

Nelfinavir (*Viracept*)

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Drug Summary

Nelfinavir is a protease inhibitor that was approved in 1997 and widely used as a component of combination antiretroviral therapy in the late 1990s. Subsequently, it was replaced in clinical practice with newer, more potent, and better-tolerated medications. Nelfinavir is administered without a pharmacokinetic booster and has a relatively low potency and low genetic barrier to resistance. Fortunately, most patients who developed drug resistance to nelfinavir respond to at least one of the newer HIV protease inhibitors. Nelfinavir is no longer recommended for use in antiretroviral therapy regimens and patients taking this agent should switch to a more current option.

Key Clinical Trials

In an early trial that compared nelfinavir to full-dose ritonavir plus background NRTIs for patients with advanced HIV (CD4 count below 200 cells/mm³), progression to AIDS or death was similar between the two arms, though more patients in the ritonavir arm discontinued treatment [[CPCRA 042](#)]. Multiple subsequent trials (some in treatment-naïve persons and some in treatment-experienced) showed that the efficacy of nelfinavir was inferior relative to other anchor antiretroviral agents, including fosamprenavir [[NEAT](#)], lopinavir-ritonavir [[M98-863](#)], and efavirenz [[ACTG 384](#) and [ACTG 388](#)].

Use In Pregnancy

In the HHS Perinatal Guidelines section Recommendations for Use of Antiretroviral Drugs During Pregnancy (last updated October 19, 2017), nelfinavir is designated as Not Recommended for Initial ART in Pregnancy; reasons cited in the Perinatal Guidelines include lower rates of viral suppression when compared to lopinavir-

ritonavir or efavirenz in clinical trials in adults.

- For additional information regarding the safety and toxicity of nelfinavir in pregnancy see the HHS Perinatal Guidelines summary on [Nelfinavir](#).

Resistance

For a listing of the most common clinically significant mutations associated with nelfinavir (NFV) resistance, see the [PI Resistance Notes on the Stanford University HIV Drug Resistance Database](#).

Key Drug Interactions

For complete information on nelfinavir-related drug interactions, see the [Drug Interactions section in the Nelfinavir \(Viracept\) Prescribing Information](#).