

Dolutegravir-based antiretroviral therapies for HIV-1 effective in pregnancy

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Dolutegravir-based antiretroviral therapies (ART) for HIV-1 are more effective for pregnant people than some other ART regimens commonly used in the U.S. and Europe, according to a study led by Harvard T.H.

Chan School of Public Health researchers.

The study, which will be published online in the *New England Journal of Medicine* on September 1, 2022, showed that pregnant people who took [dolutegravir](#)-based regimens had a high probability of being virally suppressed at delivery. There were no observed differences in the risks of adverse birth outcomes ([preterm birth](#), [low birth weight](#), small for gestational age, or neonatal death) between dolutegravir-based regimens and the other contemporary regimens.

"Globally, a dolutegravir-based regimen is currently recommended for treating HIV, and this is the first study to directly compare regimens including dolutegravir to other antiretroviral regimens, such as raltegravir-based regimens, that are also listed as 'Preferred' in U.S. perinatal guidelines," said Kunjal Patel, senior research scientist in the Department of Epidemiology at Harvard Chan School and lead author of the study.

Dolutegravir, a more recently approved antiretroviral drug, is part of a once-a-day regimen that has been shown to be more effective, easier to tolerate, and less likely to create new drug resistance in people with HIV-1 compared with other [antiretroviral drugs](#). However, limited data have been available about its effectiveness and safety in pregnancy compared with regimens that commonly have been used during pregnancy in the U.S. and Europe.

In the current observational study, the researchers compared dolutegravir use in pregnancy with atazanavir/ritonavir, darunavir/ritonavir, and raltegravir antiviral regimens that are currently classified as "Preferred" for use in [pregnancy](#) in the U.S. About half of the participants started ART before conception. At delivery, 96.7% of pregnancies of participants who received dolutegravir were virally suppressed, whereas those of participants who took atazanavir/ritonavir or raltegravir had

viral suppression of 84.0% and 89.2%, respectively.

"We think the observed differences are due to dolutegravir's ability to rapidly decrease viral loads and its ease of use as part of a once-daily regimen that's available as a fixed-dose combination," said Patel. "Our results highlight the continual need for systematic studies that compare new antiretroviral regimens with those already in [clinical practice](#) to help inform the evolution of guidelines and clinical practice over time."

More information: Kunjal Patel et al, Dolutegravir in Pregnancy as Compared with Current HIV Regimens in the United States, *New England Journal of Medicine* (2022). [DOI: 10.1056/NEJMoa2200600](https://doi.org/10.1056/NEJMoa2200600)

Provided by Harvard T.H. Chan School of Public Health

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