



## Impact of late diagnosis and treatment on life expectancy of people with HIV-1: UK Collaborative HIV (UK CHIC) Study

### Why was this research done?

One aim of this study was to estimate and compare life expectancy for the HIV positive and general UK populations. This study also aimed to determine the effect of late treatment on the life expectancy of those with HIV.

### What was done in this research?

Life expectancy was estimated using mortality data for HIV positive patients who started ART between 2001 and 2008.

### What were the results of the study?

Life expectancy of people with HIV has increased since 1996. People who started ART with a lower CD4 count had a lower life expectancy. Those who started ART with a CD4 count between 200 and 350 cells/mm<sup>3</sup> had a life expectancy close to that of the general UK population.

### Why was this research important?

This study highlights the importance of starting ART with a CD4 count within the recommended range. Delaying treatment until your CD4 count drops below 200 cells/mm<sup>3</sup> greatly reduces life expectancy.

Further information about the UK CHIC Study can be found at [www.ukchic.org](http://www.ukchic.org), or by e-mailing Memory Sachikonye ([memory.sachikonye@ukcab.net](mailto:memory.sachikonye@ukcab.net)).

**May M, et al., *Impact of late diagnosis and treatment on life expectancy in people with HIV-1: UK Collaborative HIV Cohort (UK CHIC) Study.* BMJ, 2011.**



# Impact of Late Diagnosis and Treatment on life expectancy of people with HIV-1: UK Collaborative HIV (UK CHIC) Study

## What were the aims of the study?

Although previous studies have compared mortality rates in patients with HIV with those of the general population, few have estimated how long those with HIV are likely to live. The aims of this study were to estimate the life expectancy of those with HIV and compare it with the life expectancy of the general UK population and to look at the impact of late diagnosis and treatment on the life expectancy of those with HIV.

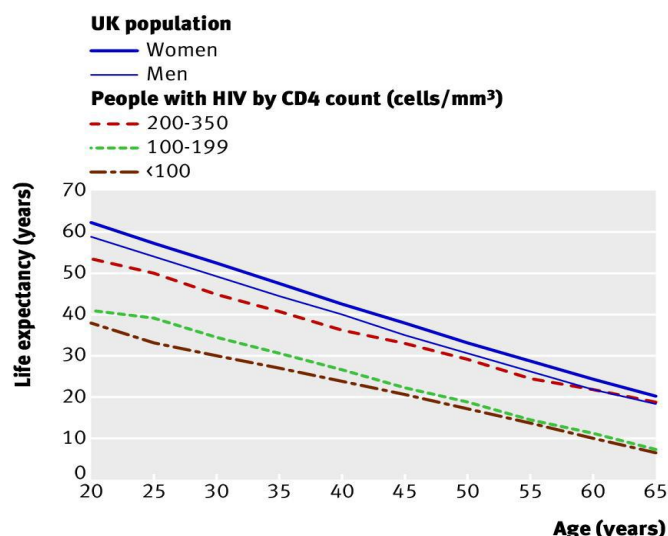
## What did the study involve?

Patients included in this study were aged 20 and over and had started antiretroviral therapy (ART) with at least three drugs sometime between 01 Jan 1996 and 31 Dec 2008. Patients who started ART with a CD4 count  $\geq 350$  cells/mm<sup>3</sup> were not included in this study. Life expectancy at different ages for different periods in time was estimated from monitoring mortality rates during this study period.

## What were the results of the study?

- Between the periods 1996–99 and 2006–08, the life expectancy at age 20 of those with HIV and taking ART increased by 16 years from an attained age of 50 to 66 years old.
- The life expectancy of females was greater than males both in the HIV positive population and the general UK population.
- The difference in life expectancy between males and females was much larger in those with HIV than in the general population.
- Those who had a low CD4 count ( $< 200$  cells/mm<sup>3</sup>) when starting ART had a 10 year lower life expectancy than those who started ART with a CD4 count within the recommended range (between 200 and 350 cells/mm<sup>3</sup>).

**Figure:** Life expectancy at each age for the general UK population in 2006 and those with HIV in 2008 (split by CD4 count at start of ART)



## What has this study achieved?

Life expectancy is an important indicator of health. This study highlights how HIV treatments have improved the health of those with HIV in recent years and stresses the importance of early diagnosis and timely commencement of ART to improve life expectancy in those with HIV.

## Where can I get more information?

Further information about the UK CHIC Study can be found at [www.ukchic.org](http://www.ukchic.org), or by e-mailing Memory Sachikonye ([memory.sachikonye@ukcab.net](mailto:memory.sachikonye@ukcab.net)).

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