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Editorial

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Novel antiretroviral drugs for hiv/aids

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Editorial

Currently, several data support that antiretroviral (ART) treatment should be started in all HIV-infected persons with detectable viremia regardless of CD4 T-cell count. Two nucleoside- reverse-transcriptase inhibitors (c) plus an integrase strand transfer inhibitor (InSTI) is the recommended optimal initial regimens for most infected persons. Nucleoside-reverse-transcriptase inhibitors or boosted protease inhibitors with two NRTIs are the effectively alternative regimens. In the setting of acute HIV infection, initiation of ART is recommended as soon as possible including persons who have persistent undetectable viral load but have decreasing CD4 T-cell counts, whereas planned discontinuation of early ART after a specific duration of treatment is not suggested outside a research setting. A novel combination of an InSTI (injectable cabotegravir) and a nanoformulated NNRTI (long-acting rilpivirine) can maintain virologic suppression for 32 weeks when administered intramuscularly once every 4 or 8 weeks. Monoclonal antibodies, longer-acting oral drugs, viral vector delivery, nanoparticles, implantable sustained-release platforms are other long-acting treatment that are being evaluated, whereas injectable and other long-acting preparations for pre-exposure prophylaxis are currently in clinical development, including long-acting cabotegravir, long-acting rilpivirine, and a vaginal ring containing the NNRTI dapivirine. This vaginal ring containing the NNRTI dapivirine provided a 27% to 30% efficacy in preventing HIV infection among sub-Sahara African women. Broadly neutralizing antibodies, another investigational approach for both HIV prevention and treatment may clear infected cells, clear replicating virus, and provide passive immunization to protect at-risk people. In conclusions, antiretrovirals remain the HIV prevention and treatment cornerstone.

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Conflicts of interest

None.