

THE EFFECT OF COMBINATION ANTIRETROVIRAL THERAPY (cART) ON LIFE EXPECTANCY IN THAILAND USING THE NATIONAL HEALTH SECURITY OFFICE DATABASE (NHSO)

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Background: Access to combination antiretroviral therapy (cART) has led to dramatic reductions in morbidity and mortality in people living with HIV. We aimed to estimate the additional years of life in Thai people after starting cART under the National AIDS Program, administered by the Thai National Health Security Office (NHSO).

Methods: The NHSO database collects characteristics of all Thai HIV-infected patients under the National AIDS Program, including linkage with the National Death Registry for vital status. This study included patients aged ≥ 15 years at cART initiation between 2008 and 2014. The abridged life table method was used to construct life tables stratified by sex and baseline CD4 cell count. Life expectancy was defined as the additional years of life from age at starting cART.

Results: 201,688 eligible patients with a total of 618,837 person-years of follow-up. Median CD4 was 109 (IQR 33-232) with median age 37 (IQR 31-43) years, 54% female. The overall life expectancy after cART initiation at age 20 was 25.4 (95%CI, 25.3-25.6) years and 20.6 (95%CI, 20.5-20.7) at age 35 years. Life expectancy at baseline CD4 cell count ≥ 350 cells/mm³ was 51.9 (95% CI, 51.0-52.9) years for age 20 years, and 43.2 (95%CI, 42.4-44.1) years for age 35 years, close to life expectancy in the general Thai population.

Conclusion: Increasing life expectancy with higher baseline CD4 cell counts supports the guideline recommendations to start cART irrespective of CD4 cell count. These results are beneficial to forecast the treatment cost and develop health policies for people living with HIV in Thailand and Asia.