Pregnant People with HIV Who Have Previously Received Antiretroviral Medications but Are Not Currently on Antiretroviral Medications

Updated: January 31, 2024
Reviewed: January 31, 2024

Panel's Recommendations
• In choosing an antiretroviral therapy (ART) regimen for pregnant people who have previously received antiretroviral (ARV) drugs, clinicians should obtain an accurate history of all prior ARV medications used for HIV treatment or prevention of HIV transmission, including virologic efficacy, tolerance of the medications, results of prior resistance testing, and barriers to adherence (AIII). • ART should be restarted before receiving the results of ARV drug-resistance testing, because longer durations of ART during pregnancy have been associated with reduced perinatal transmission rates. ART should be modified, if necessary, based on the results of resistance assays (AII).
Rating of Recommendations: A = Strong; B = Moderate; C = Optional *Rating of Evidence: I = One or more randomized trials with clinical outcomes and/or validated laboratory endpoints; II = One or more well-designed, nonrandomized trials or observational cohort studies with long-term clinical outcomes; III = Expert opinion*

Pregnant people with HIV who are currently not receiving antiretroviral therapy (ART) may have received antiretroviral (ARV) medications in the past either as treatment for themselves (i.e., ART) or to prevent HIV transmission to their infant (i.e., perinatal prevention), as post-exposure prophylaxis, as pre-exposure prophylaxis (PrEP) for prevention of HIV transmission to themselves prior to having HIV infection, or for prevention of HIV transmission to their sexual partner.[1,2] Data show that prior, time-limited use of ART during pregnancy to prevent perinatal transmission may lead to resistance and, thus, reduced efficacy if these ARV drugs are used as a part of subsequent ART.[3-7] Standard genotyping has shown that rates of resistance after time-limited use of ART appear to be low. Resistance seems to be a concern primarily in patients who received time-limited non-nucleoside reverse transcriptase inhibitor (NNRTI)–based therapy,[8-10] but not in those who previously received protease inhibitor (PI)–based therapies.[8] To date, there are no data on the risk of developing resistance among people who stop using long-acting ART (e.g., long-acting cabotegravir [CAB-LA] and long-acting rilpivirine) without starting alternative ART. In contrast to time-limited exposure to ART for people with HIV, recent studies suggest that individuals receiving CAB-LA for PrEP and who acquire HIV may be at risk for selection of integrase inhibitor mutations.[11] For this reason, the Panel on Treatment of HIV in Pregnancy and Prevention of Perinatal Transmission recommends the use of the PI darunavir boosted with ritonavir, rather than the integrase strand transfer inhibitor (INSTI) dolutegravir, as the *Preferred* ARV for people with prior CAB-LA exposure who are pending genotype test results. See Early (Acute and Recent) HIV Infection in the Adult and Adolescent Antiretroviral Guidelines, Table 6. What to Start: Initial Antiretroviral Regimens During Pregnancy for People Who Are Antiretroviral Naive, and Table 7. Situation-Specific Recommendations for Use of Antiretroviral Drugs in Pregnant People and Nonpregnant People Who Are Trying to Conceive for more information.

Individuals may choose to discontinue ART for a variety of reasons, and the length of time off treatment before pregnancy may vary. A person's HIV treatment history and all prior drug resistance test results should be considered when choosing ART for pregnant people who previously have

received ARV medications, even when the results of drug-resistance testing performed during the current pregnancy are not yet available.

Interpretation of resistance testing can be complex because resistance testing is most accurate when performed while an individual is still taking ART or within 4 weeks of discontinuing treatment. In the absence of selective drug pressure, resistant virus may revert to wild type; thus, a negative finding does not rule out the presence of archived resistant virus that could re-emerge once ART is restarted. Therefore, when selecting a new ART regimen, all information—including prior regimens received, virologic response, laboratory testing (including HLA-B*5701 results), tolerance or adherence problems, food requirements, concomitant medications, prior medical conditions, and results of all prior resistance testing—should be considered.

Resistance testing should be performed before initiating a new ART regimen in people who have previously received ARVs (see Antiretroviral Drug Resistance and Resistance Testing in Pregnancy). In general, **ART should be initiated before receiving the results of ARV drug-resistance testing,** especially because longer durations of ART during pregnancy have been associated with reduced perinatal transmission rates, compared with shorter treatment periods.[12,13] ART should be modified, when necessary, based on subsequent resistance assay results. Careful monitoring of virologic response is essential. For specific guidance on timing and frequency, see Initial Evaluation and Continued Monitoring of HIV-Related Assessments During Pregnancy.

A person may restart a previous ART regimen that successfully suppressed their viral load if the regimen was tolerated well and no evidence of resistance to that regimen is identified. Ideally, the regimen should also be recommended currently as a *Preferred* or *Alternative* regimen for initial ART in pregnancy (see Table 6. What to Start: Initial Antiretroviral Regimens During Pregnancy for People Who Are Antiretroviral Naive and Table 7. Situation-Specific Recommendations for Use of Antiretroviral Drugs in Pregnant People and Nonpregnant People Who Are Trying to Conceive). Drugs that are not recommended for initial use because of concerns about viral breakthrough during pregnancy should be avoided if *Preferred* or *Alternative* regimens exist; if not, they should be discussed with the patient using a shared decision-making approach. Even experienced health care providers may have difficulty with the selection of appropriate ART for people who have advanced HIV disease, a history of extensive prior ART, or previous significant toxicity or nonadherence. In addition to obtaining genotypic resistance testing, it is strongly recommended that specialists in the treatment of HIV be consulted early in the pregnancy about the choice of a suitable ART regimen for such individuals. Consultation is also available through the National HIV Perinatal Hotline (1-888-448-8765).

If ART produces an insufficient viral response (e.g., a 1 $\log_{10}$ drop or less within 4 weeks), clinicians should repeat resistance testing, including testing for resistance to INSTIs, if indicated (see Antiretroviral Drug Resistance and Resistance Testing in Pregnancy). Clinicians should also assess medication adherence, food requirements, and potential drug interactions—including relevant pharmacokinetic studies when available—to inform potential regimen changes. Consultation with an HIV treatment specialist is recommended (see Pregnant People Who Have Not Achieved Viral Suppression on Antiretroviral Therapy).

References

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