EARLY MORTALITY AFTER LATE INITIATION OF ANTIRETROVIRAL THERAPY IN THE TREAT ASIA HIV OBSERVATIONAL DATABASE (TAHOD) OF IeDEA ASIA-PACIFIC

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Background: Despite recommendations for universal HIV treatment, people living with HIV (PLHIV) in resource-limited settings continue to initiate antiretroviral therapy (ART) at advanced stages of HIV infection. Early mortality in those initiating late remains high. We aimed to investigate risk factors associated with early mortality in PLHIV starting ART at low CD4 levels in the Asia-Pacific.

Methods: PLHIV enrolled in TAHOD who initiated ART with CD4 <100 cells/µL between 2003–2018 were included in the analysis. Early mortality was defined as death within one year after ART initiation. PLHIV in follow-up for more than one year were censored at 12 months. Risk factors for early mortality were analysed using competing risk regression with loss to follow-up included as a competing risk.

Results: A total of 1813 PLHIV from 12 countries were included of which 74% were males. One-year post-ART initiation, there were 73 (4%) deaths; 38 (52%) were

AIDS-related, 10 (14%) Immune Reconstitution Inflammatory Syndrome (IRIS) related, 13 (18%) non-AIDS-related, and 12 (16%) unknown causes of death. The overall mortality rate in the first year of ART was 4.27 per 100 person-years (/100PYS). Risk factors for early mortality included being underweight (BMI <18.5) (SHR 2.91, 95% CI 1.60-5.32) compared to normal weight (BMI 18.5 – 24.9), and alanine aminotransferase (ALT) ≥5 times its upper limit of normal (ULN) (SHR 6.14, 95% CI 1.62-23.20) compared to ALT <5 times its ULN. Higher CD4 cell counts (51-100 cells/μL: SHR 0.28, 95% CI 0.14-0.55; and >100 cells/μL: SHR 0.12, 95% CI 0.05-0.26) were associated with reduced hazard for mortality compared to CD4 cell counts ≤25 cells/μL.

Conclusion: More than half of early deaths were due to AIDS-related causes. Efforts to initiate ART at even modestly higher CD4 counts would have significant benefits on short term survival, even in those with late stages of HIV disease.

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