

Trends in the Treatment of HIV Infection

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During the last decade several advances in understanding and management of human immunodeficiency virus (HIV) have resulted in optimism among clinicians and hope for patients. Research into areas of viral pathogenesis has made a direct impact on the clinical management of HIV-infected patients and has led to the development of new and more potent antiviral agents, regimens, and approaches to antiretroviral therapy (ART). These highly active antiretroviral therapies (HAART) have dramatically altered the natural progression of infection and significantly improved the quality of life for many HIV-infected patients¹. As a result there has been a substantial decline in reported number of AIDS-related opportunistic infections and deaths^{2,3}.

Despite these remarkable advances, several concerns should be addressed. Although many will benefit from new and potent regimens, up to 50% of patients show treatment failure⁴, and approximately 40% change therapeutic regimens during the first year because of drug-related adverse events⁵. The development of drug resistance, long-term toxicities, patient compliance, the management of HAART failures, and the method to control and prevent the spread of HIV are major challenges. Hope for a cure for HIV infection was dampened by the discovery of a latent form of the virus that persists within the resting CD₄ cells⁶, perhaps as a result of survival advantage to T- cell from anti HIV-genes⁷.

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