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New study suggests risk of birth defects in babies born to women on HIV medicine dolutegravir

While EMA review is ongoing, dolutegravir should not be used in women seeking to become pregnant

The European Medicines Agency (EMA) is evaluating preliminary results from a study which found 4 cases of birth defects such as spina bifida (malformed spinal cord) in babies born to mothers who became pregnant while taking dolutegravir. While EMA is assessing the new evidence it has issued the following precautionary advice:

- Dolutegravir HIV medicines should not be prescribed to women seeking to become pregnant.
- Women who can become pregnant should use effective contraception while taking dolutegravir medicines.

The study, which looked at babies born to 11,558 HIV-infected women in Botswana, showed that 0.9% of babies (4 of 426) whose mothers became pregnant while taking dolutegravir had a neural tube defect, compared with 0.1% of babies (14 of 11,173) whose mothers took other HIV medicines. Final results are expected in about a year.

Women who have been prescribed dolutegravir should not stop taking their medicine without first consulting their doctor.

EMA will update the recommendations as necessary when it concludes its assessment.

Information for patients

- Preliminary data show that taking dolutegravir for HIV before pregnancy may increase the risk of birth defects such as spina bifida (malformed spinal cord).
- If you are taking dolutegravir and you can become pregnant you should use an effective contraception.
- If you are taking dolutegravir and wish to become pregnant please talk to your doctor about whether dolutegravir remains the most appropriate treatment.
- If you are pregnant and using dolutegravir, you should consult your doctor. Do not discontinue dolutegravir without consulting your doctor, as this may harm you and your unborn child.



- Tell your doctor if you become pregnant, think you might be pregnant or are planning to become pregnant. Your doctor will review your treatment.
- If you have any questions about your treatment or contraception, speak to your doctor or pharmacist.

Information for healthcare professionals

- Preliminary results from an observational study revealed an increased risk of neural tube defects in infants born to women who took dolutegravir at the time of conception. No cases were reported in infants born to women who started dolutegravir later during pregnancy.
- Reproductive toxicology studies have not shown any relevant findings. Likewise, other data on the use of dolutegravir in pregnancy, including data from the Antiretroviral Pregnancy Registry (APR), clinical trials and post-marketing use have not indicated a risk of neural tube defects.
- As a precaution, healthcare professionals in the EU are advised of the following:
 - Do not prescribe dolutegravir for women of child bearing potential who are trying to become pregnant.
 - Exclude pregnancy in women of child bearing potential before starting dolutegravir.
 - Advise women of child bearing potential who are taking dolutegravir to use effective contraception throughout treatment.
 - If pregnancy is confirmed in the first trimester while a woman is taking dolutegravir, switch to an alternative treatment unless there is no suitable alternative.
- Healthcare professionals in the EU will be sent a dear healthcare professional letter concerning these recommendations.

More about the medicine

Dolutegravir is an integrase inhibitor. This means that it blocks an enzyme called integrase that is needed by the HIV virus to make new copies of itself in the body. When it is given with other medicines, it helps to prevent the spread of HIV and keep the amount of the virus in the blood at a low level. Dolutegravir does not cure HIV infection or AIDS, but it may hold off damage to the immune system and the development of infections and diseases associated with AIDS.

In the EU, dolutegravir has been authorised since 2014. It is marketed on its own as Tivicay and in combination with lamivudine and abacavir as Triumeq. Further information on these medicines can be found [here](#). Another medicine, Juluca, a combination of dolutegravir and rilpivirine has received a positive opinion by the Committee for Medicinal Products for Human Use (CHMP) and is currently awaiting a decision by the European Commission.

More about the procedure

The review of dolutegravir was carried out in the context of a safety signal. A safety signal is information on a new or incompletely documented adverse event that is potentially caused by a medicine and that warrants further investigation.

The review was carried out by EMA's Pharmacovigilance Risk Assessment Committee (PRAC), the Committee responsible for the evaluation of safety issues for human medicines.