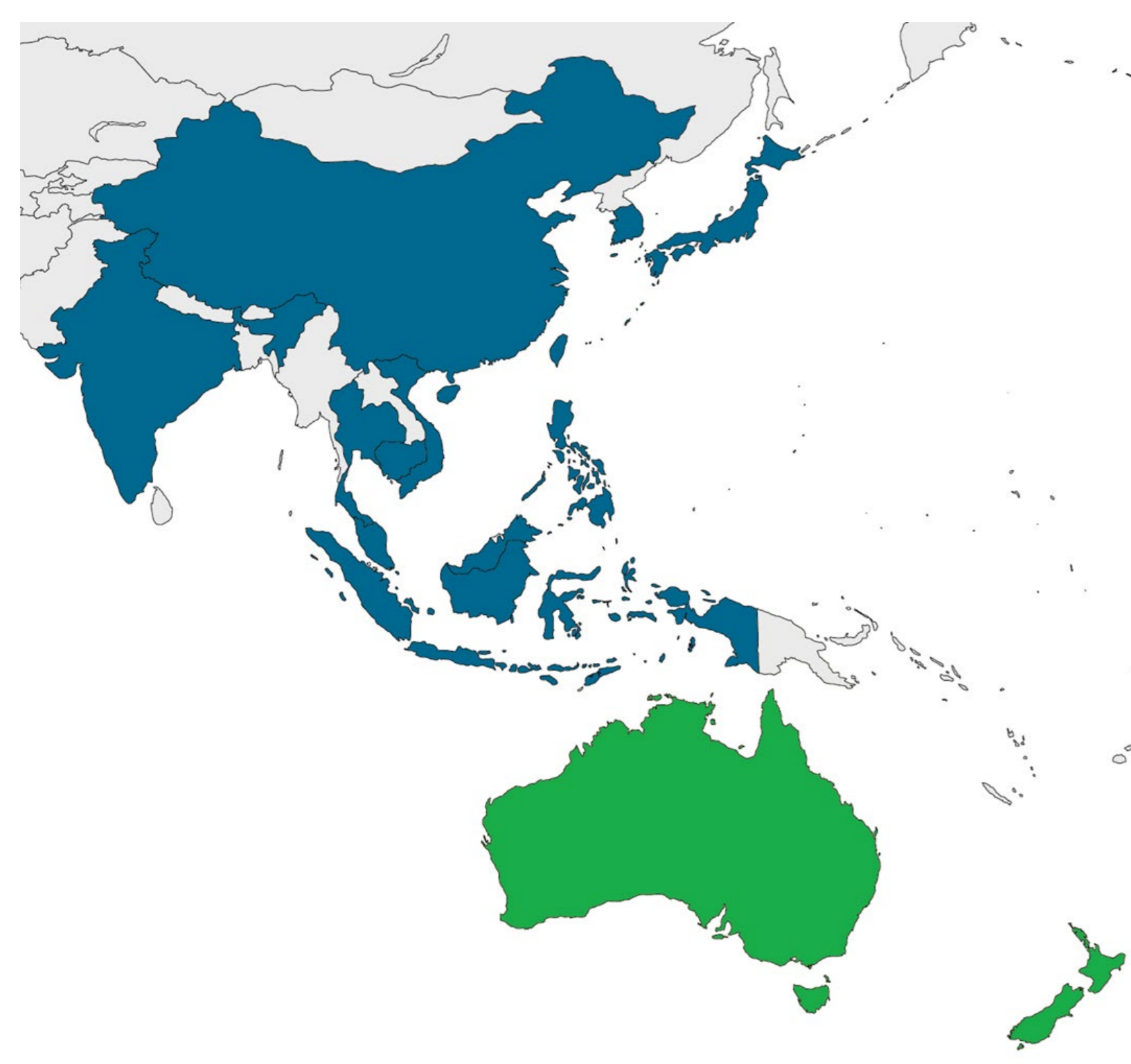


Table 1. Patient characteristics

	TAHOD (%) N=4867	AHOD (%) N=2272
Age at 10 years post ART initiation (years)	Median = 45, IQR (43-57)	Median = 49, IQR (43-57)
Sex		
Male	3345 (69)	2110 (93)
Female	1522 (31)	162 (7)
Mode of HIV Exposure		
Heterosexual contact	3315 (68)	329 (14)
MSM	920 (19)	1718 (76)
Injecting drug use	309 (6)	134 (6)
Other/unknown	323 (7)	91 (4)
Ever had VL failure in the first 10 years		
No	3551 (73)	1266 (56)
Yes	1024 (21)	995 (44)
Not reported	292 (6)	11 (<1)
Lowest post-ART CD4 in the first 10 years (cells/μL)	Median = 178, IQR (92-287)	Median = 250, IQR (140-374)
ART Regimen at 10 years		
NRTI+NNRTI	3236 (66)	755 (33)
NRTI+PI	915 (19)	547 (24)
INSTI-based	541 (11)	436 (19)
Other	175 (4)	534 (24)

*Covariates not included at $p > 0.05$: calendar year, sex, mode of HIV exposure, VL failure in the first 10 years, AZT in the first 10 years, and prior AIDS illnesses.

CONCLUSIONS

Sustaining high CD4 levels and minimizing VL failures and treatment interruptions have far-reaching benefits well beyond the first decade of ART.

Acknowledgement
The TREAT Asia HIV Observational Database and the Australian HIV Observational Database are initiatives of TREAT Asia, a program of amfAR, The Foundation for AIDS Research, with support from the U.S. National Institutes of Health's National Institute of Allergy and Infectious Diseases, the Eunice Kennedy Shriver National Institute of Child Health and Human Development, the National Cancer Institute, the National Institute of Mental Health, the National Institute on Drug Abuse, the National Heart, Lung, and Blood Institute, the National Institute on Alcohol Abuse and Alcoholism, the National Institute of Diabetes and Digestive and Kidney Diseases, and the Fogarty International Center, as part of the International Epidemiology Databases to Evaluate AIDS (IeDEA; U01A069907). The Kirby Institute is funded by the Australian Government Department of Health and Ageing, and is affiliated with the Faculty of Medicine, UNSW Sydney. The content of this publication is solely the responsibility of the authors and does not necessarily represent the official views of any of the governments mentioned above.

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