

TREATMENT FAILURE: IMMUNOLOGICAL DEFINITION

Treatment failure should be suspected if the CD4+ T cell count declines or fails to rise within three months following initiation of HAART. The World Health Organisation (WHO) defines immunologic treatment failure as:

- a fall of over 30% in the CD4+ T cell count from the peak value; **or**
- a return of the CD4+ T cell count to or below the baseline (pre-HAART) CD4+ T cell count.

HAART-associated virologic suppression is typically associated with a significant rise in both the absolute and percentage of CD4+ T cells within three to six months of starting HAART, as depicted in *Figure 1*. However, discordant responses are sometimes observed in which full virologic suppression is achieved on HAART but the CD4+ T cell count fails to rise significantly or even continues to decline. The reasons for these discordant responses remain unclear, and management options should be reviewed with an expert HIV clinician. It is therefore strongly recommended that HIV viral load testing be performed in the setting of immunological treatment failure.