Dolutegravir (Juluca, Tivicay, Triumeq) and Potential Risk for Neural Tube Defects

I. ISSUE
FDA warns of serious cases of neural tube birth defects involving the brain, spine, and spinal cord reported in babies born to women treated with the HIV integrase inhibitor, dolutegravir (Juluca, Tivicay, Triumeq).

II. BACKGROUND
Dolutegravir was FDA-approved in 2013 as an HIV-1 antiretroviral agent used in combination with other antiretroviral therapy to treat HIV. It is available as a single ingredient product under the brand name Tivicay and also as a fixed dose combination tablet with other agents under the brand names Juluca (active ingredients dolutegravir and rilpivirine) and Triumeq (active ingredients abacavir, dolutegravir, and lamivudine). Dolutegravir inhibits HIV integrase to prevent the HIV replication cycle, inhibit viral activity, and reduce the amount of HIV in the body.

III. DISCUSSION
Preliminary results from an ongoing observational study in Botswana found a higher risk for these defects in women who received dolutegravir at the time of becoming pregnant or early in the first trimester. To date, no cases of babies born with neural tube defects to women starting dolutegravir later in pregnancy have been reported in this observational study. FDA continues to investigate this new safety issue and will provide updates as more information becomes available.

IV. RECOMMENDATIONS
FDA recommends that providers should:
- Weigh the benefits and the risks of dolutegravir when prescribing antiretroviral medicines to women of childbearing age.
- Alternative antiretroviral medicines should be considered. Discuss the relative risks and benefits of appropriate alternative antiretroviral therapies.
- Reinforce the consistent use of effective birth control if the decision is made to use dolutegravir in women of childbearing age.
- Perform pregnancy testing before initiating a dolutegravir-containing regimen in women of childbearing age to exclude pregnancy.

V. REFERENCES

ACTIONS
- **Facility Director** (or physician designee): Forward this document to the Facility Chief of Staff (COS).
- **Facility COS and Chief Nurse Executives**: Forward this document to all appropriate providers and health care staff (e.g., primary care providers, infectious disease providers, women’s health providers, and pharmacy staff, including contract providers, etc.). In addition, forward to the Associate Chief of Staff (ACOS) for Research and Development (R&D). Forward to other VA employees as deemed appropriate.
- **ACOS for R&D**: Forward this document to Principal Investigators (PIs) who have authority to practice at the facility and to your respective Institutional Review Board (IRB).