

Abstract

Background: We evaluate differences in timing of cART (combined Antiretroviral Treatment) initiation by geographical origin in male and female HIV-positive subjects in COHERE, a large European Collaboration of HIV Cohorts.

Methods: We included individuals recruited in Western-Europe between January 1997-March 2013, with known geographical origin and ≥ 1 CD4 cell count measurement while cART-naïve. Timing of cART was assessed through modified time-to-event methods where a scale of CD4 counts was used instead of time, with cART being the outcome. We estimated the median CD4 at cART initiation (estimated CD4 levels at which the probability of starting cART is 50%) using Kaplan-Meier and adjusted Hazard Ratios of cART initiation using Cox regression.

Results: Of 151674 individuals, 110 592 (72.9%) were men. Median (95% CI) CD4 count falls far below 250 cells/mm³ in all groups, and was lowest in Sub-Saharan African [SSA:161(158-167)] and Caribbean men [CRB:161(150-174)], and in Asian women [ASIA/OC:185(165-197)]. The adjusted probability of cART initiation among men was lower in migrants compared to natives, but differences depended on initial CD4 count. For example in the group with >500 CD4 at recruitment, they were 45%(36-53%), 30%(17-40%) and 25%(19-30%) lower for CRB, Eastern European (EE) and SSA men, respectively. In women, no meaningful differences were observed between natives and most migrant groups. However, SSA women had a 31% (24-38%) higher probability of cART initiation when recruited at a CD4 >500 cells/mm³ and 9%(4-14%) lower when recruited at CD4 <100 cells/mm³.

Conclusions: Most migrant men initiate cART at lower CD4 count than natives whereas this does not hold for migrant women.