



Advancements in the Fight against HIV/AIDS

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For forty years, the acquired immunodeficiency syndrome (AIDS) has posed a threat to world health, resulting in unimaginable misery and fatalities. Significant advancements in the knowledge and treatment of HIV/AIDS have been accomplished since the early stages of the epidemic. One of the most important aspects of the fight against AIDS is still stopping the spread of HIV. HIV prevention has undergone a revolutionary change with the advent of Pre-Exposure Prophylaxis (PrEP). In high-risk groups, PrEP dramatically lowers the risk of HIV infection when taken as directed. Furthermore, increasing condom usage and safe sex practices brought about by awareness-raising and education efforts have helped to reduce the number of new HIV infections in many areas. Disparities in access to preventative resources still exist, however, which highlights the need of ongoing efforts to ensure that everyone may use these treatments [1]. Treatment for HIV/AIDS has come a long way in the last several decades. The mainstay of addressing the disease is antiretroviral treatment (ART), which has changed it from a fatal illness to a chronic one. The quality of life and life expectancy of patients have improved with the development of new, more effective, and less toxic antiretroviral medications. In addition, the use of multi-drug regimens has improved viral suppression and decreased the risk of treatment resistance. Treatment plans now include targeted therapies in addition to medicine, such as using CRISPR or other gene editing technologies to attack the virus at its genetic core. Additionally, the creation of long-acting injectable ART formulations has improved treatment compliance, lessening the strain on patients and medical systems [2]. Notwithstanding these developments, problems including medication resistance, treatment accessibility, and the persistence of latent viral reservoirs still exist. To get over these challenges and get one step closer to the ultimate objective of a workable treatment, research must continue. Many nations are making progress toward these goals, but there is still more to be done, especially in areas with weak healthcare systems. In addition to medical treatments, elimination calls for tackling the societal factors that contribute to the illness, such as inequality, stigma, and prejudice. Addressing these more general concerns, encouraging thorough sex education, and enabling communities to speak out for their own health are all necessary components of effective eradication initiatives. There has been a great deal of advancement in the prevention, treatment, and eradication of HIV/AIDS in the battle against the disease. To reach the ultimate objective of an AIDS-free world, however, more research and cooperation between scientists, medical professionals, legislators, and communities are required. Looking back over the last forty years, we should be encouraged by the advancements and reaffirm our commitment to making sure that HIV/AIDS does not pose a danger to global health for coming generations.

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